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Cultural and ethnic diversity in a changing world
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FREE COMMUNICATIONS

FC-01 • Knowledge, perception and use of contraception among young people in Moldova*

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Goal: to identify the myths, misconceptions and negative beliefs, their sources and the barriers that youth face in accessing contraceptives. The **objectives** of the study were: 1. To evaluate the level of knowledge about contraception methods among young people in the Republic of Moldova; 2. To evaluate the level of knowledge about contraception methods among medical students; 3. To identify the most common myths about contraception and their source. **Methods:** An Internet-based survey was distributed via Facebook and other social-media channels to young people 15-24 years old. Additionally, the unanimous, self-administered questionnaire was distributed to students from the State Medical University in their 5th year of study. In the questionnaires, participants were asked about their attitude toward contraception, their experience using or not using it, their opinion about contraceptives, the source of the information, and barriers faced in using contraception. **Results:** We received 332 answers from young people 15-24 years old via the online survey and 170 answers from medical students. The majority of them (69%) think that condoms are the best method, 59% prioritize coitus interruptus and only 23.3% - COC. At the same time, only 28% of sexually active youth used a condom at last sexual intercourse. Surprisingly, the level of knowledge among medical students is not any higher. The majority (66%) believe coitus interruptus is the best method, 60.9% - condoms and 21.7% - the calendar method. Only 39% of them used a condom at last sexual intercourse. There were many myths about modern methods of contraception among participants, including: 38.30% of medical students and 36.70% of online participants think that COC is harmful. 8.30% of students and 8.70% of online participants believe that COC protects against sexually transmitted diseases. 36.6% of students and 21.80% of online participants believe that contraceptives cause weight gain. 18.30% of students and 6.50% of online participants consider that contraceptives cause child malformations. 3.30% of students and 4.70% of online participants consider that contraceptives induce abortion. Many were exposed to these myths on the Internet. **Conclusions:** We can conclude that the level of knowledge about contraception methods among young people, including medical university students, is very low. Medical students have placed coitus interruptus as the preferred and most commonly used method. We have identified several new myths about contraception circulating on the Internet, which need to be addressed through existing educational family planning programs.
* The project was supported by a grant from ESC.

FC-02 • Esterol/Drospirenone is a Novel efficient Contraceptive with good tolerance: Phase 3 trial in Europe and in Russia outcomes

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Objective: The objective of the phase 3 trial Study E4Freedom was to assess the contraceptive efficacy of estetrol (E4) 15mg/drospirenone (DRSP) 3mg in a 24/4-day regimen, during 1 year of usage. In addition cycle control and bleeding/spotting patterns and general safety were evaluated. **Design & Methods**: This multicentre, open-label study, conducted in Europe and Russia, enrolled healthy women, aged 18-50 years with regular cycles and a BMI up to 35 kg/m^2. Subjects were treated with once daily 15 mg E4/3 mg DRSP for up to 13 consecutive cycles. They completed a daily diary on pill intake, other contraceptive method use, sexual intercourse, and bleeding/spotting. Contraceptive efficacy was assessed in ages 18-35 and 18-50 years, by evaluation of the Pearl Index (PI) and method failure PI in at-risk cycles (defined as not using other contraceptive methods) and by the cumulative pregnancy rates at cycle 13. **Results:** In total 1,577 subjects were enrolled of whom 1,533 began study treatment and 1,218 completed 13 cycles. The primary efficacy population included 1,353 women, age 18-35 years, with 14,759 at risk cycles. In this population, five on-treatment pregnancies occurred, of which 3 were attributed to method failure. Primary efficacy population PI was 0.44 (95% CI: 0.14; 1.03) and method failure PI was 0.26 (95% CI: 0.06; 0.77). Among women aged 36-50 years no on-treatment pregnancies were reported, so the PI for overall population was 0.38 (95% CI: 0.12; 0.89) and method failure PI was 0.23 (95% CI: 0.05; 0.67) with 17,037 at risk cycles. The cumulative 13-cycle pregnancy rates were 0.45% (95%: CI 0.19; 1.09) and 0.39 (95% CI: 0.16; 0.94) for the age groups 16-35 and 16-50 respectively. Withdrawal bleeding lasted a median of ≤5 days per cycle and <16% of women had unscheduled bleeding from Cycle 6 onwards (from 23.5% of subjects in Cycle 1) with a median duration of 2 days from Cycle 7 onward. Absence of withdrawal bleeding (amenorrhea) was between 5.9 and 8.1 % in Cycle 2 through Cycle 12. Treatment with E4/DRSP was generally well tolerated with 28.5% of subjects reported product-related adverse events but without meaningful changes in clinical laboratory parameters and patient outcomes. **Conclusion:** E4/DRSP provided approximately 99.5% contraceptive protection during 1 year of usage and demonstrated good cycle control along with a favorable bleeding pattern and a good safety profile.

FC-03 • Sexual communication, sexual consent and Health

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Objective: The aim of this study was to investigate how sexually active adults communicate around sexual consent and to explore whether these communication skills affect participants' wellbeing. **Methods:** Data was collected via a survey administrated to an online panel of adult Swedes 18-64 years old. The sample consisted of 20,000 participants, representative to the Swedish population with regards to key demographic characteristics. Data was weighted in order to represent the Swedish population with regards to gender, region and age. **Results:** In total, 12,080 participants completed the survey - a response rate of 60%. The most common way to communicate sexual consent was through body language or eye contact. The interpretation of

sexual consent followed a similar pattern: the most common strategy was via body language or eye contact. The majority of participants reported using verbal cues to communicate how they want to have sex. In contrast to communication of sexual consent, nonconsent was most often communicated by direct verbal communication and nonverbal cues such as body language and eye contact were secondary. When communicating nonconsent, women and men differed significantly with regards to nearly all communication strategies. Participants generally assessed their own communication skills as good but some differences were observed: women and people in relationships reported significantly more often being certain about their own interpretation of whether their partner wants to have sex, while men and single people reported significantly more often that it varies depending on the context and that they think it is difficult to interpret their partners. Moreover, about one in ten participants perceived their own communication skills as poor. One in four participants felt that their communication skills makes them feel confident in sexual situations and makes them feel generally good, while one in ten felt that their poor communication skills affected their wellbeing negatively and made them feel stressed in sexual situations. **Conclusions:** Sexually active adults tend to communicate and interpret their partners in a similar manner most often by the use of body language and eye contact. The most common strategy to communicate nonconsent was by direct verbal communication, among both women and men, a strategy that is likely to reduce the risk of misinterpretation. With that said, our results suggest that some gender-based miscommunications regarding nonconsent are possible. Most participants felt their communication skills were good but a minority felt uncertain about their communication skills and felt stressed in sexual situations.

FC-04 • The association between alcohol consumption and unprotected sexual behaviours among Irish females ages 18-29 years old

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1. The consequences of alcohol consumption and unprotected sex among young Irish females are significant public health concerns. Crisis pregnancies, increasing rates of sexually transmitted infections (STIs), and the health effects of binge drinking indicate an urgent need for improved sexual education and health promotion campaigns. Despite the significance of these concerns, the national data on sexual knowledge, attitudes and behaviours in Ireland have not been updated in 15 years. While recognising the pressing need for updated research, these data can still provide new insights by re-evaluation in a current context. The objective of this research was to identify the associations between alcohol consumption patterns and risky sex to mitigate the consequences of STIs and crisis pregnancies among this population in Ireland. **2.** This research utilised data from a 2004 national telephone survey that gathered the knowledge, attitudes, and behaviours towards sex among Irish adults. Females ages 18-29 were eligible participants. Variables were strategically chosen for the analysis to better understand the factors that influence alcohol consumption patterns and unprotected sexual behaviours. Pearson chi-square tests were used to analyse these data. **3.** There were statistically significant differences found when comparing respondents who reported that alcohol contributed to unprotected sex with respondents who reported that alcohol did not, with regards to STI history, frequency of alcohol consumption and quantity of alcohol consumed on typical drinking occasions. Statistically significant differences were found when comparing respondents who reported previous STI

diagnosis with respondents who reported no previous STI diagnosis with regards to seeking care for STIs, frequency of drinking and quantity of alcohol consumed on typical drinking occasions. **4.** The findings contribute to the literature by further demonstrating the association between alcohol consumption and risky sex, and most importantly emphasising the need for an updated national population-based survey on sexual knowledge, attitudes and behaviours. Health policy and sex education curricula in Ireland must address the clear association between alcohol consumption, unprotected sex, and negative sexual health outcomes among young-adult females.

FC-05 • The users' attitudes to- and experiences of internet-based self-sampling test for Chlamydia trachomatis and Neisseria gonorrrhoeae in Sweden

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Objectives: Chlamydia trachomatis (CT) is the most common sexually transmitted bacterial infection worldwide. The prevalence of Neisseria gonorrhoeae (NG) is low in Sweden, but is increasing. CT/NG are both covered by the Communicable Diseases Act. Web-based tests is available as a public health service and comprises about 20% of all chlamydia tests in Sweden. However, there is limited knowledge about the users of the service. Our study aimed to examine attitudes to- and experiences of persons using the CT/NG self-sampling test. **Method:** This cross-sectional study is a part of the project '*Chlamydia and gonorrhea self-sampling-test'*, conducted in Sweden in 2018/2019. Individuals ordering a free of charge CT/NG self-sampling test from the eHealth website were invited to participate, those agreeing to participate completed a web-based questionnaire. When ordering the self-sampling test they provided name, personal code number and home address and were mailed a test kit that was returned to the laboratory for analysis. Test results were provided via the public health eHealth website. Statistical analyses were performed in SPSS. **Results:** The participants (N=1785), females (n=1239, 69.4 %) and males (n=546, 30.6%), aged 16-66 (mean 27.3) years, represented rural and urban areas, about 10% had an immigrant background. The majority (77.0%) were single and heterosexual (88.2%). 5.4% of 1516 tested samples were positive (CT: n=80; NG: n=1) while 15% of the test kits were not returned to the laboratory. Females tested more frequently than men and had more experience of previous sexually transmitted infections. Almost half (44.7%) had regretted sex after binge drinking. The main reason for testing was to check that you are healthy after unprotected sex (72.9%). The self-sampling test was appreciated, >90% considered it was good/very good. No differences in sociodemographic variables between individuals with a positive or negative CT/NG test were seen. However, differences in attitudes were noted. Swedish born were more in favor of the service than those born outside Sweden and singles were more in favor than married/partner (both $p=0.003$). Moreover, workers rated the service higher than students ($p=0.002$). Finally, participants who had regretted sex after binge drinking and those with a negative test result were more in favor of the self-sampling test service ($p=0.014$). **Conclusions:** The participants were content with the self-sampling test service and sexual risk-behaviors motivated the use of the test. This web-based CT/NG self-sampling test was mainly used by females and those born in Sweden.

FC-06 • Intramuscular depot medroxyprogesterone acetate, levonorgestrel implant and copper intrauterine device: effects on weight

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Objectives: The Evidence for Contraceptive Options and HIV Outcomes (ECHO) trial compared the effect of the three study contraceptives on HIV acquisition. This ancillary study, conducted within the ECHO trial, investigated the relationship between the study contraceptive methods and weight. **Methods:** This was a randomized, multicentred, open label trial in 12 sites in four African countries (eSwatini, Kenya, South Africa, and Zambia). Women aged 16-35 seeking effective contraception were randomized to DMPA-IM, copper IUD or an LNG implant for between 12 and 18 months. Weight was collected at baseline and exit visit. We used a linear regression model to relate weight at final visit to study arm, adjusted for study month of final visit (to account for exit visits varying from 12-18 months), site, and baseline weight. Women were excluded if pregnant while on the study (n=264), hadn't completed their final visit (n=434), or had missing weight/height data (n=12).The analysis was performed as: (1) as an intention to treat (ITT) analysis, including final visit data on all women, even if they discontinued their randomized method prior to the final visit (n=7119); (2) as a "Continuous Use" analysis using only women who hadn't discontinued their randomized method at final visit (n=5894). **Results:** The ITT population consisted of 2336 assigned to DMPA-IM, 2382 to copper IUD and 2401 to LNG implant. Baseline characteristics, including weight/BMI, were similar across the three groups. The mean weight difference from baseline to final visit indicated an overall increase in weight across all three groups with the largest gain in the DMPA-IM group of 3.4kgs, compared to 2.3kgs in the LNG implant and 1.5kgs in the copper IUD group. Similarly, BMI increase at final visit was highest in the DMPA-IM group. A third (35.7%) of the DMPA-IM group gained at least 5kg over the follow-up period compared to 27.4% of the LNG-implant group and 23.8% of the copper IUD group. Weight change was significantly different between the three groups in both the ITT and continuous use analyses. ITT analysis showed a mean kg difference (95% CI) of 1.90 (1.54, 2.26) p<0.001 for DMPA-IM compared with copper IUD, 1.06 (0.71, 1.42) p<0.001 for DMPA-IM compared with LNG implant, and -0.83 (-1.19, -0.47) p<0.001 for copper IUD compared to LNG implant. Continuous use results were very similar. **Conclusion:** This study provides conclusive evidence that DMPA-IM, and the LNG implant result in significantly greater weight increases compared to the non-hormonal copper IUD group.

FC-07 • Increasing uptake of long-acting reversible contraception with structured contraceptive counseling: a cluster randomized trial

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Objectives Unintended pregnancies and subsequent abortion remains a global health issue resulting in huge costs for societies. We assessed effects of an intervention to increase method specific knowledge on choice/prescriptions of long-acting reversible contraception (LARCs) and pregnancy rates. **Method** We did a cluster randomized trialin 28 clinicsin Stockholm, Sweden, between 2017-19. Abortion, youth, and maternal health clinics were randomly assigned in a 1:1 ratio to give either structured contraceptive counseling (intervention) or remain with standard counseling (control). We recruited patients >18 years and without a wish to conceive within 12 months. The primary outcome was choice/prescription of LARCs at the first visit and secondary outcomes were LARC initiation and pregnancy rates within three months. The intervention effect on choice/prescription was estimated by using logistic mixed effects models with random intercept for clinic to account for clustering. **Results** We enrolled 1338 participants. More participants in the intervention arm chose/received a prescription of LARCs than in the control group (267/658 [40·6%] vs 206/680 [30·3%], odds ratio 2·77, 95% CI 1·99-3·86). The intervention effect was significant for all clinic types; abortion clinics (3·37, 1·76-6·47), youth clinics (3·31, 2·01-5·46), maternal health clinics (1·92, 1·03-3·57). In the intervention group, participants without intended LARC use prior to counseling chose/received prescription of LARCs to a higher extent compared to control (145/523 [27·7%] vs 66/513 [12·9%], 3·02, 2·14-4·28) and the proportion of LARC initiation was higher (213/528 [40·3%] vs 153/531 [28·8%], 1·74, 1·22-2·49). Difference in pregnancy rates were not significant. **Conclusions** Structured contraceptive counselling can increase LARC choice and initiation independent on clinic type and in long-term might reduce numbers of unintended pregnancies.

FC-08 • Improving quality by introducing structure in contraceptive counselling – user satisfaction with interventions in a multicenter cluster randomized trial

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Objectives: Intervention trials on structured contraceptive counselling have proved to increase use of long acting reversable contraceptive (LARCs) and decrease numbers of unintended pregnancies. To our knowledge these interventions have not been evaluated from a user perspective. The aim of this sub-study was to evaluate both health care providers´ and participants´ satisfaction with an intervention used in a large trial in Sweden. **Method:** A cluster randomized trial was conducted at 28 clinics in Stockholm, Sweden. Clinics were randomized in a 1:1 allocation ratio to provide either structured contraceptive counselling (intervention) or standard contraceptive counselling (control). The intervention consisted of 4 parts; an educational video to be seen by the patient prior to contraceptive counseling, key-questions to be asked by the provider, an effectivity chart, and a box of contraceptive models. Eligible patients were >18 years old, sexually active without a wish to conceive, and with main purpose of the use

of contraceptive being pregnancy prevention. Primary outcome was difference in choice/prescription of LARCs between intervention and control groups. This sub-study analyzes user satisfaction with the intervention and if the intervention was supportive in contraceptive counselling and contraceptive choice among health care providers and participants at intervention clinics. **Results:** Fourteen intervention clinics enrolled 658 participants from Sept 2017 to May 2019. Response rate among health care providers was 88% (n=55). Rating proportions differed for the educational video with 57.4% (378/658) of participants compared to 45.5% (25/55) of providers rating it as "Very good" (p=0.09), and 35.1%(230/658) of participants compared to 49.1% (27/55) of providers rating it as "good" (p=0.04). Providers found the intervention to be supportive in their councelling. Participants found the educational video and the effectivity chart to be more helpful in their contraceptive choice than the box of contraceptive models. Providers assessed time consumption of using the intervention outside the study to be time neutral to standard counselling. Most providers said they would like to continue to use all parts of the intervention. **Conclusions:** The intervention on structured contraceptive counselling had high provider and patient acceptability and could be used in several clinical settings to improve quality in contraceptive counselling and to enhance informed decision making about use of contraceptive methods.

FC-09 • Introducing Contraceptive Counselling into Europe's Largest Women's Prison

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Objectives: Women in prison should have ongoing access to contraceptive services throughout their residency and prior to release. Public Health England guidance - *'Gender Specific Standards to Improve Health and Wellbeing for Women in Prison in England'* includes two standards supporting this; Sexual & Reproductive Health and Pregnancy & Families. **Method**: Europe's largest Women's prison has upto 527 residents. We launched a pilot specialist contraceptive counselling service within this prison to enable residents to manage their own conception choices as part of their overall rehabilitation. 53% of women in prison report having experienced emotional, physical or sexual abuse during childhood. Evidence has shown that contraceptive provision during and after sentence improves overall health. **Results**: 150 residents between June 2018 and September 2019 were offered a contraception consultation. During this we found: 97% had previously experienced problems accessing contraception services (before sentencing), 75% were not using a contraceptive method prior to prison, 49% had previously had an abortion, 57% were not currently up to date with their cervical smear exam. Residents were able to book their appointment at time to suit and missed paid work in order to attend consultation. It was important that the consultation experience was seen as individual's choice and not about targets. Residents were offered their chosen method during their stay and prior to release. All appreciated the opportunity and felt the consultation experience was: "*Lifechanging – I feel so much better now*", "*No one ever gave me the time to sort myself out*", "*One less thing to worry about when I get out*", "*Thanks for understanding my needs – no one helps or understands foreigners*", (10% did not speak English as their first language), 95% of consultees chose a contraceptive method, 65% chose a Tier 1 method, 74% chose a Long-Acting Reversible method (LARC), The Implant was the most popular method chosen (41%). **Conclusions:** Having

gained trust and acceptance amongst the residents we found the consultations provided opportunities to discuss related matters – sexual health, obstetrics and gynaecological health issues – enabling signposting and reassurance. Aspects of the consultation service were integrated into 'Born Inside' pregnancy counselling sessions and amongst those in the Mother and Baby Unit. The experience of contraceptive counselling in prison environment improves the resident's current and future well-being through education and empowerment. It has also informed improvements to the practitioner's main contraceptive telephone counselling role - better understanding individual's perceptions of their reproductive healthcare choices.

FC-10 • Evaluation of factors predicting natural conception within one year of trying after ceasing contraception

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Objectives: This study aimed at investigating the value of various clinical factors of the female and male on prediction of pregnancy. We hypothesized that age, body mass index and stress level of the couple, serum anti-Mullerian hormone (AMH) level of the female, as well as total motile normal-morphology count (TMNC) in semen samples, were potential factors that predict occurrence of pregnancy within one year of trying and time-to-pregnancy. **Methods:** This was a prospective cohort study on 112 couples attending a community family planning clinic for preconceptional health check. These couples were planning to cease their contraception in preparation for conception. Their basic demographic and clinical parameters were recorded. The female had a blood test for serum AMH, and the male had a semen analysis according to the World Health Organisation manual (5thedition). Stress level was measured by the Perceived Stress Scale (PSS). Parameters were compared between those who conceived and not at one year after ceasing contraception by Mann-Whitney U test, and those significant parameters were entered into a standard binary logistic regression model to study their independent predictive value on occurrence of pregnancy. Among those who got pregnant within one year, correlation between time-to-pregnancy and clinical parameters of the couple were studied by Spearman's correlation. **Results:** Of the 112 couples recruited, 100 completed follow-up and were available for analysis. Two of them were using hormonal contraception, one using intrauterine device whereas the rest were using barrier or natural contraception. Within one year after ceasing contraception, 61 (61%) couples got pregnant, and they demonstrated significantly younger age (p=0.008) and higher serum AMH level (p=0.038) of the woman, as well as higher TMNC in semen of the man (p=0.015) compared with those not conceiving, but there were no differences in age of the man and PSS score of the couple. Among those conceived within one year, none of the clinical parameters were significantly correlated with time-to-pregnancy (p>0.05). In the logistic regression model, only age of the woman (OR 1.154, p=0.032) and TNMC of the man (OR 0.918, p=0.047), but not serum AMH level of the woman, were independent predictors of pregnancy within one year. **Conclusions:** Age of the woman and semen parameter of the man, but not serum AMH level of the woman, are significant independent predictors of pregnancy after trying for one year. This finding can aid

preconceptional counselling of couples who are ceasing contraception in preparation for pregnancy.

FC-11 • Menstrual cup use may increase expulsion rates of copper intrauterine devices evaluated in a contraceptive efficacy trial

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Objectives: Menstrual cup use for menstrual hygiene is increasingly popular. Copper intrauterine device (IUD) users continue to have regular bleeding cycles requiring use of menstrual hygiene products. We evaluated the relationship between menstrual cup use and intrauterine device (IUD) expulsion in a prospective trial of two copper IUDs. **Methods:** An ongoing contraceptive efficacy trial randomized women to one of two copper IUDs, with successful placement in 1092 women. Follow-up visits occurred at 6 weeks, 3, 6, 12 and 24 months. We collected data on complete and partial expulsion, including accidental self-removal. Due to the number of reports of accidental self-removal associated with menstrual cup use, we modified the protocol nine months after initiating enrollment to advise participants against concurrent menstrual cup use with the IUD. We collected prior and ongoing menstrual hygiene product use from subjects at the time of the advisory and at each subsequent contact and evaluated the relationship between menstrual cup use and risk of complete or partial expulsion. **Results:** We obtained information on menstrual hygiene product use from 1041 (95.3%) subjects. Menstrual cup use was reported by 266 (24.4%) women. After the advisory, 114 (22.3%) previously enrolled women and 140 (27.0%) new enrollees continued to use menstrual cups. Overall, 89 (8.1%) women experienced expulsions, of which 46 (51.7%) occurred in women using a menstrual cup and 43 (48.3%) in non-cup users. Prior to the advisory against menstrual cup use, 23 complete or partial expulsions had occurred, 14 (60.9%) in women using a menstrual cup. After the advisory, expulsions occurred in 63 ongoing or new subjects, 37 (49.2%) of whom used menstrual cups. Women reported the expulsion event as accidental self-removal in 22/46 (47.8%) menstrual cup users compared to 4/43 (9.3%) women using tampons or other products (odds ratio 8.94 [95% CI 2.75-29.10]). **Conclusions:** Copper IUD users should be cautioned that concurrent menstrual cup use increases the risk of IUD expulsion. However, cautioning about higher risk may not reduce menstrual cup use, which is associated with increased rate of expulsion and accidental self-removal.

FC-12 • Provision of immediate postpartum intrauterine contraception (PPIUC) after vaginal birth within a public maternity setting: a health service evaluation

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Objectives: Expanding access to immediate postpartum intrauterine contraception (PPIUC) can reduce unintended pregnancies and short inter-pregnancy intervals, however provision across Europe is limited. Our aim was to the determine the feasibility, clinical outcomes and patient satisfaction of providing immediate PPIUC after vaginal birth using a health services research model. **Methods:** PPIUC was introduced across both maternity hospitals in Lothian (Edinburgh and surrounding regions) in a phased manner. All women intending a vaginal birth during the study period, and without a contraindication to use of intrauterine contraception (IUC), were eligible to receive PPIUC. Midwives and obstetric doctors were trained in vaginal PPIUC insertion using Kelly forceps. Women received information antenatally and had PPIUC insertion of either a 52mg levonorgestrel intrauterine system (LNG-IUS) or copper intrauterine device (CU-IUD) within 48 hours of vaginal birth. Follow-up was conducted in-person at six weeks' postpartum and by telephone at three, six and 12 months. Primary outcomes were: uptake, complications (infection, uterine perforation, expulsion) and patient satisfaction at 6 weeks; and method of continuation up to 12 months. Secondary outcomes included hazard ratios for expulsion adjusted for demographic and insertion-related variables. **Results:** Uptake of PPIUC was 4.6% of all vaginal births during study period (n=10119). 465/447 (96.1%) of those requesting PPIUC successfully received it and most chose LNG-IUS (73%). The mean delivery-to-insertion interval was 6.6 hours (range 0 to 47). At six weeks postpartum, the infection rate was 0.8%, there were no cases of uterine perforation and 98.3% of women said they would recommend the service. The complete expulsion rate was 29.8% (n=113) and most women had symptoms (n=79). A total of 121 devices were removed at initial follow-up, of which 118 were due to partial expulsion (26.4%). Higher rates of expulsion were observed following PPIUC insertions by midwives (versus doctors) and for those with non-regional anaesthesia ($p<0.05$). The reinsertion rate after expulsion/removal was 87.6% and overall method continuation at 12 months was 79.6% (follow-up data available: n= 150 (93.8%)). **Conclusions:** Routine PPIUC at vaginal birth is feasible. Complications were extremely rare. High expulsion rates may be observed in early stages of service introduction and with inexperienced providers. Reinsertion and therefore longer-term continuation rates of IUC were very high. In settings with low rates of attendance for interval postpartum IUC insertion, PPIUC could be a useful intervention to prevent unintended and closely-spaced pregnancies.

FC-13 • Influence of pornography consumption on attachment, sexual flexibility and sexual functioning in young Austrian adults

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Objectives: Many pornographic materials portray sexual behavior with casual acquaintances or uncommitted partners, sexual behaviors that include degradation or objectification of one partner, or a sheer variety of sexual behaviors. It is assumed that many sexual scripts learned from pornography consumption are not applicable to partnered sexual behavior without negative consequences. We tested two possible effects of pornography consumption on sexual functioning. (1) We analyzed whether pornography consumption was positively associated with

attachment-related anxiety or avoidance and in turn negatively influenced sexual functioning. (2) In contrast, we analyzed whether pornography consumption was positively associated with sexual flexibility and by this route positively influenced sexual functioning. **Methods:** An online cross-sectional questionnaire study was conducted among 525 young adults (57% women and 43% men; M_{age} = 24.2, SD = 3.7). Frequency of pornography consumption and partnered sexual activity was assessed. Women's sexual functioning was assessed with the 6-item Version of the Female Sexual Function Index (FSFI-6) and men's sexual functioning was assessed with the erectile functioning scale of the International Index of Erectile Function (IIEF). The SexFlex Scale was used to assess sexual flexibility when sexual problems occur, and the Experiences in Close Relationships—Relationship Structures Questionnaire (ECR-RS) was used to assess attachment-related anxiety or avoidance. In order to analyze the main hypotheses of the study structural equation models were calculated, separately for female and male participants. The models were controlled for age, frequency of partnered sexual activity, and sexual orientation. **Results:** Male participants (95%) were more likely to have consumed pornography during the last twelve months than were female participants (54%; $p < .001$). Among those participants who had consumed pornography during the last twelve months, male participants consumed pornography on average more frequently (1-2 times a week) than did female participants (1-3 times a month; $p < .001$). In the male sample, the structural equation model did not reveal any associations between pornography consumption, attachment-related anxiety or avoidance, sexual flexibility and sexual functioning. In women pornography consumption was positively associated with sexual flexibility. Sexual flexibility, in turn, was positively associated with sexual functioning. **Conclusions:** No evidence of any negative influences of pornography consumption on sexual functioning was detected. For women a positive influence of pornography consumption on sexual functioning was revealed. The found results suggest that some women may expand their sexual scripts and learn new rewarding sexual behaviors from pornography consumption. This in turn positively influences their sexuality.

FC-14 • Primary care providers' knowledge, attitudes and practices of medical abortion: a systematic review

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Objective: Despite the availability of medical abortifacients, and potential use in primary care, only a small proportion of primary health care professionals provide medical termination of pregnancy (MTOP) services. Understanding the perspectives of primary care providers on MTOP delivery is pertinent to identifying barriers to MTOP service provision and increasing access for women globally. However, to date, there has been no systematic review of the literature relating to the knowledge, attitudes and practices (KAP) of primary care providers regarding medical abortion service delivery. The objective of this study is to understand the KAP of primary health care providers regarding MTOP services. **Method:** We searched four databases (Medline, EMBASE, Web of Science (WOS), and Scopus) using search terms related to medical abortion and primary care. Studies were included if they met the following criteria: all primary qualitative and quantitative research studies in which surveys, in-depth interviews, focus group discussions or self-administered questionnaires were used to investigate the KAP of medical abortion services among primary care providers such as GPs, practice nurses and

pharmacists. The Joanna Briggs Institute Critical Appraisal tools were used to appraise the methodological quality of studies included. Key descriptive themes were identified and then systematised in a matrix. Similarities, differences and contradictions were then examined. Analytical themes were developed to answer our question about the KAP of primary care providers towards medical abortions. **Results:** We identified 19 studies, conducted across 15 countries, comprising 4,912 participants. The majority of study participants were doctors (n=7), followed by nurses (n=3) and pharmacists (n=3) and six studies were conducted with mixed samples of providers. MTOP was deemed acceptable by some doctors, but fear of criminal prosecution, in countries where abortion is still illegal, left doctors and nurses circumspect about providing MTOP. Pharmacists referred women to other providers with only a small proportion dispensing medical abortifacients. GPs and nurses had mixed knowledge of MTOP and emphasised the need for training on delivery of MTOP and dissemination of guidelines. Conversely, pharmacists reported poor knowledge regarding medical abortion regimens and complications. **Conclusions:** We highlight that the majority of primary care providers have poor knowledge of MTOP service provision and would benefit from quality training and education. Changes in legislation, and accessibility to resources, are required globally to ensure that primary care providers have the confidence and training to perform abortions safely and become exemplars of abortion advocacy in their respective countries.

FC-15 • Abortion care: reforming the UK undergraduate medical curriculum

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Objective: National guidance[1-3] supports mandatory undergraduate abortion education. Provision, structure and learning outcomes are variable across UK medical schools, with a paucity of literature on abortion education. After highlighting the lack of provision in the University of Glasgow, a 3-hour interactive seminar was developed in 2019, based on the successful University College London model. The aim was to prepare competent practitioners (including those with a conscientious objection) to deal with abortion requests, identify and manage associated complications. **Design and methods:** Intended learning outcomes (ILO's) were developed and mapped to a learning plan covering: Law and professional guidance, Clinical care, Consultation skills. 5 sessions have been delivered to approximately 120 students. An anonymous eleven item questionnaire consisting of six Likert ratings (scale 1-10; 1= strongly disagree, 10= strongly agree) and five open response questions was produced and distributed. It focused on course delivery, curriculum exposure and self-rated knowledge. The response rate was 90.8% (n=109). **Results:** Students rated the seminar to be clear, interactive, pitched and presented appropriately (mean score 9.6/10). 83.5% (n=91) viewed themselves as prochoice, with 10.1% (n=11) unsure. Abortion education was felt to be non-existent for 51.4% (n=56), with 33.9% (n=37) having some tutor-dependant ethics communication skills in Year 1. Pre-seminar knowledge was poor, with students gaining confidence in all areas; including professional guidance, abortion consultation and identifying complications (difference in mean values of 4.4, 4.8 and 5.2 respectively). Students favoured the balanced, woman focused content, which they describe being delivered in an interactive and safe environment. **Conclusion:** It is clear that the vast majority of students, regardless of their conscious highly valued the session.

The seminar has improved their understanding of the legal framework, enhanced knowledge and developed consultation skills. Following the success of the seminar, the seminar and ILOs have been embedded within the undergraduate curriculum. This will continue to be evaluated.

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FC-16 • Reproductive Decision-Making after Displacement: Comparing the Effects of Stigma & Access Barriers on Syrian Refugees at a Site of First-Asylum (Irbid, Jordan) and a Site of Official Resettlement (San Diego, CA)

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Since the civil war began, 5.5 million Syrians have fled their home country and are now living as refugees. Under such conditions, the familial bonds that served as the foundation of social and reproductive life are stretched thin across national borders or severed completely. Anthropological research has shown how the experience of displacement can transform the paradigms through which individuals interpret and remake their worlds and cultivate new desires for the future. **Objectives:** Through 24 months of multi-sited, ethnographic fieldwork with transnational Syrian refugee families in Irbid, Jordan and San Diego, California, this project examines how reproductive goals and intentions are reshaped by the process of displacement. In addition, this investigation of reproductive decision-making among refugees illuminates the structural obstacles women may face in seeking prenatal and contraceptive care. **Method:** Multiple longitudinal, person-centered interviews (Levy & Hollan 1998) were conducted with 20 Syrian refugee women living in San Diego, California and 30 refugee women living in Irbid, Jordan. Approximately 150 Interviews were conducted and transcribed in Arabic over a two year period. NVivo qualitative analysis software was used to code all transcripts and identify common themes. **Results:** As prior studies have shown (Gagnon, Merry, and Robinson 2002), displacement may impact reproductive goals in contradictory ways; some Syrian women seek to limit or space future births in the contexts of economic precarity and uncertainty that frequently accompany displacement, while other women may pursue pregnancy in their efforts to cultivate a new sense of home and normality after resettlement. However, women are frequently unable to achieve their reproductive goals due to access barriers. Moreover, refugee women are often stigmatized as “hyperfertile” and encouraged to contracept in order to combat xenophobic anxieties about immigrants’ supposed overdependence on the state and welfare system. These

themes and their impacts on refugee women's reproductive goals and decisions were explored in detail during qualitative interviews. **Conclusion:** This analysis reveals that refugee women experience disparities not only in their access to sexual and reproductive healthcare, but also in the widespread stigmatization of refugee women pursuing pregnancy as irrational, overly fertile, and future burdens on the state. Policies and interventions in sexual and reproductive health must consider the profound impacts of these stigmatizing discourses on refugee women's healthcare-seeking behavior and long-term ability to fulfill their human right to reproductive autonomy.

FC-17 • Short animations deliver information on early medical abortion to women as well as clinical consultations - a multicentre randomised controlled trial

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Introduction: Increasing proportions of women who access abortion services in Europe choose to have an early medical abortion (EMA; less than 9 weeks' gestation). However, the quality of information provided to women on EMA may be variable and provider dependent. There is some evidence that an audio-visual animation may be an effective way of providing information about abortion. Using funds granted by the ESC, we developed a short animation (3 minutes) about EMA in 3 languages that summarises the key steps in the EMA process. Each version is also adapted to reflect subtle differences in EMA practice and law in Scotland, France and Sweden. **Objective:** To compare the animation with a standard face to face consultation with regard to information recall, perceived utility and acceptability of mode of delivery. **Design and Methods:** We conducted a multicentre randomised controlled trial. Women presenting to abortion services and choosing EMA (n=178) at 3 European sites (Scotland, France, Sweden) were randomised to receive information on EMA delivered by the animation versus a face-to-face consultation with a clinician (doctor, nurse or midwife). Outcomes included information recall regarding EMA, women's reported acceptability and perceived utility of information on EMA provided by the animation or standard care. Descriptive statistics and independent t-test were performed according to normality of data. **Results:** There were high levels of acceptability of the animation across all sites with 83% of participants rating the animation as 'very acceptable' and all others as 'quite acceptable'. There was a statistically significant difference between levels of information recall in favour of the animation (p=0.0022). There was no statistically significant difference between groups in the rating for utility of the information received. Free text responses from women at all sites indicated a positivity about the diversity of female characters depicted in the animation and towards the messages of empowerment of the video. **Conclusion:** These data suggest that a 3-minute audio-visual animation can adequately and acceptably deliver key information about EMA. This intervention could be used routinely to provide standardised and high-quality information to women seeking EMA throughout Europe.

FC-18 • Intrauterine contraceptives placement at immediate postpartum period: partial results of a randomized clinical trial

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Objectives: We compared the expulsion rate by 90-days and 1-year after postplacental placement (10 minutes of delivery of the placenta) of the TCu380A intrauterine device (IUD) or levonorgestrel (LNG) 52mg intrauterine system (IUS). **Method:** Randomized trial (1:1) with women 18-43 years, and >37 weeks pregnant. Follow-up was scheduled at 42, 90-days and 1-year after devices placement. We confirmed the IUD location using transvaginal ultrasonography. Multivariable logistic regression was used to assess variables associated with expulsion and IUD type. **Results:** We enrolled 140 women and were allocated to use either the TCu380A IUD (n = 70) or the LNG IUS (n = 70). In addition, 74 women gave birth via vaginal delivery. Among the 66 women who gave birth via Cesarean delivery. By the 90 days visit among users of the TCu380A IUD four women required removal of the device and six women were lost-to-follow-up. Among users of the LNG IUS six women required removal of the device and four women were lost-to-follow-up. Furthermore, by the 90-days visit after TCu380A IUD placement 22 out of 60 women (36.7%) expelled the device and among LNG IUS users; 12 out of 60 women (20%) also expelled it. Among the 34 device's expulsion, 33 occurred within the 42-days after childbirth. Expulsion of the TCu380A IUD and the LNG IUS when inserted at Cesarean delivery represented 4/31 (12.9%) and 4/35 (11.4%). By 1-year visit, 18/38 the TCu380A IUD returned until this moment. There were 2 additional device's expulsion and one woman required removal. Among of the 52 LNG IUS, no one expulsed or required removal between visits 90 days and 1 year. The variables associated with the expulsion of the IUD were women with one delivery ($P< .01$), women with vaginal delivery ($P< .00$) and users of the TCu380A IUD ($P< .03$). Furthermore, the OR of expulsion of was higher after vaginal delivery when compared with Cesarean delivery (OR 6.08; 95% CI 2.29-16.14; $P< .00$) and a higher odds of expulsion among women with one (OR 5.01; 95% CI 1.58-15.89; P .00) or ≥3 deliveries (OR 6.73 95% CI 2.02 – 22.44; P .00) when compared to those with two deliveries. **Conclusions:** Postplacental insertion of the TCu380A IUD has higher expulsion rate than the LNG IUS and the expulsion rate was higher in women with vaginal delivery than those with Cesarean delivery. Most of the IUD expulsions (33/34) occurred within 42 days after insertion.

FC-19 • Post-placental intrauterine device: acceptance, reasons of refusals and advices to increase its use in middle-income countries.

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Objectives: Evaluate the acceptance of post-placental intrauterine devices insertion (PPIUD); reasons of refusals and suggest policies to increase its acceptance in middle-income countries. **Design & Methods:** This cross-sectional study was performed at a referral maternity

center in a middle-income country. PPIUD was offered to women with 18-43 years, admitted at early labor, >37 weeks long and which did not present: uterine malformation, multiple gestation, placenta previa, rupture of membranes (>24 hours), intrapartum fever, anemia or untreated lower genital tract infection. In case of refusal the woman was asked about the reasons and the answers were analyzed according to the women's age. Bivariate analysis were performed and a 5% significance level was assumed. **Results:** The acceptance was greater than the refusal (58.1% vs. 41.9%) in 241 women included. Reasons for refusal were: fear of pain (36,9%); desire of another contraceptive method (22.7%) or sterilization (8.9%); fear of failure (4.9%); previous maladjustment to IUD (4.9%); fear of bleedings (3.8%); desire to not use contraception (2.9%); fear of IUD impairing fertility (1.9%); desire to insert IUD at another moment (1.9%) and others (8.4%). We considered misinformation: fear of pain or bleedings, contraception failure and IUD impairing fertility. These reasons together correspond to 50,5% of all refusals. There was no difference in the average age women who accepted or refused PPIUD (27.9 ± 5.8 vs. 28.5 ± 6.2). Women aged between 18-27 years refused the PPIUD more frequently due to lack of information (67.4%) and those between 28-43 years old refused frequently due to other motives (63.6%) (p-value =0.002). There was difference between the average age of women who declined the PPIUD on account to misinformation than those who declined due to others reasons (27.2 ± 6.4 vs. 29.9 ± 5.8, p-value= 0.017). Moreover, both groups had high rates of refusal because of misinformation, 67.4% and 36.4%, respectively. **Conclusions:** The refusal of PPIUD was high, especially among young women and due to lack of information. Women need more antenatal education in middle-income countries, where half of women have unplanned pregnancy and 40% do not return in a first postpartum visit. Groups of pregnant women conducted by multidisciplinary teams combined with individual orientation are essential to enlighten women about the effectiveness of IUD, IUDPP and its optimal contraception opportunity.

FC-20 • Management of bleeding associated with the etonogestrel contraceptive implant (ESI): a prospective, randomized, double-blind, placebo-controlled trial of Doxycycline

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Objectives: 1. To compare doxycycline with placebo for ESI-associated bleeding treatment. 2. To quantify rate of bleeding, request for treatment and ESI removal. **Design and Methods: 1.** Women ages 18-50 years receiving first ESI at Mayo Clinic 9/13/2012-8/26/2019 were offered enrollment. They completed weekly symptom diaries which included bleeding patterns, other symptoms such as headache, mood changes and acne, and ESI satisfaction. **2.** If dissatisfied with bleeding, they were offered randomized treatment (10 days 100 mg BID Doxycycline or placebo). **3.** Subsequent rate of no request for secondary treatment represented primary outcome. **4.** Symptoms were followed for 39 weeks to assess their natural history, treatment response and ESI removal rate. Results: **1.** Total of 379 women had ESI placed. Mean age was 26.4(SD, 6.2) years. 30.2% (112/371) had BMI 30 kg/m2 or higher, 45.9% (173/377) were nulliparous,92.6% were Caucasian while 7.1% were Hispanic/Latina. **2.** Of 379 women, 74.7% completed 13 weeks of symptom diaries. Of these, 73.1% reported spotting or bleeding during >2 of the first 13 weeks and 18.2% reported dissatisfaction with bleeding. Headaches, mood changes and acne were reported by 37.1%, 25.8% and 35.7% respectively during >2 of the first 13 weeks. **3.** By 39

weeks, of the 379 enrolled, 22.9% requested treatment, 43% completed study with ESI, while 19.3% withdrew. Of these, 36 (9.5%) requested removal and another 37 (9.8%) withdrew with ESI. Of the remaining women, 2.9% are completing last diary set and 11.8% were lost to follow up. **4.** Of 87 women randomized to Doxycycline or placebo,78 (39 per group) had subsequent follow up. **5.** Fifteen (38.5%) in the doxycycline arm and 14 (35.9) in the placebo arm did not request secondary treatment. **Conclusions: 1.** ESI was well accepted, with lower than expected dissatisfacton with bleeding rate (18.2%). **2.** Other associated symptoms did not result in request for ESI removal. **3.** More women (87 vs.36) were receptive to treatment prior to ESI removal, and nearly half of those enrolled (43%) kept ESI for the entire study interval without treatment. **4.** Doxycycline does not appear to have an advantage in treating ESI-related bleeding over placebo. **5.** Strengths of the study included prospective RCT design and a non-hormonal treatment for ESI-related bleeding. **6.** Challenges of the study included the high loss to followup and immediate request for ESI removal.

FC-21 • Emergency contraceptive pills in Europe: A multi-country exploration of availability and accessibility

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Objectives: The regulatory status of both levonorgestrel (LNG) and ulipristal acetate (UPA) emergency contraceptive pills (ECPs) varies within Europe. With the exception of Hungary and Poland, both types of medication are supposed to be available without a prescription in all countries in the European Union. In Eastern Europe, Central Asia, and the Balkans sub-regions, both LNG and UPA ECPs are supposed to be available albeit with a range of prescription requirements and regulatory restrictions. This study assesses the actual availability and accessibility of ECPs throughout Europe. **Methods:** In the summer and fall of 2019, we distributed a multi-lingual online questionnaire through the European Youth Network on Sexual and Reproductive Rights and European Consortium for Emergency Contraception networks. We asked participant observers to visit local pharmacies and document product names, price, product placement and stocking, and age or sex restrictions on purchase, as well as provide a qualitative assessment of any interactions with pharmacy personnel. We analyzed our data using descriptive statistics and for content and themes. **Results**: We collected information about 116 pharmacies in 20 countries. The availability of both LNG and UPA ECPs varied widely. Only 18 study pharmacies (15.5%) included any type of ECP on the shelf; few pharmacies included any signage about emergency contraception. The price ranged from €4.34 (LNG-ECPs, Andorra) to €29 (UPA-ECPs, Bosnia and Herzegovina); in some countries there was wide variation in price between pharmacies. Almost all pharmacies that carried UPA required a consultation with a pharmacist before purchase. **Conclusions:** There appears to be considerable variability in EC availability and accessibility both between and within European countries, irrespective of regulatory status. Retailers should ensure that consumers can access ECPs quickly and educating

staff about current regulations. The region could benefit from common standards for EC information and provision, in order to ensure more equity in access.

FC-22 • Copper intrauterine contraception outcomes at 1 year in women aged under 30 – a secondary analysis of the EURAS-IUD study

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Background: Copper intrauterine devices (IUDs) are highly effective contraceptives that have been recommended for use in younger women. Women aged under 30 generally have higher rates of contraceptive non-use, failure and discontinuation. It is therefore important that the IUDs provided for contraception in these women do not negatively impact them. There are many types of IUDs however none have been identified as being associated with better outcomes in younger women. The European Active Surveillance Study for Intrauterine Devices (EURAS-IUD study) was a multinational prospective observational study of 61,448 new intrauterine contraceptive users, involving more than 30 IUD types and 17,323 IUD users. Routine intrauterine contraception providers recruited to the study and follow up was for one year. This EURAS-IUD study data provides a representative sample for identifying which IUD types are associated with better outcomes in younger women. **Objectives:** To describe and compare outcomes at one year with the different types of IUDs used in the EURAS-IUD study by women aged under 30. **Methods:** A subset of data from the EURAS-IUD study, data on IUD users aged under 30, was used. Descriptive analysis including countries, demographics, IUD types, experiences of unwanted effects and adverse events, healthcare visits and IUD removals at one year was undertaken. Further analyses involved comparisons of outcomes (complaints, expulsion, pregnancy, perforation, continuation rates) by IUD type based on copper surface area, shape or design, and width. **Results:** Thirty-three percent (n=5796) of IUD users in the EURAS-IUD study were women aged under 30. Over half (60%, n=3465) of these women were aged 25-29, 35% (n=2008) aged 20-24 and 5% (n=323) aged 18-19. Two-thirds (66%, n=3837) were parous while a quarter (25%, n=1462) had never been pregnant. Outcomes at one year were available for 5789 women (99.9%). Eleven perforations (0.2%), 67 pregnancies (1.2%) and 190 expulsions (3.3%) were reported. Six hundred and seven women (10.5%) discontinued IUD use, with bleeding (33%, n=199), expulsion (31%, n=190) and pain (30%, n=185) their commonest unwanted effects. Certain trends in reported outcomes suggest differences between IUD types based on IUD copper surface area, shape or design, and width. **Conclusions:** Analysis of data on IUD users aged under 30 in the EURAS-IUD study suggests differences in outcomes between IUD types, which may influence unwanted effects and continuation rates at one year. These findings could support further research, clinicians' decision-making and contraceptive choice for younger women.

FC-23 • Fighting mortality and morbidity resulting from unsafe abortions in Kinshasa, DRC - A harm reduction approach.

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Objective: Background and justification. The Democratic Republic of Congo (DRC) has one of the highest maternal mortality rates in the world. Access to comprehensive sexual education and family planning methods is low, especially for young people, due to legal, cultural and financial barriers. Until recently, the DRC legal framework on abortion was restrictive thereby forcing women to resort to dangerous harmful practices. In 2018, some significant advances took place: the Maputo protocol was published in the official journal, prohibiting the criminal prosecution of abortion under certain conditions; and the access to family planning, illegal before that, opened up to women of reproductive age. Unsafe abortions largely contribute to maternal mortality. Recent studies estimate that 77% of post abortion care in Kinshasa results from unsafe abortions. Since 2017, Médecins du Monde (MdM) has implemented activities in 2 districts of Kinshasa to guarantee access to comprehensive youth-friendly sexual and reproductive health (SRH) services and sexual education and has developed a harm reduction approach to reduce abortion related morbi-mortality. **Method: Description of program.** After a preliminary qualitative assessment was conducted to analyze knowledge and practices associated with abortion among the community, the harm reduction approach was identified as a way forward. Started in November 2018, the program has been implemented in collaboration with the ministry of health and civil society through a referral network of 5 health centers, 25 community workers, and 10 pharmacists who all received values clarification training. Women seeking an abortion are receiving evidence-based information on self-abortion, using Misoprostol (determination of gestational age, dosing, side effects, signs of complication, referral facilities). Good quality Misoprostol is ensured through the assessment of local suppliers and pharmacists. In addition, quality post-abortion care is provided in the 5 health centers. The creation of this network makes it possible to reach more women and girls than through health centres alone. **Results:** From November 1st 2018 up to September 30th 2019, 563 women and girls (68% between 15-24 years old) have benefited from a safe self-abortion through this harm reduction approach. 31% (n=175) went to referral health centers to receive post abortion care; no major complication was registered. 91% (n=513) accepted post abortion family planning method after appropriate counselling. Early observations show that the project contributes to improve women and girls' access to SRH services and to evidence-based information on abortion and contraception, quality information on contraceptive methods and how to avoid unwanted pregnancies; and self-abortion with Misoprostol is made more accessible. Simultaneously, MdM does continuous work on the analysis of the country's legal environment and on the community's acceptance, two meaningful levers for women's protection. **Conclusion:** A lack of access to safe abortion care increases morbidity and mortality associated with unsafe abortions. The implementation of innovative approaches, such as the self-abortion one, is feasible even in restrictive environments like DRC. By enabling the access of women and girls to non-judgmental and quality information, we can improve their access to SRH services and the knowledge of their rights.

FC-24 • A Study of the Performance of a Fertility Tracker

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Objectives: Fertility tracking devices claim to identify the fertile window of the menstrual cycle and provide women with guidance to help achieve their reproductive goal. Availability and use of these devices is rapidly accelerating despite limited research validating their information. Most fertility tracking devices are based on some variation of the symptothermal method, which uses two different symptoms, observation and precise interpretation of cervical mucus and/or daily measurement and evaluation of basal body temperature to determine the beginning and end of the fertile window. Others like Daysy (Fertility Tracker), a fertility tracking device, measures basal body temperature orally in 30-60s immediately after waking up, uses a modified calculothermal method. Addressing this gap, we conducted a study to evaluate how accurately a fertility tracker distinguishes between fertile and infertile days in different scenarios (normal use, ideal use, long cycles, short cycles, temperature noise, skipping of measurements etc.) and investigate the correlations between specific cycle characteristics, BMI and age. **Design & Methods**: In order to better understand how the algorithm adjusts to individual cycle data, we are investigating how Fertility Tracker distinguishes between fertile and infertile days, which is especially important for women who intend to prevent pregnancy. Data (ie. temperature and menstrual input) from over 5000 women were processed through Daysy's fertility algorithm and fertility estimates were calculated. Key results were stored in excel as well as visualized through BBT charts. Outputs from the algorithm were statistically and descriptively analyzed and compared to the original outputs. **Results**: We analyzed data from 5,328 women. The average age, body mass index, and days measured were 31.0 years old (±6.4), 22.56 kg/m2 (±4.5), and 507.12 days (±447.0), respectively. Of this subset of women, the fertility tracking device identified 25-50% safe/infertile days for 59.3% womens' menstrual cycles, 0-24.99% safe/infertile days for 34.0% of women, and >50% for 6.7% of women. We found statistical differences between age and fertility identification, as well as body mass index ($p<0.001$). **Conclusions**: Daysy is able to detect biphasic changes in the menstrual cycle. Women are able to use this fertility tracking device to address multiple reproductive intentions at different life stages and is attractive to a diverse demographic of users.

FC-25 • Can the preference for and uptake of long-acting reversible contraception in young Australian women be increased using an online "LARC first" educational video?

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Objective: Unintended pregnancies are a significant public health problem both in Australia and globally. Long-acting reversible contraceptives (LARCs) have the potential to reduce rates of unintended pregnancy and abortion, particularly in young women, however the uptake of LARCs amongst Australian women is low. One of the barriers to LARC uptake is the lack of awareness of LARCs as a contraceptive option for young women. The internet and social media are increasingly being used by patients, particularly young people, as a resource for health information. We aimed to determine if our online "LARC first" educational video can increase

the preference for and uptake of LARCs amongst young women. **Methods:** We recruited Australian women aged 16-25 years via a paid Facebook advertisement. The intervention involved viewing a "LARC first" patient education video developed as part of the National Health and Medical Research Council funded Australian Contraceptive ChOice pRoject (ACCORd). Participants completed online surveys before (Survey 1) and immediately after (Survey 2) watching the video, and six months later (Survey 3). The contraceptive preferences of participants were recorded at each time point and their contraceptive use was recorded in Surveys 1 and 3. Logistic regression with generalised estimating equations was used to examine the outcome of the intervention on preference and uptake of LARCs. **Results:** A total of 437 eligible women were recruited in December 2017. Of those, 322 completed Surveys 1 and 2, and 284 (88%) completed Survey 3 at six months follow-up. The preference for LARCs immediately increased after viewing the video (OR=1.73, 95% CI 1.44-2.09) and at six months follow-up (OR=1.35, 95% CI 1.11-1.64). Multivariate analysis showed that women aged 22-25 years preferred LARC more than women aged 16-21 years (OR=1.68, 95% CI 1.10-2.56). LARC use also increased at six months follow-up (OR=1.28, 95% CI 1.11-1.48). Multivariate analysis showed that women aged 22-25 years were more likely to use LARC compared with women aged 16-21 years (OR=1.25, 95% CI 1.11-1.48). **Conclusion:** Our results demonstrate that an online "LARC first" patient education video can increase the preference for and use of LARCs in young women for up to six months after viewing. This increase was more pronounced in women aged 22-25 years. General practitioners could consider integrating these educational videos in consultations for contraceptive counselling. Further research is required to understand why this intervention appeared to be less effective in teenagers and young adult women.

FC-26 • The changing landscape of abortion care: Embodied experiences of structural stigma in the Republic of Ireland and Northern Ireland

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Objectives: The private use of abortion medication outside of the formal healthcare setting is an international phenomenon. Despite new and expanding pathways to abortion access, we know little about how women's perceptions and experiences of abortion may also be changing. This study examines the embodied experience of women who sought abortion services in a highly restrictive legal and social context, providing the opportunity to explore the ways biological, social, and structural factors shape embodiment. By centering women's narratives of self-managed medication abortion, this analysis informs new models of care that expand access and prioritize patient experience. **Methods:** A team of four researchers (including the author) conducted semi-structured, in-depth interviews with 68 women from the Republic of Ireland and Northern Ireland who sought abortion care between 2010-2018. We recruited participants with the support of three reproductive rights organizations and an online telemedicine service known as Women on Web, which invited people to participate in an interview if they recently requested abortion medications by mail. I analyzed participant's descriptions of their physical and emotional experiences, to include perceptions of pain, method (medication vs. surgical), the fetus, and the physical environment (home vs. in a clinic) while seeking or completing an abortion. **Results:** Women who obtained an abortion either traveled abroad for clinical care or self-managed a medication abortion at home. Structural stigma influenced the embodied

experience of abortion at multiple levels of analysis. Women gained greater experiential knowledge through medication self-management, allowing many to relate their abortion to other natural bodily processes and redefine their beliefs about pregnancy and the fetus. Preferences and attitudes about the environment of abortion care were informed by differential perceptions of risk. Those who traveled most often emphasized legal and medical risks of abortion at home, while those who self-managed emphasized social, financial, and emotional risks of pursuing clinical abortion care abroad. **Conclusions:** Given the increase in reproductive self-care alternatives, these findings situate self-managed abortion in the literature of (de)medicalization and reveal the way structural stigma is internalized (and challenged) during the process of abortion-seeking. For some, self-managed medication abortion may be a preferred pathway to care. Policies that consider medication self-management as part of a spectrum of legitimate options may expand abortion access for marginalized groups while also offering an improved abortion experience for those who prefer medication abortion and an out-of-clinic environment.

FC-27 • Cesarean section and tubal ligation on request. The situation of Arad County Romania over the last 10 years.

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Introduction: Cesarean section is the most performed obstetrical surgery nowadays, most of the times without a proper indication. This can lead to subsequent consequences with increase morbidity for the mother and higher costs for the medical system. Also cesarean section is sometimes used for non reversible contraception by some couples. **Objectives:** To present the real situation of deliveries and especially the ones by cesarean section and also of the tubal ligations performed during the cesarean section in the Emergency Clinical County Hospital of Arad the major maternity service for a ~500000 people area in Western Romania. To assess the indications for cesarean section and to estimate the number of cesareans performed on request. **Method:** Our team is performing a retrospective study using the data received from the Emergency Clinical County Hospital of Arad analyzing the number and indications of cesarean section and subsequent tubal ligations, the characteristics of the population, the way of performing it and other relevant aspects for the topic. Due to the high rate of cesarean section, our team developed a questionnaire for the medical doctors and midwives in order to understand better this phenomenon. **Results:** The study is still ongoing as not all of the information has been collected so far. Cesarean section rates increased constantly reaching a plateau in the last years at about 60-65%. By analyzing the data obtained so far we assess that about 50% of the cesareans performed have no clear indication for it, being performed on patient request, commodity or doctors fear of malpractice especially as resulted from the questionnaire results as well. Tubal ligation usually occurs at the second cesarean section, but in the last years its rate have decreased. **Conclusions:** Cesarean section on request is an extremely important issue that needs to be addressed properly by the healthcare system as it rates need to decrease by a better medical education of the patients and promotion of natural delivery. Tubal ligation is considered a safe way for non reversible contraception at the moment of a cesarean section, with decreasing rates

in the past years probably due to the availability of long acting reversible contraception methods.

FC-28 • Characteristics of women accessing an Australian philanthropic fund for abortion care

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Introduction & Objectives: In recognition of the limited public funding available for Australian abortion services, Marie Stopes Australia launched the Choice Fund in late 2017. This philanthropic fund helps women experiencing financial and other hardships to access abortion care including contraception. We analysed the characteristics of women who had used this fund in order to better inform policy and future service provision. **Design & Methods:** Information regarding women who access financial support via the Choice Fund is collected routinely in an Excel database. We undertook a retrospective analysis of this data for the period from February 2018 – April 2019. Characteristics such as gestational age, issues that the client is facing e.g. family violence, and client location in terms of remoteness were determined. **Results:** During the 14 month period, 364 women accessed funding from the Choice Fund. Women from Queensland (50%, n=183) most frequently requested financial support. 27% of women who accessed the Choice Fund lived outside major cities (n= 97). Nearly all women who accessed the fund cited financial distress (n=345). 31% of women (n =114) reported domestic violence or other coercive contexts and 23% (n= 82) reported mental health issues. Other issues reported included addiction and sexual assault. The gestational age ranged from 5 to 23 weeks of pregnancy. 36 women accessed abortions at 20-23 weeks gestation. Of these women, 36% (n=13) were required to travel interstate to access abortion. **Conclusion:** A variety of circumstances lead women to require financial support for abortion care. Unintended pregnancy disproportionately affects the most vulnerable women in society including those on low incomes and women who experience domestic violence and other coercive contexts. The findings of our study are beneficial to policy discussions on abortion access and decriminalisation (especially in New South Wales and Queensland). The findings are also being used to advocate for the establishment of funding and policy support that brings together provision of SRH services such as abortion care with responses to and prevention of domestic and family violence.

FC-29 • Immediate insertion of intrauterine contraception after medical abortion

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Objective: The primary objective is to study if immediate insertion of intrauterine contraception (IUC) after a complete medical abortion is superior to insertion at two to four weeks post abortion (routine care) with regard to the number of women using IUC at six months post abortion. Secondary objectives are to study if immediate insertion of IUC is non-inferior to

delayed insertion with regard to safety and acceptability. **Method:** An open label, randomized, controlled, multicenter study in Sweden. The design is a phase III study (therapeutic confirming). Women with unwanted pregnancy having a medical abortion and fulfilling inclusion and without exclusion criteria and opting for IUC (hormonal or copper) as post abortion contraception, are recruited. After randomization, the women have the IUC inserted either within 48 hours after the abortion is completed (immediate group) or two to four weeks after the abortion (delayed group). The medical abortion is carried out according to the Swedish national evidence based guidelines. In total, 722 women will be included in the study and stratified into three groups of equal size based on gestational age (≤9 weeks+0 days, 9weeks+1 day to ≤12 weeks+0 days, and >12 weeks to 21+6 days). Follow up at 3, 6 and 12 months will be performed by telephone/email. An interim analysis of results will be performed when 50 percent of women have been recruited in any gestational strata. If expulsion rates exceed 20 percent or if acceptability rates are below 50 percent by the 3-month follow up the study will be stopped. **Results:** The interim analysis of the first 120 recruited participants with a gestation length of ≤9 weeks+0 days shows that the participants, three months after the abortion, prefer insertion of an IUC within 48 hours after a medical abortion. Expulsion rates of IUC were less than 20 % in both groups. Few women reported complications after IUC insertion in either group. **Conclusions:** Women having a medical abortion in early pregnancy (gestational age ≤9 weeks+0 days) seem to prefer immediate insertion of an IUC after the abortion. Immediate insertion seems to be highly accepted by women and is safe. The study will continue according to plan and final results will be presented based on 6 month follow up post abortion data.

FC-30 • Effectiveness and safety of an at-home telemedicine for medical abortion service delivery model: Findings from Marie Stopes Australia

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Objectives: In an effort to expand safe abortion access to rural and remote communities, Marie Stopes Australia (MSA) implemented an at-home telemedicine for medical abortion (TMAB) model where clients meet with a clinician via videoconference or telephone and receive medications via courier at home. The aim of this study was to evaluate the safety and effectiveness of this novel provision model compared to in-clinic provision of medical abortion. **Methods:** We collected data from MSA's patient management and adverse event reporting systems for all medical abortions provided via at-home TMAB or in-clinic appointment in the two years after the at-home TMAB model came to scale (January 2017 - December 2018). Effectiveness was defined as whether or not the medical abortion was complete; clients with a continuing pregnancy, incomplete abortion, or who had a surgical abortion procedure were deemed to have a failed medical abortion. Adverse events were defined as death, haemorrhage requiring transfusion, hospital admission, or infection. Descriptive statistics, including chi-square tests, were used to assess differences between groups. **Results:** In total, 17,333 in-clinic patients and 2,222 at-home TMAB clients were included. Overall, 95.62% of patients had a complete abortion. Compared with in-clinic patients, at-home TMAB patients were more likely to have a complete abortion (97.16% vs. 95.42%, $p<0.001$) and less likely to have a surgical

procedure (2.79% versus 4.50%, p<0.001). Fewer than 1% of patients (0.35%) had a recorded adverse event and the proportion of adverse events did not differ between at-home TMAB and in-clinic patients (0.54% versus 0.33%, p=0.114). Across all patients, 0.06% (n=12) had a haemorrhage that required blood transfusion, 0.01% (n=1) were admitted to the hospital, and 0.29% (n=57) had an infection. No deaths were reported. **Conclusions:** These findings indicate that at-home TMAB is a safe and effective care delivery model in Australia and may provide an opportunity for safe and effective care in other limited resource and/or restrictive settings. Although we found that medical abortion provided via at-home TMAB was more effective than standard provision, more work is needed to assess the number of incomplete abortions and adverse events missed in the current reporting system and whether reporting is differential by abortion delivery model (i.e., at-home TMAB versus in-clinic).

FC-31 • Engaging parents in digital sexual and reproductive health education: A UK-wide cluster randomised controlled trial with process evaluation

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Objectives Research supports the central role that parents play in promoting positive sexual behaviour and outcomes in their children, however, they can be very difficult to engage in school-delivered sexual and reproductive health (SRH) programmes. Online and mobile technologies (OMTs) that educate parents about SRH and promote parent-child communication may offer an innovative solution to reaching parents, but there remains insufficient evidence regarding the acceptability and feasibility of these methods. This study aimed to address this gap by reporting parent engagement with co-produced online animated films during a school-based randomised trial. **Methods** The *Jack Trial* is a National Institute for Health Research (NIHR) funded cluster randomised controlled trial involving over 8000 adolescents (mean age 14.4), teachers and parents from 66 post-primary schools across the UK. It aims to determine the effectiveness of a multi-component, theory-informed SRH intervention in reducing unprotected sex in adolescents. An embedded mixed-methods process evaluation explored user engagement with the parental components. Across the UK, a total of 110 adolescents, teachers, parents and policy experts took part in semi-structured interviews and focus groups, 134 parents responded to online surveys and 3289 adolescents completed an intervention engagement questionnaire. **Results** Parent users were very positive about the digital materials; 87% rated them as 'good or excellent' and 67% said they helped them have conversations with their child about sex. Web analytics revealed, however, that parent engagement with the digital materials was moderate at 27%, with 10% accessing the animated films. Triangulated data from surveys and interviews with parents, adolescents and teachers helped unpick barriers and facilitators of parental engagement. **Conclusions** The use of OMTs to promote parent-teen communication about sexual and reproductive health show potential for increasing reach. However, this study suggests that, for optimal engagement of parents there is a need for: policy-led, finance-backed initiatives and public awareness campaigns to highlight the important role that parents play in SRH education; dedicated SRH training for teachers to help reduce their anxiety around engaging parents; early and sustained intervention with parents and their children; and interventions that address key barriers to engagement, including SRH education for parents, and

focused efforts to engage hard-to-reach groups including male caregivers, ethnic minorities, and parents from religious and socially deprived backgrounds.

FC-32 • Previous cycle tracking with a wearable multiparameter device reduces time to conception among real-world users

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Objectives: For centuries, menstrual cycle tracking has helped women achieve or avoid conception. Recently, women have turned to digital technology for cycle monitoring. Tracking multiple physiological parameters simultaneously, wearable sensor technology can detect the fertile window with up to 90% accuracy. This study probes if women who cycle track using a wearable device prior to trying to conceive (TTC) became pregnant faster than women who did not cycle track first. **Method:** This is a retrospective, longitudinal study of women using the Ava Fertility Tracker (Ava-F; i.e., real-world users). Worn on the wrist while asleep, Ava-F measures parameters including pulse rate, respiratory rate, skin perfusion, heart rate variability, and skin temperature. An algorithm then predicts the user's fertile window based on these physiological inputs. The user can choose one of three in-app operational "modes": cycle tracking, TTC, or pregnancy. To be included in our study, users had to have reported a pregnancy in-app and switched to the pregnancy mode for at least 30 days. We compared women who used the device's "cycle tracking mode" first, followed by the "TTC mode" (prior cycle tracking group [PCT]) to women who only began cycle tracking during the "TTC mode" (no prior cycle tracking [NCT] group). As time to conception was positively skewed for both groups, we conducted a Mann-Whitney test. Secondary analyses implementing robust linear regression considered the potential covarying effects of age and BMI on time to conception.
Results: European and American women (N=20,456) who purchased Ava-F and reported a positive pregnancy test were included, with subjects divided between the PCT (n=947) and NCT (n=19,509) groups. On average, women were 32.04 years old (SD=3.86 years) when they conceived, had a BMI of 25.23kg/m^2 (SD=5.73kg/m^2), and became pregnant after 125.32 days of cycle tracking (SD=86.83 days). Results from the Mann-Whitney test suggested that the sampling distribution of time to pregnancy differed significantly for the PCT versus NCT groups ($p<.001$). In particular, time to pregnancy was significantly shorter in the PCT (mean=104, SD=68 days) compared to the NCT (mean=126, SD=87 days). Covariate analysis revealed this effect held even when controlling for age (≥35 years old: b=1.13, p=.909) or BMI (<18.5kg/m^2: b=9.01, p=.513; ≥25kg/m^2: b=4.53, p=.388). **Conclusions:** Among real-world Ava-F users, earlier cycle tracking was associated with a shorter time to pregnancy. Our research suggests that cycle tracking using wearable technology offers a unique conception advantage beyond acquiring knowledge about current fertility status.

FC-33 • Immediate versus delayed insertion of the intrauterine device following medical abortion at 17-20 weeks' gestation: Preliminary results from a randomized controlled trial

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Objectives: The risk-benefit of immediate compared to delayed insertion of an intrauterine device (IUD) following medical abortion (MA) at 17-20 weeks gestation is largely unknown. We report preliminary findings from a randomized controlled trial on IUD use at 6 weeks, after immediate compared to delayed insertion, following medical abortion at this gestation. **Methods:** This 2-arm randomized controlled trial was conducted at a tertiary level hospital in Cape Town, South Africa. Between August 2018 and June 2019, we consented and randomized 114 women admitted for MA at 17-20 weeks' gestation. Women in the immediate arm had an IUD inserted prior to discharge and women in the delayed arm were referred for insertion 3 weeks later at their local primary healthcare facility. Follow-up involved in-person clinical examination and ultrasound 6 weeks after the abortion. Those not presenting in-person were contacted by phone. Phone follow-up at 3 and 6 months is ongoing. Electronic medical records are being reviewed. Our main outcome was use of the original IUD at 6 weeks, defined as adequate placement of the IUD without indication for removal, according to intention-to-treat (ITT). Secondary outcomes reported here include 1) use of any IUD after the 6-week follow-up period (ITT) and 2) expulsion, intracervical and symptomatic malposition rates at 6 weeks after MA (per protocol [PP]). **Results:** We included 55 women in the immediate arm and 57 women in the delayed arm in the ITT analysis. In the immediate and delayed arms respectively 43/55 (78%) and 14/57 (25%) received the IUD as planned. At 6 weeks we followed up 99/112 women (89% in each study arm). There was adequate placement of the original IUD in 53% of women in the immediate arm versus 21% in the delayed arm. At the end of the 6-week follow-up period 73% in the immediate arm versus 40% in the delayed arm had either the original IUD, a replacement IUD, or an IUD placed for the first time at follow up. Of those who had an IUD placed, 36% (immediate) versus 14% (delayed) had complete expulsion, or removal of the IUD due to intracervical placement or symptomatic malposition (PP). **Conclusions:** Insertion of an IUD immediately after late second trimester MA results in increased use after 6 weeks compared to delayed insertion. Expulsion rates are higher than interval insertion and higher than expulsion rates for immediate insertion after MA at earlier gestational ages.

FC-34 • Management of displaced intrauterine contraceptive: describing a new ultrasound-guided repositioning technique and its results

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Objectives: The management of a displaced intrauterine contraceptive can present a clinical challenge, complicated by the high cost of replacing it with a new device. Our study aimed to describe a new ultrasound-guided intrauterine contraceptive (IUC) repositioning technique and evaluate the outcomes of this technique. **Design & Methods:** We conducted this descriptive study in the University Hospital of the Ribeirao Preto Medical School, Brazil. Our hospital is a center of long-acting contraception training and all IUCs are inserted by Obstetrics and Gynecology residents. A routine transvaginal ultrasound (TVUS) is scheduled at 3 to 6 weeks of the IUC insertion to rule out uterine perforation and partial expulsion of the devices. We

considered an IUC partially expelled if the lower tip of its vertical arm is located in the cervical canal. Women with a partially expelled IUC were invited to have their IUC repositioned by an ultrasound-guided technique. All repositioning procedures were performed by the same staff team of trained obstetrician-gynecologists. The procedure consisted of grasping the lower tip of the vertical arm of the IUC in the cervical canal using an alligator forceps. The IUC was subsequently pushed gently forward by TVUS guidance until it was felt that the horizontal arm had reached the fundus. After removing the forceps, we confirmed the correct repositioning of the IUC. These women had a 3-month post procedure visit scheduled, followed by annual routine visit for strings check. Our outcomes were the number of successful procedures and the number of repositioned IUC found displaced at the last follow-up visit. **Results:** We presented our experience of 46 displaced IUCs that were repositioned by ultrasound guidance [18 cooper intrauterine device (Cu-IUD) and 28 levonorgestrel (LNG)-releasing intrauterine system (IUS)]. In all cases, the vertical arm was misplaced in the cervical canal, with the lower tip of the vertical arm passing the cervical internal os, but not protruding beyond the external os. The procedure was deemed successful in 39 (84.8%) of 46 cases at the first attempt, without complications such as perforation or postprocedural infection. Of the successful repositioned IUC, 18% (7/39) was found again to be displaced at the last follow-up visit. **Conclusions:** Repositioning of a partially expelled IUC, especially LNG-IUS which is costly, represents an alternative approach to IUC replacement. It is an easy and simple procedure that can be done in the office with a high success rate and minimal risk of complications.

FC-35 • Financial situation and the need for free supply of contraception

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Background: At present, there are no nationwide regulations in Germany on free access to contraception for women with low incomes or women receiving social benefits, but there are political discussions on the need for free contraception and its political feasibility. Between 2017/2019, the project "biko - Counselling, Information and Cost Assumption in Contraception" (Pro Familia federal association, Frankfurt), funded by the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth, was implemented to meet the needs of women with low incomes, enabling them to access free contraception in seven cities. More detailed research was needed on the influence of the costs on contraceptive choices, especially on the accessibility of safe and reliable contraception to prevent unintended pregnancies among women on low incomes. **Information about the study:** For Germany, the study “Family planning in the life course of women” (“Frauen leben 3 - Familienplanung im Lebenslauf"), a representative population based survey of 14,522 women aged 20 to 44 years in 12 of 16 federal states of Germany, provides empirical data on this subject for the first time. The study was conducted by the Social Science Research Institute on Gender Issues /FIVE, Freiburg on behalf of the Federal Center for Health Education in Cologne from 2012 to 2018. In the 3rd phase of the study (standardized questionnaire: 6,001 women in five federal states, in-depth interviews: 19 women with low incomes or receiving social benefits, 2017/18), specific questions on the costs of contraception were included. **Summary of results:** The special analysis shows that women receiving social benefits display the usual demand for safe contraception, but that the costs in subgroups lead to compromises in contraceptive behaviour and to pregnancy risks. The in-depth

interviews demonstrate that contraceptive costs are a problem for women with low incomes or those receiving social benefits. The women develop different strategies for safe contraception in spite of their meagre financial means - depending on their current life situation. Some of these strategy, however, may involve contraceptive risks. In the case of free contraception, every second social benefit recipient would change her contraceptive behaviour, 66% of those who do not currently use contraception would start with contraception, 36% of those who use contraception would change the method/product. The most frequent choice would be a IUD or the pill. All in all, the changes would move towards more long-term and intercourse-independent contraception.

FC-36 • ENG-releasing subdermal implants in immediate postpartum of teenagers: avoiding a subsequent pregnancy

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Objective: This study aimed to evaluate acceptance of etonogestrel (ENG)-releasing subdermal contraceptive implant after childbirth, before discharge, in adolescents. We also aim to explain the importance of postpartum contraception, especially the use of long-acting reversible contraceptive (LARC). Comparison between teenagers who opted for ENG-implant versus other contraceptive methods after childbirth were evaluated. **Methods:** A non-randomized open-label trial conducted with teenagers (until 19 years) who had childbirth. Were performed antenatal education (AE) groups in a specific antenatal care (ANC) for teenagers. We also made contraceptive counseling for all participants after delivery. Teenagers could choose to use ENG-implant in immediate postpartum, before discharge or any other contraceptive methods at the first postpartum visit (40-60 days after childbirth). Patient satisfaction with ENG-implant was evaluated and pelvic ultrasound was made for all patients. **Results:** (Partial results) A total of 52 adolescent in immediate postpartum women were included. The acceptance of ENG-implant was 59.6% (31 accepted and 21 preferred to choose another contraceptive method). 23 adolescents had ANC at the study institution and participated in the AE group: 15 (65%) opted for ENG-implant and 8 (35%) preferred other contraceptive method. Among the 29 adolescents who did ANC at other institutions, 15 (51%) opted for ENG-implant and 14 (49%) preferred other methods ($p = 0.32$). The mean age of the adolescents was 16 (+ 1,71 SD) years, 75% attended high school and 86,5% were primipara, but 7 (13,5%) were already in their second or third pregnancy. Until this time, 23 patients returned in the first postpartum visit, with 11 users of ENG-implant and all of them were satisfied with the method, whereas 2 reported intermittent vaginal bleeding. The 12 who choose other methods in the first postpartum visit opted for: intrauterine devices (6), injectable contraception (5) and ENG-implant (1). At ultrasound evaluation there was no difference in endometrial thickness between those who used the implant or not (1.9-4.6 mm vs 2.0-6.2 mm). **Conclusions:** Acceptance of ENG-implant in immediate postpartum is high among adolescents. AE or counseling before discharge could increase the choice for LARC after childbirth. Immediate postpartum use of subdermal implant is a safe option for adolescents, with high degree of satisfaction, which significantly reduces rates of repeated unplanned pregnancy and all the undesirable consequences inherent to this process.

FC-37 • Usefulness of the use of the levonorgestrel 52mg intrauterine system among women with thrombosis or coagulopathy

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Objective: Women with coagulopathy, history of thrombosis or under anticoagulant therapy who require contraception or heavy menstrual bleeding treatment may benefit from levonorgestrel (LNG) 52mg intrauterine system (IUS) use. Although, few studies evaluated the effectiveness of this method in these groups of women. The objective was to evaluate the usefulness, safety and the bleeding patterns after LNG IUS insertion in women with thrombosis or coagulopathy. **Methods:** A retrospective chart review conducted at the Family Planning Clinic, UNICAMP, Brazil. Data analyzed included the women's sociodemographic characteristics, hematologic conditions, reasons for use, duration of use of the LNG IUS, anticoagulant use, complications, and reported bleeding patterns. **Results:** We reviewed 11,150 charts from our data bank of the clinic and identified 117 women with hematologic disorders who used the LNG IUS: 99 (84.6%) had history of thrombosis, the most frequent venous thromboembolism (70.1%) and 18 (15.4%) had coagulopathy disorder, the most frequent VWD (9.4%). The majority of women with history of thromboembolism (71/99, 71.7%) was using oral anticoagulant drugs, the others 19 had a past use of oral anticoagulant drugs, but, were not in use at the time of the LNG IUS placement. Also, nine women had a factor V Leiden mutation and are not using oral anticoagulant drugs. Warfarin was the most used drug (59/71), following by rivaroxaban (4/71). Almost half of the women (57.2%) choose the LNG IUS use for contraception and 32/71 (43.8%) of oral anticoagulant drugs users has HMB. There were no bleeding complications at the time of LNG IUS insertions. Total or partial expulsion occurred in 6 women (3 replaced for a new LNG IUS). The follow up mean was 32.3 (±29.8) months (interquartile $^{25\text{-}75}$ range to 5.1 to 54.7) and the bleeding pattern at the last visit was HMB in 8 (7%) of the women. More than 2/3 of women showed amenorrhea or infrequent bleeding, without difference in women who choose LNG IUS for HMB or contraception (P=.07), women with history of thrombosis or coagulopathy (P= .53) or users or not of oral anticoagulant (P=.59). In total, most of the women with hematologic disorders have a favorable bleeding patterns with almost one third of them reported amenorrhea (30.7%). **Conclusions:** LNG IUS is a safe method in women with hematologic disorders and two thirds of women presented amenorrhea or infrequent bleeding, regardless oral anticoagulant use, reason of use (contraception or HMB), coagulopathy or thrombosis past (in use or not OAT).

FC-38 • Interpregnancy interval and perinatal outcomes after a perinatal loss

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Objective: Short interpregnancy intervals following livebirth are associated with increased risks of adverse pregnancy outcomes. However, there is little evidence available to support pregnancy spacing decisions after a perinatal loss. The objective of this study was to examine whether short interpregnancy intervals after a perinatal loss are associated with increased risks of adverse outcomes in the subsequent pregnancy. **Methods**: We analyzed all pregnancies in British Columbia, Canada from 2004-2014 to women with ≥2 singleton pregnancies, with the first ("index") resulting in either a stillbirth, a late termination (≥20 completed weeks of gestation) or a neonatal death. According to interpregnancy interval, we examined risks in the subsequent pregnancy of small-for-gestational age (<10th percentile), an adverse fetal-infant composite outcome (stillbirth, neonatal death, <3rd birthweight percentile, delivery <28 completed weeks of gestation); and spontaneous and indicated preterm delivery, separately. We used log binomial regression to estimate propensity-score adjusted risk ratios (aRR) comparing interpregnancy intervals 6, 6-11, and 12-17-months with a reference 18-23-month group. Propensity score models included maternal age, smoking, parity, low neighborhood income, and inadequate prenatal care measured, all measured before the index pregnancy. **Results**: Among 148,544 women with ≥2 singleton pregnancies, there were 2,495 eligible index pregnancies, 79.4% following index stillbirth and 21.6% following index neonatal death. Approximately one third of interpregnancy intervals (34.6%) were shorter than 6 months, and short intervals were more common among nulliparous women and those with a pre-interval history of stillbirth or neonatal death. Across the interpregnancy interval continuum, risks of the outcomes we examined were quite high: 5.1% for the adverse fetal-neonatal composite outcome (n=104), 6.1% for small-for-gestational age (n=123), 8.7% for spontaneous preterm delivery (n=177) and 10.2% for indicated preterm delivery (n=208). Risks of most outcomes were not increased for interpregnancy intervals <6 months, as compared to 18-23 months: adverse fetal-neonatal composite outcome, aRR 0.8 [95% CI 0.4-1.6]; small-for-gestational age, aRR 0.4 [0.2-0.7], and indicated preterm delivery, aRR 0.7 [CI 0.4-1.1]. However, spontaneous preterm delivery risks were increased, aRR 2.1 [CI 1.0-4.4]. **Conclusion**: After a perinatal loss, short interpregnancy interval was not associated with risk of the adverse pregnancy outcomes that we examined, with the exception of spontaneous preterm delivery. These findings suggest that avoiding short interpregnancy intervals after a perinatal loss may not lead to reduced risk for several adverse outcomes.

FC-39 • Associations between women's conservatism and contraceptive trends: data from Istanbul

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Objective: Conservative values' effects on everyday life aspects are considerable in Turkey. Accordingly, family planning, contraceptive method preferences and trends are related with women's conservative values. **Design and methods:** We conducted a household survey in Bagcilar, Istanbul between March – June 2018. Our study was nested within a larger impact evaluation of the Willow's International Reproductive Health Program with the purpose of providing quantitative findings about women's reproductive health in Istanbul. In total, 2,112

cases participated in the survey. Using the government address list, we randomly sampled streets in Bagcilar. All married women between the ages of 16-44 were eligible for the study. If more than one eligible woman was living in the household, we randomly selected one to participate. All data collection was performed with a local field company that had experience conducting quantitative studies in the area. Interviews were conducted one-on-one in Turkish, in participants' homes. We used SPSS (IBM-SPSS-Statistics-25) program for data management, coding, and analysis. **Results:** The results indicate that analyzing associations between women's empowerment and their contraceptive trends would be inconsistent, since there are only 20 working women in our sample, out of 2,112 cases. Within this framework, we analyzed women's perceptions about conservative statements, along with their contraceptive preferences. 67% of women are currently using contraception, without distinguishing modern or traditional-methods. In this group, 57.1% are using modern-contraceptive-methods, while 42.6% are using traditional-methods. Within these contraceptive user women, 41.2% are using withdrawal, 23.5% are using IUDs, 16.8% are using condoms, 11.4% are using female sterilization, 4.6% are using pills, 0.8% are using injectables, 0.7% are using lactational-amenorrhea-method, 0.2% are using standard days/calendar method, 0.1% are using female condom and emergency contraception, none of them are using male sterilization (their husbands for this case), implants and diaphragms. Results remarked that the most popular contraceptive method is a traditional-method (withdrawal) and the second popular contraceptive-method is a modern method (IUDs). 38.8% of modern-method users and 37.2% of traditional-method users believe that their husbands' family have right to take decisions on family matters; 76.3% of modern method users and 81.9% of traditional-method users think that women should be virgins when they get married; 49.1% of modern-method users and 54.3% of traditional-method users agree that a woman has to have children in order to be fulfilled; 54.5% of modern-method users and 56% of traditional-method users agree that a woman can have a child as a single parent, when she doesn't want to have a stable relationship with a man; 36.2% of modern-method users and 35.6% of traditional-method users believe that it is a duty towards society to have children; and 33.4% of modern-method users and 32.5% of traditional-method users agree that a woman who has a child should not divorce. **Conclusion:** It appears that conservative norms and values have considerable influence in Turkey on family planning matters. Within this perspective, any study, analysis or social policy recommendation must consider this approach, to fulfill the aim of studies.

E-POSTER PRESENTATIONS

PP-01 • Proposition of a new scale for the harmonization and normalization of the nAPCsr measurement performed in studies assessing the thrombogenicity of contraceptives

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Background: Over the years, the birth control pill has constantly evolved and numerous efforts have been made to reduce thrombotic risk. The evaluation of the activated protein C resistance based on the endogenous thrombin potential (ETP-based APCr assay) is one of the tests recommended by regulatory bodies during the development of steroid contraceptives. The results are usually expressed as "normalized APC sensitivity ratio" (nAPCsr) using a reference plasma that should achieve around 10% residual ETP in the presence of exogenous APC. Because of the inter-assay variability, achieving exactly 10% residual ETP in each run is almost impossible and can significantly affect the theoretical 0 to 10 scale of nAPCsr. In addition, the use of homemade reference plasma makes the nAPCsr difficult to compare between studies. **Aims:** To compare the nAPCsr with $nAPCsr_{10}$, a newly proposed method for calculation of APC resistance. **Method:** Individual plasmas (n=790) were analysed to compare nAPCsr and $nAPCsr_{10}$. These values were measured following our validated protocol of the ETP-based APCr assay. A commercially reference plasma and three levels of quality controls were used to validate each experiment. **Results:** The Spearman correlation between nAPCsr and $nAPCsr_{10}$had a coefficient (rs) of 0.9896 (95% CI 0.9880 to 0.9910; p-value<0.0001) showing that the pairing was significantly effective. Linear regression showed the following equation $y = 0.9334*x + 0.02630$ ($r^2 = 0.97$). When differences ($nAPCsr_{10}$-nAPCsr), either expressed in absolute values or as a percentage of $nAPCsr_{10}$, were plotted against $nAPCsr_{10}$, the mean difference equalled to 0.18 (95% CI -0.43 to 0.79) in absolute values and 5.64% (95% CI -10.10% to 21.39%) when expressed as a percentage of $nAPCsr_{10}$. **Conclusion:** This is the first study presenting a new scale for harmonization and normalization of the nAPCsr. Results show a better reproducibility with the $nAPCsr_{10}$. It avoids the additional variability and the unharmonized scale brought by the use of a reference plasma. This adapted method of the evaluation of APC based on the ETP provides the pharmaceutical industry, the regulatory bodies and the health care professionals with more reproducible and harmonized estimates. This definitively helps in study-to-study comparison. Finally, it could be the basis for the establishment of thresholds to assess patient's thrombotic state according to his resistance to APC and therefore become a prophylaxis tool to prevent thromboembolic event in women taking COC.

PP-02 • Validation and standardization of the ETP-based activated protein C resistance test for the clinical investigation of steroid contraceptives in women: an unmet clinical and regulatory need

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Background: Managing or containing risk has become a hallmark of modern society, in particular in the field of health care. The 2.5 to 6-fold increase risk of venous thromboembolism observed with contraceptive led the regulatory bodies to recommend the use of an assay based on the assessment of the endogenous thrombin potential (ETP) for the investigation of the activated protein C (APC) resistance in the development of steroid contraceptives. Previous studies have shown that the extent of APC resistance determined with this assay increases in parallel with the stepwise increase of the VTE risk in users of COC. However, assays described in the literature are home-made and not standardized regarding the method, the reagents, the reference plasma and the quality controls. **Aims:** To develop a validated ETP-based APC resistance assay according to the regulatory standard. **Method:** The validation was performed according to regulatory standards and CLSI guidelines. The method targets a 90% inhibition of the ETP in healthy donors in the presence of APC compared to the same condition in the absence of APC. Results are usually expressed as normalized APC sensitivity ratio (nAPCsr) on a scale from 0 to 10, 0 being very sensitive to APC while 10 represents the highest resistance. To assess the sensitivity of the test, samples from healthy young women taking different class of oral contraceptives were tested. **Results**: Repeatability (intra- and inter-run) and intermediate precision passed the acceptance criteria (<10% of standard deviation). The assay demonstrated a curvilinear dose-response to protein S and APC concentrations (R^2>0.99). Analysis of plasma samples from 47 healthy individuals (22 women not taking COC and 25 men, no FV Leiden carrier) confirmed the validity of the tests with a mean inhibition percentage of 90% [95% CI: 89%-92%] representing a nAPCsr of 1.04 [95% CI: 0.87-1.21]. Investigations in women taking hormonal oral contraceptive confirmed the good sensitivity of the assay. Second (n=5) and third generation COC users (n=5) showed a mean nAPCsr of 2.72 [95%CI: 1.57-3.87] and 5.40 [95% CI: 4.48-6.32] respectively. Progestin-only contraceptive users (n=5) had a much lower nAPCsr of 1.62 [95% CI: 1.35-1.89]. **Conclusion:** This validation of the ETP-based APC resistance provides the stakeholders, regulatory bodies and physicians with a reproducible, sensitive and validated assay. This assay could provide all prescribers with the possibility to be more confident upon the introduction of a new contraceptive method in young women.

PP-03 • Estetrol/Drospirenone Oral Contraceptive: North American Phase 3 outcomes

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Objective: To assess the contraceptive efficacy, safety, and bleeding/spotting patterns of estetrol (E4) 15 mg/drospirenone (DRSP) 3 mg in a 24/4-day regimen for up to 13 consecutive cycles. **Design & Methods**: This multicentre, open-label phase 3 study conducted in North America enrolled healthy women aged 16-50 years with regular cycles and a BMI up to 35 kg/m^2. Subjects completed a daily diary on pill intake, other contraceptive method use, sexual intercourse, and bleeding/spotting. Follow-up visits occurred during cycles 2, 4, 7, and 10 and

after study treatment completion, and included urine pregnancy testing and assessment of adverse events. Contraceptive efficacy was calculated in the primary efficacy population (16-35 years) and the total population using the Pearl Index (PI) and method failure PI in at-risk cycles (no other contraceptive methods and at least one reported act of sexual intercourse) and 13-cycle life-table pregnancy rate. **Results:** Of 1,864 subjects who began study treatment, 1,016 (54.5%) completed 13 cycles. The primary efficacy population included 1,524 women with 12,763 at risk cycles. The total population included 14,437 at risk cycles. In the primary efficacy population, 26 on-treatment pregnancies occurred of which 14 were method failure. The primary efficacy population PI was 2.65 (95% CI 1.73-3.88) and method failure PI was 1.43 (95% CI 0.78-2.39). Among women aged 36-50 years, 2 on-treatment pregnancies occurred, both due to method failure. The total population PI was 2.52 (95% CI 1.68-3.64) and method failure PI was 1.44 (95% CI 0.82-2.34). The 13-cycle life-table pregnancy rates were 2.06% (95% CI 1.40-3.04) and 2.00% (95% CI 1.38-2.91) for the primary efficacy and total populations, respectively. Treatment with E4/DRSP was generally well tolerated with 539 (28.9%) subjects reporting product-related adverse events; the most common adverse events were metrorrhagia (82 subjects, 4.4%) and headache (65 subjects, 3.5%). Only 132 (7.1%) subjects discontinued for treatment-related adverse events. Withdrawal bleeding lasted a median of five or less days per cycle and less than 20% of women had unscheduled bleeding from Cycle 5 onwards with a median duration of 3 days from Cycle 8 onward. Absence of withdrawal bleeding ranged from 13-18% in cycles 2 through 12. **Conclusion:** E4/DRSP oral contraceptive provided approximately 98% contraceptive protection during 1 year of use and demonstrated a good safety profile and a favorable bleeding pattern.

PP-04 • Estetrol, a promising oestrogen which provides combined oral contraceptives a safer haemostasis profile than ethinylestradiol – Results from a phase 2 study

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Objectives: The 2.5 to 6-fold increase of the relative risk of venous thromboembolism (VTE) observed with combined oral contraceptives (COC) compared with non-use is an important public health issue, particularly considering the large number of young and healthy women using COC. The global clotting capacity of plasma can be assessed by the endogenous thrombin potential-based activated protein C resistance assay (ETP-based APC resistance assay). Previous studies have shown that the extent of APC resistance determined with this assay increases in parallel with the stepwise increase of the VTE risk in users of second, third and fourth generation COC. In this phase-2 study, the thrombogenicity of estetrol (E4), a promising oestrogen with reduced hepatic effects, used in combination with drospirenone (DRSP), has been assessed using the ETP-based APC resistance assay. **Methods:** In this randomized, single centre, open-label, three-arm study, women received E4 15mg/DRSP 3mg (n=38), ethinylestradiol (EE) 30mcg/levonorgestrel (LNG) 150mcg (n=29) or EE 20mcg/DRSP 3mg (n=31) for 6 consecutive cycles of 28 days. Results of the ETP-based APC resistance assay were expressed as normalized APC sensitivity ratio (nAPCsr) and obtained using a method meeting all regulatory

requirements. An exploratory analysis was performed on the change of the nAPCsr from baseline to cycle 6 within and between treatment groups. **Results:** With the E4/DRSP COC, the median change in the nAPCsr from baseline to cycle 6 was only 0.46 (30%), compared to 1.91 (165%) for EE/LNG (p-value >.0001 *vs* E4/DRSP) and 3.06 (219%) for EE/DRSP (p-value >.0001 vs E4/DRSP). The median (inter quartile range; IQR) nAPCsr value of the E4/DRSP combination after 6 cycles of use was 2.09 (IQR: 1.14), showing the weak impact of this COC compared to EE/LNG and EE/DRSP for which the median nAPCsr at cycle 6 were 3.35 (IQR: 1.86) and 4.50 (IQR: 1.59), respectively. **Conclusion:** This study supports previous reports which show that the combination of E4/DRSP has less impact than the combination of EE/LNG or EE/DRSP on (free)-protein S, tissue plasminogen activator and prothrombin fragment 1+2. This accumulating evidence on relevant coagulation biomarkers indicates that the haemostatic profile of the E4/DRSP combination may even be safer than that of the second-generation EE/LNG combination. The comparison with EE/DRSP, that contains the same source and amount of progestogen, confirms that the hypercoagulable effect of COC is mainly mediated by the oestrogenic component and that E4 might be considered as a breakthrough molecule for the next generation of COC.

PP-05 • Could early medical abortion at home have added value in reducing the pressure on sexual health services?

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Objectives: The aim of this study was to assess the utility of early medical abortion at home (EMAH) in reducing the pressure on sexual health services. The objectives were to assess the use of EMAH as a single appointment service and analyse contraceptive uptake among EMAH service users. **Methods**: Data was collected from the National Sexual Health System (NaSH) on all EMAH service users at a single sexual health clinic between January and March 2019. Additional waiting time data was collected on all patients who received an EMAH in April 2018. Data collected included; age, parity, gestation, first appointment waiting time, number of appointments, reason for a second appointment (if required) and post-termination contraceptive method. Statistical analysis was performed using IBM SPSS V26.0. **Results**: Over the 3-month period, 339 women completed an EMAH, of which 63% used a single appointment. Of those requiring a second appointment; 15% required a rescan and 14% could not meet the adult at home requirements. The adjusted odds of using a single appointment were significantly higher for women who had a previous birth [Exp(B)=1.90, p=0.02] and gestation over 6-weeks [Exp(B)=1.99, p=0.01] and significantly lower for women with a previous termination of pregnancy [Exp(B)=0.52, p=0.01]. Long-acting reversible contraception (LARC) was opted for by 47% of women. The adjusted odds of using LARC were significantly higher for women with a previous birth [Exp(B)=2.02, P=0.01]. There was a significantly shorter first appointment waiting time for women in April 2018 compared to March 2019 [p=0.01]. **Conclusions**: EMAH has been available in Scotland and Wales since 2018 and is soon to be implemented in England. This study provides some of the first analysis of EMAH data following one year of implementation. A large proportion of EMAH service users required only one appointment, which may in turn reduce waiting times. Almost one-third of those requiring a second

appointment were due to rescan or adult at home requirements; therefore, review of these policies may be useful. LARC uptake was high in this study, although we cannot confirm that patients went ahead with the chosen method. Promoting LARC is important to prevent multiple terminations and is a useful area for services to audit. EMAH improves patient care in several ways, and this study found that it is likely to have added value by reducing the pressure on sexual health services.

PP-06 • „How can you tell someone else what you like if you don‘t know yourself”: An integrative review of women masturbation

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Objectives: Many studies have been conducted about female masturbation but they have to a great extent been focused on frequency of masturbation. There is a need to look more closely at other issues which provide more in-depth information about the perspectives of women. The purpose of this study was to explore the meaning of masturbation for women. **Methods**: An integrative review was conducted by searching the databases of PubMed and Scopus. The search terms were „women masturbation“. The included studies focused on female attitudes, emotions, knowledge and experiences of masturbation, were written in english and published during the period 2008–2018. Two reviewers independently selected and evaluated the selected studies. **Results:** Data analysis is based on nine studies, both quantitative and qualitative. The studies are from seven countries. The results were classified into four groups. They were a) limited information, b) gender inequality, c) mixed feelings towards masturbaton and d) positive feelings towards masturbation. Limited information ususally reflected negative attitudes to masturbation. Regarding gender inequality it was demonstrated that male masturbation was generally more accepted and female masturbation was either not discussed or presented in a negative manner such as something dirty. Many women experienced mixed feelings towards masturbation, positive and negative. They needed to bridge the gap between the double standards and often negative messages of the society, lack of information and their own sexual desire. The negative feelings that women described were mostly shame, guilt and concerns of being self centered and they were often connected to limited information. The positve descriptions of women about masturbation were characterized by learning about their own bodies, contributed to their sexual pleasure and empowerment. Some described their best sexual satisfaction after masturbation. Also, masturbation oftentimes contributed to healthier sexual relationships with the partner. **Conclusions:** The results show that there is a need to provide informaton about masturbation as an important part of healthy sexuality of women. Knowledge about own body, sexual pleasure and empowerment of women needs to be emphasized. Such information may diminish the influence of the deeply rooted negative messages of the society regarding gender inequality. It may also contribute to knowledge improvement.

PP-07 • Contraceptive utilisation in women attending general practice with a history of unintended pregnancies and abortion: Insights from the Australian Contraceptive ChOice pRoject (ACCORd)

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Objectives: Unintended pregnancies are a significant public health problem in Australia and globally. There is widespread evidence that the increased use of long-acting reversible contraceptives (LARCs), such as intrauterine devices (IUDs) and hormonal implants, has the potential to reduce unintended pregnancy and abortion. Clinical practice guidelines published internationally advocate the increased use of LARCs. However, despite these guidelines, the use of LARCS in Australia is low compared with other less effective contraceptives. The aim of this study was to investigate the contraception used by women with a history of unintended pregnancies and abortions, who attended general practice (GP) clinics in the Australian Contraceptive ChOice pRoject (ACCORd) study. **Method:** Participants were sexually active women aged between 16 and 45, not planning a pregnancy within 12 months, requiring contraception and anticipating sexual activity within 6 months. These women attended 57 general practices in Melbourne, Australia. Sexual and reproductive health data were collected via telephone interview at baseline. Descriptive statistics were used to describe contraception use, and a history of unintended pregnancies and abortions. **Results:** From 740 women recruited into the study (mean age: 28.9, standard deviation: 7.3), 37% (n=275) reported ever been pregnant. Approximately 46% (127/275) of pregnancies were unintended and 30% of all pregnancies had ended in abortion (83/275). In women who had previously experienced an unintended pregnancy, current contraception use was as follows: oral contraceptive pill (OCP) only (28% n=21/76), condoms only (24%, n=18), contraceptive implant only (9%, n=7), IUD only (9%, n=7), withdrawal only (7%, n=5), and a combination of condoms and withdrawal (8%, n=6). In women who had reported >3 unintended pregnancies, dual use of OCP and condoms was as frequently reported as using the implant (33%; n= 2/6). OCP and condoms were also the most commonly reported contraceptives used by women who had experienced at least one abortion. **Conclusions:** Women attending GP clinics in Australia have a similar prevalence of unintended pregnancy and abortion, when compared to population-level data, and are more likely to use OCP and condoms rather than LARCs. This is despite their intention of not planning on becoming pregnant, and having a history of unintended pregnancy and abortion. These findings are similar to discordant contraceptive and reproductive planning behaviours in other countries. Further research is required to determine how primary care health providers can ensure women have the option of choosing LARCs to prevent future unplanned and unwanted pregnancies.

PP-08 • Immediate postpartum contraception - London: A tale of two cities

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Objectives: Postpartum women are at risk of rapid repeat, unplanned pregnancy with associated adverse outcomes for mother and child. FSRH guidance states that maternity services should ensure women can be provided with their chosen method of contraception before discharge but this is not standard practice in NHS hospitals. In order to understand the contraceptive needs of

postpartum women, to improve service delivery and prevent unplanned pregnancies, this study aims to determine their knowledge of and intentions regarding postnatal contraception and their views as to when, where and by whom it should be provided. **Method:** A cross-sectional survey of women on the postnatal ward at a central London hospital was conducted. The anonymous, confidential and voluntary survey was self-administered on iPads over six weekdays 7-14/02/19 using Qualtrix software for data collection and analysis. All women admitted to the postnatal ward were eligible with exclusion criteria preidentified as (i) women unable to read written English, (ii)women subject to infection control restrictions (iii) antenatal women. The results were compared with a larger cross-sectional survey previously administered in another London hospital serving a contrasting younger population with high deprivation, conception and abortion rates. **Results:** 99 women were surveyed (81% uptake). 8% had never used any method of contraception and 27% had used a long-acting reversible contraception (LARC) method. 13% recalled a health professional discussing contraception in their pregnancy with 49% saying that they had not decided or needed more information to decide on their postnatal method. 35% overestimated the time it is possible to conceive post-delivery and 52% underestimated or did not know the recommended interpregnancy interval. 45% thought there were no safe hormonal options immediately postnatally rising to 55% if breastfeeding. 74% thought that no LARC is safe immediately postnatally or if breastfeeding. However, 46% said they would prefer to get their contraception from the postnatal ward and 25% said they were likely to accept LARC in this setting. Despite marked differences in population demographics, poor levels of knowledge and good acceptability of immediate postnatal contraception and LARC were seen across both studies. **Conclusions:** Women would welcome provision of postnatal contraception, including LARC, on the postnatal ward but currently lack key knowledge to make informed choices in this setting. This has been evidenced across two diverse London populations and suggests a global, pressing need for effective, tailored contraceptive choices discussions antenatally and integrated planning for postnatal provision of her chosen method.

PP-09 • From Local to Global: Using Innovative and Active Knowledge Exchange to Highlight Local Voices in Global Agendas

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Objectives: To use interactive knowledge management techniques to highlight local experiences and evidence to inform global SRHR priorities. **Methods:** In April 2019, IBP hosted a regional workshop on sexual reproductive health and rights (SRHR) across the humanitarian development nexus in the Middle East and European region. The IBP Workshop used a variety of innovative knowledge management techniques to share and facilitate use of SRHR guidelines and evidence-based resources. First, the meeting prioritized speakers from country level and meeting content was focused on field-based examples from local organizations. Second, an interactive 'Share Fair' enabled participants to actively learn about various tools and resources used by both global and local partners. Tools ranged from global guidance like WHOs Medical Eligibility Criteria for Contraceptive Use to locally developed technologies like an Arabic language mobile phone application that provides SRHR information to users. Facilitated group work also provided field-based input into global activities. A session on WHO Implementation Research allowed participants to share real-life implementation challenges around which research agendas could be

designed. Finally, a participatory process to develop a summary document to inform future programming across the humanitarian-development nexus was developed. A mobile based application allowed participants to anonymously identify priorities and key considerations and the document was jointly developed and published. **Results:** The IBP format enabled participants to actively share resources and learn from each other's experiences. Local evidence and experience was given a global platform and used to inform global activities. In the research session for example, local participants shared that in many settings pregnancy is perceived as "protective" against rape so research efforts and counseling on the expanded use of contraceptives requires addressing underlying issues around gender-based violence. This perspective was new for global researchers and was subsequently considered during the prioritization exercises. Another outcome was the inclusion of local partners for global consultations. For example, through the IBP workshop, WHO connected with several local experts who were subsequently included as part of WHO consultation meetings on SRHR guidelines. Several local partners have since joined the IBP Network where they continue to engage directly with global partners on various SRHR topics. The Interactive Share Fair enabled partners to exchange resources and foster collaboration and partnership. One tool developed by a small partner organization is now being explore by larger International NGOs in larger scale up programming. Finally, the participatory online exercise allowed the outcome document to highlight the true consensus of the group on key considerations rather than the reflections of a select few. **Conclusions:** The IBP workshop demonstrated the value of interactive, locally focused sessions to support the dissemination and use of evidence-based practices. By engaging local partners, the meeting provided a space for local experience to inform global agendas. Future conference and meeting opportunities should consider adoption of more interactive knowledge management strategies to better foster learning and collaboration among partners. In addition, prioritizing local participation and perspectives can provide rich and valuable information to broader guideline and research development processes.

PP-10 • Understanding cycle dynamics of women who are trying to conceive: a real-world data approach

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Objectives: Women have long sought to understand their own menstrual cycle dynamics and the variables influencing fertility, often relying on advice from doctors, published literature, and the Internet when trying to conceive (TTC). Recent advances in technology and artificial intelligence have rendered it possible to reexamine what we know about menstrual cycle dynamics, considering for the first time intracycle and population-level differences. Through a retrospective study, we aim to further define the cycle characteristics of women TTC using real-world data collected nightly via a wearable sensor device. **Methods:** We conducted a retrospective longitudinal study of women who relied on the "Ava fertility tracker" and the complementary smartphone application when TTC between December 2016 and September 2019. Worn on the wrist while asleep, the wearable device measures physiological parameters including pulse rate, respiratory rate, skin perfusion, heart rate variability and skin temperature. An algorithm then predicts the user's fertile window based on these physiological inputs. A descriptive analysis of user and cycle characteristics was performed, with results presented as mean (SD) unless

otherwise stated. **Results:** Data from 483,881 menstrual cycles across 74,671 European and American women, median age 33.54 years old (SD=4.29); of relatively normal weight (BMI=25.96 kg/m^2; SD=6.57) and were typically TTC for their first child (median number of children=0, range 0-6). Women stopped hormonal contraception more than one year (median 397.57, range=-1095 days to 399 days) prior to TTC. On average, users tracked 11.77 cycles (SD=5.47) using the wearable device; their cycles lasted 28.98 days (SD=3.19) and menses typically lasted 4.91 days (SD=1.19). Cycles varied by 9.08 days per user (SD=6.46), luteal lengths were 13.94 days (SD=15.52) and peak fertility occurred on day 16.45 (SD=7.90). **Conclusions:** This descriptive analysis is the first real-world dataset evaluating cycle characteristics of women who are TTC. Despite the typical cycle (28.98 days) and luteal lengths (13.94 days), an atypical variation in cycle length per user (9 days) was observed. The long period between stopping hormonal contraception and starting using the fertility tracker, along with a high number of cycles tracked (11.77) suggests that many women may already be dealing with fertility issues prior to using the tracker. Further analysis of the physiological parameters collected with the fertility tracker may provide insights into the cycle characteristics associated with age, BMI and fertility of women who are TTC.

PP-11 • Men's experiences with and outlook on male hormonal contraception: a qualitative analysis of interviews with former clinical trial participants

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Objectives: Men report high willingness to use novel male hormonal contraceptives (MHCs) in population surveys. However, until MHCs are approved for use, men will lack the lived, hormonal contraceptive experience needed to more accurately estimate the potential users and the market for MHCs. We conducted interviews with former MHC clinical trial participants whose experiences will inform development efforts. **Methods:** We asked healthy, reproductive-age prior participants from MHC active or placebo oral pill, topical gel, and injectable trials about their willingness to use MHCs and to participate in hour-long, compensated and structured interviews examining their trial experiences and experiences with the study drug(s), as well as their outlook on MHCs. Interviews were conducted in Los Angeles, California (October 2017-May 2018); transcripts were analyzed using coding based on field guides and emergent *en vivo* codes. **Results:** Participants (n=30) were primarily White (35%), Christian/Catholic (43%), had not completed college (51%), were single/dating (54%), and had no children (72%); average age was 35 years. Nearly a quarter (24%) identified as Latino. Participants described the trials as a new experience with discomforts (e.g., semen analysis, prostate exams, scheduled abstinence, dietary restrictions) that were mitigated by the professionalism and transparency of research staff. Reported, salient side effects included irritability, decreased libido, and weight gain. None of the reported side effects led to early discontinuation from the trial among the men who were interviewed. Several participants admitted uncertainty about the relationship of the drug to symptoms, acknowledging possible observer bias. Advantages and disadvantages of assorted formulations were described, emphasizing the need for convenient, painless, long-acting

methods. Men's concerns about side effects were outweighed by their perceptions of benefit from using MHCs, a perspective noted in particular among men who compared their experience against those of women's negative experiences using or obtaining contraception. Approximately 75% would use MHCs if available, endorsing additional benefits for men, women, and society. **Conclusions:** Uncertainties posed by clinical trials of novel MHCs did not seem to influence trial participants' generally positive outlook on MHC development. In-depth interviews should be conducted with men who are actively enrolled in trials and/or immediately following trial participation to decrease the risk of recall bias.

PP-12 • Investigating the Relationship of Family-related Factors and Anxiety Among Singaporean Working Fathers and Mothers during Pregnancy

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Objectives: This study aims to examine the relationships between family-related factors and anxiety among Singaporean full-time working fathers and mother during the pregnancy period. **Method:** Full-time working fathers (N=902) and mothers (N=829) were invited to complete a survey in the maternity clinic in Singapore during the pregnancy period (Mean gestational week = 25.36 (fathers) and 25.01 (mothers)). Validated psychological instruments were used to assess anxiety, family cohesion, family communication and work-family conflict among the participants. Demographic factors such as age, gestational week, family income and educational level were also measured. **Results:** 11.1% (N=98) and 10.1% (N=82) of fathers and mothers scored above anxiety cut-off during the pregnancy respectively. The average age for fathers was 32.96 (4.56) and mothers' mean age was 31.12(3.77). Univariate analyses showed that higher family communication and family cohesion were protective factors against anxiety however, higher work-family conflict was correlated with higher anxiety for both fathers and mothers. Younger working mothers also reported with higher anxiety level. Family income, educational level and gestational week were not significant predictors for paternal or maternal anxiety. In the multivariate analyses, the family factors remained strong predictors for anxiety for both fathers and mothers but not the demographic factors. **Conclusions:** Good family communication and family cohesion were found to be protective against paternal and maternal anxiety during the pregnancy. Psychosocial prevention and intervention should target to enhance family well-being as a whole during the pregnancy in order to protect couples against anxiety. Work-family conflict was found to predict higher anxiety level in both working fathers and mothers. Workplace support regarding pregnancy and childcare should be encouraged. Family-friendly workplace practices could be beneficial to reduce work-family conflict hence reduce the risk of anxiety among Singaporean expectant couples.

PP-13 • Does experience of violence have an impact on Polish adolescent girls? - analysis from POLKA 18 pilot study

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Objectives: To evaluate experience of intimate partner violence (IPV) and/or sexual violence among Polish adolescents and its potential influence on negative reproductive health outcomes and level of gynecological care. **Method:** The data on the level of violence and the gynecological consultations were retrieved from POLKA18 study, funded by ESC, which is a youth-led cross-sectional study of Polish adolescents. A paper-based self-reported questionnaire, building up on the interdisciplinary model of holistic approaches in adolescent gynaecology, has been used to collect data from schools in five Polish regions. The questionnaires were distributed in the schools during the time of April-June 2019 by local research associates, who are medical students. The obtained data has been analysed using STATA 16. **Results:** We received 650 results and included 632 in final analysis. 13.4% (n=49) girls and 7.8% (n=20) boys have experienced domestic violence (p=0.014) at some point of their lives. 12% (n=44) girls reported being forced to unwanted behaviour such as kissing, petting and/or sexual intercourse (p<0.001) 10.7% (n=39) of all the respondents reported intimate partner violence (IPV). Young women who reported experiencing intimate partner violence have been significantly less likely to attend gynecologist (38.4% vs 25%, p=0.002). **Conclusions:** WHO reports that 1 in 3 women worldwide have experienced physical and/or sexual violence, mostly by an intimate partner and that by the reducing IPV can significantly reduce risks to maternal and reproductive health. The Polish NGO ("Blue line") reported that 61,9% of of violence is caused by a victim's partner, usually a man, however any kind of monitoring the problem is not operated now in Poland. Moreover, there is lack of nationwide educational program on violence prevention, including sexual and physical violence in schools. Nationwide data on the level of intimate partner violence are incomplete and the limited data might underestimate the negative impact on health and well-being, especially among adolescents. Our study brings to light the lack of up-to-date information on this problem and highlight the need for further research to identify other possible issues connected with the problem.

PP-14 • Risk of transmission of sexually transmitted infections associated with use of long-acting reversible contraceptives among adolescents: systematic review

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Objective: To analyze the risk of transmission of sexually transmitted infections (STI) associated with the use of long-acting reversible contraception (LARC) among adolescents

through a systematic review. **Methods:** Systematic review of articles was performed according to the criteria of PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) and registered in PROSPERO (identification number: 142969). We included the following databases: PubMed/Medline, Web of Science and Embase. Articles published up to July 2019 in journals indexed in the databases for the last 20 years were included; the search was not limited by language. To broaden the scope of our search strategy, we have sought to include gray literature, full thesis documents, and reference lists of other research papers and related reviews by their synonyms (DART-E). The strategy of the descriptors for the search followed the PICO model: (P) adolescents, (I) use of LARC and (O) sexually transmitted infections. In this case a control group for comparison (C) was not applicable. Data synthesis was established from the odds ratio of adolescents reporting contraceptive use after introduction of the contraceptive method, comparing LARC with short-acting reversible contraception (SARC), was synthesized using the Review-Manager platform model 5.3 provided by COCHRANE (https://community.cochrane.org/help/tools-and-software/revman-5). Heterogeneity between study results was assessed using the I^2 test and biases were compared individually. We reported forest plot for the main exposure and for the combined subgroup analysis. The risk of publication bias between studies was assessed by the funnel plot. For the outcome incidence of sexually transmitted infections it was not possible to combine the data due to lack of data in the publications, so we compared the outcomes in the qualitative analysis. **Results:** 1003 papers were identified; after removal of duplicates, 943 articles were filtered by reading titles and abstracts, resulting in the selection of 62 articles for further reading and careful selection based on the inclusion and exclusion criteria. Through careful reading, we found 9 articles published between the years 2009 and 2019. No additional articles or theses were found covering the researched theme. **Conclusion:** In our review, no prospective studies evaluating the outcome (STI incidence) associated with choice of LARC were found and the rate of condom use was low in both groups (LARC and SARC).

PP-15 • Communication Barriers in Person-Centered Contraceptive Counseling: A Qualitative Study of Resettled Syrian Refugees' Experiences of Sexual and Reproductive Healthcare in San Diego, California

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Recent studies have illustrated the beneficial effects of person-centered contraceptive counseling on patient satisfaction and health outcomes. However, communication barriers can limit providers' ability to provide high-quality, person-centered care to immigrant, refugee, and limited-English proficiency populations. **Objectives:** This qualitative study among Syrian refugee women resettled in San Diego, California sought to identify factors that negatively impact patient-provider communication and, consequently, rapport in the sexual and reproductive healthcare (SRH) setting. **Method:** Sixty qualitative, person-centered interviews were conducted with 20 Syrian refugee women (3 interviews with each individual) over a 12-month period of ethnographic research in San Diego, California. **Results:** Results demonstrated that many women felt uncomfortable discussing contraception with providers through male phone interpreters. In addition, interpreters were often unfamiliar with the nuances of medical

terminology related to SRH and subtle errors in translation impacted quality of care (e.g. "unintended pregnancy" mistranslated as "unwanted pregnancy"). **Conclusions:** Resettled refugee women—already at high risk of unintended pregnancy—experience communication barriers within the patient-provider relationship that negatively impact satisfaction with and utilization of SRH services. Although technological advances have increased patients' access to interpretation services over the last decade, further research is urgently needed to understand how the person-centered model of contraceptive counseling can best be adapted to the context of interpreter-facilitated clinical encounters.

PP-16 • Methotrexate and ectopic pregnancy

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Objective: Pharmacological therapy of ectopic or persistent pregnancy of unknown location is infrequently used method in the Czech Republic. The aim of the retrospective analysis is to evaluate the effectiveness, clinical outcomes and side-effects in patients treated with methotrexate injections. **Design & Methods:** Totally 211 patients were diagnosed with ectopic pregnany or persistent pregnancy of unknown location since January 2008 to August 2014 and, with respect to contraindications, 63 of them were indicated for conservative treatment with methotrexate at dose of 1 mg/kg intramuscularly. Then, the treated patients were observed, checked with ultrasound and β-subunit hCG tested. Decrease β-hCG to less than 5 IU/L was considered to be successful and sufficiently effective. **Results:** From 63 patients treated with methotrexate, 7 were excluded and 56 analyzed. In 48 (86 %) ectopic pregnancy and in 8 (14 %) pregnancy of unknown location was diagnosed. In 41 (73 %) patients the therapy with methotrexate was successful, β-hCG values less than 5 IU/L were reached in a mean time of 27 days. The second group of 15 patients was operated laparoscopically, no rupture of tube with haemoperitoneum was observed and no urgency of blood transfusion was necessitated. Only mild side-effects like nauzea, conjunctivitis and gingivostomatitis in 7 (22 %) patients were registered. **Conclusions:** This paper shows that, with respect to generally accepted conditions, usage of methotrexate intramuscular injections in conservative treatment of ectopic pregnancy is effective and relatively safe for patients.

PP-17 • The Key to Success – Women's Expectations, Experiences, and Desideratum on Contraceptive Counselling

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Objective: The Swedish guidelines for contraceptive counselling states that the aim of the counselling is to prevent unplanned pregnancies, preserve fertility and promote sexual and reproductive health. How this should be done is however not described, and health care providers

therefore develop their own strategies. The health care receivers' expectations and desideratum on a health care visit is a known important factor to explain satisfaction of care. Contraceptive counselling differs from many other health care visits as the health care receiver is not ill, and there are many possible "treatments" to choose between, but little is known about what health care receivers expect from these visits. The aim of this study was therefore to explore women's expectations, experiences, and desideratum of contraceptive counselling. **Method:** Qualitative design. Interviews were carried out with twenty-four Swedish-speaking women between 15 and 45 years of age and lasted in mean one hour (range 24-117 minutes). Data were analysed with latent content analysis. ***Preliminary*** **Results:** *(analysis is ongoing)* The women described wanting protection against pregnancy, but not at any cost, and experienced that their view on a good method differed from the health care providers view. Some women were frustrated on not receiving enough information, or information early enough. The women emphasised that the counselling was about their body and their choice and wished that the health care provider took the whole picture into account. **Conclusions:** Contraceptive counselling is a golden opportunity for sexual and reproductive health promotion but need to be individually tailored with a holistic approach to reach its potential impact.

PP-18 • Unintended pregnancies and postpartum contraceptive use among South African women living with HIV

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Objectives: To describe unintended pregnancy rates and postpartum contraceptive use among South African women living with HIV and participating in Project INSPireD, a pilot intervention to treat depression and improve adherence to HIV treatment in the perinatal period. **Methods**: Twenty-three pregnant women aged 18-45, diagnosed with HIV during the current pregnancy and receiving HAART, were recruited from a district antenatal clinic in KwaZulu-Natal, South Africa and randomized to active intervention (n=14) or control (n=9). The intervention was based on problem-solving therapy and included postpartum barriers to contraceptive use. Assessments were conducted pre and post intervention. Descriptive analyses were conducted in SPSS. **Results:** Participants' median age was 24; most were unemployed (70%). Only 13% (n=3) of pregnancies were planned and half of the women (n=12) indicated that they were 'very unhappy'/'unhappy' to be pregnant; 7 (30%) were 'very happy'/'happy' to be pregnant. Ten women completed 3-month postpartum assessments and all reported use of injectable hormonal contraceptives. **Conclusion**: High rates of unintended pregnancies were evident among these pregnant women living with HIV. While all women completing postpartum assessment were using injectable hormonal contraceptives, injectable methods have high discontinuation rates. Interventions should address the contraceptive method mix and broaden the contraceptive choices available, including long acting reversible contraceptives (LARCS), with lower discontinuation rates, in the mix.

PP-19 • Characterization of women from an intrauterine device (IUD) placement outpatient clinic in the public health system of the state of São Paulo, Brazil

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Introduction Unplanned pregnancy reaches 55.4% of parturients in Brazil, representing an important public health problem. In this context, the importance of several methods of contraception becomes evident, especially the so-called LARCS (Long Acting Reversible Contraceptive). Given their proven efficacy and independence for users, LARCS are considered the best option for contraception in low-adherence populations, especially adolescents and alcohol/drug users. Therefore, it is believed that by broadening access to these contraceptive methods lower rates of unplanned pregnancies would be achieved, reducing most cases of clandestine abortions, maternal and fetal mortality, and also reducing social damages, such as low education, unemployment and disability. In this context, an outpatient service was created to offer intrauterine device (IUD) placement by the public health system at the Carapicuiba General Hospital, one of the many poor counties in the state of São Paulo. **Objective** To characterize the epidemiological profile of women attending the IUD placement outpatient clinic of the Carapicuíba General Hospital, São Paulo, Brazil. **Method** Retrospective review of records from patients attended at the IUD placement outpatient clinic of Carapicuiba General Hospital between January 2018 and September 2019. Data were retrived by reviewing the weekly consultations' manual records. **Results** Between January 2018 and September 2019, 299 women were attended at the IUD outpatient clinic. 295 had retrievable data records. Regarding age, 21 women were under 18 years old (7.1%), 220 (74.6%) were between 18 and 35 years old and 54 (18.3%) were over 35 years old. Most women had at least two previous pregnancies (70.5%), 78 (24.4%) were primiparous and 3% nulliparous. 29.5% reported using other contraceptive methods prior to the last pregnancy and only 2 women reported that was a planned pregnancy. 227 (76.9%) denied comorbidities and 47.2% reported previous prenatal care. 54.2% of women had a normal birth. Because data were obtained from manual medical records, many patients did not have complete registration of all characteristics. **Conclusions** Considering their proven effectiveness, LARCS are considered one of the best options for contraception. In this context, considering the high rates of unplanned pregnancies and women lacking basic resources in Carapicuiba, the creation of an outpatient clinic for IUD insertion is essential. By widening access to these contraceptive methods, it is hoped not only to reduce the risks and impact of these unplanned pregnancies, but also to make these women aware of their reproductive rights.

PP-20 • Is there a difference in satisfaction and continuation with the levonorgestrel intrauterine device in comparison with the copper intrauterine device? A systematic literature review.

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Objective: We aimed to compare satisfaction and continuation rates of levonorgestrel intrauterine device (LNG-IUD) and copper intrauterine device (Cu-IUD) users, identifying potential contributing factors to these outcomes. **Methods:** A systematic review was performed, following the recommendations of PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses), with the keywords "Intrauterine Contraceptive Device", "Adverse outcomes", "Bleeding pattern", "Adherence", "Satisfaction", "Continuation" and synonyms in the PubMed / MEDLINE, Embase and LILACS databases, until August 6th, 2019. Inclusion criteria were: (1) publications in English, Portuguese or Spanish; (2) approach of factors influencing satisfaction and continuation of the use of each type of IUD; and exclusion criteria were: (1) papers out of the theme; (2) studies limited to populations with specific comorbidities; (3) postpartum or post abortion use; (4) articles that did not compare the use of LNG-IUD (52mg levonorgestrel) and Cu-IUD (TCu380A); (5) guidelines, books, chapters, editorials, case reports, literature reviews, or qualitative studies; (6) full text unavailable despite institutional access and direct contact to authors. There was no limitation regarding sample size and publication date. **Results:** Although 5683 articles were identified in the first research, only 13 were included. The researches took place in about 15 countries between 1981 and 2015, with samples ranging from 23 to 90,489 participants. Most factors influencing continued IUD use involved adverse effects. Overall satisfaction was high, reaching 91.0% for LNG-IUD and 85.7% for Cu-IUD. Most studies did not identify a statistically significant difference between the methods' discontinuation, with a cumulative 3-year discontinuation rate of 27.7% for LNG-IUD and 33.1% for Cu-IUD. Two studies identified differences between the methods: there were higher removal rates with the use of Cu-IUD, with a 12-month discontinuation rate of 23% *versus* 18% for LNG-IUD. Only one Chinese study showed a higher discontinuation rate among LNG-IUD users, due to amenorrhea. **Conclusion:** Adverse events are the most common cause of discontinuity of both types of IUDs. Most studies identified higher removal rates with Cu-IUD. However, satisfaction and continuity with both types of IUDs are high. The anticipation of possible adverse events may increase satisfaction and continuity rates.

PP-21 • Gendered power and young women's use of Plan B in sexual encounters

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Objective: Plan B or the morning-after-pill is commonly used by young women today and controversy has arisen regarding weather Plan B is used as a replacement for regular use of long-term methods of pregnancy prevention. **Methods:** Fifty-seven heterosexual women age 18 to 24 attending a public university in the midwestern United States were interviewed regarding their use of Plan B and other methods of pregnancy prevention in a wide variety of types of sexual encounters. **Results:** Young women said they used Plan B for two primary reasons. First, women reporting not taking their birth control pill consistently and then feeling embarrassed or foolish because they felt strongly that pregnancy prevention was their responsibility. Use of Plan B allowed them to resolve the tension between inconsistent use and their perceived responsibility without having to acknowledge to their sexual partner that their on-going use of contraceptives was less than perfect. Women in romantic relationships reported that their partner would be upset with them should they admit inconsistency in taking their pill, and rather than deny their partner

sex or request use of a condom they decided to use Plan B. These women also were afraid their romantic partners would interpret denial of sex or the request for condom use as evidence of infidelity. Second, some women reported using withdrawal as their only method of contraception during at least some of their sexual encounters. While most women interviewed were inherently uncomfortable with withdrawal as a primary method, they reported feeling pressured by their partners who assured them that they would be able to effectively withdraw. This concern was particularly pronounced among women who reported using withdrawal when they, or both they and their partners were under the influence of alcohol. Women were uncomfortable in asking their partners if they had successfully withdrawn in these circumstances and used Plan as a solution to this dilemma. **Conclusions:** Young women use Plan B to avoid admitting to their partners that they are not living up to their ascribed responsibility for preventing pregnancy and to resolve tension between men's insistence on use of withdrawal and women's inherent worry about the effectiveness of withdrawal in preventing pregnancy. We conclude young women's use of Plan B is inherently tied to gendered power dynamics within heterosexual relationships which may increase their vulnerability to sexually transmitted infections and unplanned pregnancy.

PP-22 • Can algae-based hydrogels become a male contraceptive?

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Objectives: Nowadays the gold standard considered for non-reversible contraception is vasectomy. This procedure is a definitive and effective method. However, there is a substantial unsatisfied need for temporary and reversible male contraception. Numerous vas deferens occlusion-based methods for male contraception have been investigated, though several disadvantages limit the application of these methods. Either they do not show sufficient efficacy or they are non-reversible. The aim of the present study was to assess the utility of biopolymer-based hydrogels in male contraception. These also show degradability options by external stimulus. **Method:** Kappa carrageenan and alginate were used to produce physically cross-linked hydrogels. The swelling ability of the kappa carrageenan hydrogels, with and without pre-drying treatment, was investigated in a simulated body fluid (SBF), a simplified vas deferens fluid. This fluid has a 1.5 mM calcium, 100 mM potassium and 30 mM sodium concentration. Carrageenan gels of 50 – 300 mM primary potassium concentration and 1-3% by mass biopolymer concentration were immersed in the SBF. Primary calcium and sodium concentrations of the gels were 1.5 mM calcium and 30 mM sodium respectively. Gels were swollen until equilibrium swelling was observed. No interactions of the hydrogels with proteins or cells was investigated on. **Results:** Hydrogels showed viscoelastic behaviour dependent on the ionic concentration present. For 1% by mass hydrogels the storage modulus was found to be between 6-11 kPa. Alginate hydrogels are insufficiently cross-linked in vas deferens mimicking fluid and eventually dissolve. Kappa Carrageenan gels are stable in the vas deferens fluid. Changes in the gels' ionic concentration, based on the biopolymer affinity for selected ions, changes their viscoelastic properties. Used kappa carrageenan hydrogels undergo further ion agglomeration and solidification upon immersion in the SBF. Without prior drying treatment of the gels, this results in hydrogel volume decrease. Given prior hydrogel drying, gels volu- and gravimetrically swell dependent on the extent of the prior drying treatment. Extensive pre-drying of the gels leads to

irreversible structural changes in the gels and final equilibrium swelling is well below primary hydrogel volume. **Conclusions:** The purpose of the studies was the evaluation of the structural integrity of the hydrogels in a simulated vas deferens fluid. It is assumable that peristaltic motion is insufficient to expel or disintegrate the biopolymer gel plug. Pre-dried hydrogels swell upon immersion in vas deferens fluid and thereby properly occlude the vas deferens lumen. There are no known enzymes in humans to degrade the biopolymers used in the study. The stability of the gels can be adapted by changing the primary biopolymer concentration. It is therefore assumable that algae-based hydrogels act as vas deferens occlusives. Future investigations are ongoing to investigate on the reversibility of the hydrogels.

PP-23 • Outcomes when mifepristone is available as a normal prescription: Study protocol using Canada's linked health administrative data

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Objectives: Mifepristone became available in Canada in 2017 and restrictions on distribution and dispensing were removed within the first year. Before mifepristone there were marked inequities in abortion access. Unlike restrictive policies in other countries, Canada's policies allow mifepristone to be prescribed by any physician or nurse practitioner, for the prescription to be dispensed by any pharmacist, and for the patient to take the medication when and where desired. ***We hypothesize*** that de-regulation will not be associated with any increase in complications ***and*** will be associated with increased provision in community-based primary care. The effect of regulating mifepristone as a normal prescription medication on access, complications and health system costs are unknown. ***The objectives of this study are to examine the impact of mifepristone on Canadian abortion:*** 1. access (distance from residence to abortion service) and service distribution, 2. complications, 3. costs to the health system. **Methods**: We will use comprehensive single-payer government linked administrative health data from two Canadian provinces to examine all those who underwent a surgical or medical abortion pre-mifepristone (2012-2016) and post-mifepristone (2017-2020). Cohort members will be identified by abortion diagnostic or procedure codes and/or prescription of an abortion drug. Pre-mifepristone years will establish baseline measures of all outcome measures for comparison with post-mifepristone introduction. We will use a quasi-experimental, interrupted time series design to compare outcomes before and after mifepristone introduction. We will identify level changes (e.g., decrease in patient travel time to reach abortion access when mifepristone was introduced) and slope changes (e.g., acceleration in access improvement as mifepristone practice became diffused) using generalized least squares models with link functions specified according to the form of each outcome. **Results**: Our proposed approach will provide the only comprehensive population-level analysis of the impact of deregulation of mifepristone on abortion access,

service distribution, and adverse events, i.e., when mifepristone is available as a normal prescription without restrictions on distribution and dispensing. We will also determine effect upon abortion care costs, and the degree to which abortion has been implemented in primary care in Canada. Findings will demonstrate whether any safety rationale remains for restrictive regulations on mifepristone. **Conclusions**: Evidence from this study will be of interest to international drug regulators, policymakers, and abortion providers, to inform decisions that support safe, equitable, accessible abortion care. As Canada's deregulation of mifepristone is unprecedented globally, these results may inform policy improvements to increase abortion access internationally.

PP-24 • Effect of oral contraceptives and hormonal replacement therapy on female sexual function in women with hypogonadotropic hypogonadism

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Objective: Hypogonadotropic hypogonadism make amenorrhea, and decreased concentration of estrogens and androgens contribute to female sexual function. Hormonal replacement therapy (HRT) and combined oral contraceptives (COC) have been prescribed for preventing osteoporosis. However, studies about the influence on sexual function were scarce and inconsistent. Different dose and composition of estrogen and progestin could make different effect. The aim of this study was to compare the influence of HRT and COC on sexual function and serum hormonal levels. **Design and Methods:** Women seeking the treatment for amenorrhea under the diagnosis of hypogonadotropic hypogonadism were enrolled. Twenty five women taking cyclic HRT (estradiol valerate 2mg / medroxyprogesterone acetate 10mg) and 25 women taking COC (ethinyl estradiol 0.03mg / drospirenone 3mg) were asked to complete standardized validated questionnaires assessing sexual function (Female Sexual Function Index, FSFI) and Beck depression inventory. Serum estrogen and testosterone were also evaluated. **Results:** The mean age, marital status, parity and BMI were comparable between two groups. Serum FSH and E2 levels of each group were not different. However, serum testosterone of women with COC was 0.15±0.06 ng/ml, lower than 0.19±0.03 ng/ml of women with HRT (p=0.05). Total FSFI score of women with COC was 24.10 ± 4.29, insignificant higher than 19.14±10.20 of women with HRT. There were not statistically different between each groups on desire (2.83±0.82 and 2.36±1.19, respectively), arousal (3.68±1.09, 3.12±1.64), lubrication (4.94±0.99, 4.07±1.84), orgasm (4.37±0.82, 3.69±1.58), satisfaction (4.16±0.83, 3.38±1.91), and pain (4.42±1.06, 4.27±2.07). In case of depression by Beck depression inventory, mean score in women with HRT was 18.64±9.97 significantly higher than in whom with COC (10.15±9.93, p=0.02). However, no case of depression was noted in both groups. **Conclusion:** In women with hypogonadotropic hypogonadism, HRT and COC showed similar effect on female sexual function. COC was not related with depression, on the other hand, BDI score was lower than HRT.

PP-25 • Use of prescribed contraception in Northern Ireland 2010-2016

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Objective: To describe the use of prescribed contraceptives in Northern Ireland (NI) and explore how this varies with a woman's age, the deprivation in the area in which she lives and characteristics of her General Practice (GP). **Method:** A population-based cohort study was conducted including 560,074 females aged 12-49 registered with a General Practitioner in NI 2010-2016 contributing 3,255,500 woman-years. Dispensed contraceptive prescriptions, recorded in the Enhanced Prescribing Database, were linked to demographic details in the GP Patient Registrations Index and the area-based NI Multiple Deprivation Measure 2017. **Results:** A contraceptive prescription was redeemed in 26.2% of woman-years. Those aged 20-24 were most likely (45.7% of woman-years) to have a contraceptive prescribed and those less than 16 least likely (6.8% of woman-years). Practices in the least deprived quintile prescribed 6% more contraception than those in the most deprived quintile. The combined oral contraceptives (CoC) (16.6% of woman-years) and progesterone only pill (PoP) (8.0% of woman-years) were the most commonly used methods with a 12% decrease in dispensation of the CoC in favour of a 23% increase in the PoP during the study period. Dispensation of emergency contraception (1.5% of woman-years) also fell by 5%. Women living in the least deprived areas used 20% less emergency contraception and rural GP practices prescribed 7% less. Choice of long-acting reversible contraception (LARC, overall 2.6% of woman-years) varied with age, with younger women most likely to use the contraceptive injection (20-24) and contraceptive implant (25-29) and older women (30-35) the IUD/S. Use of the injection decreased 6% during the study while use of the implant increased 12% and IUD/S increased 6%. Practice size and location impacted choice of LARC with the smallest practices (0-2,500 patients) dispensing 11% more of the contraceptive injection and 24% less of the IUD/S than practices with 7,001-10,000 patients. Rural practices dispensed 15-20% more implants and IUD/S than urban practices. Practices in the least deprived areas dispensed the implant 19% less. **Conclusions:** This is the first population-based assessment of contraceptive prescription in NI and will be useful for future comparisons and health service planning. Patient and practice level characteristics were found to be related to the specific contraceptive methods prescribed which also changed during the time frame of the study. The impact of practice area-based deprivation, above that of the woman's residence, on prescribed contraceptive use is a new finding that deserves more exploration.

PP-26 • an app for emergency contraception

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Emergency contraception (EC) describes the use of either drugs or copper intrauterine device (Cu-UID) to try and prevent pregnancy after an episode of unprotected sexual intercourse (UPSI). Several different types of interventions are available for EC. Having clear, concise and accurate information for these methods is a minimum requirement for healthcare professionals and the women they prescribe to. There is an abundance of information available on EC prescribing which requires significant reading and understanding. The reality is that this does not meet the needs of today's time constrained healthcare providers. As an example, one publication

on EC prescribing that we reviewed is 67 pages long. For a time constrained healthcare provider this is not the best way to access information or to reduce prescribing errors. From our research it became clear that the complexity of EC prescribing was not understood in a lot of cases. Simple tasks such as calculating an estimated ovulation date were prone to errors. Understanding the consequences of prescribing UPA-EC versus LNG-EC were sometimes not understood. The effects of BMI or enzyme inducers on EC are not always understood. It is for these reasons we developed the EC prescribing app. Our main focus is to reduce the risk of prescribing errors which ensures the best possible outcome for the woman. To do this we ensure that the correct questions are asked, the calculations are done accurately and that all required information is available in one location. In summary it is our hope that the app will empower healthcare providers to give the best possible advice to women requiring EC.

PP-27 • The gendered labor of securing abortion in Ohio

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Background: Abortion regulation is increasingly fragmented in the United States, with some states implementing strict requirements on abortion clinics. Ohio is one such state. Since 2011, Ohio has enacted nearly 20 pieces of legislation that impact abortion clinics, and in this time, 11 Ohio abortion clinics – over half in the state – have permanently closed and others have limited or temporarily suspended services. The impact of this altered landscape of abortion provision on patients is unknown. **Objective:** The purpose of this study is to examine the experiences of Ohio residents receiving abortion, paying particular attention to gendered responsibility in fertility work. Fertility work is the unpaid physical, instrumental, and emotional labor involved in the effort to secure reproductive ends and includes making decisions, arranging appointments and travel, covering costs, and managing embodied symptoms. **Design & Methods:** We conducted in-depth interviews with 30 Ohio women receiving abortion in Ohio and in the adjacent state of Pennsylvania in 2018-2019 and draw from abductive analysis to interpret these data. **Results:** We find that most women took primary or exclusive responsibility for preventing pregnancy, managing their pregnancy, and making the arrangements to have an abortion and paying for it. Women varied in how much help they wanted in different stages of this process, but most women felt they could expect or require very little from their partners – or even that they *should* expect anything from them. A minority of men provided instrumental – most notably, payment, transportation, and childcare – and emotional support. **Conclusions:** Gendered responsibility for abortion is consistent with extant research on other reproductive phenomena showing that the gendered division of fertility work is both a result and a cause of gender inequality. Our findings show how the cultural messages contained in the slogan of "my body, my choice" work to reinforce the existing division of labor in reproduction, by tying women's choices to their exclusive responsibility. Consequently, women not only do more labor to procure abortion, but they are also more likely to be exposed to abortion stigma. We argue that more attention to patient-partner dyads is necessary to fully understand abortion access as obtaining abortion in clinics becomes increasingly complicated in restrictive contexts.

PP-28 • Abortion Education in United Kingdom Medical Schools

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Objectives: This study aimed to investigate how abortion is currently taught to undergraduate medical students in the United Kingdom, encompassing both clinical and ethicolegal aspects. Recent guidance on termination of pregnancy, published by the United Kingdom's National Institute of Health and Care Excellence, emphasised that such education is important at both undergraduate and postgraduate levels. However, the guidance went on to suggest that, at present, such education is perceived as 'optional rather than essential' by medical schools. **Methods:** Ethics and Law and Women's Health leads from all 33 established medical schools in the UK were contacted via email, and asked to complete a survey on the ethicolegal or clinical aspects of abortion teaching at their institution. They were asked about how abortion is taught and assessed, their thoughts on barriers to comprehensive abortion teaching, and their desire for further guidance on the topic. **Results:** 76% of medical schools responded to one, or both, of the clinical and ethicolegal surveys. The number of hours spent on teaching varied significantly, with the majority of clinical teaching lasting under 2 hours. Barriers to teaching were reported by 68% of total respondents, and included lack of time, lack of willing staff, difficulty in accessing clinical placements, and the perception of abortion as a sensitive topic. Further guidance on teaching was requested by 74% of survey respondents, with the Institute for Medical Ethics, Royal College of Obstetricians and Gynaecologists, and the Faculty of Sexual and Reproductive Health listed as preferred sources. **Conclusions:** Provision of abortion education in UK medical schools varies widely, and is subject to a significant number of barriers. Some barriers require practical solutions: in the United Kingdom, abortion care is sometimes provided in the independent sector as well as in NHS hospitals; developing closer links between these providers and medical schools may help to increase access to clinical placements. Others barriers encountered speak to the wider taboo that still surrounds abortion, such as a lack of staff willing to teach the topic, and it being perceived as a 'sensitive issue'. Further comprehensive guidance on teaching abortion could reduce the current variation in teaching seen between institutions, by addressing the above barriers. Such guidance would help medical educators to develop and deliver sensitive and effective teaching, in this crucial aspect of women's healthcare.

PP-29 • Early detection of substance use in pregnancy

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Objectives: Use of substances including tobacco, alcohol, and addictive medicines in pregnancy increases the risk of pregnancy complications and temporary and persistent harm to the unborn child. These risks are often known by healthcare professionals. However, results from a pilot project showed a prevalence of substance use of 3.6% among pregnant women and indicated that

our current screening program does not identify all pregnant women with substance use. During pregnancy, we expect women to be the most abstinent. That being so, substance use in pregnancy not only has consequences for the pregnancy, mother and child, but it also reflects a general behavior of women, when they do their best. Substance Abuse and Mental Health Services Administration (SAMHSA) highlights that identification of substance use both before and during pregnancy is a critical first step. **Method:** In this project, we will estimate the prevalence of substance use in the entire Danish pregnant population. We will conduct an anonymous, cross-sectional, descriptive screening of 3000 women in early pregnancy to detect recent use of substances including tobacco, alcohol, and addictive medicines. We will use a new, improved urine dipstick screening supported by validated confirmation analyses. As a new initiative, the dipstick detects a wider range of relevant emerging substances including illegal substances, addictive medicines, tobacco, and alcohol at relevant cut off limits and within prolonged periods after intake. Also, we will validate all the substance components of the dipstick with confirmation analyses among 200 early pregnant women, who are already affiliated to an outpatient clinic due to their known and much higher prevalence of substance use. **Results:** Besides evaluating a prevalence of substance use in early pregnancy, this project will also assess the distribution of the different and emerging substances that are being used among a group of young women, who should possess the greatest intention to be abstinent. **Conclusions:** The results will give an indication of substance use in early pregnancy i.e. the period of a woman's life when she does her best. The results can indicate if a strategy with standardized pregestational screening and focused advise is justified in order to reveal use of substances including tobacco, alcohol, and addictive medicines – and hence ensure better maternal and fetal outcomes. The urine dipstick is investigated in detail as a tool to detect use of emerging substances, tobacco, and alcohol.

PP-30

Intrauterine contraception in British Columbia, Canada: Protocol for population-based data analyses to examine service access and costs

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Objectives: We aim to examine patterns of intrauterine contraceptive (IUC) use and identify regional IUC access gaps to support greater IUC uptake in the Canadian province of British Columbia (BC). In Canada, it is estimated that health care costs related to unintended pregnancy could be decreased by up to $35 million if just 10% of current oral contraceptive users switched to IUC for at least one year. Several high-resource countries similar to Canada have implemented policies that support greater IUC uptake and have successfully reduced costs associated with unintended pregnancy. Canadian provinces lack data on key indicators to support the development of similar policies. To facilitate greater IUC uptake in BC, we need to understand the determinants of IUC utilization. Our objectives are to determine:

1. characteristics of IUC users compared to non-users
2. characteristics of health care providers who insert (or could insert) IUC
3. geographic variation in IUC insertion, including any gaps in coverage; and
4. the interplay of these factors.

Methods: We will use linked administrative health datasets containing records of prescription drug dispensations, fee-for-service physician visits, and hospitalizations for BC residents from 2009-2019. We will identify patient- and provider-level determinants and utilization patterns of IUC, including sociodemographic characteristics, temporal trends, and geographic distribution. Our study population will consist of two cohorts: (1) IUC-inserting care providers, and (2) all reproductive-aged females (15-49 years) for each study year. Using descriptive statistics, we will summarize IUC inserters and recipients overall and by selected sociodemographic characteristics. Using multivariable analyses, we will examine the key characteristics of (1) health care providers and volume of IUC insertion and (2) reproductive-aged females and rates of IUC use. Geo-mapping will be used to display results regionally, with sub-groupings by key demographic characteristics. **Results**: Our proposed analyses will identify variation in IUC insertions by region, recipient characteristics, and provider characteristics, which may reflect addressable inequities in IUC access. These results will provide the most comprehensive population-level overview of IUC use in a Canadian setting to date. **Conclusion**: Canadian health policymakers have urgently requested these results as the provincial government is considering a universal IUC subsidy, which would be the first of its kind in Canada. More broadly, these findings may be used to help inform planning for emerging initiatives relating to women's sexual and reproductive health, such as targeted public and health professional education programs, particularly in other regions where IUC uptake is low.

PP-31 • Pathways to LARC insertion: A secondary analysis from the ACCORd study

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Objectives: To describe the pathway used by women for insertion of long-acting reversible contraceptives (LARCs) in the cluster randomised controlled trial, the Australian Contraceptives ChOice pRoject (ACCORd). **Methods:** Set in general practices in metropolitan Melbourne, Australia, the ACCORd study addressed low uptake of LARCs (intrauterine device [IUD], or contraceptive implant) and was adapted for the Australian context from the US Contraceptive CHOICE study. The ACCORd intervention consisted of online training for general practitioners (GPs) in effectiveness-based contraceptive counselling and access to rapid referral to two clinics

for LARC insertion. One clinic had a male gynaecologist with no out-of-pocket cost for LARC insertion (Medicare bulk billing) and the other had a female gynaecologist who charged private fees. The ACCORd intervention resulted in significantly higher LARC uptake in the intervention group. In this secondary analysis we used data from both GPs and their women participants to assess the pathway to LARC insertion. We used regression analysis to compare time and distance travelled from referral to insertion in the intervention and control groups, and between LARC types and different LARC inserters. Outcome measures were time from initial contraceptive consultation and LARC referral to LARC insertion; the location of LARC insertion; health service and provider for LARC insertion; the distance women travelled for LARC insertion. **Results:** The ACCORd LARC rapid referral clinics were used by 52.00% (13/25) of intervention GPs, accounted for 52.56% (41/78) of LARC insertions in this group, and were only used for IUDs. There was no difference in the mean time from referral to LARC insertion between the intervention and control groups (mean days 30.007; P=0.94). GPs (including LARC inserters) used a variety of pathways for LARC insertion including public and private clinics, other GPs and nurses. Mean distance travelled for LARC insertion was 11.7 kilometres. Cost of insertion was more important to women than the inserting practitioner's gender. **Conclusions:** Although approximately 50% of LARC insertions took place in the ACCORd LARC rapid referral clinics, benefits of reduced waiting time and convenience for women were not identified. While access to rapid referral to LARC insertion clinics was an important part of our complex intervention; the pathways to LARC insertion that we unconvered suggest that a number of different options are required for LARC insertion. Supporting GPs in developing individual timely and affordable pathways, as well as improving contraceptive education for our primary health care practitioners, may facilitate LARC uptake.

PP-32 • VCCT work overview at the Centar for prevention of AIDS and STI at the Institute for Students' health University of Belgrade in 2017

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Objective: The aim of report was to show the number of persons tested and counselled for HIV infection at the CPAS in 2017year, number of discovered HIV-positive patients, their reasons to seek the CPAS service, sexual orientation of tested persons and choice to use condom protection during intercourses. M**ethods:** The processed data were taken from national databases that are maintained by staff of CPAS. The methods of descriptive and analytical statistics were used from encrypted and depersonalized information and based on that the results were obtained in form of percentage and proportions. **Study results:** Total number of persons tested to HIV during 2017 in CPAS was 1.871. Male clients were 68,3% and 31,7% were female. HIV infection was discovered in 40 patients. Over 82 % of tested persons belong to the group of 19 to 29 year of age. The total number of visits for to the counseling was 3.962.The most frequent reasons to seek the Center's services were: sexual intercourse with unknown partners-41,5% and frequent changing of sexual partners-26,1%.Presence of a sexually transmitted infection was the indication to visit the Center for 12,2% clients. Reasons for visiting CPAS for 12% clients was unfaithfulness of a sexual partner, breakage of the condom, needle accidents, piercing, etc. Sexual intercourse under the influence of alcohol or drugs was reported as the reasons to get

tested for 7,7% persons. For 0,3% clients the reasons was intravenous drug use. The majority of tested persons informed about CPAS from their friends 73,4%, some 7% get information from the staff of ISH and 14% heard about the Center through the media or social networks. The remaining 15% heard about the Center: from a sexual partner, physicians from other institutions, non-governmental organizations and through billboards at the institution itself. Sexual orientation of tested persons showed that 61% was heterosexual and 39% from LGBT population. Condom is occasionally used by 62,3% of clients, almost always by 32% and never by 5,7% of clients. Unprotected vaginal sexual intercourses were reported by 32,5% of clients, unprotected oral intercourses by 30,7%, unprotected anal intercourses by 16,1%. **Conclusion:** In Serbia exist 26 Counseling Centers and in year 2017 had been detected 146 persons positive for HIV infection. CPAS at ISH, opened more than 30 years ago is one of the first Counseling Center in the region. Almost 30% of all new discovered HIV positive persons are detected in CPAS at ISH each year and that represent the importance of existing this type of Center in every community, especially for young and vulnerable population group. **Keywords:** CPAS-Center fo prevention of AIDS and STI, MSM-Men sex men, HIV Human immunodeficiency virus, LGBT Lesbian, Gay, Bisexual, Transsexual, VCCT-Voluntary Confidential Counseling and Testing

PP-33 • Postnatal contraception: Are we doing it right?

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Objective: In 2017, the Faculty of Sexual and Reproductive health (FSRH) released revised guidelines on post-natal contraception (PNC), advising that inter-pregnancy intervals (IPI) of less than 12 months can result in increased rates of fetal peri-natal morbidity and adverse outcomes for Mothers. The World Health Organisation (WHO) recommends IPI greater than 24 months. As such, there is increasing need for post-natal contraception (PNC) services to encourage and promote IPI in line with current FSRH and WHO recommendations. This study aims to investigate patient awareness of these issues and what, if any, services can be provided to promote greater IPIs for Mothers. **Method:** 50 post-natal patients were randomly selected and interviewed with regards to their understanding of IPI and its benefits, contraceptive changes post-natally (PN) and what their opinions would be of in-patient PNC services. Patients were also asked about any PNC discussions and how well informed they felt following these. **Results:** Only 22% of women interviewed were aware of current WHO guidance on IPI and further, of those interviewed, only 24% had had a PNC discussion, with only 1 patient from this group feeling fully informed of their contraceptive options. Of the total number of patients interviewed, 72% felt they required further information regarding PNC. However, as a direct result of this study, 3 patients received a contraceptive implant prior to discharge, demonstrating that there is a demand for in hospital PNC with 50% of patients expressing a wish for PNC services. **Conclusion:** This survey highlights the importance of PNC service development within the hospital setting. Using an MDT approach, contraception needs to be discussed throughout pregnancy, to engage patients in discussion and promote greater IPIs. Improved education for both patients and health-care professionals in IPI and PNC will improve patient empowerment, enabling patients to make well informed decisions regarding contraception; encouraging women to plan and manage their pregnancies to provide the best outcomes for themselves and future

children. This survey will be repeated in 12 months following a review of current services and a staff update on PNC. Development of information leaflets and potentially video adverts distributed in ANC and on the PN ward will also be a priority to ensure that the information is widely dispersed.

PP-34 • Psychosomatic Aspects of Contraception in the Adult Female: A Systematic Review

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Background and aims: Little is known about the psychosomatic elements which influence contraception uptake in young women. The aim of this study is to identify the psychosomatic aspects that may have an impact on women's uptake of contraception, and subsequently, on the voluntary abortion of unwanted pregnancies. **Methods:** We performed a systematic review of the literature published on Medline between January 1st, 2000 and December 31st 2017. In addition, we selected some articles based on an expert in the field's suggestion, as well as, by going through the bibliography of the previously selected articles. We included studies based on qualitative analyses, describing women's perception and attitudes toward contraception, including a population aged 15 years or older and conducted in either Europe or North America. We excluded articles focused exclusively on the adolescent population; those written in a language other than English or French and systematic reviews and meta-analyses not containing any new data. **Results:** A total of 10/103 articles were selected and included in the study. The psychosomatic aspects most consistently reported in the literature were ambivalence toward pregnancy and communication issues with the partner and/or healthcare provider. Additional psychosomatic barriers to contraception were the quality of the relationship with the partner, the perception of the risk of an unwanted pregnancy after unprotected sexual intercourse, and familiarity with the different means of contraception. **Conclusion:** This study identified multiple modifiable factors that influence contraception uptake among adult females. Family planning and contraception consultations should acknowledge these issues and aim specifically at addressing them as part of their interventions, in the view of preventing unwanted pregnancies.

PP-35 • The development and evaluation of an online tool to support the decision-making process in contraception for low educated and migrant groups.

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Objective(s): development and evaluation of an online tool to guide the decision-making process of contraception among low educated and migrant groups. Contraceptive use is high among sexually active women in the Netherlands who don't want to get pregnant. The Oral Contraception Pill (OCP) is still the most popular and widely used method, however the OCP is not for everyone the best choice. There are some groups who fail to use OCP, who are not well informed about all the options or not satisfied with the OCP. Particularly low educated and migrant groups, use the OCP or non-modern methods. However, they are more prone to unwanted pregnancies. **Purpose of the project and hypothesis:** An online contraception tool

will improve awareness, enhance making well informed choices, lead to more compliance and hence it will reduce the amount of unwanted pregnancies and abortion. The tool tackles the barriers and challenges during the decision-making process while guiding motives, misconceptions and needs on contraception. **Design and methods:** During all stages of the developing process, the target group of migrant and low educated women were involved. In the first stage we interviewed 28 women with an enlarged risk of unplanned pregnancies. We tried to collect their most important needs, motives and questions in the decision-making process and explore the conditions for an attractive an effective online tool. Also 12 health care professionals, were interviewed about their experience with prescription, consultation and application of contraception, and their dilemma's and barriers while supporting these women during their decision-making process. In the second stage the knowledge, motives and 'bright spots' of low income and migrant women who already use Long Acting Reversible Contraception (LARC) were gathered. The tool is built with a program of demands (reliable, complete, attractive and balanced information of all contraception methods) and guided with call to actions to improve sustainable use and self-evaluation. Films with personal choices and experiences with contraception were embedded. In the third stage we evaluated the tool on attractiveness, comprehensiveness, relevance and usability among 30 respondents of the target group and collected the comments of users after launching the tool via social media campaigns. **Results:** The target groups highly appreciate the online tool. The tool gives guidance to a more solid decision-making process and clients are better equipped for the contraception consult with their family doctor.

PP-36 • Youth Sexuality in Germany - A Representative Survey

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Objectives: For 40 years now the Federal Centre for Health Education in Germany has been analysing the attitudes and behaviour of young people concerning sex education, sexuality, and contraception. The current Youth Sexuality Survey is the ninth of its kind, carried out in 2019.The results show significant changes in knowledge and contraceptive behaviour over recent years. Germany has now one of the lowest teenage pregnancy rates in Europe. We will discuss the reasons for these changes. **Method:** The study is designed as a representative repeat survey. It was carried out in the years 1980, 1994, 1996, 1998, 2001, 2005, 2015, 2019. The study´s results are based on a total of 5750 face-to-face interviews: 3500 girls and boys (ages 14-17)and 2250 adults (ages 18-25). Parents were also interviewed. The tool used for collecting data was a combination of oral and written questionnaires. The methods for selecting candidates were the quota method. **Results:** The proportion of girls who did not use contraception for the first sexual intercourse also halved since 1980. Now the number of German girls and boys who did not use contraception has been going below 10 %. Condoms are the first choice of contraception methods at the first time. Seven out of ten girls and six out of ten boys between the ages of 14 and 17 state that they received information from their parents about contraception. More than 90% of the girls and boys have learned about different contraception methods at school in sexuality education classes which are obligatory in Germany. Approximately every second girl between the age of 14 and 17 has been informed about contraception by her gynaecologist or by

a specialised counselling centre. **Conclusion:** Most of the parents and teachers offer helpful information about contraception in Germany. Sexuality education in school and family is very helpful for young people and results in responsible contraception behaviour among young people, which explains why Germany has one of the lowest rates of teenage pregnancies in Europe.

PP-37 • Development and Pilot Testing of Digital Virtual Assistant for Birth Control Educational Information

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Objectives: Digital Virtual Assistants (DVA) use speech recognition technology, artificial intelligence (AI), and speech synthesis in order to understand and answer questions and execute specific tasks. DVAs such as Amazon's Alexa allow the extension of their capabilities by the installation of custom-developed applications, so-called "skills" or "actions.". Our objectives are with this study were: 1. To understand feasibility of using digital virtual assistant for contraception information, 2. To conduct beta-test to obtain feedback about the usability of digital virtual assistant as a health education tool for women of reproductive age. **Methods:** We developed a "Birth Control Information" skill. The voice commands were designed to give basic information (usage details, effectiveness, benefits) and detailed information (side effects, mechanism of action, risks) about all reversible birth control method. We conducted a beta test with 5 participants of different racial-ethnic background. Participants were given a short introduction and hand-out with visuals that described the birth control information prompts. We observed them to make sure they could use the DVA and let them use it up to 30 minutes. After devise use, a trained interviewer conducted an in depth semi-structured interview. We transcribed the interviews and analyzed for themes related to positive and constructive feedback. **Results:** We enrolled 5 women for the pilot testing phase. They spent 15-28 minutes using the virtual assistant. All but one had prior knowledge but none of them had used it. They described the intervention as "futuristic" and "progressive". Positive feedback included comments such as "...easier hearing it [birth control information] than reading.. If I read it I mostly skim instead of going into details"; ".. liked how much details she [DVA] gave me..". The DVA was also described as "confusing" as it did not answer all of the participants' questions. Two participants reported that it was not following some of the voice commands. The instructional hand out with the DVA was perceived to be helpful by everyone. **Conclusion:** With speech being one of the most natural and intuitive means of interaction, data access using a voice interface offers advantages including reaching women with lower reading levels. We successfully developed and pilot tested a voice controlled digital virtual assistant for contraception information. We will revise the user guide and conduct a mixed method analysis to understand its usability and its ability to improve subjective knowledge of birth control methods among users.

PP-38 • Abortion situation in Romania-an analysis over the abortion performed in Arad County for the last 5 years in comparison with the national data

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Introduction: Abortion is a very delicate subject in Romania taking into consideration its interdiction before 1990 and after that its liberalization. Many women are performing multiple abortions on request; abortion could be seen as a "contraceptive" method for some. Data regarding abortions are limited and not properly reported, therefore confusions when presenting this topic are very frequent. **Objectives:** To present the real situation of abortions in Arad County, a ~500000 people area in Western Romania in comparison with the national data for a period of at least 5 years regarding the numbers and relevant data. To assess the willingness of medical personnel to participate in the act of abortion. **Method:** Our team is performing a retrospective study using the data received from County and national Public Health Departments, but also from private medical facilities analyzing the number and type of abortions, the characteristics of the population that requested it, the way of performing it. The second study is represented by a questionnaire based study on the attitudes of medical personnel regarding performing abortion. **Results:** Both of our studies are still in progress as we didn't yet received all the requested data from the entities involved. Data collected so far for the period 2013-2016 in Arad County reveals that there were 3068 abortions performed, out of which 2749 were performed on the patients request; 16 abortions were performed in unsafe conditions and the rest were represented by incomplete abortions; 35-38% of the TOP performed on the patients request were done in private medical facilities; persons with more than 5 abortions were registered frequently; most of these procedures being asked for by the age group 30-34 and 35-39 years old; Majority of TOP were performed by dilation and curettage technique. Regarding the attitudes of medical personnel towards abortion, from the collected data we see that most of them would like not to perform them at all due to conscience reasons or at least to be done as a medical abortion, a method which was not available on a large scale in Romania so far. **Conclusions:** Our preliminary conclusions show that the rates of abortion in Romania are one of the highest in Europe with slow decreasing figures and the way of performing it can generate a lot of complication (D&C method). We believe that lack/inappropriate medical education and contraceptive education can be responsible for this situation. Medical stuff would like not to participate if possible in the act of abortion.

E-POSTERS

Abortion - all aspects

P-001 • Abortion in Portugal: a critical analysis

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Introduction: Since 2007, abortion on women´s request within 10 weeks of gestation was decriminalized, leading to a significant decrease in maternal morbimortality due to unsafe abortion. **Objective**: Critical analysis of the official data. **Methods**: Analysis of the annual reports publish since 2009, by National Health Authorities. **Results**: Number of illegal abortions before 2007 was estimated 20 000, but figures are unknown. Since 2007 global number of abortions per year never exceeded this estimated number and there was a decreased on maternal morbimortality. In 2017, the number of abortions (15,518 abortions) keeps fitting the decreasing trend observed in Portugal since 2011. The incidence is 180.1 per 1000 livebirths, which remains below the European average. A positive correlation was observed between the annual number of livebirths (LB) and the number of abortions: years with more LB also tend to have more abortions, and vice versa. Since 2007 the most represented age-group was the 20-29 years-old. Since 2011, abortions among adolescents declined from 12,2% to 9,6 and raised in older women (> 40 years) from 7,06% to 9,21%. Abortion among immigrants increased between 2008 and 2011 (from 15,6% to 18,2%), decreased in 2012 (15%) and thereafter raised again (18,3%), reflecting the fluctuations among immigration in the country. Access to legal abortion varies upon different regions: in the North and Center public institutions are in the residence area in contrast to South, where public institutions are scarce and don't embrace all residence areas. The number of abortions done in public institutions have been quite stable (70%). Nearly 75% of abortion done in private sector were referrals by public health centers which are unable to perform abortion due to lack of conditions (mostly objection of conscience). By law a woman should be able to choose between medical versus surgical abortion, which is not the reality observed: the public services perform medical abortion in 98.2% of cases, whereas private used mostly surgical abortion (93.9%). The number of repeated abortions increased from 24,6% (2010) to 29,7% (2017) and the average interval between abortions was 4.75 years. Most women chose a contraceptive method after abortion, with an increase of use of long acting methods. **Conclusions:** In Portugal legal abortions means safe abortion. The law enforcement is ensured at national level. The number of abortions has decreased and remains below the European average. Accessibility is not equal in all areas of the country, still needing more work.

P-002 • Does the social environment influence the risk of unwanted pregnancy?

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Introduction: In Portugal abortion by women request was decriminalized in 2007. The abortion is provided mainly at Public Centres. A woman could self-organize her appointment at hospital or be referred from another health center. **Objectives:** To evaluate the influence of the social environment in the risk of unwanted pregnancy. **Methodology:** A retrospective analysis of the clinical files of abortion appointment since January of 2014 till June of 2019 was done. The women were classified as living in urban area (UA) or countryside (CS) by the PRODER project classification. The data was analysed with SPSSv25. **Results:** We included 1351 women, 66% (n=892) from UA and 34% (n=459) from CS. The average age was 29.28 ± 7.49 years old [14-48] in UA, and 29.89 ± 7.90 years old [14-46] in CS. Were single 65.5% (n=556) of UA and 55% (n=253) of CS (p=0.068). Live with partner 49.2% (n=418) in the UA and 55.5% (n=239) in the CS (p=0.035). 24.3% (n=206) from UA and 18.3% (n=79) from CS were students. Were unemployed 11.7% (n= 99) from UA and 16.2% (n=70) from CS, (p<0.001). Were primigravida 52.1% (n=442) from the UA and 39.7% (n=171) from CS, (p<0.001). Were pregnant in the last year 10.5% (n=64) vs 10.2% (n=33), (p=0.878). It was the first abortion 83% (n=702) from UA and 84.2% (n=363) from CS (p=0.956). Had a family planning appointment last year 48.3% from UA and 48.3% from CS. From the studied population 21.2% (n=180) from UA and 24.8% (n=107) from CS weren´t using any contraceptive method. Between the users combined pill was the most frequent, 55.5% (n=373) in UA and 50.2% (n=163) in CS. The most frequent reasons for unplanned pregnancy between the contraceptive users were the method fail in 34.3% (n=230) from UA and 41.2% (n=134) from CS and forgetfulness in 26.2% (n=176) from UA and 22.8% (n= 74) from CS, (p=0.113). The emergency contraception was used in 4.6% (n=39) from UA and 3.3% (n=14) from CS, (p=0.248). After abortion both groups accept a contraceptive method and the pill still the friendliest method (36.4% (n=297) - UA and 31.9% (n=134) – CS). **Conclusions:** The request for abortion were less frequent from women living in countryside. They tend to be married or living with partner, had children and were fewer contraceptive users despite having equal attendance to the family planning appointments.

P-003 • Accessibility to voluntary abortion in Portugal - countryside vs urban centers

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Introduction: Accessibility to abortion by women's request is still a problem of concern. In our department women can self-request an appointment for abortion or can be referred by other services from public or private institutions. Legally, the period between the date of request and the appointment can be no longer than 5 days. **Objectives:** To characterize and compare the population resident in the rural and urban centres on the accessibility to abortion. **Methods:** Retrospective analysis of data using clinical records of women who had an abortion process between January 2014 and July 2019. Subsequent statistical analysis using SPSSª version 25. **Results:** A total of 1270 women were included: 66,3% from urban centres (group 1) and 33,7% from rural areas (group 2). The mean of age was 29,3±7,4 [14-48] years for group 1 and 29,9±7,9 [14-46] years for group 2. Most of women were Portuguese (89,3% in group 1 and 89,8% in group 2). Immigrants were mainly from Brazil in group 1 (2,7%) and from São Tomé and Príncipe in group 2 (3,3%). The appointment was mainly self-requested in the two groups (81,6% of women from urban centres vs. 75,4% of women from rural areas). Referral from a primary healthcare physician or private hospital was more frequent in group 2 (3,2% vs. 14,4%

and 3,4% vs. 4,9%, respectively) and referral from a public hospital was similar in the two groups (3,2%). The time elapsed between appointment request and attendance was 1,75±1,6 [0-8] days in group 1 and 1,93±1,8 [0-9] days in group 2 (p=0,08). Gestational age at first appointment date was 6 weeks(w)+6 days(d) [4-10w] and 7w+0d [4-10w] in groups 1 and 2, respectively (p=0,22). **Conclusions:** In our population, appointments were mostly self-requested. The interval of time between the request and the appointment was respected fully the legal determination and wasn't influenced by the origin of women. Area of residence did not influence accessibility to abortion.

P-004 • Development and experience of a community-based abortion service: provider perspectives from the first year of service delivery in Ireland

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Context: On January 1st 2019, there was a significant change in Irish law with respect to abortion access. Abortion is now accessible on request when the pregnancy is of less than 12 weeks duration. Thereafter, abortion is legal in situations of fatal foetal anomaly and when the pregnancy poses a risk to the life or of serious harm to the health of the pregnant woman. The model of care for abortion in early pregnancy involves community provision of mifepristone and misoprostol by general practitioners and specialist sexual and reproductive healthcare providers up to 9 weeks + 6 days gestation. Women accessing abortion at 10-12 weeks gestation are treated in a hospital setting. **Objective:** To examine the effectiveness of referral pathways within Ireland's new abortion service for women seeking access to abortion in early pregnancy. The research will also assess the uptake of ancillary services, namely pregnancy counselling, contraceptive care and screening for sexually transmitted infections (STIs). **Design & Methods:** We will conduct a retrospective multi-centre quantitative analysis of abortion provision in a community setting over the first year of service delivery. The research will involve a number of providers across different geographical locations and a data set will be agreed by all contributors for collation and analysis. The focus for the research is the referral pathways within abortion care due to the very time-sensitive nature of the service and the need for a significant number of interconnecting parts to work together effectively. Briefly, this will involve assessing the frequency and operation of referrals for additional services such as ultrasound scanning; blood group and Rhesus testing; Anti D provision; hospital-based abortion services; and pathways for the management of complications. We expect to have sufficient data to assess if the Irish complication rate falls within international standards. We will also analyse the prevalence of STI risk assessment and testing discussion and uptake, contraception discussion and provision (including the uptake of long-acting reversible contraceptives) and the uptake of and access to pregnancy counselling services. **Results & Conclusions:** By collating and analysing data from community providers across different geographical locations, the study will provide a detailed assessment of the standard of early abortion care in Ireland in the first year of service provision.

P-005 • Characteristics and experiences of women accessing early medical abortion at two sexual and reproductive health clinics in Ireland: results of a pilot survey

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Context: Since January 2019, women in Ireland have been able to access abortion without specific indication up to 12 weeks of pregnancy. This was preceded by the development of an entirely new legal, policy and service delivery infrastructure between October and December 2018. Early medical abortion (EMA) is now delivered in a community setting up to 9 weeks and 6 days of pregnancy. This involves home self-administration of misoprostol after taking mifepristone in a clinic setting. The service is free to women ordinarily resident in the Republic of Ireland. **Objective:** The objective is to examine the characteristics and experiences of women accessing early medical abortion in a community setting and their perceptions of the new legal and policy framework. **Design and Methods:** A self-completion questionnaire will be piloted with all women attending for EMA across two sexual and reproductive healthcare clinics over one month in early 2020. The questionnaire will collect information on patient experience of the care pathway, including legal requirements such as the mandatory 3-day waiting period between abortion request and service provision, restrictions on choice of method between medical and surgical abortion, access to information about abortion services and uptake of related services such as pregnancy counselling and contraceptive care. It will collect data on the characteristics of women attending for EMA, including age profile, pregnancy gestation, and contraceptive use. Data analysis will be carried out using SPSS. **Results and Conclusions:** The study will gather valuable data about patient experiences of a service that is entirely new in the Irish context and may have implications for law, policy and service delivery. Following the pilot, the research instrument will be refined and administered to a larger cohort of service-users over a longer duration.

P-006 • Effectiveness and Safety of Early Medical Termination of Pregnancy in a Tertiary Hospital in Singapore

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Objective: Mifepristone is a newly registered drug in Singapore. We started using the mifepristone-misoprostol regimen for early medical termination of pregnancy (MTOP) from August 2019. This study aims to evaluate the effectiveness and safety of the mifepristone-misoprostol regimen for MTOP in a tertiary hospital in Singapore. **Method:** Women who underwent a MTOP with gestational age up to 63 days from August 2019 to September 2019 were included in this study. These women received 200mg mifepristone in the clinic and returned to the hospital ward between 36-48 hours after for vaginal administration of 800mcg misoprostol. Another dose of 400mcg misoprostol was given if abortion was not completed four hours after the first dose of misoprostol. Primary outcome was the rate of complete abortion. Secondary outcomes include side effects and complication rate. **Results:** Out of the 34 women who underwent MTOP during the study period, 33 (97.1%) had complete abortion. Median induction to abortion time was 3.5 hours after misoprostol. After administration of misoprostol, 5 out of 34 women (14.7%) had fever, 2 out of 34 women (5.9%) had diarrhoea and 2 out of 34

women (5.9%) had vomiting. Median pain score reported was 2 out of 10 on a pain scale of 0-10. None of these women needed blood transfusion or developed allergic reaction to the medication used for MTOP. **Conclusion:** Mifepristone-misoprostol regime is an effective and safe option for women going for termination of pregnancy up to 63 days of gestation and also has a relatively good side effect profile.

P-007 • Identifying and addressing gaps in knowledge of abortion care provision among healthcare providers in Ireland prior to the 2018 abortion referendum

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Objectives: To produce an education resource on abortion care provision specific to the context of contemporary Ireland, and responsive to the identified gaps in knowledge among healthcare providers. **Method:** *Analysis:* Due to the complex sociocultural placing of abortion in Ireland, and the unique context of the referendum, an iterative, longitudinal, mixed methods analysis was used in order to be as responsive and non-prescriptive as possible. *Structure:* The 2012 WHO document *Safe abortion: technical and policy guidance for health systems* acted as a framework for information that should be in the public domain. The institutional memory of the Irish Family Planning Association was used to expand and localise this information to the Irish context. *Data collection and analysis – identification of gaps:*

- Qualitative thematic analysis was performed on transcripts of clinical expert contributions to the parliamentary committee established to examine context of abortion provision in Ireland
- Public discussions and statements from clinicians based in Ireland were observed on Twitter and print media
- Observations were taken in interdisciplinary clinical fora established to discuss the referendum

Gathering evidence base – addressing the gaps

- Literature searches
- Interviewed employees of the IFPA

Results: Clinical procedures and practices were found to be frequently discussed, while public health, psychological and sociological aspects of abortion care provision were identified as areas that would benefit from provision of resources. Some such aspects were:

- Abortion care as a social good – how exactly do women and girls benefit from access to high quality abortion care, how are they harmed by its absence
- Women's and girls' autonomy – what is the experience of making an abortion decision and what is the healthcare provider's role in this
- Public health – how do unintended pregnancies happen, who do they happen to, how might legalising abortion affect this

A 25-page document containing over 80 references was compiled as an evidence base. This was used as a resource for policy-making and disseminating information to clinicians and the public, in the lead-up to the referendum and in the establishment of abortion services in Ireland thereafter. **Conclusions:** Both within and outwith sexual and reproductive health, establishment of healthcare services may benefit from facilitating not only clinical competence but also understandings of the public health, psychological and sociological function of the service.

P-008 • Normalising abortion: What role can healthcare professionals play?

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Objectives: To investigate how healthcare professionals may experience abortion-related stigma, To explore how healthcare professionals can challenge prevailing negative sociocultural narratives, and normalise abortion. **Design and Methods**: This study formed part of a larger project - the Sexuality and Abortion Stigma Study (SASS) - that brought together a number of qualitative datasets from abortion research projects in different parts of the UK. The resulting dataset was subjected to qualitative secondary analysis (QSA). For this paper QSA was conducted on two datasets containing healthcare professionals' accounts of providing abortion in Scotland and England. A sub-sample of 20 interviews were subjected to in-depth, thematic analysis. **Results:** Four key themes were identified in healthcare professionals' accounts: 1. Encountering resistance, and even hostility, to abortion from colleagues working in sexual and reproductive healthcare, 2. Contending with, and countering, prevailing negative sociocultural narratives of abortion. Some professionals limited disclosure of their work to friends and family. Others challenged negativity and misinformation about abortion in the context of their social networks and in the workplace. 3. Enacting overt positivity towards providing abortion provision; having a personal commitment to providing an abortion service and upholding women's reproductive rights. 4. Presenting abortion as part of normal routine healthcare; professionals attached great value to their work which they viewed as essential healthcare, and wanted to present as such. **Conclusions:** It is clear that negative attitudes towards abortion (both inside and outside of healthcare systems) persist and need to be challenged in order to remove stigma from those accessing and providing services. Healthcare professionals can play a key role in normalising abortion, through the ways in which they frame their work and present abortion to the women they treat and others more widely. Our analysis suggests that key ways to achieve this are by presenting abortion as part of normal, routine healthcare, and seeking to establish and maintain positive, non-judgemental spaces for women in the services they access.

P-009 • Abortion-failure of desire or contraception?

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Introduction: The question "Abortion or Birth", regarding an unwanted pregnancy, remains the great dilemma of Romanian women. After the period of contraception prohibition and limitation of abortion during the communist era, the changes of the legislative policies related to women's freedom to control her fertility liberalized the abortion "on demand" so that in 1990 Romania occupied the leading places in this practice. Romania has a high number of unwanted pregnancies in teens; abortion remaining a common fertility control method, although modern contraceptive methods are known and available. **Objectives:** To analyze the use of fertility control methods on women who presented at the Clinical OG Hospital "Buna Vestire" Galati, Romania, for consultations or treatment and who have at least one abortion history. **Method:** The unnamed questionnaire with preformed answer variants and personal answer questions was used as a working tool, in compliance with the GDPR- EU legislation in force on the circulation of personal data. The analysis was performed by age group, 1050 questionnaires were entered in the statistical analysis, in which the participants completed all the items. Statistical data was performed using Microsoft Excel 2010 and Data Analytics Tools Pack. The correlations with a p-value ≤ 0.05 are considered statistically significant. **Results:** Most women who resorted to an abortion „on demand" are from the urban area, 65% have upper and middle education, are married and are over 40 years old, 45% being housewives. 8% are unmarried teens, half of them noted that abortion may be used every time an unwanted pregnancy occurs without needing contraception, which has side effects, requires time and careful administration. The main abortion motivations were the financial situation, marital status and age, or the achievement of the desired number of children. Contraception was initiated after an abortion for 72% of cases, although 96% said they had knowledge about modern methods. Most women with a multiple pregnancy interruptions history used traditional contraception methods, without family planning counseling. **Conclusions:** There are a high number of unplanned pregnancies ending in an abortion, also births or abortions of girls under 19 years and a significant increase of new born babies abandoned in maternities, this situation confirming the need for family planning is still uncovered. It is desirable to implement educational programs in at-risk groups (teens, rural areas, at-risk trades, ethnic groups, etc.), with a favorable impact on reproductive health.

P-010 • Physical and psychological pain: the main side effects of medical management of unsuccessful pregnancy (MMUP)

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Objectives: Due to the lack of studies on women's satisfaction with the MMUP, we performed a study using a questionnaire to establish whether women have accepted the method and which side effects are common. Based on the results, changes could be made to improve method acceptance. **Methods:** The prospected study included 104 women hospitalized at our tertiary center during December 2015 and March 2017 due to MMUP with gestation age between 6 and 16 weeks. Prior to discharge, the women completed a Questionnaire on satisfaction with the method with 12 questions regarding their age, marital status, education, duration of pregnancy,

previous pregnancies, awareness and information on MMUP. The women assessed the level of pain at termination, the need and satisfaction with pain management and side effects. Finally, we asked them about their satisfaction with the method and whether they would recommend it to a friend. For statistical analysis we use the Shapiro-Wilkinson, Chi-square, Mann-Whitney and Kruskal-Wallis test. As statistically significant was considered where $p < 0.05$. **Results:** Women were well informed prior to the procedure of MMUP (50% good, 37% excellent, 13% satisfactory, 0% insufficient). Among them, 62% required analgesic therapy and 77% among these were satisfied with the prescribed therapy. The average VAS (visual analogue scale) score was 5.7. There was no statistically significant correlation between the duration of pregnancy and VAS score ($r = 0.29$; $p = 0.055$). In women who have never been pregnant, the VAS score was statistically significantly higher than in women who were pregnant in the past (6.2 vs. 5.2; $p = 0.02$). Among all side effects, physical (64%) and psychological pain resulting from the loss (56%) stand out the most. Other side effects were less present (14% hemorrhage, 6% diarrhea, 5% nausea, 0% vomiting). 64% of women were satisfied with the method of MMUP and 75.2% would recommend it to a friend. **Conclusion:** Among the side effects, physical and psychological pain related with the loss stand out the most. We were surprised by the high share of physical pain present despite analgesic therapy. An individual approach to physical pain relief would be sensible, especially in women who have not given birth yet. It would also be necessary to consider including a clinical psychologist upon the patient's request. **Key words:** satisfaction with MMUP, physical pain, psychological pain

P-011 • Can repeat abortions be prevented? Outcome of an innovative approach from a contraceptive service in London

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Objectives: Abortion rates in London are higher than the rest of England and Croydon has the highest rate of repeat abortions nationwide. An innovative contraception follow-up service, post-abortion, was introduced at Croydon, Sexual Health Centre (CASH). The objective of this research is to assess the outcomes of introducing this service on contraception use and repeat abortions, following a minimum of 9 months engagement. **Method:** Women who were consensually referred to CASH from the abortion service from Jan 2018- Dec 2018 for contraceptive follow-up support post-abortion were included into the study. Initial telephone contact was made by professionals and then at 3, 6, 9, 12 and 18 months, to offer contraceptive support. Women who required contraception were seen by the domiciliary contraceptive team in outreach clinics or at their homes to provide contraception. The data was entered on an excel database. Statistical analysis was performed with Excel, establishing the prevalence and predictors of contraception use and the effect of this intervention on repeat abortion rates. **Results:** 50 of 88 women (56.82%) engaged with a minimum of 9 months follow-up. Initially, 28 of 47 women were using contraception following abortion. After engagement with the service, there was a significant increase with 41 women using contraception (59.6% vs 87.2%, $p=0.003$, (excluding women trying to conceive or pregnant). Of the 50 women, 30% were established on a long acting reversible contraception (LARC), with the implant (16%) being most common and the contraception of choice was the combined or progesterone-only pill (28%) ($p=0.030$). Women who had a medical termination of pregnancy (TOP) were more likely to

engage with the service vs surgical TOP (67.5%vs 48.8%, p=0.088). The increase in LARC uptake following intervention for women who had a previous TOP was greater than women who had no previous TOPs (10.5% vs 3.2%, p=0.000). Of the 50 women, 19 had had a previous TOP at the point of referral and following intervention only 3 women reported having a repeat abortion (38% vs 6%, p=0.000); all 3 women declined regular contraception use. Of the 19 women referred with a previous TOP, 36.8% were established on a LARC and 0% had a repeat TOP following intervention. **Conclusion:** The introduction of an intense follow-up programme post-abortion can significantly increase rates of women using contraception and can contribute to lowering repeat abortion rates. It demonstrates the need of such a service and the potential value of implementing this as a nationwide programme.

P-012 • Evaluation of factors associated with complications following gestacional loss after the installation of a surveillance network in Brazil

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Objectives: To evaluate complications and associated factors with a higher frequency of complications during hospitalization after a gestational loss in the first trimester of pregnancy after the establishment of a surveillance network of good practices in a university hospital in Brazil. **Methods:** We conducted a cross-sectional study between 1 July 2017 and 31 August 2019 including all women admitted for abortion treatment in a Brazilian sentinel center of the Latin American Center of Perinatology. We evaluated the Presence of complications in abortion, ectopic pregnancy or molar gestation factors with the chi-square test. Independent factors associated with complications were evaluated with multiple logistic regression. **Results**: 382 women with a mean age of 29.6 years (±7.4) were included. Most women (75.2%) had abortions and 38.2% initiated a contraceptive before hospital discharge. There was a significant difference between complications for gestational age (p=0,006) date of last pregnancy (p=0,028), method failure (p=0,037). Factors independently associated with complications were gestacional age (OR 1.162; 95%CI, 1.059– 1.275), longer duration of symptom (OR 1,038; 95%CI, 1,004-1,072), methods failure (OR 2,35; 95%CI, 1,06-5,20) and non-use of misoprostol (OR 2,45; 95%CI, 1,01-5,90). **Conclusion:** the implementation of a surveillance network optimized health service and show an indication for clinical audit on abortion care to improve standard protocol and reduce complications.

P-013 • Delivering Medical Termination of Pregnancy in General Practice: Perspectives of Australian General Practitioners.

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Objective: Theoretically, general practice delivery of Medical Termination of Pregnancy (MToP) should improve accessibility for women. Despite General Practitioners (GPs) being able to prescribe medical abortifacients (mifepristone and misoprostol) in Australia through the government Pharmaceutical Benefits Scheme since 2013, integration of MToP into primary care

has been limited. Only 1300 of the 35000 GPs in Australia are registered to prescribe MToP. This may in part be due to uncertainty in how to provide[1-2]. We aimed to describe how current GP MToP providers established and provide MToP services in order to support and promote MToP service initiation and facilitate access for Australian women. **Methods:** We used a qualitative-descriptive approach, sampling Australian GPs providing MToP, in general practice. Purposive and snowball sampling occurred. Semi-structured, audio-recorded telephone interviews were conducted and subsequently transcribed verbatim. Data were analysed thematically, by two researchers. **Results:** Twenty-five GPs were interviewed, across metropolitan and regional settings throughout Australia. Four models of MToP delivery were identified: common (3-2 appointments), streamlined (2-1 appointments), ultrasound inclusive and task-sharing (nurse-GP cooperation). Many participants used less efficient, acceptable and accessible models due to perceived risks of stigmatisation and concern regarding the potential for complications. Participants created networks of health professionals including pharmacists, sonographers and local hospitals, to support MToP service delivery when establishing their service. Private networks of other MToP providers (GPs and gynaecologists) were also relied upon to provide personal support, education and advice. Participants expressed concern regarding the low levels of MToP knowledge in many of their GP colleagues. This contributed to inefficiencies and delays for women. Increased education and training for all GPs, was suggested as a means to overcome this and to motivate GPs to provide MToP. **Conclusion:** Although all four MToP models are currently practiced in the Australian setting, streamlined and ultrasound inclusive MToP delivery may be more efficient and acceptable to women, but requires further validation, and training of current GP providers. The models described in our research could be adopted by GPs internationally, depending on local legislation, hopefully increasing availability and hence accessibility of MToP for women. Our results suggest that networks are critical to MToP service establishment and provision. Online communities of practice may further support GPs to establish and deliver MToP services. Finally, we recommend incorporation of MToP knowledge and training into basic GP curriculum, as it can motivate initiation[3] and support improvements to GP MToP delivery. **References:**

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P-014 • How can medical student teaching on conscientious objection be made meaningful and practically useful?

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Conscientious objection is often presented as an ethical dilemma for doctors, with two courses of action – opting in or opting out of abortion care, reflecting the general polarised moral stance on abortion. But the issue is more complex for doctors, who need a more nuanced understanding in order to best serve their patients. By presenting the issue in terms of a scale rather than a polarised ethical issue this workshop will explore how to facilitate careful thinking about conscience and abortion, covering legal, ethical and practical aspects, including how to respectfully exercise the right to opt out of abortion care. A presentation / poster would be structured around the following: Potential consequences of conscientious objection, Respectfully opting out, Conscientious obstruction, Conscientious objection in practice, Conscientious commitment.

P-015 • Experiences of women traveling cross-country for abortion care in Europe from countries with relatively liberal abortion laws

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Objectives: Limited existing data suggest that cross-country travel to access abortion care is a necessity for some European women from countries with relatively liberal abortion laws. Research on the topic of abortion travel in Europe has focused on women who travel from countries with highly restrictive abortion laws, and little is known about the experiences of women who travel from countries with more liberal laws (France, Germany, Italy, etc). This paper explores the experiences of women who travel to the UK, the Netherlands, and Spain for abortion care from countries with relatively liberal abortion laws. **Methods:** Respondents were recruited to participate in a study about their current pregnancy, care seeking, and travel experiences. Participants completed an electronic survey and/or participated in an in-depth interview at clinic sites in the Netherlands, the UK, and Spain. As data collection in Spain is on-going, surveys collected at clinic sites there are not analyzed for this paper. **Results:** 204 women who traveled for abortion care to the UK and the Netherlands from EU countries with relatively liberal laws participated in our study. Women traveled from: Austria (3.4%), Belgium (6.4%), Bulgaria (0.05%), Germany (56.4 %), France (23 %), Denmark (2%), Italy (7.8 %). On average, women confirmed their pregnancy at 13 weeks of gestation, and presented for care at 17.9 weeks of gestation. Eighty percent of participants indicated that the main reason they traveled was because it was too late for them to have an abortion in their home country. Women traveled an average of 6 hours (one-way) to the clinic where they obtained their abortion. Fifty-nine percent of women indicated that they had to stay overnight on their trip, and 35% reported difficulty meeting the trip's cost. On average, women spent €262 on transportation costs, €324 on accommodations, and €898 on the abortion procedure. Sixty-six-percent of participants reported difficulty covering the cost of their treatment, and 43% reported difficulty covering the cost of travel. **Conclusions:** Despite relatively liberal abortion laws in countries like Italy and France, legal, social and procedural barriers compel women to seek abortion services outside their home

country. The main barrier that participants identified to accessing abortion services in their home country was gestational age limits. The time and cost associated with abortion travel are substantial, and represent a significant burden to women who must leave their home country in order to access abortion services.

P-016 • Non-Pharmacological Anxiety Reduction with Immersive Virtual Reality for In-Office Surgical Abortion: A Feasibility Study

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Objectives: Perception of pain during surgical abortion is nuanced and affected by physical as well as psychosocial factors—notably the experience of anxiety. It is found that women who suffer from anxiety are more likely to experience greater pain. Recent innovation in virtual reality (VR) has generated increased interest in its potential use as an innovative and non-invasive method for managing patient anxiety and subsequently decreasing acute pain. Our main objectives were to assess the feasibility of using VR during first trimester surgical abortion under local anesthesia and to understand the effect of VR on procedure-related anxiety during first trimester surgical abortion. **Methods:** We conducted a mixed method feasibility study with a convenient sample of 30 women (15 experimental and 15 control) presenting to obtain first trimester surgical in office abortion. Anxiety scores using Modified Amsterdam Preoperative Anxiety and Information Survey (MAPAIS) and the Visual Analog Scale (VAS) were recorded before, during, and after the procedure. In-depth interviews were conducted post-surgery to understand their experience using the VR device and impact it had on their perceived anxiety and pain. The interviews were recorded, transcribed, and analyzed using grounded theory via Dedoose. **Results:** Overall patients stated the VR device lessened their anxiety during the procedure. Described as a "distraction", the VR experience helped participants to "feel calm and less anxious "during and even after the procedure. On average the experimental group demonstrated lower anxiety during and after the procedure though results were not statistically significant in the pilot phase. Among participants in the experimental group, those who used the VR device for over 5 minutes (n=11) had statistically significant decrease in anxiety compared to those who used the device for a shorter period of time (n=4) (P=0.018). **Conclusion:** With the pilot study, we established the feasibility of using virtual reality during in- office surgical abortion. Our results suggest that VR use may have an impact on decreasing procedure-related anxiety. Based on our findings, we determine that a sampling size of 156 total participants would be sufficient for a target power of 0.80.

Contraception – all aspects

P-017 • Changes in bleeding patterns with the use of LARCs

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Introduction: Teenagers have a high risk of unplanned pregnancy. Their decision when starting a contraceptive method is still unknown. In young women, safety and efficacy are the most important criteria when choosing one of them. **Objectives:** To evaluate bleeding patterns with the use of Larcs in Argentina including the etonogestrel-releasing implant, Mirena and the Cu-IUD. **Material and method:** This was a descriptive study, conducted at a Public Hospital at Buenos Aires Argentina from December 2014 to December 2018. We practiced 738 procedures: 590 chose subdermal implant ETG, 47 (IUD-LNG) and 101 (Cu-IUD), then we could follow up 258 patients with Implanon, 40 with Mirena and 61 Cu-IUD users. All women in fertile age, from any nationality, willingness to change or start a new contraceptive method., 379 patients were excluded due to inability to follow up. The population studied were mostly patients with one or more children (85%) and low income. All the contraceptives methods were provided free of charge by the Sexual and Reproductive Health Program, we considered the following variables: age, previous contraceptive methods, parity, weight / height, date of last delivery and / or abortion, side effects. Appointments due to follow-up were set at 3.6 and 12 months after placement. Those patients who did not return to the control were surveyed by telephone call, recording the following variables: bleeding pattern, headache, acne, mastalgia, satisfaction, reasons for early removal. **Results:** Regarding the use of subdermal implant, amenorrhea was reported in 47%, infrequent bleeding in 18%, frequent bleeding in 9% and prolonged bleeding in 9%. This last pattern was the reason for early removal in 9 cases. This responds to the stated objective of performing a good pre-insertion counseling, explaining adverse effects and changes in the cycle. The percentage of continuation of the method in most countries ranges from 50 to 70%. In our experience the percentage of continuation is higher (n= 258) 91,08 %.
Conclusions: LARCs methods are highly effective, acceptable and decreases Public Health costs. With optimal counseling, we achieve a very good continuity of the method, avoiding premature removal. Subdermal implant was chosen as the first option over the rest of the contraceptive methods offered. Gynecologists must provide good information for the choice of contraceptive method. It should be promoted as the first choice for contraception in Public Health.

P-018 • The Cost of Unintended Pregnancies (CoUP) in Canadian Adolescents and the Potential Impact of Increased Use of Long Acting Contraceptives

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Objectives: Unintended pregnancies (UPs) in adolescents have significant impact but their full cost burden is not known. Increasing IUC use in adolescents may decrease rates of adherence-related unintended pregnancy (UP). Our objectives were to: (1) Quantify the direct cost of UPs in Canadian adolescents; (2) Quantify the proportion of UPs and cost attributable to imperfect contraceptive adherence in Canadian adolescents; and (3) Estimate potential cost savings with increased LARC uptake among adolescents. **Methods:** A cost model was constructed to estimate annual number and direct costs of UP in Canadian women aged 15-19 years. Adherence-associated UP rates were estimated using perfect- and typical-use contraceptive failure rates.

Utilization and associated costs of contraceptive methods were evaluated and used to derive change in number of UPs and cost impact that might result from increased IUD use. Costs associated with possible pregnancy outcomes were taken from the CIHI report and Ontario Case Costing Initiative and inflated to 2016 dollars using the Health and Personal Care CPI. Proportion of births resulting from UPs was estimated from the Maternity Experiences Survey. Analysis was performed from the public payer perspective, therefore only direct costs were considered. Change in annual number of UPs and cost impact were projected in 3 scenarios of increased LARC usage. **Results:** The direct cost of UP was $58 million annually; $35 million was attributable to imperfect adherence. Greatest cost saving was noted when 10% of women using condoms/no method switched to an IUD with a total annual cost savings of $11.3 million (including cost of contraception) In all 3 switching scenarios, minimum duration of IUD usage required before cost neutrality would be realized was between 7.8 and 10.1 months. In the same switching scenario, switching to any IUC (IUD + LNG-IUS) was associated with a $7.7 million decrease in annual direct costs of UP, although total cost impact was higher ($4.3 million) due to higher cost of the LNG-IUS. **Conclusions:** UP accounts for substantial health care costs. Based on our model, the direct cost of UP in Canadian adolescent women is $58 million/year, with 61% of this cost ($35 million) attributable to imperfect adherence. The annual cost of UP in adolescents could be decreased significantly with an increase in IUC use. Depending on switching scenarios, cost savings may be realized in as little as 7.8 months.

P-019 • Postpartum contraceptive use and rapid repeat births among low-income Texas women

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Objective: Many Texas women do not use their preferred contraceptive method following delivery. We aimed to identify how many rapid repeat births might be postponed or avoided if women could access their preferred method by three months after delivery. **Methods:** Using Kaplan-Meier and Cox models, we analyze the risk of a pregnancy of 12+ weeks gestation among a cohort of 1700 women who delivered with public or no insurance in eight Texas hospitals and wanted to delay childbearing >= 2 years. We excluded those sterilized by 3 months postpartum, focused on exposure 3-21 months after delivery, and adjusted for the contraceptive method used at 3 months. We also report method preference, method used at the time of conception, and pregnancy intention. **Results:** The probability of conception 3-21 months was 0.212 (95% CI:0.187-0.240). Compared to LARC users, hazard ratios for other methods were: other hormonal 4.6 (95% CI: 2.6-8.1), condoms and withdrawal 6.6 (95% CI:3.8-11.5), no method 12.1 (95% CI: 3.1-47.5). Methods used at time of conception were condoms and withdrawal (58%), other hormonal (13%), and none (28%). Only 18% of these pregnancies were intended. Preferred methods at 3 months were sterilization (23%), LARC (48%), other hormonal (20%), condoms and withdrawal (7%), no method (2%). If all women used their preferred method at 3 months, the risk of a rapid repeat birth in the next 18 months would fall by 52%. **Conclusion:** In this cohort, half of rapid repeat births could be postponed or avoided through improved access to desired methods of contraception.

P-020 • Assessing Unmet Demand for Postpartum Sterilization among Publicly Insured Women in Texas

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Objective(s): Postpartum tubal sterilization is widely used in the United States, yet previous studies suggest significant barriers to access, especially for publicly insured women. Most investigations have assessed unmet demand by chart review. We aimed to assess whether additional unmet demand could be identified by asking postpartum women if they would like to have been sterilized right after giving birth. We also aimed to assess the contraceptive and pregnancy trajectories of women who did not obtain a desired postpartum sterilization procedure. **Study Design:** We conducted a prospective cohort survey of 1700 publicly insured women ages 18-44 who delivered at eight hospitals in Texas, spoke English or Spanish, and did not want a birth in the two years following delivery. We included participants age 21-44 years who had 2 or more children and did not want more children. We classified women as having an explicit or prompted unmet demand for sterilization based on their responses to survey questions. We compared sociodemographic characteristics between these groups and assessed the proportion in each group who were sterilized before discharge. We then assessed persistence of demand among the women who were not sterilized and identified barriers women encountered by the type of unmet demand. Finally, we assessed contraceptive use at 6, 12, and 24 months after delivery and the probability of a pregnancy likely to result in a live birth among women with unmet demand for sterilization. **Results:** 412 women met the inclusion criteria, and wanted a postpartum tubal ligation. Overall, 215 (52.2%) obtained the procedure. The remaining women with unmet demand included 61 who explicitly said they wanted to be sterilized by six months after delivery (explicit demand), as well as 136 who, when prompted, said they would like to have been sterilized right after delivery (prompted demand). Women with unmet demand reported cost barriers (28.4%), hospital/system barriers (29.9%), and provider barriers (16.2%), with cost and provider barriers being more frequently reported among women with prompted demand. The majority of women still wanted a sterilization at the three-month interview, however only 21 had obtained interval sterilizations by that time. By six months after delivery, 35 of 167 women with unmet demand (21.0%) were using an IUD or implant, 32 (19.2%) were using a short-acting hormonal method, and 72 (43.1%) were using condoms, withdrawal, or another less-effective method. By 18 months after delivery, the estimated probability of a woman with unmet demand conceiving a pregnancy that she would carry to at least 12 weeks' gestation was 11.3% (95% C. I.: 7.2% - 17.3%). **Conclusion:** There is substantial unmet demand for postpartum sterilization among publicly insured women in Texas, and the majority of this demand was uncovered by way of a prompt and would have not been evident in clinical records or from consent forms. Women unable to obtain a desired sterilization have a substantial chance of pregnancy within 18 months after delivery.

P-021 • Contraceptive Mix is still poor in Brazil

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Background and Objectives: By the time Brazilian public provision of contraceptive methods started (1984), women had already "made the fertility transition" in the country, by buying pill over the counter and paying doctors to perform a sterilization. These two contraceptives kept accounting for more than 50% of all contraceptive use for two decades. In 1997 a national family planning law stablished constrains to obtain female sterilization (FS). The 2006 DHS identified a decrease in FS prevalence, from 40% in 1996 to 29% and contraceptive mix a bit more diverse. Initiatives to improve women's access to free contraceptives were been launched during the last decade, In the absence of new data, we conducted a contraceptive survey in São Paulo, the country's largest city in 2015. This article presents the prevalence of contraceptive practice in the city and analyzes the factors associated with types of contraceptive in use. **Methods:** Population survey with a multistage probability sample design enrolled 3,885 women aged 15 to 44 years living in the city of São Paulo. In the first stage, census tracts were drawn and in the second, the households. All eligible women residing in the households were invited to participate and were face-to-face interviewed by female interviewers. The prevalence of contraception was estimated for non-pregnant women who had at least one heterosexual relationship during previous 12 months. CHAID algorithm was used to discriminate variables associated with types of contraceptive in use. **Results:** Contraceptive prevalence was 84.8% (95% CI 83.2-86.3). Most women were on the Pill (36%) and 19% used Condoms, followed by injectables (10%). FS was referred by 7,5% and vasectomy for 6,2%. IUD remained as uncommonly used (2%). Number of children and women's age consisted, respectively, the first and second level of discrimination for types of contraceptive used. Pill and condom predominated among childless women and age modulated their relative participation. For women with 1 to 2 children, although the pill remained the most common method, vasectomy and tubal ligation became present in the mix, especially among women aged 30 to 44 years. In contrast, injectables were the most frequent among the younger. Almost 90% of contraceptive users with 3 or more children were over 29 years old and had mostly chosen surgical methods. Only in this group, schooling was a differential, showing a comparatively higher participation of male contraception (vasectomy and condom) among women with higher education. **Conclusions:** Contraceptive mix has changed, but it remains concentrated (Pill and Condom) and poor: hormonal patches, vaginal rings and implants are seldom used. And worse, IUDs which may be a long term non hormonal alternative are rarely offered to women. Strategies to expand the range of contraceptive options available to Brazilian women are needed. However, the current government's anti-reproductive rights speech indicates that this will not be easy to achieve.

P-022 • Evaluating changes in contraceptive behavior with interrupted time series using the DHS calendar: example in Senegal

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Objective: Identifying and measuring family planning behaviour changes in populations is complex, especially in low- and middle- income countries with fewer data. This project assesses

the potential of interrupted time series design using the calendar of the Demographic Health Surveys (DHS) to detect changes in historical contraceptive use. **Method:** This proof-of-concept study uses datasets of five DHS surveys conducted between 2010 and 2017 that included the reproductive calendar. It collected pregnancy and contraceptive historic for the previous five years, thus providing many overlapping periods for comparison. Modern contraceptive use for 20 to 40 years old women was computed for each month covered by the calendar of each survey. The analysis involves first identifying variations in modern contraceptive using multiple structural change models. Then, the magnitude of change in level (y-intercept) and trend (slope) is assessed at time points of interest with segmented regression models. As an example, the evaluation of a national radio serial drama addressing family planning use and reproductive health in 2008-2009 is also performed. **Results:** A change-point was identified in December 2011 or one month before/after from all four calendars that included this period. While always improving, the magnitude of changes measured from the surveys at this time point varies considerably. The situation is the same for most other change-points detected when at least two calendars overlap. As an example, the evaluation of the radio serial drama can only use the calendar for the 2010-2011 survey which includes the whole broadcasting period. The analysis identified a first change points between August 2007 and November 2008, and another one more certain between August and October 2009. From the segmented regression analysis, the first change point represents a small increase in contraceptive use while the second, that occurred during the intervention, is an additional 10 times increase. Using the beginning and the end of broadcasting as first and second change results in similar values. **Conclusions:** The results suggested that a time series using calendar data is a valuable approach to detect historical changes in contraceptive use that can then be better studied. It is also a useful tool to add evidence of long-term impact for family planning programs, but its capacity to quantify the change associated appears limited. Therefore, this approach could help better understand what environment, intervention or policy helped improved contraceptive use for women in low- and middle-income countries to better guide future efforts.

P-023 • Association between knowledge and interest in using IUD among Brazilian women

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Objective: We aimed to analyze the knowledge about intrauterine dispositive device (IUD), the interest in using it and the relation between the knowledge and interest in using among Brazilian women in reproductive age. **Method:** This is a cross-section study conducted with 1,858 18 to 49 year-old women, attending primary health care facilities in three capitals in Brazil. They were non-pregnant and non-sterilized. The focus is the copper IUD as this is the only type available at public services in Brazil. Data were collected in face-to-face interviews. Level of IUD knowledge was assessed by 10 questions with likert-kind answer options (agree, do not agree or do not know). The score was categorized in “below/equal to median” and “above the median”. Interest of using IUD was measured among women who had never used the method. We used chi-square and multiple logistic regression models to assess correlates of the knowledge of IUD and the interest in using IUD, in Stata 14.2. **Results:** The use of copper IUD was rare (1.7%). Few women hit all the questions (7,2%) and 15,3% chose all wrong options. Almost half did not

know if the IUD is related to cancer neither if it has strong/ uncomfortable side effects. Women aged 30-34 years (ORadj: 1.59; CI 1.18-2.15), more educated (ORadj: 4.84; CI 3.38-6.91), that had used or were using copper IUD (ORadj: 4.92; CI 1.84-13.16), were more likely to have higher knowledge of IUD. The interest in using IUD was reported by 38.0%. Older women (35 and more years old) (ORadj: 0.27; CI 0.19-0.38), and married women (ORadj: 0.67; CI 0.52-0.86) were less likely to be interested in using IUD, while women with higher education status (ORadj: 1.48; CI 1.01-2.18), with three or more children (ORadj: 1.67; CI 1.07-2.59) and with higher knowledge of IUD (ORadj: 1.60; CI 1.29-1.99) were more likely to be interested in using it. **Conclusion:** Our findings show that many reproductive age women have misconceptions about the IUD, which turns into poorer knowledge about its efficacy, side-effects, safety and indications of use. As women with higher knowledge about IUD were more likely to be interested in using it, a strategy to improve the use of IUD in Brazil and elsewhere may be the implementation of contraceptive counseling that focus on minimizing the misconceptions about it.

P-024 • Contraceptive dynamics in the month before and after emergency contraception use

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Objective: The purpose of this study was to describe contraceptive behaviors in the month before and following emergency contraception (EC) use among Brazilian women. **Design & Methods:** This study was part of a larger project conducted in 2015–2017 among 2,052 women aged 18–49 attending primary health care facilities in three cities across different regions in Brazil. Analysis was restricted to the 793 women who reported lifetime use of EC. Women who reported that they had used EC at any time completed an "EC calendar" describing their contraceptive use at the time they last used EC. Specifically, they indicated on the daily calendar what contraceptive (if any) they had used in the 30 days before and after accessing EC. Analyses were conducted using Stata 14.2 to describe patterns of contraceptive use in the 30 days prior and after EC exposure. **Results:** Most women used contraception after accessing EC (65.6%); male condom was the method more frequently used (39.0%); 2.3% of women reported being pregnant after EC use. Among the pregnant women, 27.8% were using some method before EC, 50.0% were using no method before EC, and 22.2% were pregnant and still used EC. Excluding pregnant women (n=775), 51.7% of women used contraception prior to EC exposure and resumed use of contraception afterwards; 6.6% of women used contraception prior to EC but they did not use any method after EC; 26.3% of women did not use any method before and after EC use; 15.4% women did not use any method before EC but started a method after EC use. **Conclusions:** The results show that most women used contraception after EC use. One notable aspect of our findings was the proportion of women who were pregnant and still used EC, which may suggest that EC is considered abortive for this group of women. The low frequency of women who started using a method after EC use calls for greater attention to the difficulties Brazilian women face to recognize the risk of unintended pregnancy. In this context,

the concept referred to as “bridging”, that is, EC may also serve as a potential incentive for regular contraceptive use, was not observed in our study. Therefore, public health education efforts could focus on informing Brazilian women about the importance of effective contraception following EC to prevent future instances of unprotected intercourse.

P-025 • Contraceptive discontinuation following an abortion in Brazil

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Objectives: Our aim was to analyze the levels and correlates of contraceptive use and discontinuation following an abortion in Brazil. **Method:** Contraceptive calendar (retrospective report of reproductive events) was used to collect data on 2,051 Brazilian women, resulting in 7,542 episodes of contraceptive use (60 months of observation). An episode or segment of contraceptive use is defined as the duration (in months) of continuous use of a specific method from the date of starting to the date of discontinuing use. We interviewed 18-49 year-old women in three capitals from 2015 to 2017. We focus on two outcomes: contraceptive use following the abortion and contraceptive discontinuation (ending of an episode of use for any reason). Cumulative incidence rates of contraceptive discontinuation following an abortion – induced or spontaneous – were analyzed by Kaplan-Meier survival function and their correlates by Cox models, in Stata 14.0. **Results:** Among the 118 abortions reported, 40% of women used contraception in the first post-abortion month and 70% in the first year. In the first post-abortion year, pill (30%) and condom (20%) were the method more frequently used. No women used intrauterine dispositive device. More educated and married women were more likely to use the pill, while the opposite was observed for condom users. Contraceptive discontinuation rate increased from 12% in the first three months to 40% in the first 12-months (64% did not report any discontinuation). Women who had an unintended pregnancy that ended in abortion were less likely to discontinue their contraceptive in 12-months, while women who had an intended pregnancy that ended in abortion were less likely to start the use of a method in 12-months. Women who did not want to get pregnant again were less likely to report contraceptive discontinuation. Abandonment was more frequent among pill users (58%); failure was more frequent among condom users (73%); and switch to less efficient method was more frequent among injectable users (50%). Cox models showed that younger women, with higher educational status, and desire to have more children were more likely to method discontinuation 12-months following the abortion. **Conclusions:** This study provides evidence of contraceptive dynamics following an abortion in a country where abortion is restricted. The provision of post-abortion contraception is critical for preventing future unintended pregnancies and repeat abortion as our findings show that women were using mainly short-acting methods, with higher odds of discontinuation, even among women who did not want to become pregnant again.

P-026 • Contraception of 40-44 years old women in Romania

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The objectives of the study was to asses contraception among women over 40 years old, being known that at this age most of the women are sexual active, do not want children anymore but in the scientific literature the need for contraceptive services for this age group is often neglected. **Materials and Method:** Using a face to face interview knowledge and behavior concerning contraception of a group of 872 women 40-44 years old was evaluated. Data analysis refers to highlighting the prevalence of contraception and type of contraceptives used by women over 40. The aspects of contraception in women 40 years old and those of young women 15-24 years were also compared. **Results:** 20.70% of the sexually active women, (with sexual activity in the last month) included in the Romanian Reproductive Health Survey 2016 (5051) belongs to this age group. 46.8% of the group of 40-44 yeas old women are sexually active but 71% do not want to have more children. Over 90% of women 40-44 years old are informed regarding the different contraceptive methods, having a higher level of information comparing to the group of women 15-19 and 20-24 years old ($p < 0,05$). The condom is the most used method of contraception 14% followed by pills and IUD 10%, tubal ligation 9.1%, traditional methods 9.8% and combined methods (modern and traditional) 6.1%. Tubal ligation IUD and traditional methods except coitus interruptus are more commonly used among women over 40 years old compared to young women. In the presentation there will be also discussed doctors and women views about opportunities and limits of contraception use among women age 40 in Romania. **Conclusions**: Women over 40 use contraception, so family planning services should take this age group into account to ensure access and quality of services according the preferences of the woman and the particularities of their sexuality.

P-027 • Nexplanon discontinuation rate and effects on menstrual bleeding patterns

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Objectives. To describe the 6-month continuity rates, efficacy, and the 6 months and 3 years bleeding pattern associated with the subdermal contraceptive implant Nexplanon (etonogestrel 68 mg) inserted immediately after an abortion. **Design & Methods**. A retrospective cohort study on single-center between 2012-2018. Assessments included bleeding-spotting records, discontinuation, and unintended pregnancies. Bleeding patterns were analyzed using 90-day reference periods (RP) analyses assessed during routinary outpatient visits. **Results**. During the considered period 134 women inserted Nexplanon immediately after an abortion. In 44 cases (32.84%) was registered contraceptive discontinuation and in 16 (11.94%) of these cases because of bleeding/spotting reasons. In total 88 women had an outpatient examination at 6 months and 43.18% had a normal bleeding frequency, 28.41% infrequent bleeding, 10.23% amenorrhoea, 8.33% frequent bleeding, and 1.39% prolonged bleeding. In total 59 women had an examination at 3 years and 61.02% (36/59) had a normal bleeding frequency, 20.34% infrequent bleeding, and 8.47% amenorrhoea, and 10.17% frequent bleeding. None had an unintended pregnancy

during Nexplanon treatment. **Conclusions**. Nexplanon was associated with the unpredictable bleeding pattern, which includes mainly amenorrhoea and infrequent bleeding, but also frequent, or prolonged bleeding. The main reason for early discontinuation was bleeding/spotting. Effective preinsertion counseling could improve contraception choice and improve continuation rates.

P-028 • New Explanation To Old Problem Bleeding With Intra Uterine Device

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Introduction: Irregular uterine bleeding is one of the most important complications of IUD either medicated or non medicated. Many hypothesis were put to explain this issue but till now no proper explanation was put. **Aim Of The Work:** Is to study the microRNA (126,128), Aquaporin (2,6,9) , Brain derived factor in the uterine fluid wash in cases complaining of abnormal uterine bleeding caused by IUD. **Material and Methods:** 100 cases complaining of irregular uterine bleeding with copper loop(the most common used one we enrolled in the study) for Micro RNA (126,128),Aquaporin(2,6,9) , Brain derived factor(BDNF) in the uterine fluid (wash)taken by embryonal catherter.100 control cases with IUD with no abnormal uterine bleeding. **Results:** Statistically significant increase in Micro RNA (126,128) and Aquaporin (2,6,9) in the uterine fluid with p-value <0.01 and statistically significant decrease in Brain derived factor with p-value <0.01. **Conclusion:** A new cause of bleeding with IUD is born, this shed the light for the application in the treatment.

P-029 • Hysteroscopic Occlusion Of Corneal Ends of Fallopian Tubes By Bee Venom Ointment

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Introduction: Surgical methods of tubal contraception is through tubal sterilization, it's done through laparoscopy, laparotomy, mini laparotomy or during caesarean section. Now we introduce a new method for tubal sterilization through hysteroscopy. **Aim of the work:** Is to block the uterine end of the tub through hysteroscopy by a new compound called FARID ointment which is a mixture of Bee Venom3:1 Bee Propolis ointment put through hysteroscopy to seal the uterine tubal end in 20 cases. **Results:** Complete occlusion of both tubes occur with 100% contraception, follow up for 2 years revealed no canalization nor pregnancy. **Conclusion:** FARID ointment Hysteroscopic tubal occlusion is a new method of surgical tube contraception with no adverse reaction recorded.

P-030 • The Impact of Bee Propolis on Contraception

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Introduction: Bee Propolis is extracted from the bark of conifer trees and carried by honey bees to their hives, Caffeic acid phenethyl ester (CAPE) is extracted from the Bee Propolis, it has multiple functions as a powerful antioxidant, CAPE inhibits certain enzyme activities as lipoxygenases, cyclooxygenase and xanthine oxidase, its showed it has anti-inflammatory and anti-tumor activity beside other benefits. Aim of the work is to study the impact of Bee Propolis on contraception. **Material and Methods:** Bee Propolis as local contraception we used 1 gram in the form of tablet (vaginal tablet)1gram to be pit in the vagina before intercourse in 50 cases, (the success rate 98.1) with no side effect. In emergency contraception, we used in unprotected coitus 2gram single dose . We introduced Bee Propolis loop in 50 patients. **Results:** The success of Bee Propolis as local contraception was 98.1%, and in emergency contraception was 100%, and in Bee Propolis loop 99% in addition the patient had the benefit of the biological effect of Bee Propolis and with no adverse reaction. **Conclusion:** Bee Propolis is effective as a method of contraception (local, emergency, loop coated)

P-031 • Use, expectations and knowledge of contraceptive methods among women utilising public family planning clinic services

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Objective: To improve public contraceptive services, we examined the use of contraception, the desired characteristics of contraceptive methods, and the knowledge on method efficacy among users of public family planning clinics in the City of Vantaa, Finland. **Method:** We used an electronic questionnaire modified from the one used in the CHOICE project in St Louis, USA. Customers at public family planning clinics were offered to participate in the study between April 25th through August 30th, 2017. The questionnaire covered previous use of contraception and satisfaction with the methods used, as well as knowledge on the efficacy of different contraceptive methods and expectations on their desired characteristics. The results of this descriptive study are presented as percentages. **Results:** 665 out of 3,075 women visiting one of the four clinics during the study period were considered eligible, i.e. spoke one of the four languages in which the questionnaire was available, and visited a service provider on a pre-specified study day. Of these women, 551 women were invited to participate; 520 women participated and completed the questionnaire. 79% of women reported contraceptive counselling as the reason for visiting. The most commonly used method was condom (90% reported present or previous use), followed by combined oral contraception ([COC] 68%) and progestin-only oral contraception ([POP]26%). Altogether 28% reported present or previous use of a long-acting reversible contraceptive (LARC) method (14% levonorgestrel intrauterine systems [LNG-IUS], 10% contraceptive implants and 4% copper intrauterine devices [Cu-IUD]). The most important desired features of an ideal contraceptive method were as follows; effective birth control (listed

by 80%), reducing menstrual pain (42%), obtaining regular menstruation (37%), reducing menstrual bleeding (29%) and being easy to use (27%). When asked about method efficacy, 15% of women identified the Pearl index of typical use of condom correctly, 8% that of COC, and 14% that of POP. Regarding LARC methods, 72% were correct concerning the efficacy of LNG-IUS, 60% of contraceptive implants and 57% of Cu-IUD. **Conclusion:** There was a clear discrepancy between the features women considered important and the methods they used. There is a need for comprehensive contraceptive counselling regarding method efficacy as the knowledge about these issues is low.

P-032 • Thromboembolic risk and contraception

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Introduction: Thromboembolic disease is a complex, polygenic disease with relevant environmental interactions, which is determined by multiple risk factors (Rosendaal FR, 2003). From this statement (and before prescribing a hormonal contraceptive), we can see the importance of understanding the risk factors of the subject (Body Mass Index, personal and family history of thrombophilia and thrombosis, mobility, age, tobacco consumption, etc.) that can influence the occurrence of a thromboembolic disease. The recommendations presented in the paper "Risk Markers of Venous Thromboembolic Disease before Hormone Contraception" of the 8th National Congress of the Spanish Contraception Society (June 2006 - Barcelona) indicate that a thrombophilia study should be carried out in patients with a first-degree family history in events of arterial or venous thrombosis before taking hormonal contraception. **Objective:** To highlight the importance of developing an adequate clinical history for each woman that wishes to start using a contraceptive method and offering the right medical advice. **Materials and methods:** We studied the clinic history of a patient that came to our nursing office looking to request additional supply of her hormonal contraceptive treatment. We applied the centre's protocol governing such instances and the criteria established to elaborate clinical histories. Given the patient's family history we requested a thrombophilia study. **Results:** Our haematology service informed us that the patient was a heterozygous carrier of the 20210 A mutation of the prothrombin gene (Factor II). Additional and specific recommendations for female patients have been issued by the haematology service, since it is known that hormonal contraceptives can increase the risk of venous thromboembolism. **Conclusion:** We define thrombophilia as a congenital or acquired situation that leads to an increased risk of venous thromboembolic disease in the subject. Progestins in general do not induce changes in haemostasis factors, so they are considered a good contraceptive alternative for women at high risk of venous thromboembolism. A number of studies that have analysed this topic, such as Lidergard (2009 and 2011), Bergendal (2009) and Blanco-Molina (2012) as well as several institutions, such as the World Health Organization (WHO), Spanish Society of Contraception (SEC) and UK Medical Eligibility Criteria (UKMEC), recommend progestogens in case of thrombophilia, history of venous thromboembolism and even in case of thrombosis.

P-033 • Phase 4, open-label, 1-year pragmatic study of self-injection with subcutaneous depot medroxyprogesterone acetate in the Uniject System (DMPA-SC-Uniject) in adult women

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Objective Depot medroxyprogesterone acetate is a long-acting reversible contraceptive (LARC) available for subcutaneous self-injection in the prefilled, single-use, nonreusable, Uniject injection system (DMPA-SC-Uniject; Sayana Press® in the Uniject® system). This phase 4, open-label, single-arm, pragmatic study assessed the use of DMPA-SC-Uniject by adult women in the United Kingdom who self-injected every 3 months at home for 1 year. The percentage of women who successfully self-injected DMPA-SC-Uniject over a 1-year period was evaluated. **Design & Methods** Women aged 18–45 years interested in LARC who were considered good candidates for self-injection by the investigators participated in the study. After receiving education on the use of DMPA-SC-Uniject and a clinic-supervised initial self-injection at baseline, women were to self-inject at home at 3, 6, and 9 months and return for a final study visit at 12 months. Participants were to contact the clinic after each self-injection to confirm the date of self-injection and to report any injection or device difficulties and adverse events (AEs), including injection site reactions (ISRs). The primary endpoint was the mean percentage of successfully administered self-injections conducted at home and on schedule. Self-injections were categorised as either a success, defined as a home self-injection performed successfully and on schedule, or a failure. Only injections attempted at home were analysed. The continuation rate at 12 months and safety parameters were assessed. **Results** A total of 169 women (mean age, 29 years; 96% white) self-injected DMPA-SC-Uniject. Of 418 attempted at-home self-injections, 88.8% (95% CI: 85.1%–91.6%) were completed successfully and on schedule and 96.7% (95% CI: 94.5%–98.0%) were completed successfully. The participant 12-month continuation rate (ie, received all 4 injections and completed the study) was 67.5% (95% CI: 59.8%–74.5%). A total of 429 AEs were experienced by 142 participants (84.0%), including 67 ISRs which were reported by 38 participants (22.5%). All treatment-related AEs were mild or moderate in severity. The discontinuation rate due to ISRs was 3.0%. **Conclusions** DMPA-SC-Uniject self-administration provides a safe, effective, and convenient contraceptive option that may help overcome barriers to contraception access, reduce the number of clinic visits required for contraception administration, and promote long-term contraception adherence.

P-034 • Use of hormonal contraception in athletes and its consequences on sports performance

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Objective: The aim of this review is to correlate the intake of hormonal contraceptives and its repercussion on women's sportive performance. **Method:** In the Pubmed database, we used the descriptors "sports AND contraceptives". In total, 129 results were found but only 17 articles

were used. Exclusion criteria were review articles, non-theme related articles and case reports. **Results:** There are several changes in the human body related to contraception and sports. Female athletes who use hormonal contraception have shown increased cardiovascular risk factors such as increased oxidative stress, chronic inflammation, C- reactive protein and systolic blood pressure (SBP). Changes in hematological characteristics were seen after exercise, such as a significant elevation of factor XII, a decrease in plasminogen, and a resting level of C1-esterase inhibitor. It was also observed that female groups without hormonal contraception had lower red blood cells, but higher mean corpuscular volume, hematocrit and red cell deformability compared to female with hormonal contraception. Hormonal changes also occurred due to the use of contraceptive (CA): testosterone and estradiol were lower in athletes in use of CA. Regarding DHEAs, its increase was noticeable after longer training sessions. When performed shorter exercises the increase did not occur in women who used CA and did not train. Some studies provide data on changes that may predispose to future injury. Oral steroids have been found to cause changes in the anterior cruciate ligament (ACL), important features such as energy absorption, stretching and resistance. Another study has already shown that estradiol has a negative correlation with ACL stiffness and a positive relationship between estrone and ACL stiffness. One article showed that the use of the combined estrogen and progesterone pill, especially cyproterone acetate, for more than 2 years seemed to suppress the development of bone mineral content by making it smaller than in women who used it for less than 2 years or did not use it. In addition, the use of androgen pills seems to influence the decrease in quadriceps muscle strength. Another study showed that the best strength gain effect was related to estrogen-progestogen pills. When it comes to sports competitions and doping tests, contraceptive use had no negative impact on results. **Conclusion:** The use of hormonal contraceptives affects several physiological aspects of the human body, having complicating effects on female athletes and their sporting performances.

P-035 • Metabolic profile of women with levonorgestrel intrauterine device: preliminary data from a retrospective cohort study.

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Objective: We aimed to identify if the use of a levonorgestrel intrauterine device (LNG-IUD) changes glucose (Glu), high-density lipoprotein cholesterol (HDL), low-density lipoprotein cholesterol (LDL) and triglycerides (TG) levels. **Methods:** We performed a retrospective cohort study of 101 women who underwent LNG-IUD placement at a tertiary hospital in São Paulo, Brazil. Baseline characteristics included age and body mass index (BMI). All women received LNG-IUD and we compared their serum levels of Glu, HDL, LDL and TG before and after using this device. Continuous variables are presented as mean ± SD or median [IQR]; categorical variables are presented in relative frequency (%). Statistical inference used Wilcoxon signed rank test, due to non-normal distribution of data. **Results:** Subjects were 34.9 ± 8.2 years old and had BMI of 29.9 ± 6.9 kg/m^2; 31.4% were overweight and 52.0% were obese. After a follow-up of 10.23 ± 9.08 months, no worsening was observed: Glu (before: 87 [81-93]; after: 84 [79-92], p = 0.801); HDL (before: 46 [37-55]; after: 46 [40-59], p = 0.959); TG (before: 94 [58-135]; after:

99 [64-129], p = 0.344); and there was a discrete improvement in LDL levels (before: 104 [87-126]; after: 98 [79-113], p = 0.039). **Conclusion:** LNG-IUD is metabolically safe for women who wish to use this method.

P-036 • Continuation rates and satisfaction with levonorgestrel intrauterine device: preliminary data from a retrospective cohort study

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Objective: We sought to assess continuation rates and satisfaction of levonorgestrel intrauterine devices (LNG-IUD) and to identify clinical predictors of higher continuation and satisfaction with this device. **Methods:** We performed a retrospective cohort study of 101 women who underwent LNG-IUD placement at a tertiary hospital in São Paulo, Brazil. All women received LNG-IUD and we compared women who kept this method until the last time they presented for an outpatient clinic appointment with those who did not. Independent variables (age, BMI, previous contraceptive method, parity, dysmenorrhea, abnormal uterine bleeding (AUB) and indication of LNG-IUD) were assessed in the first outpatient clinic appointment. Continuous variables are presented as mean ± SD; categorical variables are presented in relative frequency (%). Statistical analysis included t-test, Chi-square test and logistic regression, according to type of variables. **Results:** Subjects were 34.9 ± 8.2 years old, had had 1.36 ± 1.13 pregnancies and BMI was 29.9 ± 6.9 kg/m^2; 52.0% were obese. Previously to IUD insertion, they often used combined hormonal contraception (23.7%) and progestin-only contraception (pills and injectables) (39.7%). IUD was indicated for contraception (40.0%), abnormal uterine bleeding (25.9%) and chronic pelvic pain (34.1%). After a follow-up of 20.0 ± 12.8 months, continuation rate was 72.0% and satisfaction rate was 73.2%; there was 12.0% of expulsion. No clinical predictor was associated with higher continuation ($p > 0.05$). However, when LNG-IUD was indicated for AUB, satisfaction rate was lower (85.0% of those without AUB were satisfied and 58.1% of those with AUB were satisfied, $p = 0.011$). **Conclusion:** Continuation and satisfaction rates with LNG-IUD are high; women with previous AUB might feel less satisfied in comparison to those without AUB.

P-037 • Introduction of an intrauterine contraceptive service in UCC student health centre

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Objectives: To review the steps taken to introduce our new contraceptive service in a predominantly nulliparious population and to audit the outcomes to date. **Method:** Reviewing the stages involved in setting up the service and auditing the numbers and outcomes subsequently. **Results:** To date the service is running smoothly with ongoing review of specific outcomes. Conclusion: We are very happy to offer this effective reliable contraceptive option to our students in a university setting.

P-038 • Materialist/postmaterialist values and fertility behavior: evidence from an Islamic country

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This paper is based on the well-established fact that human behavior cannot be explained solely by objective or material conditions but is also, and to a very large extent, dependent on cultural values. It follows that the availability of various methods goes only a limited way towards understanding the actual practice of family planning –our specific topic of interest in this paper. Put differently, free and easy access to family planning is a necessary but certainly not a sufficient condition for its widespread use the understanding of which requires close attention to cultural values. Especially -but not exclusively- in traditional societies, religious values top the list of cultural variables that explain behavior related to family planning. From that perspective, analyzing contraceptive use and family planning in an Islamic culture is of particular interest. The terms "materialist and postmaterialist" were first coined by Ronald Inglehart (1971, 1977) who later expounded and tested an elaborate theory of value change based on the distinction between materialists and postmaterialists. In one of the most widely cited theories of social and political change, Inglehart has shown that as individuals' basic needs (e.g. security, food, shelter, etc.) are met, they experience a value shift from materialistic to postmaterialistic values. The latter emphasizes individual freedoms, gender equality, environmental concerns, tolerance of different sexual orientations and the like. Among other things, this shift marks a transition from a traditional to a secular-rational culture. An important indicator of this "Culture Shift" (Inglehart, 1990) is the importance attached to religion in various life spheres. Postmaterialists are more secular and sexually liberated to a greater extent. Consequently, they should be much more likely to practice family planning and to use modern contraceptives. The present paper tests this theory and its related assumptions based on survey data from a nationally representative sample of Turkey, a predominantly –almost exclusively- Islamic country. The questionnaire includes the materialism-postmaterialism index developed by Inglehart as well as a wide selection of indicators of a) attitudes and b) behavior related to family planning and contraceptive use. To this day, numerous surveys have been conducted in Turkey both on values and on fertility behavior separately. However, to our knowledge, the two have not every been brought together in the same study. Our survey includes all value domains included in international survey programs (e.g. World Values Surveys), indicators specific to Turkey and its Islamic population plus a wide array of indicators related to fertility behavior and attitudes. Quantitative methods, and more specifically, multiple regression models will be used to assess the impact of values in comparison to more tangible variables such as SES, demographics, urban/rural residence, etc. We expect our findings to be of both academic and practical interest.

P-039 • Socio-cultural values, norms and attitudes concerning family planning and induced abortion: data from Istanbul

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Objective: Although, on paper, family planning is assumed to be widely available in Turkey, accessibility remains a challenge, as legal restrictions and stigmatization make obtaining abortions problematic and the unmet need for contraception remains high. In April-May 2019, we interviewed eight family planning providers and eight community stakeholders to understand the impact of socio-cultural norms and values on family planning services in Bagcilar, Istanbul. **Design and methods:** The respondents were sampled based on their potential role and influence on matters related to sexual and reproductive health issues. We used ATLAS.ti for data management, coding, and analysis. We applied a multi-stage analytical strategy, following the principles of the constant comparative method, to develop codebooks and identify key themes. Interviews were audio-recorded with participants permission and subsequently transcribed and translated into English for analysis. **Results:** Results indicate that men keep a distance from family planning matters and are typically not involved in contraceptive decision-making processes. One stakeholder, for example, commented: "Women have to use birth control, because men do not use it". Further, the burden of childrearing responsibilities seems to fall on women and men are more likely to desire more children. Women, on the other hand, trust healthcare service providers and the information that they receive from them. Nevertheless, family planning service providers note that only a limited number of women actually obtain safe abortion services. Many family planning providers report that their own institutions do not offer abortion services on request due to personal beliefs of officials, unwillingness of providers to provide services. Additionally, many community stakeholders noted that they had "never heard of it [induced abortion] happening". Further, one family planning service provider stated that: "Our religious conviction is against it; family planning is forbidden in our faith." **Conclusion:** Financial obstacles, cultural and social norms, and provider biases seem to be the primary barriers to access for safe abortion services. We note that abortion is perceived as unjustifiable for large segments of society, and people have deep running fatalistic attitudes towards family planning and abortion methods. Cultural, social and religious norms and values are the basic determinants of family planning matters, including decision-making processes, accessibility and availability. Given these findings, any analyses that does not take into account socio-cultural factors will be incomplete.

P-040 • Barriers to women accessing the copper intrauterine device as emergency contraception: study of women seeking abortion following oral emergency contraception failure

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Objectives: To determine whether women experiencing failure of oral emergency contraception (EC) had been informed about the option of a copper intrauterine device (Cu-IUD) as the most effective method of EC. **Design & Methods:** The study was a prospective survey of women attending a UK abortion clinic over a 6 week period in 2019. Women who reported EC failure were asked if they had been informed about the Cu-IUD at the time of EC supply. **Results:**

During the 6 weeks of the study 393 individuals attended the abortion clinic, 7 (1.8%) of whom had conceived despite using oral EC. One woman reported condom failure and the other 6 women were not using contraception. One of the 7 women had not been eligible for the Cu-IUD because pregnancy could not be excluded. She had obtained EC from her GP (family doctor). The other 6 women who were eligible for a Cu-IUD had obtained EC from a community pharmacy. None of these 6 women could recall being informed about the Cu-IUD. The mean age of the 6 eligible women was 27 years (range 20 to 31); 4 women were nulliparous and 2 women were parous. Risk factors for oral EC failure were identified in 4 of the 6 women: 2 women weighed over 70 kg, one of whom was given double dose levonorgestrel; one woman took EC mid-cycle (day 13) when oral EC is less effective; and one woman took EC late in her cycle (day 23) when ovulation is likely to have occurred and EC is thought to be ineffective. The Cu-IUD was chosen as a future method of contraception by 2 of the 7 women. Limitations of this study include the small sample number and reliance on patients' recollections of the EC consultation. **Conclusions:** This study supports anecdotal evidence that a significant number of UK women, including women with risk factors for oral EC failure, are not advised that the Cu-IUD is more effective than oral EC, and that it is available to them free of charge for EC and for ongoing contraception if desired. The postabortion contraceptive choices of the women in the study indicate that at least 2 of the 7 women may have chosen a Cu-IUD as EC if they had been aware of that option at the time of pregnancy risk. We intend to further investigate the barriers to women being fully informed about EC.

P-041 • Perception about intrauterine device - pre and post insertion

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Objective: To evaluate the impact of contraceptive counseling on family planning consultation on women's perceptions of intrauterine devices, before and after placement. **Methods:** Prospective descriptive study, conducted through a questionnaire to women who placed intrauterine devices at the Family Planning consultation, from 1 January to 30 September 2019. **Results:** Fifty-two women with an average age of 30 years were included in this study. The main contraceptive methods used before the consultation were hormonal (50%), barrier (42%) and natural (8%). The main reason for choosing an intrauterine device was the advice given by the doctor or other health professional (85%). Concerns about this method were the insertion process (33%), especially regarding the pain associated with the procedure (54%). 78% of women considered that they were fully informed prior to the insertion of the device. After insertion, the average pain was grade 4, and it was found to be lower than the perception of women prior to placement. 75% thought the process was simpler than expected and 78% would advise the method to other women. All users reported no lack of information about possible complications or adverse effects associated with this contraceptive method. **Conclusion:** The results presented indicate that the choice of long-term contraceptive methods is mainly associated with correct medical advice. Most women were clear after family planning consultation, which made the process of intrauterine device placement easier and less painful than expected.

P-042 • Developing a core outcomes set (COS) for assessment of pain associated with intrauterine device (IUD) insertions - Qualitative survey

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Introduction: Intrauterine devices (IUDs) are amongst some of the safest, and most effective long-acting reversible contraceptives available. Insertional pain is one of its major side effects described by patients and a reason why some practitioners recommend less effective contraceptive methods. Despite the large number of studies available, there is no consensus over the most effective strategy to reduce pain associated with IUD Insertion. This lack of consensus may stem from variation in trial outcome measures. Without a set of standardised outcomes, meaningful comparisons have proven to be difficult even amongst studies with comparable interventions. We plan to develop, disseminate and implement a core outcome set (COS) for clinical trials investigating pain relief methods for IUD insertion. In addition to identifying key clinical outcomes from the existing literature, we also plan to include patient-centred outcomes. **Objectives:** This study aims to determine what clinical outcomes resonant most with women, by surveying women scheduled for an IUD insertion at our centre to identify important measurable pain-related patient-centred outcomes. **Methods:** We are undertaking qualitative surveys of women, aged 18 to 50 years, who present to our hospital clinic for an IUD insertion. Women have been given the option to complete a questionnaire with their consent, after an IUD insertion has been completed. Women are being asked a series of questions addressing their main concerns and enquiring of their expectations of an IUD insertion procedure. Participant responses will be collated and reviewed by two reviewers to identify key concepts and themes. A list of potential patient-derived outcomes will be tabulated and presented. **Clinical application:** The findings of this study will provide input to the development of a COS. The benefit of developing this COS will ensure the outcomes are 1) consistently measured and reported in clinical trials 2) clinically relevant and 3) patient centred. Developing a COS for clinical trials investigating pain relief methods for IUD insertion pain methods will ultimately lead to better clinical guidelines and improve the experience of IUD insertion for patients.

P-043 • Developing a core outcomes set (COS) for assessment of pain associated with intrauterine device (IUD) insertions - Literature review findings

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Introduction: Intrauterine devices (IUDs) are amongst some of the safest and most effective long-acting reversible contraceptives available. Insertional pain is one of its major side effects described by patients and a reason why some practitioners recommend less effective contraceptive methods. Various pharmacological and non-pharmacological methods have been trialled to reduce IUD insertion pain and/or to improve ease of insertion. Without a set of standardised outcome measures, meaningful comparisons have proven to be difficult even amongst studies with comparable interventions. The heterogeneity of the clinical trial data designed with different outcomes results in poorer quality of systematic reviews and meta-

analyses ultimately making the interpretation of treatment effect difficult. We plan to develop, disseminate and implement a core outcome set (COS) for clinical trials investigating pain relief methods for IUD insertion. **Objectives:** To conduct a review of existing systematic reviews and meta-analyses that have been completed to assess the efficacy of pain relief methods employed during IUD insertions, and from these to identify the commonly used procedural pain-related outcome measures. **Methods:** Two reviewers are independently reviewing the existing literature including all systematic reviews, meta-analyses, a Cochrane review and updated reviews on the topic of IUD insertion to identify outcome measurements used to evaluate methodologies for pain relief for IUD insertion. Outcome measures identified from the reviews are being tabulated and grouped under appropriate outcome domains. A summary of these findings will be presented. **Clinical application:** Generation of systematic reviews and updated reviews have traditionally been the first step in identifying potential core outcomes in development of COS. Fortunately, there are a number of recent peer reviewed systematic reviews, meta-analyses, a Cochrane review as well as a multiple updated review available on the topic of IUD insertion. Therefore, the existing literature will serve as a key resource to identify potential clinical outcomes.

P-044 • Short inter-pregnancy interval: choice or circumstance?

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Objectives: Despite the knowledge of pregnancy risks attributable to inadequate birth spacing, over one third of pregnancies occur within 18 months of a preceding birth. We interviewed women with a short inter-pregnancy interval (IPI) to explore their knowledge of contraception and birth-spacing and their experience of counselling on these themes. **Methods:** We conducted in-depth interviews at the Royal Prince Alfred and Canterbury Hospitals with women with a short IPI (live birth less than 18 months prior to conception of current pregnancy), who were fluent in English. Women were recruited at the second antenatal visit or day three post-partum. Interviews were recorded and women received a $25 participation voucher. **Results:** We interviewed eleven women. IPI ranged from 2.5-15 months (median 9.5). Only 18% had planned their current pregnancy. Women did not feel informed about ideal birth-spacing, but nearly all suggested that an IPI greater than 18 months was preferable. Women reported they felt informed about contraception and that it was accessible to them, however knowledge of different contraceptive methods was poor and there had been little uptake post-partum. Knowledge about the efficacy of lactational amenorrhoea and contraceptive methods compatible with breastfeeding was poor. Women reported that contraception and IPI was rarely discussed in the hospital or by the family doctor postnatally. **Discussion:** Women with a short IPI feel contraception is accessible to them, however the majority appear not to access it. Medical Professionals need to do more to educate women in the antenatal and postnatal period to help them space their pregnancies appropriately.

P-045 • Immediate post-partum uptake of contraceptive implants at the Post Moresby General Hospital Papua New Guinea: the impact of antenatal education

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Objectives: To document future pregnancy plans and immediate post-partum contraceptive choices of women delivering at Port Moresby General Hospital in Papua New Guinea and to assess factors influencing choice of the implant in a setting where hospital birth attendance provides an opportune time to deliver contraception. **Methods:** A cross sectional survey of women who had delivered a baby between December 2016 and December 2017 was conducted on the postnatal ward of Post Moresby General Hospital. Women aged 16-45, who had delivered a singleton, live baby that had not required admission to the special care nursery were eligible for inclusion. Women completed the survey independently or with a researcher if they were illiterate. **Results:** Of 2082 women surveyed, 1152 (55.3%) stated that they wanted a further pregnancy, 859 (41.3%) stated they had completed their family and 71 (3.4%) were unsure. Future contraception was documented for two thirds (705; 65.1%) of those planning another pregnancy and, of those, half planned to use the implant. Younger women, those not living with a partner, and those reporting antenatal education about the implant were significantly more likely to choose the implant post-partum. All three factors remained significant in multivariable analysis, but antenatal education about the implant was the strongest predictor: those that received education were 2.3 times (95%CI 1.6-3.4) more likely to choose it over other methods. **Conclusion**s: Antenatal education impacts on immediate post partum uptake of the contraceptive implant and ensures women access to a reliable method of contraception before discharge.

P-046 • Use of Long-Acting Reversible Contraception (LARC) in women of the public health system of Chile, 2014-2018

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Objectives: Describe the use of LARC and non-LARC in women of the Public Health System of Chile between the years 2014-2018. **Methodology**: Cross-sectional, descriptive, quantitative study. We analyzed the annual national consolidated of the Ministry of Health of Chile, between the years 2014-2018, of women in control according to fertility regulation method. Tables were made where data was crossed. Ethical considerations: National data were analyzed, therefore ethical considerations were not violated. **Results**: Women in control of fertility regulation in the Public Health System increases year by year. In 2014 it was 1.377.304 women and the 2018 1.508.721 woman in control (Table n°1).

- The percentage average of contraceptive users during period studied (2014-2018) were COC=27,88%, IUD=21,74%, CIC=15,38%, Implant=12,59%, DMPA=10,66%, POP=8,15% and male condom=3,59% (table n°1).
- The women who use LARC correspond to 34,32% and the Non-LARC users were 65,68% of the analyzed population (table n°2).

- The percentage of larc users was slightly decreasing in the period studied from 36,07% in 2014 to 33,23% in 2018 (Graph n°2).
- The LARC most used was IUD, but its use has been declining over the years from 26,23% in 2014 to 18,59% in 2018 (Graph n°1).
- Implants users were increasing in the period studied from 9,85% in 2014 to 14,84% 2018 (Graphic n°1).
- The most commonly used contraceptive is COC (Non-Larc), but its use has decreased over time from 30,8% in 2014 to 25,34% in 2018 (Graph n°1).

Conclusions:

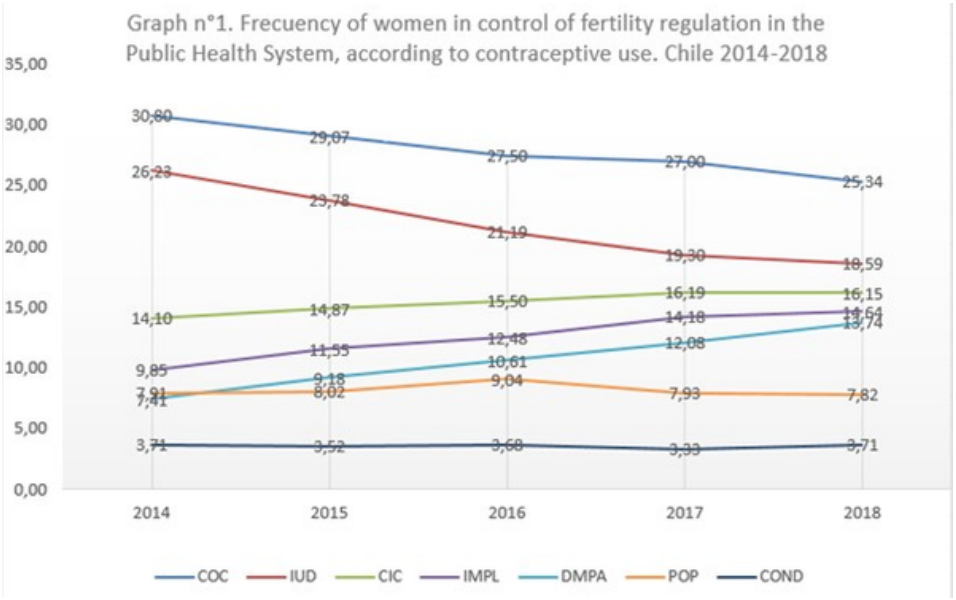
In the population studied, the use of LARC is lower compared to non-LARC.

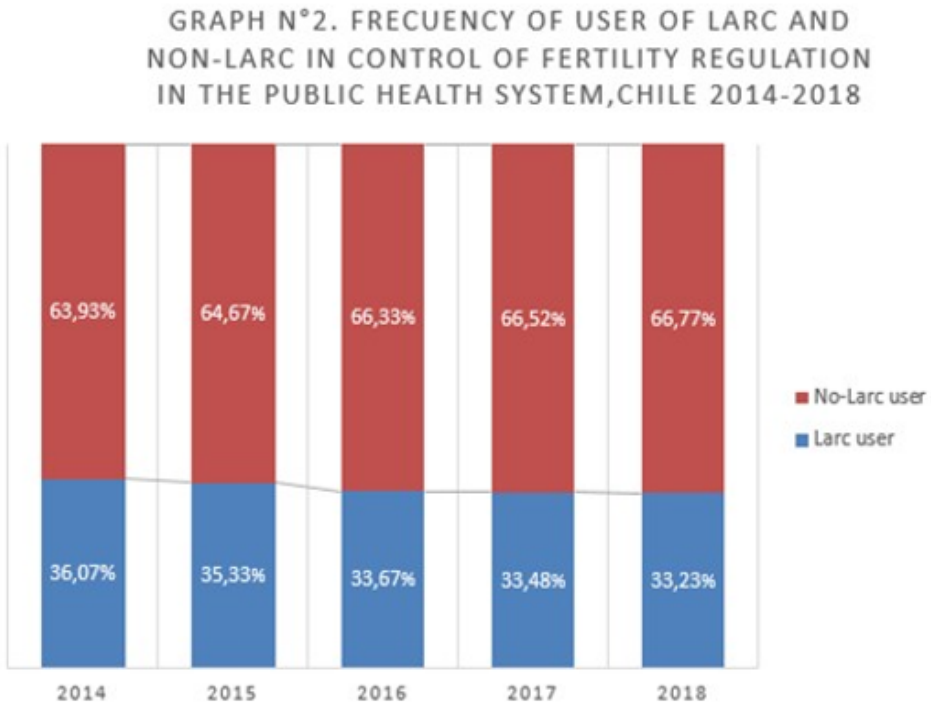
Table 1. Contraceptive users in control in the Public Health System of Chile, 2014-2018.

	2014		2015		2016		2017		2018		(2014-2018)	
	n	%	n	%	n	%	n	%	n	%	n	%
COC	424.161	30,80	413.576	29,07	415.588	27,50	388.994	27,00	382.306	25,34	2.024.625	27,88
IUD	361.224	26,23	338.361	23,78	320.214	21,19	278.050	19,30	280.481	18,59	1.578.330	21,74
CIC	194.216	14,10	211.635	14,87	234.238	15,50	233.202	16,19	243.731	16,15	1.117.022	15,38
IMPL	135.622	9,85	164.367	11,55	188.674	12,48	204.310	14,18	220.917	14,64	913.890	12,59
DMPA	102.044	7,41	130.575	9,18	160.277	10,61	174.101	12,08	207.278	13,74	774.275	10,66
POP	108.970	7,91	114.166	8,02	136.693	9,04	114.193	7,93	118.011	7,82	592.033	8,15
COND	51.067	3,71	50.093	3,52	55.636	3,68	47.942	3,33	55.997	3,71	260.735	3,59
Total	1.377.304	100	1.422.773	100	1.511.320	100	1.440.792	100	1.508.721	100	7.260.910	100

Table 2. Larc and Non-Larc users in control in the Public Health System of Chile, 2014-2018.

	2014		2015		2016		2017		2018		(2014-2018)	
	n	%	n	%	n	%	n	%	n	%	n	%
Larc user	496.846	36,07	502.728	35,33	508.888	33,67	482.360	33,48	501.398	33,23	2.492.220	34,32
Non-Larc user	880.458	63,93	920.045	64,67	1.002.432	66,33	958.432	66,52	1.007.323	66,77	4.768.690	65,68
Total	1.377.304	100	1.422.773	100	1.511.320	100	1.440.792	100	1.508.721	100	7.260.910	100





P-047 • Detection of the fertile window using a wearable medical device and the traditional calendar method: A comparative study

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Objectives: While many women rely on the calendar method to detect their fertile window and prevent or aid conception, recent advances in wearable sensor technology and artificial intelligence (AI) suggest a wearable device could provide women with more accurate, individualized predictions. In this study, we compare the accuracy and precision of these methods in identifying the six-day fertile window (FW). **Method:** We retrospectively analyzed data from a clinical sample whose primary purpose was to test a wrist-worn medical device's performance in detecting physiological changes across the menstrual cycle. Participants (n=34) wore the Ava Fertility Tracker nightly while sleeping for a minimum of three cycles. Via multiple sensors, Ava measures multiple physiological parameters every 10s including skin temperature, heart rate, heart rate variability, perfusion, and breathing rate. Participants synced their device daily with the complementary smartphone app, which uses machine learning to predict and detect the real-time FW. Participants also took and recorded results from a urinary luteinizing hormone (LH) test multiple times each cycle. Women had to be older than 18 years, not currently taking hormonal birth control, and have regular cycles (24-35 days in length) to be included in analyses. For each subject and cycle, we calculated the FW as would have been predicted by three different calendar methods: the Standard Days method, the Rhythm Method, and the Alternative Rhythm Method. We compared the accuracy and precision of each calendar

method to the algorithm-identified FW. We defined precision as the fraction of days which the method reported as fertile that aligned with the LH-detected fertile window and accuracy as the percentage of correctly classified days overall. **Results:** The accuracy in identifying the fertile days for the wearable device was 88.1%9.1% compared to 76.8%5.1% for the Standard Days method, 69.2%15.6% for the Rhythm Method, and 67.6% 16.1% for the Alternative Rhythm Method. Furthermore, the wearable fertility tracker had the highest precision of any of the methods analyzed (70.3%21.9% v. 42.7%-47.7%7.6%-13% for the calendar methods). **Conclusions:** Despite the ease of use and straightforward calculations driving the calendar method, using a wrist-worn medical device that records multiple physiological parameters simultaneously provides a more accurate and more precise estimation of the fertile window. Our findings have implications for women across the reproductive lifespan; whether women are trying to best time conceptive sex or minimize the number of days requiring back-up contraception, wearable technology represents a significant step forward in individualized, AI-driven healthcare.

P-048 • Etonogestrel implant, what is the limit?

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Objectives: The contraceptive implant is the most effective method of reversible contraception. Observational and trial data indicate that this method remains effective beyond the initial approved duration of use (3 years). Our goals are to present a case in which etonogestrel (ENG) was detectable in serum, after 9 years of implant insertion, and to review the literature concerning the extended use of contraceptive implants. **Method:** The patient was assessed at Centro Hospitalar Universitário Lisboa Central, and clinical data was obtained from the hospital informatics system. Subsequent non-systematic review of available literature on the topic present in scientific databases such as: PubMed, Science Direct and Google Scholar. **Results:** We present a case of a 32 years-old woman who was referred to our Planned Parenthood department to remove a non-palpable contraceptive implant, which was inserted in 2010. In the process of identifying the device, we started with image exams. First an arm radiography was performed and after an ultrasonography. Both failed in identifying the implant. Therefore, in March 2019, we asked the Implanon manufacturer (MSD®) to perform a serum ENG measurement to the patient. The result was 104.20 pg/mL, which was above the supposed threshold value for ovulation suppression (90 pg/mL). Subsequently, the patient did a magnetic resonance scan that was successful in locating the implant and the removal procedure was guided by ultrasonography. **Conclusions:** Current literature indicates that the contraceptive implant continues to be highly effective for at least 5 years of use. Extending the use of etonogestrel implant would bring several benefits, such as: save resources, including time of health personnel, save additional costs for the users and fewer removal and insertion procedures. Cases like the one we report reinforce the need to keep investigating this issue, with focus on the pharmacokinetic research on ENG serum levels, variability in body mass index, potential drug interactions and durability of devices.

P-049 • Long-acting reversible contraception in heart disease patients - what do they want?

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The incidence of women with reproductive age heart disease has increased in recent years due to longer survival of patients with congenital heart disease and increased obesity. Thus the guidance on the contraceptive method needs to be adequate and effective, with good planning for pregnancy. **Objective:** To know what women with heart disease want to use as a contraceptive method. **Methodology:** This was a cross-sectional cohort study conducted at the family planning service of the Federal University of São Paulo. Women with a diagnosis of heart disease were included in the study. It was applied a questionnaire to collect sociodemographic and medical data, and a specific one to know the acceptance rate of the long acting methods, as well as to identify the side effects and to evaluate the continuity of the chosen method. **Results:** The study included 31 cardiac patients. Nine (29%) of the interviewees were diagnosed with congenital heart disease, 6 (19%) valvular heart disease, 6 (19%) cardiomyopathy, 5 (16%) arrhythmia, 3 (10%) aortic disease, and 2 (6 %) Coronary disease. In this study 7 (23%) of the patients were using IUD, 6 (19%) IUS, 3 (10%) intradermal implant, 10 (32%) other methods and 5 (16%) did not use any contraceptive method. Of the patients using LARC, 15 (94%) were very satisfied with the method and only 1 (6%) were poorly satisfied with the method. Irregular bleeding was the most reported side effect by patients on LARC, occurring in 5 (31%) of the women, 2 (40%) of whom were using an IUD and 2 (40%) using an implant. Of the patients who used LARC, 94% wanted to continue the method. **Conclusion:** Heart disease patients chose to use long-term method with good acceptance and high degree of satisfaction. These women should be encouraged to use highly effective contraceptive methods but personal choice should be taken into account.

P-050 • The impact of the contraceptive implant with etonogestrel in the quality of life of women

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Objective: To evaluate the quality of life of the contraceptive implant users with etonogestrel. **Method:** Prospective longitudinal study with women enrolled in the Family Planning service from UNIFESP (Universidade Federal de São Paulo) between August 2017 and October 2018. The World Health Organization of Quality of Like - Bref (WHOQOL - Bref) questionnaire was applied in 3 moments, before the insertion of the method, and after 1 and 6 months. Literate over-18-year-old women who voluntarily wanted to participate of the study were included, after signing the Informed Consent Form. Those who showed depression or some memory deficit were excluded. Data related to the physical domain, psychological domain, social relationships and environment were analyzed. ANOVA was used to compare the average of scores from the domains of WHOQOL - Bref between the observed times, and the Friedman test was used - when necessary - for the repetitive measures; being considered a level of significance of 5% (p-value < 0,05). **Results:** 43 women were included in the study. The average age was 27.3 years (SD: 7.57), 46.5% of them being single, and when it comes to schooling, 30.2% of them reported having 12 years of study; most of them (53.5%) haven't got pregnant before and almost all of

them (90.7%) had already used other contraceptive method before. When we analyzed the answers got from the WHOQOL – Bref test, we verified a significant difference in the scores of Psychological Domain when compared to the values before the insertion of 63.95 (SD: 16.21) with the 3-month result 56.64 (SD: 17.5) (p=0,0080) and the 6-month result of 58.14 (SD: 18.83). There was also a change in the Social Relationships Domains score, when we compared the basal result 70.54 (SD: 15.14) with the 6-month result of 62.21 (SD: 18.49) (p= 0,0097). **Conclusion:** Our study has concluded that the usage of contraceptive implant with etonogestrel can affect over the quality of life of it users in the six first months of usage, more specifically over the psychological part with regard to the positive and negative feelings, in the ability to think and their self esteem, in the evaluation of the body image and appearance, and among their social relationships.

P-051 • Evaluating the acceptability of self-injection of subcutaneous depot medroxyprogesterone acetate –preliminary results

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Introduction: The injection containing medroxyprogesterone acetate is widely used all over the world, both for its easy application and for its only few contraindications. In Brazil, the introduction of the medroxyprogesterone acetate with subcutaneously application in the market is recent, as it was approved for the first time in 2018. Because of that, only few studies on evaluating its acceptability in the Brazilian population have been conducted. **Objectives:** Evaluating the acceptability of self-application of subcutaneous injection of the medroxyprogesterone acetate method. **Methods:** A cross-sectional cohort study was conducted by applying a questionnaire to all patients under follow-up in the Family Planning Sector – Universidade Federal São Paulo who wished to participate in the study. This questionnaire aimed to survey socio demographic data and assess the acceptability of self-administered subcutaneous medroxyprogesterone injection among women. **Results:** 125 women answered the questionnaire. The average age of the population was 27 years old. Among them, the majority (51.2%) were nulligested, having completed at least 8 years (86.4%) of education. They all knew the quarterly injection, but did not know about this new type of application. 45(36.3%) of the interviewees reported that they had already had this method intramuscularly administered before, but currently only 22(17.6%) continued using it. The remainder of the interviewees used other methods and 7(5.6%) did not use any form of contraception. In the evaluation of the questionnaire 39 (31%) women said that they would like to use a self-applicable method and 85 (68%) reported that they would not have difficulties in its administration. Among those who were using oral contraception 70 (56%) and parenteral 50 (40%) reported that they would exchange these methods for a self-administered subcutaneous one. **Conclusion:** Most women do not want to change their current method. However, the knowledge about a new application method has increased interest in the use of medroxyprogesterone acetate. It is noteworthy the high incidence of users of the short-term method (oral contraception) who showed greater interest in the use of the self-applicable method. This shows that women seek alternatives to practical and easy methods.

P-052 • Unmet family planning needs in the Appalachian region of the USA: Results from stakeholder focus groups

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Objectives: This study explored unmet family planning needs in Appalachia in the context of the opioid epidemic. **Methods:** We conducted three focus groups with community stakeholders in the mountainous, rural, remote Appalachian geographic region of the USA (*N*=16) and used Levesque, Harris, and Russell's (2013) framework of healthcare access to identify and categorize themes, and identify subthemes within each of these categories: (1) approachability, (2) acceptability, (3) availability and accommodation, (4) affordability, and (5) appropriateness. **Results:** Barriers to obtaining care naturally aligned with the five overarching themes from Levesque and others' (2013) healthcare access framework, and multiple subthemes were identified to further define these needs. **Conclusions:** Taken together, these results illustrate an inter-connected fabric of barriers to seeking family planning and substance abuse treatment services in Appalachia and highlight stakeholders' perceptions of a lack of existing knowledge about if and how these obstacles are overcome. Our findings highlight a lack of knowledge regarding unmet family planning needs in Appalachia, exacerbation of barriers to family planning care in the context of opioid use, and the value of examining stakeholder perceptions regarding barriers and facilitators to healthcare access.

P-053 • Increasing the uptake of long-acting reversible contraception in general practice: The Australian Contraceptive ChOice pRoject (ACCORd) cluster randomised controlled trial longitudinal follow-up protocol

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Objectives: In an effort to reduce rates of unintended pregnancies in Australia, the Australian Healthcare and Hospitals Association has expressed the need for more research into the barriers as well as the facilitators of long-acting reversible contraception (LARC) uptake. Through addressing patient, practitioner and system barriers to the uptake of long-acting reversible contraceptives (LARC), the Australian Contraceptive ChOice pRoject (ACCORd), adapted for the Australian context from the successful US Contraceptive CHOICE Project, trialled an educational intervention targeting general practitioners (GPs) and provided those in the

intervention group with a rapid referral service for LARC insertion. The cluster randomised controlled trial resulted in greater uptake of LARC in the intervention group compared with the control group. The objective of a longitudinal follow-up to the ACCORd study is to assess the long-term efficacy, acceptability and cost-effectiveness of the intervention. The protocol for this follow-up study is described. **Methods:** The ACCORd intervention involved training GPs to deliver efficacy-focused contraceptive counselling as well as providing a rapid referral pathway for insertion of LARCs. In the control group, GPs provided usual care contraceptive counselling; they did not receive any training and were not given access to a rapid referral pathway for LARC insertion. Women participants (patients of ACCORd GPs; n=740) completed a baseline, 6 month and 12 month survey. These participants will be invited to complete an additional follow-up survey 3-years post completion of their baseline interview. Based on original ACCORd study tools, the online survey will address long-term outcomes including contraceptive continuation rates and reproductive history, unintended pregnancies, satisfaction and concerns with current contraceptive method, and an assessment of quality of life. We will analyse data using binary regression models with generalised estimating equations and robust standard errors to account for clustering. Additionally, a cost-effectiveness analysis will be performed taking into consideration the costs associated with medical service and pharmaceutical utilization and the number of Quality Adjusted Life Years (QALYS) gained. **Conclusions:** Demonstration of sustained use, effectiveness at reducing unwanted pregnancies and cost effectiveness of this strategy among this cohort of Australian primary care patients, will demonstrate the need for further uptake of targeted interventions to increase the provision of effective contraception within primary care settings. Moreover, the results will contribute to the body of work, both nationally and internationally, surrounding interventions and strategies to increase the uptake of LARCs and reduce global rates of unintended pregnancy.

P-054 • Prolactin excursion depending on the contraception type

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Objective. To study the effect of Combined Hormonal Contraceptives on Prolactin levels excursion in women using Hormonal Contraception. **Methods.** The following diagnostic methods were used in the examination of patients: clinical and anamnestic examination, somatoscopy, pelvic exam, questionnaire survey, chart analysis, statistical methods, ovulation tests. 65 patients were analyzed and examined at the Clinical and Diagnostic Center from January 2018 to January 2019, aged 18 to 40 years old, who did not have chronic diseases that could affect prolactin levels, were analyzed and examined. The first group consisted of women with the period of CHC administration is more than 1 year without a break. The second group consisted of patients, chronic diseases were absent and they used the barrier method of contraception. The third group consisted of women who were observed due to infertility. **Results.** In the first group, 60% of patients showed a steady increase in prolactin level. No correlation with age was identified. The value of prolactin ranged from 600 to 790 mU/L. Side effects that occurred while taking CHCs showed 19% (most of all, a decrease in libido, an increase in body weight (about 5 kg), thickening of vellus hair). More than half of patients rated them as “insignificant” and do not want to change the drug. In the second group,

10% of patients showed an increase in prolactin level (from 590 mU/L to 700 mU/L), in other women from this group, the prolactin value was within the reference values. Due to menstrual cycle disorder, prolactin values in the third group ranged from 654 to 834 mU/L. According to the results of the questionnaire survey, it was found that patients whose prolactin level was higher evaluated their condition worse subjectively. **Conclusions:** 1. The intake of combined hormonal contraceptives affects the prolactin excursion (in 60%, respectively), 2. The barrier methods of contraception have almost no effects on prolactin levels, 3. Side effects that may be associated with an increase in prolactin clearly correlate with its level. The higher prolactin, the more acute symptomatology, 4. Increase in prolactin levels can lead to anovulation and, as a result, to infertility, 5. However, an increase in prolactin levels in association with CHCs intake was not detected in all patients, which indicates the need for supportive studies, 6. Hyperprolactinemia related to CHCs intake can enhance the contraceptive effect due to the additional effect on ovulation.

P-055 • LARC: a rising option in postpartum contraceptive counseling

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Objectives: To analyze the reproductive profile of women in the first postpartum year and evaluate the impact of contraceptive counseling in the choice of LARC. Postpartum is a critical time in the childbearing age. The resumption of fertility is uncertain and the impact of raising children in the daily life may negatively affect in the compliance of contraception. It is recommended to space deliveries at least 18 months to improve maternal and neonatal outcomes. LARC (Long-Acting Reversible Contraceptives) provide high effectiveness and perfect compliance being a good option in the postpartum. However, the use of LARC among Spanish women is low, less than 10%. **Methods**: A prospective study was carried out among women users of a Center for Sexual and Reproductive Health (CSRH) in Valencia (Spain) to evaluate the impact of postpartum contraceptive counseling in the choice of LARC. Three hundred and eight women that asked for contraceptive method during the first postpartum year in the Centre for Sexual and Reproductive Health Fuente de San Luis from Jan 2016 to Dec 2018. Contraceptive counseling was provided and the chosen contraceptive method was established. Provisional contraceptive method and definitive contraceptive method. Other variables were analyzed: age, number of abortions, number of children, previous contraceptive method, kind of delivery, kind of breastfeeding, and postpartum week. **Results:** The average of women was 31.4 years, 18% had any previous abortion. The 77.70% of women had a vaginal delivery and 66.99 % of them breastfed. One third came to the consult in the first six postpartum weeks. The previous contraceptive methods were combined hormonal contraceptives 39.19 %, condom 31.37%, coitus interruptus 16.33%, intrauterine device 6.86%, progestine only pill (POP) 2.6%, subdermal implant 1.63 and depot medroxyprogesterone acetate 1.30%. After

contraceptive counseling, 49.31% and 22.10% % of women chose POP and condom respectively as provisional contraceptive method. As definitive contraceptive, LARC was chosen by 33.75 % of postpartum women, separately cooper intrauterine device 17.53%, hormonal intrauterine device 5.84 % and subdermal implant 10.38 %. **Conclusions:** LARC are appropriate and available contraceptive methods for postpartum woman. Postpartum contraceptive counseling is a good opportunity to rise the use of LARC.

P-056 • Etonogestrel implant in a public health program in Brazil

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Objectives: To evaluate the satisfaction rate, duration of use, menstrual bleeding pattern and main discontinuation factors of etonogestrel implant in HIV-positive women using the method after vaginal or cesarean delivery in a Brazilian hospital. **Method:** The trial was a cross-sectional study. Data from patients enrolled in a contraceptive public health program in Porto Alegre were analyzed. Insertion of etonogestrel implant was offered at hospital discharge for HIV-positive women. Data were computed through analysis of electronic medical records and subsequent telephone conversation. Satisfaction rate and other parameters were assessed using the Likert scale. Menstrual bleeding frequency was measured according to World Health Organization (WHO) criteria. Continuous variables were expressed as mean ± standard deviation (SD) or by median and interquartile range [P25-P75]. Categorical variables were described as absolute (n) and relative (n%) frequencies. **Results:** A total of 46 patients underwent etonogestrel implant insertion between May 2016 and June 2019. Satisfaction questionnaire was completed by 24 patients (52.17% of initial sample). Average and median age were 30.6 ± 6.9 and 28 [25–37] years, respectively. 70.1% of patients were multiparous, and it was the first insertion in almost all of them (95.8%). At the follow-up, 22 patients were using the implant (mean duration of 16.6 ± 9.7 months), and only 2 removed it before 3 years of use. Reasons of discontinuation were due to dizziness, headache, lower limb pain and bleeding problems. Weight change was reported, but it was not a removal cause. The menstrual bleeding pattern was considered satisfactory by 66.6% patients. Amenorrhea and normal bleeding frequency were observed in 16.6% and 54.1% users, respectively, while only 12.5% presented prolonged bleeding. The Likert satisfaction scale revealed that 91.6% of users totally agreed that the etonogestrel implant insertion went easy and was not painful; 70.8% considered the implant use comfortable, and 81.5% considered it a convenient method. Moreover, 91.6% of users felt safer about the risk of pregnancy compared to other contraceptive methods, and 79.1% would recommend its use. **Conclusions:** Etonogestrel implant is a safe long-acting reversible contraception. Unfortunately, in Brazil it is not available in public health for general use because it is still expensive for the government. We showed that groups with social vulnerability have enormous advantages with its use since it offers minimal failure rates, good bleeding control, low incidence of side effects and contraindications, and little need for clinical follow-up. It is noteworthy that almost half of the sample couldn't be reached, which demonstrates the difficulty to clinically follow-up these groups. The high adherence and

satisfaction rate of patients emphasizes the need to expand this program for other groups who need highly safe contraception.

P-057 • Acne and oily skin sensation assessment in users of etonogestrel contraceptive implant compared to copper IUD

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Objectives: The objective of this study was to compare the impact of the ERC-releasing implant versus the intrauterine device (IUD) TCu380A on acne grade and skin oiliness sensation over 12 months. **Method:** This is a prospective open study using a convenience sample of 45 participants from the Family Planning Center of the Clinical Hospital of Porto Alegre, Brazil. Women aged between 18 and 40 years, with regular menstrual cycles (24 to 35 days), Body Mass Index ≤ 30kg/m^2, sexually active, and with no contraindications for the use of progestogens or IUD TCu380A were included in the study. Participants using combined contraceptives before undergoing the study were recommended discontinued the method 30 days prior to the insertion of the new contraceptive, using condoms during this washout period. Women invited to participate could choose between the ERC-implant and the IUD TCu380A. The study was approved by the Ethics Committee of the hospital. Acne was assessed on the day of contraceptive method insertion, 6 and 12 months later. Participants were questioned about their perception regarding acne and skin oiliness and underwent a dermatoscopy using the acne classification reported by Lópes. To compare means between groups, Student's t test for independent samples was applied. For assessing the dermatological parameters between and within groups, simultaneously, the Generalized Estimating Equation (GEE) model assessed by Bonferroni was applied. For the oily skin sensation, a binary logistic model was applied, and for the acne grade, an ordinal logistic model was used. The level of significance was set at 5% for all analyzes. **Results:** From 45 participants included, 38 women (ERC-implant n=20, IUD TCu380A n=18) were analyzed in this research. In the beginning of the study, both groups were homogeneous considering acne grade, skin oiliness, mean age (Mean±SD, ERC-implant= 26.28±5.21, IUD TCu380A=27.85±3.61) and BMI (Mean±SD, ERC-implant= 23.9±2.19, IUD TCu380A=23.65±3.10). After contraceptive method insertion, there was no significant worsening of the acne grade in both groups. A time effect on oily skin sensation between groups (p=0.024) was found since ERC-implant presented a reduction of this symptom during the 12 months of follow-up (p=0.048). On the other hand, IUD TCu380A did not display any difference in oily skin sensation (p=0.184). **Conclusions:** Female hormonal status tends to influence skin characteristics due to metabolic and genetic modifications. The ERC-implant does not alter the degree of acne, and may even improve the perception of skin oiliness when compared to a non-hormonal method of contraception.

P-058 • Changes in contraception use and its impact on reproductiive health in 2008-2018 in region Tabor- Czech Republic

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Objectives: changes in contraception use in the last 10 years in region Tabor. **Method:** retrospective analysis. **Results:** decreasing use of contraception leads to higher number of abortion. **Conclusion:** Personal approach to patients in explaining the benefits of contraception use is needed. The necessity of fighting with the fake information on internet is very important.

P-059 • Use of Emergency Contraceptive Pill in Brazil: a comparison between adolescent and young adult women.

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Objectves: Access to emergency contraceptive pill (ECP) is a key strategy in allowing young women to regulate their own fertility, as well as to exercise their reproductive rights. This paper aims to compare the use and frequency of use of ECP and associated factors between three groups of women: ***adolescents (15-19 years), women in their early 20s (20-24) and women in their late 20s (25-29)***. **Method:** In 2015, a household survey was conducted in São Paulo, the largest city of Latin America, with a probabilistic sample composed of 3,885 women aged 15 to 44 years. The present study selected data from non-pregnant women aged 15 to 29 years. Binary logistic regression models, one for each group, were used to describe the association between each outcome and its predictors. **Results:** A remarkable increase in the use of ECP has been observed. More than 60% of women have ever used ECP in all groups, compared to 19% in 2006, ten years after its introduction in Brazil. The main predictor of ECP ever use in the three groups was the number of lifetime sexual partners. However, among adolescents, having more partners was the only predictor of its use (OR 6+ partner=15.97; p-value=0,001 and OR 3-5 partners=4.23; p-value=0,000). In the other two groups, education and having children were also independently associated with ECP ever use. Regarding frequency of use, the ECP was used two or more times by 67% of adolescents, 72% of women in their early 20s and 75% of women in their late 20s. The number of sexual partners was also associated with higher frequency of use of ECP among women in their early and late 20s, but not in adolescents. For them, the economic situation was the only variable associated with higher frequency of use (OR AB economic class=3.41; p-value=0,039 and OR C economic class=3.22; p-value=0,027). **Conclusions:** Our findings suggest that among adolescents, although the ever use of ECP may not be directly determined by social conditions, its frequent use is highly dependent on economic status. In Brazil, the vast majority of women get ECP over the counter, despite it being available free of charge in public health services. In this sense, it is worth noting that adolescents, unlike young women, often do not have the economic autonomy to acquire ECP, which would limit their use whenever necessary. Thus, despite the increased use of ECP and considering that condom is the main method used by adolescents, efforts to ensure continuous free access to ECP should be undertaken.

P-060 • Service evaluation of contraceptive provision and discussion for women with two previous caesarean sections at a district general hospital in London

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Objectives: Women with 2 more of caesarean sections are at high risk of surgical complications in subsequent pregnancies. It is essential antenatal discussions and provision of contraception are prioritised in maternity services. We aim to evaluate antenatal discussion and post- partum provision of contraception to women with 2 or more previous caesarean sections. **Design and Methods:** 48 cases were extracted from the elective section lists between 14/01/2019 until 30/08/2019. Women who had their indication for Caesarean section listed as 2 or more previous sections were included. Paper and electronic notes were reviewed to assess the demographics of the patients and assess if they were counselled about contraception antenatally and if they received contraception before discharge. Results were recorded into an excel spreadsheet and then analysed. **Results:** 48 cases were recorded; 33 paper notes were available for antenatal analysis. 12 women were sterilised, 5 received IUS at section and 2 had implants. 40 patients had 2 previous sections and 8 patients had 3. The highest parity was 9. 13 patients had safeguarding concerns recorded. 32 women had at least one significant medical comorbidity that required consultant led **a**ntenatal care. 10 of the sections were recorded as difficult. Only one patient had an emergency section. Of the 33 antenatal notes available 6 patients had no documented contraceptive discussion while 27 did: 25 in consultant antenatal clinic, 1 in specialist midwife clinic and 1 in maternity assessment. Gestations for first contraceptive discussion carried from 16 to 38 weeks. 11 discussions only covered sterilisation, 10 covered sterilisation and intrauterine contraception, 1 included sterilisation and LARCs and 3 had all forms of contraception discussed. **Conclusions:** Antenatal discussion of contraception is inconsistent in timing and content. Sterilisation during caesarean section was the most popular form of contraception and few LARCs were provided. 60% of women left maternity services with no contraception placing them at high risk of repeat pregnancy. Two thirds of this population had a significant medical comorbidity that could affect future pregnancies in addition to the added complications from multiple caesarean sections. This is a missed opportunity to provide contraception to high risk women. SRH need to empower and liaise with maternity to enable routine high quality contraceptive discussion and post-partum provision prior to discharge to aid reduction in adverse pregnancy outcomes and unplanned pregnancy.

P-061 • Characteristics of new users of long-acting reversible contraceptive methods in a family planning outpatient clinic

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Long-acting reversible contraceptive (LARC) are methods chosen by women worldwide to prevent unplanned pregnancy. Public family planning clinics in Brazil develop important works in women's health offering non-cost LARC methods. **Objectives**: To explore characteristics of new users of subdermal implants, copper intrauterine device (Cu-IUD) and the levonorgestrel

(LNG) 52-mg intrauterine system (IUS). **Methods**: Cross-sectional study, which enrolled 1,485 Brazilian women, new users of LARC methods (74 implant, 840 Cu-IUD and 571 LNG IUS) between 2011 and 2018. We collected data among women who switched from different types of contraceptive methods to LARC methods; age (years), body weight (kg), body mass index (kg/m^2), length of use (months) of previous hormonal (combined pill, vaginal ring, patch, injection) or non-hormonal (male condom, coitus interruptus, calendar rhythm) methods, reasons to switch previous contraceptive methods (depression symptoms, loss of libido, menstrual cramps, headache, weight gain, fear of becoming pregnant, bleeding abnormalities, forget to take pills), and benefits to switch to LARC methods (usefulness , cost, safety). We analyzed data using Epi Info 7 software, version 7.2.2.2., and OpenEpi software, version 3, for one-way ANOVA test. **Results**: The mean of age of the new LARC users were 34+8 (Cu-IUD), 32+7 (LNG IUS) and 30+7 (implant) years old. The participants presented overweight (mean) (26.7+5.1 kg/m^2) and more than 43% presented nine or more years of study at time of LARC placement. Of the total, 57%, 38% and 5% switched to Cu-IUD, LNG IUS and implant, respectively. Safety and usefulness of LARC methods were the principal benefits reported by the women to switch of contraceptive method, and fear of becoming pregnant was the principal reason to change previous contraceptive method. There was not significant differences among weight of the participants between the LARC groups (p=.26). Participants with more overweight by body mass index (p<.001), and older (p<.001) have chosen for use Cu-IUD method. Women with more than 62 months of use of non-LARC contraceptive methods have chosen for use subdermal implant contraceptive (p<.001). **Conclusion**: Our results suggested that overweight woman prefer initiate Cu-IUD, and safety and usefulness are the principal benefits justified by the women to switch non-LARC contraceptive methods to the LARC methods.

P-062 • Women of advanced age and use of contraceptive methods

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Objective. An unintended pregnancy is a major problem among women of any age and particularly among women in their late reproductive years. The intention of this study was to investigate the use of different contraceptive methods among women of late reproductive age. **Design and methods**. An anonymous questionnaire was presented on the website of a popular women's magazine in January 2017. Women were asked about their age, marital status, educational level, and about contraceptive methods they used, i.e., combined oral contraceptives, preservatives, or natural methods. Predictable statistical methods were used to analyze the data. **Results.** A total of 186 women from 20 to 46 years of age participated in this study. They were grouped according to the type of contraception they used. Mean age was significantly different among three groups (p=0.0049). Women using natural methods had a higher mean age than women who used the other two methods (37.4 vs 34.1/33.8). Women older than 35 years had a higher proportion using natural methods compared with women younger than 35 years (about 50% vs 35%). Marital status was also significantly associated with contraceptive method (p=0.0086). Married women and divorced women tended to use natural methods (48.2% and 63.6%, respectively), whereas single women tended to use preservative methods (58.6%). Education level was not significant (p=0.0900) though a proportion using preservative methods was higher in university- than in college-educated participants (36.3% vs 21.7%). From the

multinomial logistic regression analysis, only age (continuous) was significant (p=0.0426), whereas marital status and education were not (p>0.05). **Conclusion.** Although many different contraceptive methods are widely available, the number of unwanted pregnancies remains high and is a serious health problem. An unintended pregnancy is of special concern among women in their late reproductive age, when the vast majority of them are convinced they cannot get pregnant because of their age. For this reason, the proportion of contraception users in this year's group of women is low, and mostly unsecure natural methods are practiced. This study confirms the need for appropriate education about available contraceptive methods among women of all ages, not only among the school population. This study shows that such education through the official website is appropriate; presenting health material in a reader-friendly manner turned out to be the best way to get closer to the population, which was confirmed by another study in 2018. The author declares no conflicts of interest.

P-063 • Therapeutic importance of oral contraceptive use in DUB in young patient

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Objective: The aim of this case report was to show the benefits of COC use in young patient with prolonged and heavy bleeding or DUB. **Methods:** Endovaginal sonography was performed in 22 year old patient with moderate anemia and heavy, prolonged periods. US exam was performed with a transvaginal IC 5-9 MHz EV transducer. A follow up TVUS exam was done after three months of COC use. **Results:** Complete pelvic sonogram was done and endometrial thickness was 17 mm, with visualization of hyperechoic, round, regular mass in endometrial cavity, measurements 13 mm with positive color flow in vascular stump which represent mostly endometrial polyp. Blood work shows Hgb levels of 104 g/L. PAPA smear shows no sign of abnormal cytology and cervical smear for STD was negative. A follow-up US pelvic exam was done after three months of COC use (2 mg Dienogest with 30 mcg Ethynil Estradiol). Measurements of endometrial thickness were done on the 10 th day of a regular 28 day menstrual cycle. Endovaginal sonography demonstrated decreased thickness of endometrium lining and size of endometrial polyp which was 5 mm. **Conclusion:** COC therapy is useful for DUB in young patients. The main advantage is in regularity of monthly periods, decreasing the amount and duration of menstrual bleeding and consequently decreasing the severity of anemia.
Keywords: COC-Combined Oral Contraception, DUB-dysfunctional Uterine blleding, EV endovaginal, TVUS - Transvaginal ultrasound

P-064 • Reasons for patient discontinuation of Long Acting Reversible Contraceptive devices (LARCs) and ways of improving adherence. Literature review and audit

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Introduction: Unplanned pregnancies have many unfortunate consequences and lead to massive impacts not only on the woman and her family but also financially on the NHS. Long acting reversible contraceptives (LARCs) have long been established as the gold standard in protecting against this. However, despite a low side effect profile and high rates of acceptability, there are still high numbers of patients requesting an early removal. The overall aim of this study was to establish the number of LARCs removed early and compare this to known reported levels. Also to establish the reasons for why patients were requesting early removal and identify possible ways in which clinicians can improve acceptability. **Method:** This study was a retrospectively designed, database review of all attendances over 6 months for LARC removal in a community, sexual health clinic in the East of England. **Results:** 394 patients were identified and included as requesting a LARC removal over 6 months. 44 (11.2%) IUDs, 161 (40.9%) IUSs and 189 (48.0%) Implants. 66% were requested to be removed due to expiration of the device and of these, 50.6% went on to have the same contraceptive method. Overall only, 33.8% (133 patients) of the LARCs were removed early. IUD were the most likely to be removed early with 45% removed before expiry. 22% of IUS and 41% of the implants were removed early. The majority of the reasons for this were for "bleeding problems" however, there was only 5 cases where the patient was actually offered medical management for their symptoms. Of the patients who requested early removal 93 patients still desired contraception yet 85% were moved on to less effective or less appropriate contraception than their LARC method. Of the patients requesting early removals only 49% were inserted in the service. **Conclusions:** On a local level, instead of focussing on pre-insertion counselling, interventions should be focussed on sustaining patients on their existing contraceptives. Acceptability of LARCs may be improved by treating unacceptable bleeding and contacting patients after requesting a removal of their LARC to understand their perceived side-effects before they attend for their appointment. A renewed emphasis should be promoted on understanding the nature of the complaint and exactly how that relates to their contraceptive.

P-065 • Changes in young women's contraceptive use in the Netherlands : Findings from three Sex under the age of 25 surveys

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Objective: Prevention of unintended pregnancy among adolescents and young adults under 25 years is pivotal from an individual as well as societal perspective. The use of long-acting reversible contraceptive (LARC) has been shown to increase, with no or little change in the use of short-acting reversible contraceptive (SARC) in the United States. We assessed trends in no contraceptive, SARC and LARC use by young women, aged between 12 and 25 years, and differences in trends within demographic groups among these women in the Netherlands. **Methods:** Data of sexually active women aged 12-25 years from three cross-section representative surveys, 2005, 2012 and 2017 was used for this study. In total, 11,229 Dutch girls were included with a median age of 20 years (interquartile range: 18-23 years). Trends over time of SARC and LARC use were assessed for the total sample and within demographic groups (age, religion, ethnic background and educational level) using non-parametric test for trend based on

the Wilcoxon method. Differences in trends between demographic groups were assessed using multivariable multinomial logistic regression with interaction between inclusion year and demographic factor. **Results:** Overall, the proportion of girls using SARC decreased significantly (P<0.001), specifically between 2012 and 2017 from 89% to 78%. LARC use increased significantly, specifically between 2012 and 2017 from 6% to 16% (P<0.001). Changes over time were larger among non-religious and mildly-religious young women and among higher educated young women (P for interaction <0.05). **Conclusion:** Decreasing trends in SARC use and increasing trends in LARC use were shown in the Netherlands between 2005 and 2017. These trends varied by religious groups and educational level, emphasizing potential for tailored contraception-campaigns for these groups. Although unintended pregnancy rates and abortion rates are already low in the Netherlands, the shown trends might eventually lead to a further decrease in unwanted pregnancy and potentially abortion, because of the lower risk of user errors.

P-066 • Assessment and provision of emergency contraception in contraception and sexual health clinic – Evidence of best practice

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Introduction: Provision of emergency contraception is a vital part of integrated sexual health services. Emergency contraceptive pill (Ella one or Levonelle) and Copper IUD (Cu-IUD) is available as emergency contraception methods in most of the sexual health services. Given the complexity of assessing pregnancy risk following unprotected sexual intercourse, the Guideline Development Group (GDG) recommends that Emergency Contraception is offered after unprotected sexual intercourse on any day of thewoman's natural menstrual cycle. Evidence of best practice in contraception is provided by the Faculty of Sexual and Reproductive Health as clinical guidelines. **Objective:** To ensure that the emergency contraception is recommended to women in our clinic according to the evidence of best practice guidelines from Faculty of Sexual and Reproductive health. **Methodology:** Retrospectively scrutinised records of 94 women attended for emergency contraception to two sexual health clinics in Essex. Women who attended the North East and Mid Essex clinics from October 2017 to March 2018 were identified as our sample. A list generated from patients electronic clinic records and each patient's record was carefully scrutinised to extract relevant data. **Results:** 62% of women, who were eligible for Cu- IUD as a method of emergency contraception, were provided with information on CU IUD as an option. A similar percentage was offered this method as an option. 87% of women received on going contraception advice but only 25% received relevant sexual health advice. 58% of women received the option of quick starting contraception but only 37% accepted to quick start. 92% of women received advice regarding a requirement of a pregnancy test in 3 weeks. **Conclusions:** All women who are eligible for a Cu-IUD should be given that option because of the effectiveness of this method. A trained clinical staff member should be available every day to perform the procedure. An effort should be taken to educate all women about the importance of quick starting and commence a suitable method before the woman leaves the clinic. This will avoid any future requirement for emergency contraception and unwanted, unplanned pregnancies. Giving sexual health advice and offering

screening for sexually transmitted infections (STI) at the right time is vital to avoid sexually transmitted infection following unprotected sex. This area should be looked at and strengthened further.

P-067 • Protocol of Action with the Contraceptive Intrauterine Devices in the Family Planning Center of Vigo

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We present the Action Protocol (ProtAc) with the Contraceptive Intrauterine Devices (IUD) in the Family Planning Center of Vigo (ProtAc-IUD VIGO), one of the Units of the Gynecology and Obstetrics Service of the University Hospital of Vigo. It is the Reference Center of the Primary Health System, formed by the Health Centers of the municipalities of Arbo, Baiona, A Cañiza, Cangas, Covelo, Crecente, Fornelos de Montes, Gondomar, A Guarda, Moaña, Mondariz-Balneario, Mos, As Neves, Nigrán, Oia, Pazos de Borbén, O Porriño, Ponteareas, Redondela, O Rosal, Salceda de Caselas, Salvaterra de Miño, Tomiño, Tui and 16 Health Centers of the city of Vigo. Total health population of 600,000 inhabitants. With an IUD placement rate of 1192/year (approximately 35% of them are hormonal IUD) and 356/ year hormonal implants insertions. Eligibility Criteria: Following the criteria of the WHO. Exams needed before IUD insertion: Medical History (risk of STI). Physical examination (cervicitis). Ultrasound study assessing the uterine cavity and ruling out as far as possible early pregnancy at the time of insertion (the IUD can be abortive). Time of the cycle in which it can be inserted: At any time provided there is no possibility of pregnancy. We believe it is appropriate to "discard the risk of pregnancy as much as possible". When we insert an IUD outside of menstruation we inform the woman of the risk of abortion in the case of early pregnancy not yet detected (it would be a situation similar to the insertion after a risk intercourse), hence the need for her commitment to avoid pregnancy the days before the insertion. Premedication: It is not necessary. We have a Hysteroscopic Unit for the necessary cases. Postmedication: We only give azithromycin 1g single dose in difficult insertions or in women with risk factors for STIs. Consent for IUD placement: In the 2013 Verín SOGAC (Galician Contraception Society) Consensus it was decided that for the insertion of IUDs (copper and hormonal) written medical consent is not necessary, and the oral medical consent is acceptable. Post-insert ultrasound control: It is recommended but not essential. Control visits: We believe that it is necessary the control to detect complications in the use and early falls of the IUD. Presence of actinomyces in cytology: It is not necessary to treat the presence of actinomyces. IUD and Gestation: We removal the IUD if the threads are visible but we inform the woman of the risk of bleeding and abortion due to their removal and we request the signing of an informed medical consent. In the case of non-removal we inform about the risks and offer the option of medical abortion. IUD and use of the vaginal tampon or menstrual cup: Our experience leads us to inform our patients that the IUD is compatible with the use of vaginal tampon or menstrual cup. IUD Duration: The one indicated by the manufacturer. In cases of metallic IUDs of more than 300 mm2 of copper, we recommend not changing them after 40 years old

P-068 • Does the IUD fit in nullipara post-abortion better than nulligravida? Correlating pain, bleeding, uterine width, and IUD location

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Objectives: Some levonorgestrel IUD have a width larger than the average uterine width of a nulliparous woman. Our study aimed to prospectively correlate pain and bleeding with IUDs fit within uterine cavity post-abortion using 3-D ultrasound. **Method:** Nulliparous participants were asked to have an ultrasound done the day of insertion when feasible. Participants completed pain, bleeding and satisfaction questionnaires using 10cm visual analogue scales (VAS) during an ultrasound one to six months post-insertion. **Results:** 13 nulliparous women were recruited, 5 had immediate ultrasound, 10 had follow-up ultrasound and questionnaire and 3 were lost to follow up. Subjects had Mirena (8), Jaydess (3), Liberte TT380 short (1), and 1 unknown copper IUD inserted. The average time to follow up ultrasound and questionnaire was 113 days. There were 2 IUDs inserted immediately post first trimester abortion, 10 participants were nulligravid, and 1 had a remote TA. Twenty-five percent (2/8) of women had Mirena myometrial invasion at follow up visit (1 also had invasion immediately post-insertion). Average pre and post insertion symptoms in hormonal IUD users were: non-menstrual pain 0.1 and 2.2, menstrual pain 3.6 and 5.0, bleeding 2.6 and 1.8, respectively. Mirena IUS invasion did not result in more non-menstrual pain compared to non-invading IUS (0.5 vs 0); menstrual pain (3.0 vs 5.6) or bleeding (2.0 vs 1.7), respectively. A participant with a copper IUD had severe pain and bleeding and was not included in the VAS comparison groups. The participant with ultrasound immediately post 6-week TA had a uterine width of 37 mm. When a participant had an ultrasound 76 days post-insertion for a 5-week TA, her uterine width was 32.6 mm. The remaining 9 nulligravid patients had average uterine width of 25.8±2.7mm (mean±SD). The patient with a remote TA had a uterine width of 25mm. Mirena invasion occurred in 2 nulligravid women with a uterine width of 21 mm and 25 mm. The participant with severe pain post copper IUD had a uterine width of 22.6mm. **Conclusion:** Participants at 5 and 6 weeks gestational age post-abortion had a larger uterine width at follow-up than nulligravida and would be expected to fit Mirena. A participant with a remote TA had a uterine width similar to nulligravid participants. Mirena was associated with higher risk of invasion in nulligravid women but not associated with worse bleeding or pain. A larger study post-surgical abortion is needed to assess post-insertion position and symptoms.

P-069 • Randomized trial of two different-sized copper intrauterine devices to compare pain at insertion, subsequent pain, and product satisfaction in a predominantly nulliparous population

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Objectives: To determine whether pain and initial satisfaction differ for new users of two different-sized copper IUDs. **Methods:** We conducted a single-blind (participant-only) randomized trial comparing two copper IUDs at 16 U.S. sites. Participants were randomized in a 4:1 ratio to either the Mona Lisa NT Cu380 Mini (measuring 24mm x 30mm) or the TCu380A (32mm x 36mm); the former is about 20% smaller than the latter. Participants recorded maximum pain levels on a visual analog scale (range 0 to 10cm, with 10cm being the maximum) at 9 time points: after speculum placement but before IUD insertion (baseline), immediately after insertion, 10 minutes after insertion, and 6 daily measures out to 7 days. At day 7 only, participants reported their overall product satisfaction (5-point Likert scale) and whether they would recommend the product to others. We computed two pain summary measures for each time point: mean level of pain and mean change in pain from baseline, and stratified results by parity. We used T-tests and chi-square tests to compare pain and satisfaction between products by parity. **Results:** We enrolled 1,105 women; nulliparous women constituted 84% (n=924). Reported mean pain levels immediately after IUD insertion were 4.9 (s.d., 2.3) for both the Mona Lisa (n=886) and TCu380A (n=219) products. Subsequent pain levels decreased equally and were statistically equivalent across both products, from 2.5 on day 2 to 0.7 on day 7. Mean change in pain from baseline followed a similar pattern with no statistical differences between the products at any time point. When combining data from both products, nulliparous women reported higher levels of pain compared to parous women for all time points ($p<0.05$); mean change in pain was also higher for nulliparous women for all time points. Among nulliparous women on day 7, 54% were highly satisfied with the Mona Lisa product compared to 45% for the TCu380A ($p<0.05$) and equal proportions (over 92%) using each product said they would recommend it to others. Among parous women, no differences in satisfaction by product were apparent. **Conclusions:** We found no difference in reported pain by IUD product, whereas 7-day satisfaction in the nulliparous subgroup was higher with the smaller product compared to the larger device. Longer-term data are needed to fully understand possible differences between these two products.

P-070 • The acceptability of the female condom for women in Australia

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Objectives: The female condom (also known as the internal condom) is the only female-initiated method of protection for both unintended pregnancy and sexually transmissible infections (STIs). However, use of the female condom is low in Australia and little is known regarding its acceptability. An interventional post-test study was undertaken to explore this further. **Methods:** As this was an exploratory study, the eligibility criterion was limited to: female, 16 years or over, heterosexually active and living in NSW, Australia. Eligible women were provided with three FC2 female condoms to try during intercourse, as well as an instructional video and written information. After using, or attempting to use, at least one female condom, participants were invited to complete an online survey. The survey explored their views of the female condom, experiences using it, and factors contributing to the likelihood of them reusing it or

recommending it to others. **Results:** In total, 284 women (M^{age} = 30.5, range = 16-63) completed the survey. Most participants had heard of the female condom prior to participating in the study (71%), however the majority had not previously tried it (88%). Open-ended survey responses suggested this was due to limited access to female condoms, lack of education and knowledge about this method, and the view that female condoms are visually displeasing. Just over half reported experiencing some initial difficulty in inserting the female condom, although only 44% of participants watched the instructional video. Overall, 51% stated they would use the female condom again for STI prevention, and 43% would recommend it to others. **Conclusions:** Findings suggest that greater education and health promotion efforts are required to raise awareness about the female condom and its potential benefits, including dual contraceptive and STI protection and greater reproductive autonomy and control. Clinicians could play an active role in raising awareness of this option among clients interested in STI prevention and/or contraception. Longer-term studies should be considered to determine if initial concerns about the female condom may be overcome with continued use. Studies including men, trans and gender diverse people and others in the LGBTIQ+ community will also be important to ensure representation of a range of perspectives.

P-071 • Contraception provision in the postpartum period: knowledge, views and experiences of midwives

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Objectives: Women are susceptible to unintended pregnancies in the first year after giving birth, particularly as consideration of contraception may be a low priority given the multiple competing demands at this time and intercourse may be resumed without sufficient contraception cover. Discussing and, if appropriate, providing contraception before women leave hospital after giving birth may prevent rapid repeat pregnancies. As implant insertions by midwives is not a common practice in the Australian hospital setting, we are undertaking a pilot study to determine the feasibility, barriers and enablers of midwives providing the contraceptive implant in the immediate postpartum period. A baseline survey was undertaken with midwives to better understand their views and experiences regarding postpartum contraception provision by midwives. **Method:** We conducted a baseline survey at two urban hospitals in NSW, one of which was a tertiary referral hospital, prior to study implementation to determine midwives knowledge of and attitudes to midwifery-led contraception provision. Midwives working at both hospitals were invited to complete the anonymous survey. **Results:** The majority (88%) believe it is a midwife's role to provide contraceptive information, and 79% reported providing this (in some form) as part of their current role. However, only 14% reported receiving formal training in contraception. Reasons given for not discussing contraception in the postnatal period included not having enough time, patient had already indicated a contraceptive choice / implementation plan, or communication issues (e.g. no interpreter). The methods of contraception midwives thought most women indicated they would use when leaving hospital included male condoms

(64%), the oral contraceptive pill (34%) and the contraceptive implant (27%). **Conclusions:** This survey demonstrates most midwives believe discussing contraception is an important part of a midwife's role and many currently provide some form of contraception counselling. Yet most have not undertaken formal training / education in relation to contraception. Additional training in contraceptive counselling and provision would ensure midwives have the knowledge and confidence to provide accurate information about the range of available postpartum contraceptive options. Immediate postpartum contraception provision and advice from midwives will assist women to better plan their subsequent pregnancy and may contribute to preventing rapid repeat pregnancies.

P-072 • Contraceptive implant with etonogestrel – evaluation in the acceptance of the method

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Objective: To evaluate the acceptance of the method from the female users of the implant with etonogestrel. **Method:** prospective longitudinal study with women enrolled in the Family Planning service from Universidade Federal de São Paulo between August 2017 and October 2018. The ORTHO Birth Control Satisfaction Assessment Too (ORTHO BC-SAT) questionnaire was applied and answered in 3 moments (before the insertion, after 1 month and after 6 months) respectively. Literate over-18-year-old women who voluntarily wanted to participate of the study were included, after signing the Informed Consent Form. Those who reported depression, some kind of sexual dysfunction or some memory deficit were excluded. The following data were analyzed: future fertility concerns, ease of use/convenience, accordance (in other words, adherence), lifestyle impact, bother with symptoms/side effects, menstrual impact, guarantee/reliance and general satisfaction. **Results:** 43 women were included in the study. The average age was 27.3 years (SD: 7.57), some of them being single (46.5%) and some having 12 years of schooling (30.2%); most of them have not got pregnant before (53.5%) and almost all of them (90.7%) had already used other contraceptive method before. When we analyzed the answers, we could observe a significant difference in the "Ease of use" domain by time , the score in the basal moment 63.02 (SD 24.16) was smaller than the one found after 6 months 77.91 (SD - 23.48) (p=0,0001*). There was also a significant difference in the "Menstrual Impact" domain by time; being the score of the basal moment of 43.96 (SD - 28.94) smaller than the one observed after 6 months of 67.11 (SD - 33.33) (p=0,0002*). Another important difference occurred in the "Adherence" domain by time, the score from the basal moment of 54.36 (SD - 27.33) was smaller than the one found after 6 months of 85.03 (SD - 17.15) (p>0,0001*). Significant difference was found in the "Reliance" domain for some time (p=0,0004*); the score from the basal moment of 55.52 (SD - 24.48) was smaller than the of 6 months 69.33 (SD - 22.19). On the other hand, in the comparison of the "Satisfaction", "Side Effects" and "Lifestyle Impact" domains had no difference during the observe moments. **Conclusion:** Our results conclude that the contraceptive implant with etonogestrel is well accepted by most of the users, with good adherence in the six first months.

P-073 • Kidney transplanted women – which contraceptive method do they choose?

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Objective: Evaluate the contraceptive method in a population of kidney transplanted women. **Methods:** In the Service of Familiar Planning of the Federal University of Sao Paulo, from 2017 January to 2019 July, 170 kidney transplanted women were evaluated. All of them received information about contraceptive methods appropriated for them (progestin-only pills, injectable depot medroxyprogesterone acetate, progestin- only implant, copper-containing intrauterine device or levonorgestrel-releasing intrauterine device) and after medical evaluation, they chose the method that pleased them. Data were obtained after review of medical records. **Results:** Of the 170 kidney transplanted women, 16 had not started sexual life and had no interest in starting contraceptive methods; they were therefore excluded. Among the remaining 154 women, the average age was 33.6 years; the majority of them were white (46.1%) and nulliparous (53.2%). Only 8 (5.2%) of them were teenagers (less than 20 years old). Regarding contraceptive method chosen, 62.9% of women have opted for the injectable depot medroxyprogesterone acetate, followed by intrauterine device (copper or levonorgestrel), chosen by 22 (14.3%) patients, of whom 6 were nulliparous and 16 had at least one previous birth. Progestin-only implant was inserted in only two women. Thirteen patients opted for use no contraceptive method, some for reproductive desire. **Conclusion:** Kidney transplanted women, even after orientation, choose short-acting contraceptive methods. It is visible the prejudice and ignorance of our population regarding long-acting reversible contraceptive methods, as intrauterine device, especially in nulliparous women. So, it is urgently necessary improve orientation about contraception methods, especially the long-acting methods and mainly in the transplanted women population.

P-074 • Prevalence and determinants of contraceptive use in a rural area of Delhi

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Introduction: Contraceptive prevalence is the percentage of women who are currently using, or whose sexual partner is currently using, at least one method of contraception, regardless of the method used. It is usually reported for married or in-union women aged 15 to 49. According to NFHS- 4 survey 56.6% currently married women in rural area of Delhi are using any method of contraception. **Aims and objectives**: To find out the prevalence of contraceptive use in married reproductive age group women in a rural area of Delhi. To find out the association between contraceptive use and socio-demographic determinants. **Material and methods:** A community based crossed-sectional study was conducted in a rural area, Barwala from June to October, 2016. A pre tested semi structured questionnaire was utilized to collect data from sample population. 295 reproductive age group married women were interviewed. **Statistical analysis:** Quantitative data was expressed by mean and standard deviation, qualitative data was expressed by percentages and difference between the proportions was observed by chi square test or Fisher's exact test. Confidence interval of 95% was used and $p< 0.05$ was considered significant. **Results:** A total of 295 currently married women of 18-45 years age participated in the study. Largest proportion of women belonged to 25-31 years of age i.e. 46.4%. Current use of contraception was 38.6%. Tubectomy was the most common contraceptive method being used i.e. 52.6%.Statistically significant association was seen between contraceptive use and

participant's age (p-value: 0.000), religion (p-value: 0.034) and literacy status (p-value: 0.021). **Conclusion:** The prevalence of contraceptive use is lower in the area than expected from NFHS-4 survey. There is a need to generate demand for contraceptive services in women of child bearing age. Understanding how choices regarding family planning are made, will help in accelerating the process of fertility decline.

P-075 • Advantages of determining the fertile window with the individualised Natural Cycles algorithm over calendar-based methods

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Objectives: Fertility awareness-based methods of contraception rely on correct fertile window identification. This study aims to compare the accuracy of fertile window identification with the contraceptive app Natural Cycles against the Rhythm Method and Standard Days Method (SDM). **Methods:** Menstruation dates, basal body temperature (BBT), and luteinising hormone (LH) test results were collected anonymously from Natural Cycles app users. Ovulation day was retrospectively identified in cycles with a positive LH test followed by BBT rise. The fraction of green days (GDs) and wrong green days (WGDs) allocated by the Natural Cycles algorithm and other static calculations were determined over 12 cycles. **Results:** For comparison of Natural Cycles and the Rhythm Method, 26,626 cycles were analysed. Natural Cycles' algorithm allocated 43% GDs (BBT) and 48% GDs (LH & BBT) in cycle 1 increasing to 56% and 59% in cycle 12, while the fraction of WGDs averaged at 0.14% and 0.08% respectively. The Rhythm Method requires monitoring of six cycles, resulting in no GDs or WGDs in cycle 1-6. In cycle 7, 49% GDs and 0.26% WGDs were allocated. GDs and WGDs decreased to 43% and 0.18% in cycle 12. The probabilities of WGDs on the day before ovulation with Natural Cycles were 0.31% (BBT) and 0% (LH, BBT), and 0.80% with the Rhythm Method. 16,386 cycles were analyzed for comparison of Natural Cycles and the SDM. The SDM allocated 58% GDs in all cycles. The fraction of WGDs was 1.60% in cycle 1 and decreased to 0.27% in cycle 12. Analysis with Natural Cycles resulted in 44% GDs (BBT) and 49% GDs (LH, BBT) in cycle 1, increasing to 57% and 61% GDs in cycle 12 respectively. WGDs remained consistent at 0.12% (BBT only) and 0.07% (LH, BBT). The probabilities of WGDs on the day before ovulation with Natural Cycles were 0.16% (BBT) and 0% (LH, BBT), and 6.90% with the SDM. **Conclusion:** This study highlights that individualised algorithms are advantageous for accurate determination of the fertile window and methods that apply simple static rules are more likely to fail during the most fertile days.

P-076 • Use of Levonorgestrel Intrauterine System in Brazilian adolescents with mental disorders

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Objectives: To evaluate Levonorgestrel Intrauterine System (LNG-IUS) continuation rate and satisfaction in adolescents with mental disorders. **Method:** This prospective cohort study was conducted at a public referral clinic specialized in adolescents with mental disorders in the Federal District, Brazil. Over a period of 12 months, 1232 female adolescents (10 to 19 years) were managed at the clinic; 862 were sexually active. All participated in counseling sessions on available contraceptive methods (oral hormonal contraception, monthly and quarterly injections, condom, Copper T IUD and LNG-IUS); 34 adolescents chose to use LNG-IUS. All had mild to moderate mental disorders, such as depression, anxiety, bipolar mood disorder, intellectual disability and schizophrenia. Most (n=30, 88%) were using psychiatric medication and the others (n=4, 12%) were treated with psychotherapy. The adolescents were scheduled for follow-up visits every 4 months, for 12 months. At each visit, they were asked about symptoms, satisfaction with the method and whether they wanted to continue using it. During all visits, they were accompanied by caregivers or guardians. **Results:** The 34 adolescents had a mean age of 16.7 (SD = 1.16) years. At 12 months, the continuation rate was 76.6%. Three adolescents (8.8%) expelled the device, one (2.9%) requested it to be removed after 3 months because her psychiatric condition had worsened. Four adolescents (11.7%) were lost to follow-up 12 months after insertion. At 12 months, the 26 (76%) adolescents who continued with the method were satisfied with it and most (n=22, 64.7%) stated that they planned to use it for 5 years because of comfort, safety, and reduced dysmenorrhea and menstrual flow. Due to inherent difficulties in dealing with menstruation (bleeding and pain), the adverse effects of LNG- IUS were very positively accepted by this group of adolescents and their caregivers. **Conclusion:** The Levonorgestrel Intrauterine System had high continuation and satisfaction rates among Brazilian adolescents with mental disorders.

P-077 • Contraception in adolescents with mental disorders- Which is preferable intrauterine system with levonorgestrel or injectable with medroxyprogesterone acetate?

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Objectives: To evaluate the 12-months continuation and satisfaction rates of LNG-IUS compared to quarterly injectable medroxyprogesterone acetate (DMPA) in adolescents with mental disorders. **Method:** This prospective cohort study was conducted at ADOLESCENTRO, a public referral clinic specialized in adolescents with mental disorders in the Federal District, Brazil. Over a period of 12 months, 1232 female adolescents (10 to 19 years) were managed at the clinic; 862 were sexually active. All participated in counseling sessions on available contraceptive methods (oral hormonal contraception, monthly and quarterly injections, condom, Copper T IUD and LNG-IUS); 34 adolescents chose to use LNG-IUS and 63 preferred to use quarterly DMPA injections. All had mild and moderate mental disorders, such as depression, anxiety, bipolar disorder, attention deficit hyperactivity disorder, intellectual disability and schizophrenia. During the study, 88% of those who chose the IUS and 82.6% of those who opted for the quarterly injection used psychiatric medications. The adolescents were scheduled for follow-up visits every 4 months, for 12 months. At each visit, they were asked about symptoms, satisfaction with the method and whether they wanted to continue using it. A responsible person (caregiver or guardian) accompanied the adolescents at all times. **Results:** The study included 97 adolescents with mental disorders. LNG-US users were significantly older than DMPA users

(16.7 versus 15.6 years, P<0.01). After 12 months, the continuation rate of LNG-IUS users was significantly higher than that of DMPA users (76.6% versus 50.8%, p = 0.013). Approximately 48% (n= 29) of the DMPA users were satisfied with the method, compared with 76% (n=26) among LNG-IUS users (p = 0.003). **Conclusion:** The 12-months continuation and satisfaction rates of LNG-IUS users were significantly higher than quarterly injectable contraceptive users, among adolescents with mental disorders.

P-078 • Contraception in adolescents with mental disorders- Is It possible use injectable contraceptive?

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Objectives: To evaluate continuation and satisfaction rates, and the reasons for method discontinuation in adolescents with mental disorders using quarterly injectable medroxyprogesterone acetate (DMPA) contraception. **Method:** This prospective cohort study was conducted at a public referral clinic specialized in adolescents with mental disorders in the Federal District, Brazil. Over a period of 12 months, 1232 female adolescents (10 to 19 years) were managed at the clinic; 862 were sexually active. All participated in counseling sessions on available contraceptive methods (oral hormonal contraception, monthly and quarterly DMPA injections, condom, Copper T IUD and LNG-IUS). A total of 532 adolescents chose to use quarterly injectable contraceptives (DMPA) and 63 agreed to participate in the study. All had mild to moderate mental disorders, such as depression, anxiety, bipolar mood disorder, attention deficit disorder, intellectual disability and schizophrenia. Most (82.6%) were using psychiatric medications. The adolescents were scheduled for follow-up visits every 4 months, for 12 months. At each visit, they were asked about symptoms, satisfaction with the method and whether they wanted to continue using it. During all visits, they were accompanied by caregivers or guardians. **Results:** The 63 adolescents included in the study had a mean age of 15.56 (SD ± 1.14). At 12 months, the continuation rate was 50.8% (n=32) and 48% (n=49) were satisfied with the method. Among the 31 (52%) who discontinued use, the most frequent reasons were irregular bleeding and weight gain. One teenager could not answer questions because of significant intellectual deficit. Two participants (3.1%) were lost to follow-up 3 months after entering the study. **Conclusion:** Quarterly injectable contraceptives had high continuation and satisfaction rates among Brazilian adolescents with mental disorders. The most frequent reason to abandon the method was irregular bleeding.

P-079 • Post-partum IUD insertion in Brazilian adolescents: 12 months continuation rate

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Introduction: In Brazil, only 3% of reproductive age women use intrauterine devices (IUDs), a highly effective long-acting reversible contraceptive method. Over 75% of all teenage pregnancies are unintended. The insertion of IUDs in the post-partum period is a form of reducing unintended repeat pregnancies in adolescents. **Objectives:** Assess the continuation rate of IUDs inserted in the post-partum period of Brazilian adolescents. METHODS. This

prospective cohort study assessed 91 adolescents managed in a single hospital who received a TCu380 IUD in the post-partum period. The IUD was inserted using standard technique within the first 10 minutes after placental delivery. All participants were scheduled for a follow-up visit 4 weeks after discharge (for a pelvic exam, a transvaginal sonogram and to assess satisfaction). All adolescents signed an informed consent form; the study was approved by the IRB. **Results:** Most participants were nulliparas (72.5%), 15-19 years old (94.5%), of mixed race (59.3%), single (54.9%) and had > 8 years of education (65.8%). In most cases (n=59, 64.8%) the IUD was inserted after a vaginal delivery. Most (n=84, 92.3%) adolescents were examined 40 days after delivery and followed for 12 months. Eleven participants (13.1%) expelled the IUD, most within the first 40 days after insertion. Ten adolescents (11.9%) decided to remove it because they were unsatisfied with the method, or due to bleeding or pain. One adolescent got pregnant, with the IUD in place, 6 months after delivery. At 12 months, the continuation rate was 75%. **Conclusion:** The immediate post-partum period is an excellent opportunity for adolescents to insert an IUD. After 12 months, over 70% of the IUDs are in place and nearly 43% of the adolescents are satisfied with the method.

P-080 • Unplanned pregnancies: are they influenced by lack of information?

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Objectives: The objectives of this study are to determine the prevalence of unplanned pregnancies (UP) in a public health maternity institution in Sao Paulo, Brazil's largest city, to identify the most common reasons that lead to the UP, and to investigate women's knowledge on the availability of public family planning clinics in their neighborhood. **Methods:** This study was conducted between July and September 2019 at Hospital Maternidade Escola de Vila Nova Cachoeirinha, a tertiary public maternity in Brazil's largest city (Sao Paulo). Subjects were asked to complete a survey to collect data on demographics, socioeconomic status, previous use of contraceptive methods, intendedness of current pregnancy and knowledge about public health´s family planning clinics in the area. Data were collected at prepartum, postpartum or post abortion care. **Results:** A total of 179 participants completed the survey. The mean age was 27.5 years and 47.5% were pardo Brazilians and 30% were white. Most subjects reported being in a stable partnership (55.9%), 24% were married and 20.1% were single. The majority of women reported history of 2 and 1 pregnancies (30.7% and 27.9%, respectively), and giving birth twice or less pregnancies (58.6%). One hundred and twelve women (62.6%) had not planned their pregnancy From those, 111 (99.1%) women who did not plan their pregnancy claimed to have used contraceptive methods in the past, the most common one being condoms (99.1%) and birth control pills (74.1%). The most frequent reasons of the UP reported by the participants were taking a break from birth control (32.1%), incorrect use of contraceptive methods (18.8%) and contraceptive failure (17%). All women acknowledged knowing that they could get pregnant by having sexual intercourse. Only 28 (25%) women reported being unfamiliar of public health's family planning clinics. **Conclusion:** The prevalence of unplanned pregnancies in this sample is high. Despite being familiar with contraceptive methods and the family planning public service, most patients did not plan the pregnancy.

P-081 • Factors associated with copper intrauterine device insertion in Primary Health Care users/women in Florianópolis - a multilevel approach

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Objective: to analyze the factors associated with the insertion of an Intrauterine Device (IUD) with copper in users/women of Primary Health Care in Florianópolis. **Method**: a cross-sectional study with a multilevel approach. Secondary data were analyzed from 6,154 women aged 15 to 45 who had some contraceptive methods prescribed for the first time at a Florianópolis Health Center in 2017. The fixed effects analyzed were the woman's age, skin color, and schooling. As random effects, we analyzed the medical professional who inserted the IUD with copper, area/health team, and the Health Center to which the area/health team belongs. Fixed effects were selected by bivariate logistic regression, keeping for those factors with $p \leq 0.25$ for multivariate analysis. For the multilevel analysis, those with $p \leq 0.05$ or effects with $p > 0.05$ were maintained which, when removed from the model, generated an increase in Akaike's Information Criteria - AIC. Models built with selected fixed effects and an arrangement of each of the random effects were tested. The model with the smallest AIC was selected or, in case of models with the same AIC, the most parsimonious model. **Results**: for 362 (5.88%) users/women, a copper-coated IUD was inserted at Florianópolis Health Centers in 2017. Regarding education, among the users/women who received an insertion of a copper-coated IUD 60.12% had a high education level; 85.91% were white; there was a wide variation regarding the amount of insertion of copper IUDs in Florianópolis by a medical professional, with 15 doctors inserting only one copper IUD and one of the analyzed doctors inserted 28 copper IUDs, for example. **Conclusions**: it can be evaluated that users/women who most need access to quality contraception do not have and it is necessary to encourage greater use of the copper IUD in Primary Health Care.

P-082 • Contraception preferences among women seeking care for pregnancy loss and fetal anomalies at an academic family planning clinic

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Objectives: To describe contraception preferences among women seeking options for pregnancy loss or abortion for fetal indications at an academic family planning clinic. **Method:** This cross-sectional study examines contraception choice of women seeking management of pregnancy loss or induced abortion at the Women's Options Center at the University of California, Irvine between December 2017 and December 2018. Data were abstracted from the electronic medical record and analyzed with descriptive, chi-square, and multivariable statistics. **Results:** 292 women presented during the study period. 37 had pregnancy loss (15 <13 weeks, 22>13 weeks), 97 had induced abortions for fetal indications and 158 had induced abortions for other indications. 23 (62.2%) women with pregnancy loss desired initiation of contraception after management of pregnancy loss, of whom 17.4% chose long acting reversible contraception

(LARC). 45 (46.4%) women with fetal indication chose contraception after induced abortion, 24.4% of whom chose a LARC method. Combined, these groups were less likely to choose contraception than women seeking abortion for other indications (50.8% vs 89.9%, p<0.0001) and if contraception was chosen they were less likely to choose LARC (22.1% vs 64.8%, p<0.0001). After controlling for age, parity, race/ethnicity, medical conditions, and gestational age, these associations remained significant. **Conclusions:** Approximately half of women seeking care for pregnancy loss or induced abortion for fetal indications desired contraception. While these women were less likely to desire contraception than women seeking abortion for non-fetal indications, they should be offered a full range of contraception options.

P-083 • Implementation and effects of immediate postpartum contraception at a community hospital

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Objective: ACOG supports immediate postpartum long-acting reversible contraceptives (LARCs) as a means to reduce both unintended and short interval pregnancies. Immediate postpartum contraception became routinely available at Bridgeport Hospital in 2016. The purpose of this study is to determine if the availability of immediate postpartum LARCs decreased the rate of short interval pregnancies at our institution. **Method:** Using EPIC (electronic medical record), a list was generated of all deliveries at Bridgeport Hospital from January 1, 2015 to December 31, 2015 and from January 1, 2017 to December 31, 2017. After sorting for inclusion of only clinic service deliveries, we performed a retrospective chart review collecting demographic data, pregnancy and delivery information, contraceptive choice antepartum and postpartum, and pregnancies within one year of delivery. The numerical values were analyzed using a two-tailed unpaired T-test (Microsoft Excel 16.19). The categorical data was analyzed with a Chi-square analysis and Fisher's exact test (GraphPad Prism 7). A standard p-value of 0.05 was the determined cutoff for statistical significance. **Results:** In 2015 there were 864 clinic service deliveries, versus 1067 in 2017. The demographic characteristics between the two cohorts were similar with most patients being in their late 20s, obese, with state funded insurance, English speaking, and identifying as other ethnicity. Additionally, the majority of the patients were multiparous with a cesarean section rate of 35.8% in both 2015 and 2017. 69.8% of patients in 2015, and 80.1% in 2017, received antepartum contraceptive counseling (p<0.0001). In 2015, 26.6% of patients received a LARC, versus 27.2% in 2017 (p=0.007). 51.7% of patients in 2015 and 61.6% of patients in 2017 received contraception (p<0.0001). 87% and 88.8% of total patients returned for their postpartum visit in 2015 and 2017, respectively. The rate of short interval pregnancies was 10.6% in 2015 compared to 10.3% in 2017 (p=0.8). The interval between delivery and new conception in 2015 was 7.2 months and in 2017 was 8.1 months (p=0.04). **Conclusions:** Our results demonstrate that antepartum contraceptive counseling has improved significantly and that more patients received contraception after the availability of immediate postpartum LARCs. Despite this, the short interval pregnancy rate did

not differ between the two cohorts. The time interval to the next pregnancy, however, is significantly longer in 2017. This result suggests that additional observation may lead to a significant difference in pregnancy rate.

P-084 • Safe prescribing of combined hormonal contraception in general practice

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Objectives: The aims of this study were to determine the quality of follow-up care provided to patients on combined hormonal contraception (CHC) in a central Manchester GP, as measured against national standards set by the Faculty of Sexual and Reproductive Health (FSRH) and to design a template on the electronic patient record system (EMIS) that supports safe and efficient prescribing of CHC. **Method:** The EMIS database was used to identify patients who received CHC between 10/02/18 and 10/02/19. These patients' records were analysed to extract data on whether certain key factors were assessed and documented during each patient's latest CHC consultation, including their medical eligibility, blood pressure, body mass index, method adherence and if long-acting reversible contraception (LARC) was discussed. **Results:** In total, 99 patients were identified. 88.9% of these patients had their latest prescriptions issued within 12 months of their last CHC consultations, however, only 84.8% and 53.5% of these consultations included measurements of the patients' BP and BMI respectively. Within these follow-up appointments, 18.2% of patients were assessed for history of cancers, 42.4% for venous thromboembolism, 53.5% for migraine and 49.5% for smoking. Method adherence was assessed in 33.3% of patients while LARC discussed with 31.1% of patients. **Conclusions:** The majority of CHC follow-up consultations failed to meet FSRH recommendations. Assessment and documentation was notably inferior when CHC was prescribed for non-contraceptive purposes, the consultation had multiple aims, and when the patient was <20 years old. An EMIS template for CHC review was designed based on FRSH guidelines, with prompts for the assessment of each of the parameters evaluated in this study. The use of this template aims to improve adherence to national standards and a re-audit is being planned following its initiation.

P-085 • The effect of progesterone only contraception on cervical cytology among women in Ife-Ijesha administrative health zone, southwest Nigeria

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Objective: The study aim was to determine the effect of progesterone only contraception on cervical cytology among women in Ife-Ijesha administrative health zone, southwest Nigeria. **Methods:** Accepting a study power of 90%, confidence interval of 95%, a study to control ratio of 1:1 and with the aim of achieving a 5% minimum detectable difference in those on the progesterone only contraception and those who were not on progesterone only contraception.

Sample size for each group was determined using the statistical formula for comparison of two proportions as follows.: $=Z^2(P)(1-P)/d^2$ and a total of 170 was obtained (85 cases and 85 controls). In this analytical study, a total of 170 clients (85 women on progesterone only contraception at the family planning clinic were recruited, while another 85 women who were not on progesterone only contraception were recruited from gynaecological-oncology clinic). Necessary information from the women such as age, marital status, educational level, parity, weight and height, cigarette smoking, multiple sexual partner(s) and prior Pap smear test were entered into a purpose designed Proforma. From each woman, Pap smear was taken using Ayre's spatula and cyto-brush and transferred into glass slides. The specimen was fixed immediately before being sent to Morbid Anatomy and Histopathology Department for cytological examination. Data were analysed using Statistical Package for Social Sciences. Appropriate statistical methods like Spearman's correlation were applied to non-parametric variables while Student t test was used for continuous variables while chi square was used for categorical variables. P value of <0.05 was taken to be statistically significant. Eighty- five women on progesterone only contraception were matched with eighty-five women who were not on progesterone only contraception for age, parity, retroviral status and smoking status. **Result:** The prevalence of abnormal Pap smear was 4.7% among non-users of progesterone only contraception, while those who used progesterone only contraception had prevalence of 17.6% p value was 0.037. Significant difference exists between age at coitache among users and non-users of progesterone only contraception 21.9 ±4.4 Versus 23.5 ± 4.2 p value 0.014. Progesterone only contraception usage was associated significantly with abnormal Pap smear. (p= 0.007, Odd ratio 4.33, confidence interval of 1.37-13.68). Age, parity, duration of progesterone only contraception use, previous history of pelvic inflammatory disease, and history of multiple sexual partner(s) were not significant predictors of abnormal Pap smear. **Conclusion:** Prevalence of abnormal Pap smear was commoner among progesterone only contraception users. The practical implication of these findings to sexual and reproductive health providers is that there is urgent need to sensitize family planning service providers of the relative high prevalence of abnormal Pap smear, hence contraception acceptors on hormonal contraception must be counselled and given appointment for regular cervical cancer screening as soon as they accept any type, especially the injectable type.Free screening or subsidised screening should be made a pre-employment and periodic medical screening test for women. This practice will help reduce the rate of abnormal Pap smear and or confirmed cases of cervical cancer

P-086 • Train the fitter - Changes in Diaphragm-fitting training from the 1990es to 2019 in Germany

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Objectives: In the early 90es training for the fitting of diaphragms in Germany amongst trainee-gynecologists was a rather informal affair, mainly handed down from senior colleagues without much teaching structure. The focus then was placed mainly on the fit of the barrier-method itself. As Barrier-Methods had been rather more used as contraceptives in the 70ies and 80es, it was rather easy to find a senior gynecologist to get taught by. Mandatory quality management for gynecologist private practices today requiring hygiene plans and evaluated strategies for

bacteriological purification in case of reuse of the fitting models have changed practices to the point of structured trainig for young colleagues has nearly died out. The training in 2019 needs to encompass hygiene as well as a profound background on safety, spermicides and eligibility criteria for the use of Diaphragms. In Germany as well as other European countries there is a small but growing young female population searching for non-hormonal contraception to fit the desired "green and clean-lifestyle". Nor all are eligible candidates for the use of a Diaphragm as an ideal method of contraception but the demand of fitters is lager than the supply especially in rural areas. Thus we urgently need structured and up to date training for health care professionals to be able to offer to fit and set up a clinic along with the legal requirements and modern hygiene standards. **Method:** Evaluating a structured and newly created training program with participants (medical students and midwives) who had no former experience with fitting Diaphragms and instructing women in its use. **Results:** not jet available as we are still waiting for the new Singa-Diaphragma (multisize) that was supposed to hit the market in Summer 2019. At least 2 training sessions with that new multisized Diaphragm should be evaluated before final results which will be expected in February 2020.

P-087 • 'Every medicine is part poison': A qualitative inquiry into the perceptions and experiences of choosing contraceptive methods of migrant Chinese women living in Australia

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Objectives: In Australia, ethnic Chinese people are one of the largest, youngest and fastest growing overseas-born groups. Yet, little is known about their perceptions of contraceptive methods and their experiences with choosing one. Decisions about contraceptive methods are preference sensitive. Understanding the influencing factors of Chinese women's contraceptive method choice and practices will help cater to their decision-making needs in a culturally sensitive and responsive way. **Method**: Semi-structured interviews were conducted with 22 women who self-identified as being ethnically Chinese and had been living in Australia for no more than ten years. The majority of the interviews were conducted in Mandarin Chinese. Transcribed data were analysed using thematic analysis method within a critical realism analytical approach. **Results:** Study results show that there was a profound belief among Chinese women that 'every medicine is part poison' and women were cautious of methods involving hormones. Women were also reluctant to consider intrauterine devices (IUDs) as options due to associating them with past mandated birth control practices in China and also due to fears of potential complications. Married women's method choices were more likely to be influenced by their partners than those of unmarried women. There was a reluctant attitude towards seeking medical advice regarding contraception among Chinese women, due to beliefs that contraception is not an illness requiring medical treatment, or that contraception-related

information could be found elsewhere without seeing a doctor. **Conclusions:** Our findings suggest that Chinese women's perceptions and experiences of contraceptive methods are influenced by complex personal, cultural, societal and inter-relational factors. The findings are likely to be useful in increasing healthcare professionals' and policy makers' understanding of Chinese women's contraceptive method preferences, intentions and behaviours which will in turn support culturally and linguistically sensitive strategies to assist their decision-making needs.

P-088 • How barriers to LARC access in New Zealand may contribute to inequities in Maori and Pacific women's health

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Objectives: This study aimed to identify the barriers faced by New Zealand General Practitioners (GPs) in accessing Long Acting Reversible Contraception (LARC) for their patients. Despite New Zealand's high unplanned pregnancy rate of over 50%, the country has a very low rate of the use of LARC. **Method:** In this qualitative research study, GPs with an interest in women's health were asked about their experiences prescribing LARC, barriers they had encountered and how they felt these could best be overcome. Digitally recorded interviews were examined using thematic analysis to generate codes to categorise the key emerging patterns, in accordance with Braun and Clarke's six-phase framework. **Results:** A total of 21 GPs underwent Facetime interviews with a mean time of 45 minutes. The main barriers identified were the lack of access to structured procedural training for GPs, the lack of funding available to trained GPs to offer LARC insertion, and the cost of the LNG-IUS (Mirena) . As other studies in NZ have found, these costs to the patient made LARCs and Mirena in particular unaffordable to many, particularly Maori and Pacific women and those living in deprivation. Due to inconsistencies in funding throughout NZ, often based on ethnicity or physical address, patients pay around $150 for the insertion of a device, even if the device itself is funded, such as the progesterone implant (Jadelle) and the Copper IUD. The LNG-IUS (Mirena) is funded in some instances for heavy menstrual bleeding, but is not currently funded for contraception. Unfunded, the cost of the device plus insertion is around $500. With high rates of obesity in the Maori and Pacific population, these inequities in access may also be contributing to increasing rates of endometrial hyperplasia. New Zealand currently has no accredited training scheme for healthcare practitioners to achieve competence in practical contraceptive procedures, and as a consequence patients experience difficulties in accessing trained providers. *"It's very frustrating - it just feels insurmountable to get some training for something that should be fairly basic and well within my scope of practice." (GP, Northland, New Zealand)*. **Conclusions:** In order to increase the uptake of LARC in New Zealand and address current inequities in access particularly for Maori and Pacific women, a robust system of Primary Care training in and funding for contraception is required. In addition, unrestricted funding for the LNG-IUS (Mirena) would increase the choice of effective LARCs available for women.

Contraceptive and sexual and reproductive health education and training of healthcare providers, users, family and friends – all aspects

P-089 • If I were jack – addressing masculinities in relationship and sexuality education to prevent teenage pregnancy. A cluster randomised controlled intervention trial in schools

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Objectives: The World Health Organisation advocates a direct focus on adolescent men in reducing adolescent pregnancy; however, no trials have been conducted. This trial (ISRCTN11632300; NCT02092480) determines whether a novel Relationship and Sexuality Educational intervention, If I Were Jack, is acceptable and feasible to implement in mixed sex UK classrooms. The intervention is an evidence-based and user-informed teacher-delivered intervention. It uses a comprehensive and gender-transformative approach addressing masculinities and emphasizing male alongside female responsibility in preventing unintended adolescent pregnancies. **Method:** The trial was a parallel-group cluster randomised controlled feasibility trial with embedded process and cost evaluation in eight secondary schools (unit of randomisation) among 831 pupils (mean age 14) in Northern Ireland, alongside a qualitative evaluation of transferability in ten schools in Scotland, Wales and England. The sampling strategy was a maximum variation quota sample designed to capture a range of school management types. Four schools were randomised to each arm and the control arm continued with usual practice. **Results:** Results demonstrated that the intervention was acceptable to schools, pupils and teachers, and could be feasibly implemented, cost-effectively, with minor enhancements. The between-group difference in incidence of unprotected sex (primary outcome at pupil level) of 1.3% (95% CI 0.5-2.2) by 9 months demonstrated a potential effect size consistent with those reported to have had meaningful impact on teenage pregnancy. **Conclusions**: The study responds to global health policy for a paradigm shift towards inclusion of men in the achievement of sexual and reproductive health goals in a practical way by demonstrating that a gender-sensitive as well as a gender transformative intervention targeting males to prevent teenage pregnancy is acceptable to adolescent men and women and implementable in formal education structures. If I Were Jack now merits further effectiveness testing.

P-090 • SMS and unmet sexual and reproductive health needs during the postpartum period: a pilot study nested within a randomized clinical trial

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Background: Short Message Service (SMS) can be a useful tool for improving sexual and reproductive health (SRH) outcomes during the postpartum period. Our primary outcomes involved evaluating whether receiving a package of SMS on SRH topics during the first 8 weeks postpartum affected postpartum visit attendance and the rate of contraceptive use 12 weeks after delivery. Secondary outcomes included satisfaction with the short text messages and agreement between the contraceptive method preference immediately postpartum and the one actually used 12 weeks after delivery. **Methods:** This pilot study was nested within a cluster randomized controlled trial (RCT) conducted in Ribeirao Preto, Brazil from November 2015 through June 2016. Postpartum women were divided into SMS and control groups. In addition to routine postnatal care, postpartum women in the SMS group received weekly SMS about SRH for 8 weeks, starting on day 4 after delivery. Women in the control group received only routine postnatal care. A home interview was performed at 12 weeks postpartum. The primary outcomes were postpartum visit attendance and contraceptive use rate 12 weeks postpartum. Secondary outcomes included satisfaction with SMS and agreement between the contraceptive method preference immediately postpartum (within 48 hours of delivery) and the one actually used at 12 weeks of delivery. **Results:** We assessed 428 women, 99 in the SMS group and 329 in the control group. There were no differences between the groups in postpartum visit attendance (SMS: 78.7% vs. Control: 74.8%, p=0.44) and contraceptive use rate 12 weeks postpartum (SMS: 93.6% vs. Control: 91.4%, p=0.24). In both groups, the agreement between contraceptive preference immediately postpartum and contraceptive use at 12 weeks was higher for injectables (>65%) and lower for LARCs and tubal ligation (<5%). More than 90% of the women in the SMS group were satisfied with the SMS about SRH. **Conclusion:** Adding a SMS program delivering information about SRH to the routine postpartum care did not improve the rates of postpartum visit attendance and overall contraceptive use at 12 weeks after delivery. However, our pilot study identified a high unmet need for LARC and sterilization among postpartum women which can be addressed in a larger study.

P-091 • M-health technology on postpartum contraceptive use: a pilot study

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Objectives: To assess whether a mobile phone short text messaging service (SMS) program increases the frequency of contraceptive use among postpartum women at 24-30 weeks of delivery. **Methods:** This pilot study was nested within a cluster randomized controlled trial (RCT) conducted in Ribeirao Preto, Brazil from November 2015 through June 2016. Postpartum women were divided into SMS and control groups. In addition to routine postnatal care, postpartum women in the SMS group received weekly SMS about SRH for 8 weeks, starting on day 4 after delivery. Women in the control group received only routine postnatal care. A home interview was performed at 24-30 weeks of delivery, a face-to-face interview was conducted at

participants' home. The primary outcome was the self-reported rate of contraceptive use measured at 24-30 weeks of delivery. Secondary outcomes included self-reported rate of long-acting reversible contraceptives (LARCs) use; concordance between intention to use and current use of contraceptive methods; and satisfaction with SMS received. Chi-square test and Kappa agreement coefficient were used to analyze the outcomes. **Results:** At 24-30 weeks after delivery, 325 postpartum women of the control group and 88 postpartum women of the SMS group were interviewed. Sociodemographic and reproductive characteristics were similar between the groups, except for socioeconomic status and marital status. The rate of contraceptive use among postpartum women were high in both groups, without difference between them (SMS: 94.3% vs Control: 93.9%, p=0.87). Although LARC use did not differ among groups, SMS group was 61.5% more likely to use LARCs than the Control group (SMS: 8.4% vs Control: 5.2%, p=0.16). The agreement coefficients between the intended contraceptive method at the delivery and the contraceptive method currently in use were low for both groups; only 11.8% and 20.9% of postpartum women who intended to use LARCs, were using these methods at 24-30 weeks after delivery. More than 90% of the women in the SMS group were satisfied with the SMS about SRH. **Conclusion:** Add a SMS program delivering information about contraceptive methods to the routine postpartum care did not improve the rates of contraceptive and LARC use. Postpartum women have access to contraceptive methods, however, low access to LARC use. A high unmet need for LARC and sterilization was identified in postpartum women.

P-092 • Knowledge of STDs and their prevention of adolescents in Northern Greece

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Objective: The aim of this study is to investigate the knowledge of Greek adolescents on STDs and their prevention. **Design and methods**: Three hundred adolescent and young women aged 12 - 26 years, filled a questionnaire ithat ncluded demographic, sexual history, opinions on contraception, condom use, STIs, knowledge on HPV and use of the vaccine. Results were statistically analyzed with Kolmogorov - Smirnov test, t test, Man Whitney test and $x^{2.}$. A p-value of < 0.05 indicated statistical significance. **Results:** 287 questionnaires were valid for analysis. Mean age was 18,55 ± 3,5 years. Sexually experienced were more often aware of certain STDs ($p < 0.001$). The most well known STD was AIDS (95.8%),followed by Syphilis (82.7%),genital warts ,HSV and chlamydia, while the knowledge of gonorrhea and trichomonas fell below 50%.The most effective method for protection from STDs was regarded as the condom followed by abstinence, the combined pill (8.5%) and postcoital contraception (3,8%).The source of information were family ,the internet and the doctor. **Conclusions**: Knowledge of STDs and protection are incomplete and mainly derived from family.

P-093 • Teaching content perceived on fertility regulation methods at the university by doctors and midwives graduated from Chilean universities working at primary care services

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Objectives: Know about the perception of the teaching received in the field of contraceptive methods in graduates of medicine and midwifery from Chilean universities that work in primary care throughout the country. **Method:** A survey was applied during 2015-17 to midwives and doctors from different regions of Chile, who have completed their undergraduate studies in Chilean universities, in order to obtain data on the knowledge they obtained in their undergraduate studies regarding contraceptive methods as well as the procedures performed in relation to the topic in their clinical practice. **Results:** The total sample to be analyzed was 249 professionals, mostly Chilean (94.38%), of which 72.28% correspond to midwives. The sample is distributed in graduates from 1963 to 2017, with most of the sample graduated between 2010 and 2017 (49.79%). The results indicate that 54% of respondents report that they did not have a specific course of contraceptive methods, but they did class the subject at 93%. Of the 14 fertility regulation methods presented, those best known by professionals in their undergraduate stage are, in descending order, the copper IUD, COCs, male condom, oral progestin alone, combined injectables and surgical sterilization. The least known were progesterone vaginal rings, combined vaginal rings, combined patches, IUDs with levonorgestrel and the female condom. When asked about the procedures performed during the undergraduate courses, 82% confirm the insertion of IUDs being mostly midwives (86.34%) and only 13.65% of the doctors who answered affirmatively. On the insertion of a subdermal implant, only 22% responded affirmatively, of this 69.64% are midwives and 30.35% are doctors. In addition to the low insertion of the latter, in those who answered affirmatively, the number of implants inserted did not exceed 5 in the majority (57, 14%). **Conclusions:** Discussion. We consider it necessary and timely to incorporate specific courses and specific classes on fertility regulation methods into the undergraduate curriculum, in addition, to strengthen their clinical practice prior to graduation, given their importance for the promotion of sexual and reproductive health through the country.

P-094 • What do healthcare professionals know (or not!...) about intra-uterine contraception (IUC) use in adolescents?

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Objectives: To evaluate healthcare professionals (HP) knowledge on IUC in adolescents. **Method:** A survey was conducted using an anonymous questionnaire made of 13 multiple choice questions on IUC use in adolescents. It was given to obstetricians-gynecologists (OB-GYN), General Practioners (GP) and nurses working in women health care (NW). Statistical analysis was performed using SPSSv24 and significance level set at $p<0,05$. **Results:** 242 questionnaires were completed: 62% (n= 150) from physicians (71% OB-GYN, n=106 and 29% GP, n=44; 59% specialists, n=89 and 41% residents, n=61) and 38% (n=92) from nurses. Of all the HP participating in this study 79% were involved in adolescents healthcare and 54% worked in family planning on a regular basis. Although 85% of the total of HP inquired considered there is no minimal age to start contraception, 60% answered that age, *per se*, could be a

contraindication to the use of some methods (44% of doctors - OB-GYN and GP - and 86% of nurses, p<0.001). Only 55% of all the participants would recommend the use of IUC in adolescents with 74% of specialists (OB-GYN and GP) supporting this recommendation as opposed to only 11% of residents (OB-GYN and GP) and 15% of nurses (p<0.001). Also 57% of all HP inquired believed that IUC is associated with increased risks in adolescents as compared to adult women (with no statistically significant difference between HP groups), namely increased pain at the moment of insertion (40%) and risk of future infertility (10%). **Conclusions:** Our results show the persistence of some misconceptions related to IUC use in adolescence, particularly amongst residents (both OB-GYN and GP) and nurses. These data reinforce the need to improve the knowledge of HP on IUC use in adolescents, namely through investing in education and training programmes in this area.

P-095 • Attitudes on counseling in the postpartum contraception – results of a multicentric survey

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Objective: To assess the practices of healthcare professionals in contraceptive counseling after childbirth. **Methods**: Descriptive study of responses obtained through anonymous and multicenter survey. **Results**: 310 professionals were included: 144 doctors (56.5%) and 135 nurses (43.5%). During pregnancy, 35.5%(n=110) always inform women of their contraceptive options, 37.1%(n=115) only inform in special situations and 19.7%(n=61) only if tubal ligation is considered. At discharge, the majority (81.6%, n=253) inform and advise about contraceptive options. Of this group, 41.5%(n=105) prescribes oral progestative contraception and inform about contraception onset; 33.2%(n=84) guide for intrauterine device at the postpartum appointment or provides contraception (26.9%, n=68); 45 professionals (14,5%) did not inform women at the time of discharge, indicating as reasons the inadequacy of the moment (35.6%, n=16) and lack of time (26,7%, n=14). The majority of respondents consider that women should have contraceptive counseling during pregnancy (78.4%, n=243), of which 87.2%(n=212) consider the third trimester and the end of pregnancy as the most appropriate time. About one fifth (n=67) consider that counseling should not be performed during pregnancy. The reasons were: information should be given on the postpartum review consultation (49.3%, n=33); the information given at discharge is sufficient (41.8%, n=28); information not relevant (38.8%, n=26). In this group, 25.4%(n=17) does not intend to change their attitude, 11.9%(n=8) states that they will change their attitude e 46.3%(n=31) consider modifying their attitude; 16.4%(n=11) did not answer the question. **Conclusion**: Contraceptive counseling during pregnancy is not universal. Most professionals differ their contraceptive counseling for maternity

discharge. There is a group of women who are discharged without any contraceptive counseling, being the most frequent reasons the lack of time and the inadequacy of the moment.

P-096 • Unintended pregnancy in girls and teenagers under 15 years old in Latin America region: what we know? What research we need? Which kind of interventions are required?

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Main Objectives: To analyze the factors associated to unintended pregnancy in teenagers under 15 in Latin America region. Specifics objectives: 1. to describe sociodemographic characteristics of girls and teenagers that get pregnant; 2. to examine the trends of unintended pregnancy in teenagers under 15; 3. to analyze the policies in sexual and reproductive health & rights that are being implemented to attend this social problem; 4. To identify which kind of scientific evidences and public policies are need to its prevention. **Method:** We conducted a transversal study based on a mix qualitative-quantitative design according to the objectives defined. For that we analyse official data from national sources of statistical systems information. We collect and review national documents of public policies, local research evidences and reports from NGOs and international organisations. We analysed that information using content qualitative analysis. In a second time, as a complementary source, we conducted in-depth interviews with qualified informants from different countries (decision-makers policies, researchers, health professionals, and human rights activists). **Results:** Unintended pregnancy in girls and teenagers under 15 years old is a social problem and a violation of adolescent's human rights. It´s a clear expression of structural and gender violence against women and girls (sexual abuse and violence) and of social & economics inequalities. In most cases it accounts of the lack of access to sex education (RSE) and contraceptive prevention. This problem has been addressed by civil society and decision-makers in the past few years. Between 2014 -2019, this issue is being denounced by NGOs (especially feminists and human rights organizations) and international organizations as UNICEF, WHO, UNESCO, UNFPA. At the same time it is a neglected issue in the research agenda. However, some countries begun to implement National Strategies (e.g Argentina, Uruguay, Mexico) to prevent unintended pregnancy in adolescents under 15 as multi-sectorial public policy to attend this problem linking the efforts of Education and Health sector. They are very complex processes in which interact actors from different sectors and positions. In some countries, this kind of policy has been assumed by the main national authorities. In others, it is not a public agenda issue. **Conclusions:** The challenges that are identify by the study includes: a) train of teachers and health professionals for generating competencies and confidence, b) measure the impact on reducing inequalities for the most disadvantaged groups in relation to sexual and reproductive health and rights, c) design of monitoring & evaluation systems, d) expand RSE from a comprehensive and S&RR approach, e) access to safe abortion and f) scientific knowledge about the consequences and risks (mental, biological and social) of early motherhood and sexual violence (longitudinal studies) from a intersectional and cultural approach.

P-097 • Long-acting reversible contraception knowledge & intent to use among US university students

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Objectives: More than 50% of births to women in the United States in their early 20s are unintended, and unintended pregnancies have adverse consequences on students' education. Long-acting reversible contraceptives (LARC) offer highly-effective, long-term prevention of pregnancy, yet are utilized at low rates. Thus, we sought to assess the level of students' LARC knowledge and any association with intent to use LARC at a large, urban university in the Midwest United States. We hypothesized that students with higher levels of LARC knowledge would be more likely to intend to use LARC in the future. We also hypothesized that fewer students would use LARC compared to the US rate of 15.8% of all contraceptive users in 2017. Data on student knowledge and attitudes regarding LARC will be used to inform a campus LARC initiative. **Methods:** We designed and administered a cross-sectional survey to 300 undergraduates, graduate students, and resident physicians that assessed sexual experiences, contraceptive use, LARC knowledge, and intent to use LARC. The survey was administered at the university's student center and student health facility in Indianapolis, Indiana. Participants' demographic characteristics and LARC knowledge were summarized using descriptive statistics. Awareness of different LARC methods was assessed using McNemar's test. The association between students' reported LARC knowledge and future intent to use a LARC method was calculated with Fisher's exact test. **Results:** Our preliminary analysis includes 126 students. The mean age was 20.2 years. Mean score on the 10-question LARC assessment was 5.2/10. Higher levels of LARC knowledge were positively associated with future intent to use LARC ($P < 0.05$). Only 7.9% of contraceptive users surveyed used LARC, compared to 15.8% of US contraceptive users in 2017. Differences in awareness of the copper IUD (61.1%), hormonal IUD (74.6%) and implant (88.9%) were statistically significant ($P < 0.05$). The most common reason cited for not considering LARC use was "need for more information." **Conclusions:** University students surveyed displayed low LARC knowledge, low LARC use, and a need for more information on LARC. A positive association between LARC knowledge and future intent to use LARC amongst students at this university further supports need for a campus-wide contraceptive initiative that will empower students to make informed reproductive decisions. Understanding student use and knowledge of LARC could also provide a model for starting other university LARC initiatives across the United States, at which uptake of LARC has been historically low.

P-098 • As time goes by: Reproductive decision-making and fertility awareness in different stages of life

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Objectives: Health before pregnancy (preconception health) and pregnancy planning can in various ways affect fertility as well as the well-being of parents and their children. One of the most important determinants of reproductive health is age. Still, several studies have shown that people in reproductive age have low fertility awareness and that many overestimate the likelihood of conception at higher ages. At the same time, the age of having the first child is increasing in many countries and more and more people need assisted reproductive treatment to conceive. Why people postpone childbearing is a highly complex matter, and there are several

social dimensions involved. For example, people engage in higher and longer educations than before, more women join the labor force and invest in a career, and effective contraceptive methods have become more available. At the same time, the labor- as well as the housing market have become more precarious. Hence, it takes longer to reach the stage where you feel ready enough to start a family. The purpose of our study is to better understand the different components of reproductive decision-making. By interviewing people from different generations, we can increase our knowledge of the factors that are important for people's attitudes and decision-makings in different stages of life, and how the fertility awareness and reproductive decision-makings of one generation possibly influence others. Another aim of the study is to identify fertility myths that circulate in society. **Method:** Since September 2019, we have conducted focus groups interviews in the region of Skåne, Sweden. Each focus group consists of people of about the same age (for example 18-19, 30-35, 60-70). To be able to compare age groups, three groups per age interval will be interviewed. Participants are recruited through an ad (spread through social media and networks) and through snowball technique. The goal is that the total study sample should represent various socioeconomic positions, sexualities and family constellations. Interviews are qualitatively analyzed using thematic analysis. The study is part of the Danish-Swedish research collaboration ReproUnion 2.0. **Results:** Data collection has recently started. Results will be presented at the ESC-conference. **Conclusions:** With this study, we hope to contribute with new and broader perspectives on family planning, which can be used in the development of future reproductive health education.

P-099 • Perception and attitude on reproductive health and contraception in obese teenagers

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Obesity in adolescence represents a public health problem with multiple organic complications and multiple psychosocial implications. Promoting public health strategies is imperative for obese teenagers regarding reproductive health and contraception. Statistics show that more than half of adolescents start their sexual activity during high school, most of them without proper access to adequate protection against unwanted pregnancies and sexually transmitted diseases. The study aims to analyze how obesity influences the quality of life and sexual behavior of obese teenager girls, as well as their level of knowledge about reproductive health. To this end, two questionnaires for obese teenager girls and their mothers were applied. The study included 95 mother-daughter couples, teenager girls with overweight and obesity, aged between 12 and 18 years old who were counseled between the November 2017 and September 2019. The results indicated an increased frequency (65.3%) of mothers with deficits regarding information in the field of reproductive health and contraception, an aspect which significantly influenced (OR = 3.681, P = .00361) the level of correct knowledge in this field of obese teenager girls (77.9%).

The analysis of the questionnaire revealed that the information held by obese teenager girls comes from non-specialized sources (colleagues, friends, media, family members) and not from qualified personnel (teachers, medical staff). These aspects were heavily correlated (r = 0.6807, P = .00157) with the specific fact that teenager girls do not have sufficient knowledge about contraception methods and their effects on obesity which further creates major implications for quality of life. In conclusion, counselling is provided to both the mother and the teenage girl in order to develop communication skills and to point out the efficiency of contraception in obese teenager girls. This is necessary not only to make both of them aware about the risk of pregnancy but also to inform them properly about sexual diseases and the risk to contact them.

P-100 • The experiences of male nursing students in the Sexual and Reproductive Health clinical teaching: emotional competence and gender

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Objectives: Historical findings reveal that traditionally, women were who assumes the role of caregiver, to whom is attributed greater sensitivity, availability to help others and greater predisposition in affective and emotional sphere. The nursing history refers to the associated care of female labour. However, the multiple changes in the roles of men and women in recent decades, allowed both to perform the same functions. The purposes of this study are to understand the emotional experience of male nursing students in the Sexual and Reproductive Health(SRH) clinical teaching; Analyze the gender stereotypes that influence male nursing students in SRH clinical teaching and Identify the emotional management strategies mobilized by male nursing students in these area. **Method:** In order to understand this phenomenon, was developed a research project with a qualitative approach, exploratory and descriptive. The data were obtained from 11 reflective learning journals written between 2009 and 2017 by male students of bachelor's degree, in the 3rd and 4th years, in clinical teaching of Sexual and Reproductive Health. Also from a focus group, conducted by the researchers, with 4 clinical teaching supervisor nurses in the area (men and women), integrated into a "Emotions in Health" Workshop held in October 2018. The data analysis was performed according to the conventional content analysis technique (Hsieh & Shannon, 2005) in which the coding of categories derives directly from the text data through a predominantly inductive reasoning, and using the Software NVIVO 10. All ethical principles in research have been met. **Results:** Four central categories were extracted: factors that hinder/facilitate the interaction of students (male) with clients (female); students emotional experience; students and supervisor nurses' emotional skills; and students development of emotional competence. **Conclusions:** The inclusion of a gender perspective in nursing care is an added challenge for Sexual and Reproductive Health, as it is a traditionally female domain that has historically, socially and culturally excluded men as caregivers and targets of care. In the Nursing Degree clinical teaching, gender stereotypes can influence the emotional experience of male students, with implications on their learning and competences development in a health care area that is mostly female, since the emotional dimension of learning can influence the experiences of caring. Promoting emotional competence to overcome gender stereotypes and organizational barriers, is an integral part of gender-sensitive learning and care, and should be promoted through nursing education.

P-101 • Considerations regarding the management of sexual education and its implications

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Objectives: Sexual and reproductive health (SHR) it's a major aspect in every woman's life with implications regarding her career and family. Sexual education is a major component of SHR. Romania has the highest proportion of teenage mothers in EU as well as a low participation rate in cervical cancer screening. The study aimed to evaluate the level of sexual education among young women in Romania as well as the relationship between the level of knowledge and participation in screening programs or usage of contraceptives. Furthermore, we observed the preferred source of information and evaluated the correlation between the level of knowledge and sexual satisfaction and the level of control in the relationship. **Method:** An online survey was conducted among young women in Romania, consisting of 23 questions organized in three sections: general information (age, sexual activity, contraceptive usage), level of sexual education and self-evaluation of sexual satisfaction, relationship dynamics, and decision-making. **Results:** The survey was answered by 1364 young women from both urban and rural areas. 70% of women were sexually active, with the age of first sexual encounter varying from 12 to 26 years (mean age 17.5 years). The condom was the method most commonly used (69.9%) followed by coitus interruptus (12.5%). 7,4% don't use any method of contraceptives. Only 56% of sexually active women reported having had a gynecological exam in the last 2 years and only 41% of them had participated in the cervical cancer screening program. One reason is the level of comfort they experience (27,8% are uncomfortable and 29.2% have a medium level of comfort). The internet is the main source of information with 68% followed by school (16%) and parents (9%) and 99% consider beneficial a sexual-education class. The level of control felt in the relationship was medium (16% felt uncomfortable discussing contraceptive methods and 19% felt they have a low-level of control in the relationship). The level of sexual education was medium, a large number of women knew the methods of contraceptives, symptoms of sexual diseases and different types of preventive actions. **Conclusions:** Although the level of sexual educations is medium-high, there is no correlation between theoretical knowledge and practice suggesting that SHR decisions are more complex. The cervical cancer screening program in Romania has a low rate of participation and the level of control in the relationship and sexual satisfaction is medium-high. The internet is the main source of information.

P-102 • Views of health care providers in developing a fertility awareness tool directed to adolescents –a qualitative study with participatory action approach

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Objectives: The Reproductive Life Plan (RLP) is a fertility awareness tool that can be used to encourage reflection on intentions and strategies for successful family planning within the context of personal life goals and values. The RLP concept has been positively evaluated among

women and men. It is likely that this concept would be useful also among adolescents and could advantageously be included in contraceptive- or other forms of counselling at arenas such as Youth Clinics (YC). The aims of this project are to find out of how an RLP-intervention should be designed to best target adolescents, and what beliefs health care providers have about barriers and facilitators regarding preconception health education addressed to adolescents at YCs. **Methods:** A methodological study with a participatory action approach including focus group discussions with health care providers (nurses/midwifes) working at YCs. Heads and health care providers at strategically chosen YCs have been approached. Data collection is ongoing. **Results:** The results will further guide and tailor the development of an RLP-intervention directed to adolescents. The results will be presented at the time of the conference. **Conclusions:** Awareness increasing interventions about fertility and preconception health are important from early ages on in order to help young individuals avoid unwanted pregnancies, STI's and to retain the best possibilities to reach future reproductive goals.

P-103 • Health care providers views of Reproductive life planning among adolescents – a participatory action approach

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Objectives: The Reproductive Life Plan (RLP) is a tool that can be used to encourage reflection on intentions and strategies for successful family planning within the context of personal life goals and values. The RLP concept has been positively evaluated among women and men. It is likely that this concept would be useful also among adolescents and could advantageously be included in contraceptive- or other forms of counselling at arenas such as Youth Clinics (YC). **Aim:** The aims of this project are to find out of how an RLP-intervention, according to health care providers working at YCs, should be designed to best target adolescents, and what beliefs providers have about barriers and facilitators regarding preconception health education addressed to adolescents. **Design & Methods:** A methodological study with a participatory action approach including focus group discussions with health care providers (nurses/midwifes) at YCs. Data collection is ongoing. The heads of strategically chosen YC will be approached to include both rural and urban areas, high and low socioeconomic status and high and low percentage of immigrant visitors. **Results:** The results will be presented at the time of the conference. The results will tailor the development of the RLP-intervention directed to adolescents. **Conclusions:** Awareness increasing interventions about fertility and preconception health are important from early ages on to enabe avoiding unwanted pregnancies, STI's and to retain the best possibilities to reach reproductive goals.

P-104 • Breastfeeding: The Views of Sexual Healthcare Professionals

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Objectives: Despite rising breastfeeding rates in Scotland over the past decade, many social and cultural barriers to breastfeeding remain. As part of UNICEF's Baby Friendly Initiative, "Breastfeeding Welcome" training is being implemented within health services and public facilities – which helps improve staff members' awareness and basic knowledge of breastfeeding, ultimately receiving the Breastfeeding Welcome Award (BFWA). This allows the establishment to display a logo informing visitors they are supportive of breastfeeding. NHS Greater Glasgow and Clyde (NHS GGC) are currently piloting a post-partum contraception initiative, with women attending specialist sexual health centres, for follow up. We carried out a survey of all staff members within an integrated specialist sexual health service in NHS GGC, to review their attitudes towards breastfeeding and assess if training would be beneficial and accepted. **Method:** An anonymous online questionnaire was developed using the NHS platform Webropol™ and distributed via e-mail to all 210 staff members within the service. The response rate was 22.9% (N=48). Information collected included staff role and locations, along with 6 breastfeeding-related questions covering legal, ethical, and social aspects. Open free text was provided for staff to share their own views about breastfeeding in a health service context. The results were analysed using Microsoft Excel™. **Results:** Respondents included doctors, nurses, and reception or administration staff. The survey identified that: 75% (*n*=36) had never received any breastfeeding training; 46% (*n*=22) did not recognise or understand the meaning of the BFWA logo; 85% (*n*=41) were unfamiliar with the NHSGGC Breastfeeding Policy; and 19.5% (*n*=9) were unaware that women have a legal right to breastfeed in Scotland. The free-text responses showed, however, that most staff shared the belief that health services should facilitate breastfeeding and prioritise patient comfort where possible – the main obstacle being they were unsure how to do so, which indicates a need for Breastfeeding Welcome training. **Conclusions:** Most respondents appeared to hold similar opinions – that women visiting sexual health services have a right to supported breastfeeding– but expressed a desire for more training to resolve knowledge gaps. This suggests initiating training would help to consolidate staff knowledge and improve their confidence in providing the best possible care. By maintaining a welcoming environment in sexual and reproductive health clinics, mothers will likely feel more comfortable to make use of post-partum contraception and other services in the community. This has been presented to senior management within the service, and will be taken forward.

P-105 • Intrauterine contraceptive device - Reasons for non-use among adolescents

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Objectives: To evaluate the knowledge about the IUD by adolescents between 13 and 19 years old. **Method:** Design: Cross-sectional study. **Setting:** Outpatients of the Gynecology and Obstetrics Clinic or inpatients of the Maternity in a public hospital of Brazil. **Main Outcome Measures:** the prevalence of IUD possible use. **Participants:** The sample was 38 patients. The instrument was a self-completion questionnaire. **Results:** The average age of the interviewers was 16.05. To analyze the true / false assertive questions about the IUD, a variable identified as *correct knowledge* was created, which corresponded to the correctness of the 7 questions. There was no association between correct knowledge and the possibility of using IUDs (Fischer's Exact

Test, p = 0.4, 99.5% power). In the individual analysis for each of the *true* or *false* assertions and the variable *would use IUDs*, only the assertive "The pill is a safer method than the IUD" (false) almost emerged as significant (Yates, two-tailed p = 0.08, power 60%). There was an association between higher education and correct knowledge about the IUD (p = 0.03, Fischer's exact test). **Conclusions:** The correct knowledge that pill is not safer than IUD significantly influences the possibility of IUD use in the future. The fact that other assertions have not determined a greater choice for the IUD attributes the limits of its use to the lack of knowledge about how better protected they are with the use of a LARC.

P-106 • "As a public health nurse, I find it difficult, even improper to talk about contraception when there is a newborn baby in the family."

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Objective: To reflect the communal maternity-care public health nurses' values and beliefs on sexuality and contraception when our clinic started a new protocol of postpartum contraception. The new protocol included the option to provide three months free-of-charge progesterone-only-pill (POP) from the nurse's appointment 1 to 12 weeks after the delivery. General education concerning contraception was administered before the new protocol. We wanted to examine the reasons why POP-administration was though considered somewhat difficult on the daily work. **Design**: Communal public-health maternity policlinic. Reflective sexuality-workshops guided by a sexual-therapist and a sexual-counsellor-midwife. Two sessions 1hr 30 minutes each, max 20 participants/group. Main topics: reflecting participants' values, fears, and thoughts on sexuality, introducing PLISSIT-model. Evaluation: free verbal evaluation, the benefit of work-shops, and receiving tools for clinical work on a scale 1 to 4 (worst-best). **Results**: Education on sexuality was considered to be too scarce in basic professional training. Talking about contraception with a family with a newborn baby was sometimes considered too intimate, intrusive, or even improper, and it was considered hard to find "the right/proper time" for the discussion. Some participants felt that they could be interpreted by the parents to "push them for early intercourses". On a general level, the work-shops were considered to be beneficial (average 4), and the participants felt they received usable tools for their clinical work (average 3.7). On verbal evaluations, participants felt that reflecting their values and thoughts concerning sexuality and also discussing sexuality as a broader concept in small and safe groups was important and improved their skills in discussing contraception and sexuality also with their patients. Finding practical solutions together with the group for the every-day practice was also considered important. **Conclusion:** when introducing and implementing new practices that concern sexual health and contraception, in addition to educating mere facts for the professionals, we found it beneficial for the professionals also to be able to reflect their thoughts on sexuality with peers. Allowance to talk about sexuality, sensitivity, acknowledging professional's limitations, fears and values were considered important topics in the workshops.

P-107 • Updates to the Family Planning Training Resource Package and other WHO implementation tools

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Objective: To provide the latest updates to the Family Planning Training Resource Package and other WHO implementation tools. **Methods and Results:** With the latest updates to the WHO MEC and SPR and the FP Global Handbook, new updates have been provided inI the FPTRP. These include three modules on Female Sterilization, Vasectomy, and FP for people living with HIV. Th updates also include new information in the latest existing modules, particularly on recommendations on post partum family planning, and for this living with HIV, coming from the results of the ECHO study completed in 2019. The French modules have also been updated and the new modules also now have their French translation, A new section on Spanish translations has also been started. Links to other materials are alos provided, including the training modules prepared by the ESCRH. The web analytics which show which modules and in which countries they are widely used also also provided. Other useful WHO websites that provided tools for FP and other topics will also be demonstrated, (www.srhr.org). **Conclusions:** The FPTRP remains as a popular online reference for training materials on specific contraceptive methods, and on various cross cutting topics such @s counseling, FP with HIV and on the use of WHO tools. With newer research findings coming out fast, these updates need to be shared soonest to allow providers to implement these in their practice for the benefit of their clients.

Cultural and ethnic diversity in a changing Europe

P-108 • Particularities / preferences in choosing modern contraception according to ethnical background of fertile age women in Romania

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Objective: To asses influences of the ethnic background of fertility aged women in Romania. In their preference to use modern methods of contraception. **Methods:** Data for this study were drawn from a large national representative sample of women (N = 5051) selected for the Reproduction Health Survey in Romania 2016. The categorical explanatory variable used in the study is ethnicity, respectively Roma and other ethnic groups of Romania. The other ethnic groups include the Hungarian Romanians and other ethnic groups. They were included in other ethnic groups of Romania because no particularities were reported regarding the use of contraception among women belonging to these ethnic groups. The dependent variable is modern contraception methods used by the fertility aged women in Romania. The modern methods used were classified into 3 categories: condoms, pills and long-term hormonal contraception used by injection tubal ligation. The classification criteria was the long-term effect of the method / and systemic use. The contraception methods use was specified only for the sexually active women. **Results:** 38% of Roma women used modern contraception compared to 61% of women with other ethnically background taken together. Regarding the method used, the percentage of condom use is similar in both groups just over 60%. The pills and the long term hormonal methods are also used in similar percentage around 6%. Large differences are found in the use of long term acting contraceptive methods and tubal ligation. The percentage of women who prefer these methods is three times higher in Roma women than in the other 19% compared to 6%. The

preference of Roma women has been associated with economic difficulties related to the cost of other methods and to the fact that the other methods should be be administered / taken systematically. **Conclusions** The proportion of Roma women using modern methods is significantly lower than women with other ethnically background. In choosing a modern method of contraception, ethnicity can have an important role because it targets cultural norms and attitudes towards women and women's rights in general and in the family in special. To achieve reproductive health equity, policies must be adjusted for vulnerable disadvantaged categories.

P-109 • Low rates of Venous Thromboembolism in Oral Contraceptives users in Russia – a mixed-method investigation of events from the International Active Surveillance – Folate and Oral Contraceptives Utilization Study (INAS-FOCUS)

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Objectives: To investigate potential reasons for low rates of venous thromboembolic events seen in Russian study participants in the INAS-FOCUS study compared to US-based study participants and rates reported in the literature. **Methods:** INAS-FOCUS is a large, prospective, controlled, non-interventional study conducted between 2011-2019. Women with a new combined oral contraceptive prescription were enrolled by their prescribing physician. In the follow-up phase, women were contacted every 6 to 12 months for a maximum of 7 years and asked for information about occurrence of cardiovascular events, including venous thromboembolism. Self-reported events were validated by health care professionals. In a mixed-method sub-study we investigated reasons for low rates of reported events from Russian study participants including analysis of healthcare trends, Russian subject-matter expert interviews and demographic comparative analysis. **Results**: The analysis is based on 76,607 women-years (WY) of hormonal contraceptive exposure in Russia. Overall, 10 venous thromboembolic events were validated, with an incidence rate of 1.31 per 10,000WY (95% CI 0.63 – 2.40). This compares with the commonly reported rate of 8-9 per 10,000 WY in Europe and 6.4 per 10,000 WY; 95% CI: 3.0 – 12.2 in the recently completed INAS-SCORE study. Comparative analysis of Russian versus US study participants revealed that Russian women are older, have a lower body mass index, more likely to be first-time users and less likely to be taking concomitant medication. Qualitative expert-interviews found no official data are available on venous thromboembolism in Russian oral contraceptive users. In addition, key Russian opinion leaders in contraception and thromboembolic disease confirmed that venous thromboembolism is rarely diagnosed in women of reproductive age. All other serious adverse events observed in the INAS-FOCUS study were reported with increased frequency in Russian study participants compared to US study participants. (The INAS-FOCUS study is currently being finalised, final incidence rates will be available for the ESC conference). **Conclusion:** Our data suggest that there is a decreased incidence rate of venous thromboembolism in Russian oral contraceptive users compared to other European and US users. Quantitative data from the INAS-FOCUS study is supported by our mixed-method investigation.

Innovations, new discoveries and therapies in contraception and sexual and reproductive health

P-110 • Tolerance profile of the insertion and removal of the subdermal contraceptive implant through the use of anesthetic aerosols.

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Introduction: Subdermal hormonal implant contraception is the most effective contraceptive method. In our health area we work with Implanon NXT, which contains 68mg of Etonogestrel. Its insertion into the inner side of the arm, as well as its removal, must be carried out by a healthcare professional, in sterile conditions and under anesthesia. **Objective**: To compare the tolerance of the subdermal implant insertion and removal process using local anesthetics or anesthetic sprays. * *During the course of the study, an excellent tolerance to the process was verified through the use of Ethyl Chloride, so it was decided to abandon the use of local anesthetics, changing the objective to: "Checking the tolerance profile of the insertion and extraction of Implanon NXT□through the use of anesthetic aerosols"* **Material and methods**: Retrospective observational study of the different forms of anesthesia (local and topical) for insertion and removal of the implant, randomly (at the beginning of the study and later only with one of the anesthetic techniques), in patients who requested this method at the Family Planning Center of Vigo between July 2018 and August 2019. After the procedure and before the patient leaves the clinic, objective data on tolerance to this technique was collected using an analogue-visual scale (AVS), where 0 was the complete absence of pain and 10 was the worst imaginable pain. **Results**: During the study period, a total of 188 procedures were performed with topical pulverized anesthesia (ethyl chloride), including in these procedures: insertion (122), extraction (43) and extraction + insertion (23).We evaluate tolerance (using AVS) in each of the procedures. Insertion: average AVS of 1,4 (range 0-6). Extraction: average AVS of 0,91 (range 0-5). Extraction + placement: average AVS of 1,3 (range 0-3).The overall average AVS of all procedures performed was 1,28. As at the beginning of the study it was randomized, local and topical anesthesia, we have registered about 9 procedures with local anesthesia with an average AVS of 1.78. In recent months, in addition to asking about tolerance to the topical procedure, we asked previous users of Implanon NXT about the preference of one or another anesthetic technique (local vs. topical) and all 15 of them referred preference for the anesthetic topical spray, only one of them preferred the local and another showed no preference for any (similar tolerance to both). **Conclusions**: The insertion of the subdermal implant through the use of anesthetic aerosols is an excellently tolerated procedure. In addition, in our opinion, this form of placement provides other benefits from different points of view: simplicity, safety, economy , speed, ecology and preventive medicine (prevention of occupational hazards). Therefore, and in view of the results obtained, we invite healthcare professionals to assess the possibility of using a topical anesthetic, such as ethyl chloride, instead of a local anesthetic (most common way); thus avoiding puncturing to puncture, in addition to the other many benefits described.

P-111 • Insertion tolerability and satisfaction of the 19.5 mg levonorgestrel-releasing IUDs

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Introduction: Nowadays, sexual activity among adolescents is frequent and most of them do not use an effective contraceptive method in all sexual relations. In our area, unwanted pregnancy rates are concentrated in women under 30 years old. In this population, 73% of unwanted pregnancies are due to poor adherence to the contraceptive method; so the promotion of LARC (long-acting reversible contraception) methods is a fundamental strategy. Considering that young women tend to be nulliparous and that they have the highest percentages of unplanned pregnancies, the 19.5 mg levonorgestrel-releasing IUD (Kyleena®) is a good option in terms of contraception and to prevent unplanned pregnancies. **Objective:** To evaluate the tolerance of the insertion process and satisfaction at 3 months of the Kyleena® IUD. **Material and methods**: Retrospective observational study of all Kyleena® IUD insertions over a period of one year (from June 2018 to June 2019) in in the Family Planning Center of Vigo (total health population of 600,000 inhabitants). We evaluate the tolerability to insertion on the same day of IUD placement (good, regular, bad) and satisfaction to the method (satisfied or not satisfied) in the control visit (third month post-insertion), as well as the age and parity of the user. In the study period, the rates of IUD removal, spontaneous IUD fall or pregnancy with intrauterine IUDs were also evaluated. **Results:** During the study period a total of 48 Kyleena IUDs were placed with good tolerability in 69% of women, only 4,7% of them reported poor tolerance (29 good, 11 regular and 2 bad). All of them reported being satisfied with the method. Only three of them were not completely satisfied in the visit of the third month (due to prolonged spotting or irregular menstrual periods) but they continued with the method and in the 6th month they said that they were satisfied with it. All of the users were nulliparous and their average age was 24,7 (age range 16-32 years old). No IUD removal or spontaneous IUD fall or pregnancy were reported. **Conclusion:** Kyleena® IUD allows to expand the range of women who want to benefit from effective long-term contraception without requiring their participation; a reversible contraception, with good tolerance to insertion and with a good safety and acceptability profile, regardless of age and parity of women.

P-112 • Drug-Eluting Embolization Particles for Permanent Contraception

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Nonsurgical permanent birth control is a sought after alternative to traditional sterilization involving laparoscopic tubal ligation. However, no noninvasive technique currently exists that demonstrates total fallopian occlusion necessary to prevent pregnancy. Sclerosing agents, such as polidocanol foam, have demonstrated potential to inhibit fertilization by causing fibrous body formation in the fallopian isthmus of non-human primates. However, an improvement of the success rate of this contraceptive approach is needed before translation into clinical trials. Thus, we hypothesize that supplementing this sclerotherapy technique with biodegradable embolization particles that offer sustained release of a secondary active agent will cause total tubal occlusion via epithelial disruption and fibrous body formation around the microparticle accumulation site.

We designed biomaterials composed of electrospun polyester nanofibers, a unique drug delivery modality that forms solid drug dispersions within a fiber matrix, allowing for sustained drug release as the polymer degrades in vivo. Polyester blends were electrospun and analyzed for their ability to encapsulate and elute two active agents — doxycycline and phenyl benzoate, a phenol ester that hydrolyzes into a potent sclerosant. Our fiber blends encapsulated formulations of up to 80% (w/w) drug and achieved sustained release of doxycycline and phenyl benzoate for one week and four weeks, respectively. We analyzed cytokine expression and histology of drug-treated fallopian tube explants from Rhesus Macaques and found that both agents are capable of eliciting requisite inflammatory epithelial responses at relevant doses. Particle polydispersity has been shown to enhance propensity for target aggregation and occlusion, therefore, electrospun fibers were micronized and sieved to generate microparticles of amorphous size and shape. These characteristics were confirmed with Scanning Electron Microscopy and Laser Diffraction Particle Sizing; microparticles maintained a dense fiber matrix after micronization and an average diameter of 107 μm. Particle concentration in delivery solution was assessed and optimal suspension conditions selected for syringeability and deliverability following catheterization laboratory standards. Iterative studies are being performed in guinea pigs (n=6) to test for the extent of fibrous body formation in vivo. Particulate suspensions of 5 mg/mL in 5% polidocanol foam will be administered into each uterine horn; 48 hour and 7 day timepoints will be used to assess particle distribution and fibrous body formation, respectively. We expect to see fibrous body formation via histology in fallopian tubes treated with 80% w/w phenyl benzoate microparticles. This work demonstrates the potential of drug eluting embolization particles to enhance fallopian sclerotherapy for nonsurgical sterilization.

P-113 • A mixed methods evaluation of the online provision of oral contraceptives: strategies employed to self-report blood pressure, height and weight measurements to obtain the combined oral contraceptive pill online

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Objectives: To ascertain the processes users undertake to obtain blood pressure, height and weight measurements used when submitting an online order for the combined oral contraceptive pill (COC). **Methods:** An online sexual health service provided free online COC to residents of five South East London boroughs from March 2017 until August 2019. We sought to understand user experience of this service and investigate the accuracy of self-reported blood pressure, height and weight measurements submitted by those attempting to order COC. Women aged 18 - 50 who sought to order COC were invited to attend a research visit where biometric measurements were taken. At the visit, participants also completed two surveys, where they were asked to report how they had obtained measurements for ordering COC and their perception of the measurements' accuracy. **Results:** From 1st August 2017- 22nd August 2019, 2125 COC supplies were ordered by 1228 individuals, 835 of which were eligible to participate in study. 413 users (49.5%) agreed to participate, and 368 attended. 3 users were excluded as they entered

impossible biometric data, leaving a sample of 365 users. 196 users (23.5%) declined to participate. 93.42% of participants (341/365) reported feeling confident self-reporting height, weight and blood pressure, whilst the remaining 6.58% (24/365) reported they did not. 46.03% (168/365) thought the measurement submitted was quite accurate, 47.95% (175/365) very accurate, and 6.03% (22/365) thought they had submitted an inaccurate measurement. When asked how they found the process of measuring their blood pressure, 30.30% (110/363) reported that they had used an existing recent measure. When asked to describe the process, 45.75% (167/365) reported using measurements obtained from either their GP or a sexual health clinic, 9.86% (36/365) from a pharmacy, and 19.18% (70/365) reported using a home blood pressure machine. 13.97% (51/365) reported obtaining a measurement from another source, for example, their workplace, a university placement or the gym. The remaining 11.23% (41/365) reported that they estimated their blood pressure. Of the 41 participants who reported to having estimated their blood pressure, 15 (36.59%) thought the measurement submitted was inaccurate, and 7 (17.07%) did not feel confident in reporting their biometric information. **Conclusions:** Women employed various strategies to obtain a blood pressure measurement to submit to obtain COC online. Ways of supporting the minority of users who estimated their measurements, felt they were inaccurate and did not feel confident in reporting biometric information should be developed by online services.

Medico-legal issues; women's, men's and children's rights; ethics

P-114 • Practical issues arising from the self-assignment of gender

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Gender reassignment has been accepted socially, legally and medically. Yet, there are several issues that have not been adequately addressed, as suggested by the present case. This 34 years old person was born as a woman and was self addressed as a man. By court's decision he was assigned male gender and for all legal purposes he is now a man. He is receiving male hormone therapy and the secondary sexual characteristics are now male. However, he maintains female genital organs, as he has not yet undergone gender reassignment surgery. He presented with abnormal vaginal bleeding requiring further investigation. Being a man, he could not be admitted in the women's hospital he initially visited and in our general hospital he had to be admitted in the surgical ward. Eventually he had an endometrial biopsy and was diagnosed with simple endometrial hyperplasia. He requested laparoscopic total hysterectomy and bilateral salpigoophorectomy as a first step for gender reassignment. At the same time, he asked for fertility sparing options with intent to have a child with a future female partner using his own genetic material. Keeping his ovaries would be incompatible with the newly assigned gender. Ovarian tissue freezing would require reimplanting ovarian tissue to a man. Oocyte freezing could be an option but the ova would have to be donated (non anonymously) to his future female partner. Fertilizing the ova with donor sperm and freezing the embryos would require donating (non anonymously) embryos to his partner. None of these options are covered by the current legal framework, and they all pose a challenging ethical and legal issue.

P-115 • Should the transmission of sexually transmitted infections be criminalised in England and Wales and if so, when and how?

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Objectives: To assess whether and in what circumstances it is ever appropriate to criminalise the transmission of STIs through sexual activity. The focus is solely on the reckless transmission of STIs in England and Wales and whether in spite of the concern's criminalisation raises, implementing the criminal law in this context is justified. **Method:** Qualitative piece of research that consisted of analysis of English and Welsh case law and jurisprudence relating to sexual disease transmission. Additionally, an in-depth examination of arguments raised by prominent academics in this area of the law was carried out. **Results:** Research showed that there is a role for the criminal law in cases of reckless transmission of serious STIs because it can be seen to fulfil the aims of the criminal law: punishment, deterrence and communication of ethical norm. Subsequently, what form criminalisation should take was critically analysed. Specifically, whether it should continue to be captured by section 20 (s.20) of the Offences Against the Person Act 1861 or under a new specific offence. It was found that there were a number of ambiguities around what amounts to reckless under s.20. Namely, whether a positive medical diagnosis is needed or whether s.20 also extends to cases of wilful blindness. Additionally, there is no certainty as to the availability of precautions such as condoms and the use of antiretrovirals for individuals with serious STIs to rely upon as a sufficient defence. Thus, the creation of a specific offence was concluded as the way forward and conditions needed to engage in liability were considered. It was argued that the appropriate threshold for recklessness was wilful blindness, because individuals with this level of knowledge are equally aware as someone with actual knowledge. Furthermore, it was maintained that in the presence of precautionary measures recklessness should be rebuttable because it both encourages responsible behaviour by D and fulfils the ultimate aim of preventing the transmission of disease. **Conclusions:** Removing an individual's freedom is not a light matter and so helping to ensure people do not become criminals is of primary importance. Therefore, recommendations made included: strengthening sexual health education in schools, providing adequate psychosocial support and infection control counselling to D and providing supplementary training to clinicians on how to give legal advice. Lastly, it is essential that any new offence be widely publicised so all parties concerned are fully informed.

P-116 • Origin of "conscientious objection" in healthcare: Catholic priests helped enshrine the practice into law

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Objectives: The United Kingdom was the first country in the world to legalize the practice of so-called "conscientious objection" in health care with the 1967 *Abortion Act,* allowing doctors to

refuse to provide abortions based on their personal or religious beliefs. Such treatment refusals eventually became common around the world. What is the origin of the “conscientious objection” clause in the UK *Abortion Act* and the motivations for its inclusion? Fifty years later, should treatment refusals based on "conscience" still be allowed, given their demonstrated harms in many countries including some patient deaths? **Method:** An historical review was conducted, by examining: 1) resources with information on the history of “conscientious objection” in healthcare, and/or the history of the 1967 *Abortion Act*; 2) issues of the *British Medical Journal* from April 1966 to April 1968; 3) UK Parliamentary Hansard debates from 1966 to 1967; 4) early drafts of the *Abortion Act*. An interview and correspondence was conducted with Lord David Steel, who introduced the *Abortion Act*. **Results:** The term “conscientious objection” as used in healthcare comes from military conscientious objection, although the two have little in common. The term was also included in the UK’s 1898 *Vaccination Act* to protect objecting parents but not doctors. David Steel said he added the “conscientious objection” clause to the *Abortion Act* as a concession to priests at a seminary in his Scottish constituency. Once introduced, most medical groups and politicians welcomed the clause. Much deference was given to religious beliefs in the ensuing debates, but other reasons for supporting the clause were to preserve doctors’ rights and their authority over patients, to protect doctors from pressure to do abortions and from liability, and to secure support for the law’s passage. **Conclusions:** The historical record shows that the motivation to codify “conscientious objection” to abortion was rooted in Catholic religious beliefs, doctor authority and protectionism, abortion stigma, and misguided fears about the consequences of legalizing abortion. The denial of healthcare for "conscience" reasons has had widespread negative consequences around the world. International human rights standards do not recognize it as a right and call for limits on its exercise. Dozens of scholars and researchers have argued it should not be allowed in any kind of health care. The UK can set an example to the world by amending its *Abortion Act* to disallow “conscientious objection”.

Psychosexual and mental health aspects of contraception, sexual and reproductive health

P-117 • Combined oral contraceptives x depression: a reality or fake news?

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Objective: Compare combined oral hormonal contraceptives (COC) to placebo and other contraceptive methods about the outcome depression in fertile age. **Methods:** A systematic review on databases PUBMED and LILACS using the descriptors “contraceptive agents, oral, hormonal” AND depression was made. Case reports, reviews, articles with divergent subject and women in climacteric age were excluded and women in fertile age, depression and humor disorders were included. After analysis, 12 articles were obtained. **Results:** Women using combined oral contraceptives (COC), when compared with non users, exhibited a higher tendency on the use of antidepressants. Similarly, teenagers (15 - 19) were more susceptible to a diagnosis of depression when using COC. This result was confirmed by other study, which showed an add up of 4,3% when compared to a placebo using group. This contraceptive method

was associated with a small increase in anxiety (0.22) and irritability (0.23) during the intermenstrual phase, but a significant premenstrual improvement in depression (-0.33). When analyzing the active principle, it was noted that etonogestrel-containing medications increased the risk for antidepressant combination in women with a mean age of 28.5 years (RR: 1,22). On the other hand, users of COC with ages between 25 and 34 years old had shown lower average levels of depressive symptoms assessed with the Center for Epidemiologic Studies Depression Scale and were less likely to report a suicide attempt (OR = 0,37). During a year of analysis, users of this method, when compared with ex-users, has exhibited lower odds of developing panic disorder (OR = 0.34). Moreover, the use of COC by teenagers in a period of 3 months was not modified the self-perception of quality of life. Patients in use of this medications based on MADRS-S (Montgomery- Åsberg self-rating scale for depression), presented lower rates of depression and some studies show that COC use, besides being well tolerated, has no relevant effects on well-being. **Conclusion:** The analysed studies showed different results, however the study with the higher level of evidence inferred that the use of COC increased the prevalence of depression. Other factors also appeared to be important, like the age (young women showed more humor disorders). Therefore, there is a necessity for more studies to be made, in order to define more satisfactory results and evidence side effects of this contraceptive method.

P-118 • Influence of psychosexual variables on sexual behaviour and experiences of sexually active adults

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Human sexuality is broad and multidimensional. Its psychological dimension hinges on factors that affect mental or emotional attitudes towards sexual activities and experiences. These psychosexual factors significantly influence the formation of sexual relationships. It is, therefore, essential that these factors are well researched and understood. However, there is a paucity of research on the effects of psychosexual variables on sexual relationships among sexually active adults. **Objectives:** To assess the sexual behaviour of sexually active adults. To determine the effect of sexual body-esteem and sense of entitlement to sexual pleasure from partner on sexual behaviour and experience of sexually active adults. To examine the relationship between demographic factors and sexual behaviour of sexually active adults. **Method:** 90 sexually active adults; 57.8% females and 42.2% males from Western Nigeria participated in the study by completing an internet-broadcasted, adapted and validated questionnaire. A modified version of the Sexual Behaviour and Religiosity Scale was used to assess the sexual behaviour of respondents. The data generated were analysed using IBM SPSS Statistics version 20. **Result:** The results showed that there is poor sexual behaviour among sexually active adults and relationships existed between sexual behaviour, experience, sexual body-esteem and sense of entitlement to sexual pleasure from partner of sexually active adults. Also, the study demonstrated an association between sexual body-esteem and age. **Conclusion:** This study revealed an association between sexual behaviour, experience, sexual body-esteem and sense of entitlement to sexual pleasure from partner of sexually active adults. This understanding indicates that those with low sexual body-esteem and/or sense of entitlement to sexual pleasure

from partner may have a greater tendency of having poor sexual behaviour and experience. This study also pointed out a major connection between sexual body-esteem and age and this is in agreement with previous literature. Therefore, this research recommends that interventions to improve sexual body-esteem and sense of entitlement to sexual pleasure from partner may be beneficial in boosting sexual behaviour and experience of sexually active adults and these interventions should be age-based. Furthermore, this research fulfils the aim of the European Society of Contraception and Reproductive Health (ESC) to improve, facilitate and share sexual and reproductive health care knowledge. Moreover, this study poses implications for future researches for the ESC.

P-119 • Progestin contraception and depression: myth or truth?

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Objectives: Verify the relation between the use of progestogen contraceptive (oral and injected) and depression. **Method:** A systematic literature review was performed on the PubMed database using the terms: "progestogen AND depression AND contraceptive" during the period of 2010 to 2019. 30 articles were found. After applying the exclusion criteria (reviewed articles and case reports) 6 original studies were used. **Results:** Among the studies, most stated that the use of progestogen contraceptives may contribute to depression; and its withdrawal increase the symptoms of premenstrual syndrome and postpartum depression, since mice treated with this substance showed decreased of activity in the progesterone receptor, which contributed to a behavior similar to depression in the mice's. The use of combined oral contraception was found to be associated with side effects of anxiety, irritability and small but significant mood swings in the intermenstrual phase. Yet, in the premenstrual period, depression improved. It is highlighted a relationship between depression in women undergoing in vitro fertilization, whose increase in progesterone levels from decreased levels in the estradiol-dominant phase to high levels in the progestogenic phase demonstrating inversely correlated with depression scores. However, other articles have shown that there is no relationship between depression and progestogen use. Since medroxyprogesterone (MPA) does not increase depressive symptoms in premenopausal and postmenopausal women, when treated sequentially with estradiol and then in MPA, in the same way as patients treated with estrogen therapy against depression. Young women (25 to 34 years old) using hormonal contraceptives were found to be less likely to have depressive symptoms and a lower tendency to suicide compared to the population using low-dose or low-dose hormonal contraceptive methods. not use. In addition, women using progestin contraceptives had no different levels of symptoms of depression compared with patients using other forms of hormonal contraception. An article was inconclusive in studying beta-arrestin 1 protein levels in peripheral blood mononuclear leukocytes, used as a marker for the development of depressive symptoms and the Hamilton Depression Rating Scale, point to evidence associating progestogen with depression, but also demonstrating that the same substance can alleviate it.
Conclusions: There is a relationship between progestogen use, which influences mood swings and, in some cases, depression, especially with oral use. As for injectables, there is no study that

affirms or denies the relationship. In addition, due to the contemporary nature of the subject, there is not enough material available and further studies are needed.

P-120 • Transitioning from Late Pregnancy to Six-month Post-Partum: Psychological and Family Functioning of Mothers and Fathers in Singapore

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Objectives: This study investigates the trajectory of psychological and family functioning of mothers and fathers during the transition from pregnancy to parenthood. **Method:** 1000 pregnant women and their husbands will be recruited to the study. They will be assessed at 28 and 36 weeks of gestation as well as at 6 weeks, 6 months and 1 year after delivery. Validated psychological instruments will be used to assess participants' depression and anxiety symptoms, family cohesion and communication, and marital satisfaction. **Results:** This presentation reported the preliminary findings from 210 participants (110 women and 100 men) as assessed at 36-week of pregnancy (T1), 6-week post-partum (T2), and 6-month post-partum (T3). Results showed that compared to women, men reported greater increases in depression, anxiety, and marital dissatisfaction during the transition to parenthood. In particular, women showed increases in scores on depression, anxiety, and marital dissatisfaction from T1 to T2, and these scores remained stable at T3. For men, their scores on depression, anxiety, and marital dissatisfaction continued to increase throughout the three assessment time points. Both men and women reported a similar pattern of family communication and cohesion, which increased slightly from T1 to T2, followed by a significant drop at T3. Compared to T1 assessment, both men and women reported fewer family communication and lower family cohesion at T3. Regression analyses showed that younger age, not being employed, increases in family communication were the best predictors for women's marital satisfaction at T3. For men, increases in family communication and cohesion best predicted their marital satisfaction at T3. For both women and men, their anxiety and depression symptoms did not significantly predict their marital satisfaction at T3. **Conclusions:** The preliminary findings suggest that the transition from pregnancy to parenthood may have a greater impact on the participants' family functioning as compared to their psychological functioning. While their post-partum psychological functioning seems to return to pregnancy level, their family functioning continues to deteriorate at 6 months after delivery. Compared to women, men showed greater increases in psychological symptoms and marital dissatisfaction during the transition to parenthood. While the bulk of existing research focuses on women's psychological well-being following childbirth, attention should also be given to the family adjustment to parenthood, especially men's adjustment to their fathers' roles. This study will continue to assess participants at 12-month post-partum to investigate the trajectory of psychological and family functioning throughout the first year of parenthood.

P-121 • Contraceptive Implant with etonogestrel: effect on women's sexual function

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Objective: to evaluate the usage of the implant with etonogestrel over women's sexual function. **Method:** A prospective longitudinal study with women enrolled in the Family Planning service from Universidade Federal de São Paulo, was conducted between August 2017 and October 2018. The Female Sexual Function Index (FSFI) questionnaire was applied and answered by the participants in 3 different moments, before the insertion of the etonogestrel implant and after 1 and 6 months, respectively. Literate over-18-year-old women who voluntarily wanted to participate of the study were included, after signing the Informed Consent Form. Those who reported depression, some kind of sexual dysfunction or some memory deficit were excluded. Female sexual function data were analyzed considering the aspects of arousal, desire, orgasm, marital satisfaction and dyspareunia in the last four weeks. **Results:** 43 women were included and followed up during the study. The average age between the participants was 27.3 years (SD - 7.57), 20 (46.5%) of them being single, 13(30.2%) of them reporting to have 12 years of schooling, most of them never being pregnant (53.5%) and almost all of them (90.7%) had already used other contraceptive method before. When we analyzed he answers obtained by FSFI, we did not observe statistically significant difference when comparing the scores of each domain before and after insertion. However, in a scale from 0 to 6 we could observe a slight increase in the average values between all the basal scores and those from the 6-month research, which kept higher values than the initial one. The "Pain" domain, which evaluates the frequency and intensity, was the one that presented the most expressive raise compared to the basal result, the initial 5.13 (SD 2.29) average raised to 5.22 (SD 2.37) in the sixth month. The "Satisfaction" domain, which evaluates the proximity to the partner, the satisfaction into the sexual intercourse and the sexual life in general, was the one that presented the smallest index between the compared months: 3.14 (SD 1.45) average in the beginning, increasing to 3.36 (SD 1.67) in the sixth month. **Conclusion:** Our results are similar to those currently observed in literature. During the 6-month evaluated period there was no impact over the sexual function among the users of the etonogestrel implant.

Reproductive health pertaining to contraception and sexual health

P-122 • Predictive factors of adolescent pregnancy before and after the Portuguese economic crisis

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Introduction: Adolescent motherhood has an enormous impact on teenage life, and can entail drastic changes at personal, interpersonal and even sexual levels. The scientific literature points out social and economic disadvantage, school failure and lack of use or ineffective use of contraception as the main risk factors for a pregnancy. The Portuguese economic crisis has had repercussions at all these levels, including access to health care. **Objectives:** Assess the impact of the Portuguese economic crisis on the occurrence of adolescent pregnancy in the population of patients of the Teenager/Pregnancy Consultation at the Maternity Hospital Daniel de Matos in the period of 2008-2011 versus 2014-2018. **Methodology:** Retrospective study of clinical

records, with descriptive analysis of data and non-parametric statistics, performed using SPSS. **Results:** 135 teenagers between the ages of 14 and 19 were included. Group I (years 2008-2011) included 46 teenagers (34%) and group II (years 2014-2018) included 89 teenagers (66%). The difference in the level of education between the two groups was statistically significant (p=0.013), with emphasis on the attendance of professional courses which rose from 9% before the crisis to 32% after the crisis. There was no significant difference between the socio-cultural contexts (urban vs. rural environment). There was a statistically significant difference in contraceptive use, with a higher number of teenagers not using contraception in group II (23% vs. 67%) (p=0.000), lower use of condoms (30% vs. 12%) and lower use of the pill, subcutaneous and injectable implant (46% vs. 20%). Pregnancy occurred by choice in 20% vs. 11% of the patients. As for contraception after childbirth, a statistical difference was also found (p=0.028), with fewer teenagers leaving the maternity ward without contraception (60% vs. 35%), with an increase in the choice of IUD/ISU as a postpartum contraceptive method (0% vs. 16%). **Conclusions:** After 2014, there was an increase in the number of teenagers who became pregnant due to lack of contraceptive usage. After childbirth, there was an increase in contraceptive usage, especially long-term contraceptive methods.

P-123 • Contraception- what adolescents know

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Objective: Contraception during adolescence is a very important and sensitive part of the life of teenagers. For young girls the appropriate information about contraceptive methods is crucial to prevent their unwanted pregnancy and sexually transmitted infections (STI). The aim of our study was to assess the knowledge of adolescents about contraceptive methods and the informational sources they use. **Methods:** The study was founded by the ESC in which 515 girls, aged 15-20 years from high school and university had been involved. They were questioned about 1) the information sources they use 2) the person they talk about these sensitive sexual issues 3) the contraceptive methods they use 4) whether are they comfortable with the method including their partners 5) if they changed the method what was the reason of it. For the analysis we used SPSS 24 program and performed descriptive and correlation statistical methods. **Results:** Adolescents talk about sexual issues surprisingly mostly with their parents (56,7%), friends (22,14%) and only 8,54 % of the participants orientate from the internet. The best known contraceptive methods are using condom (53%), birth control pill (36.12%) and emergency contraceptive pill (21.75%). Higher percentage of the adolescents living in the city know more about interrupted intercourse than the adolescents living in the countryside. Fifty seven percent of the participants are comfortable with the used contraceptive method and 51,8 % of the participants said that their partners are satisfied, too. **Conclusions:** Providing adequate

information for teenagers can decrease the unwanted pregnancy. Therefore, information concerning reliable contraceptive methods should be more emphasized. The use of condom is an effective method to prevent STIs but not reliable enough to prevent unwanted pregnancy. We have been surprised by the high role of parents in the sexual education of teenagers, so it is important to improve their knowledge on contraception and STIs in order to have further improvement of preserving the teenagers' Reproductive Health.

P-124 • The success of youths of bungoma in policy making and budget allocation in reproductive health

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Objectives: Prioritization of youth friendly centres/services and family planning in County Budget to help meet the needs of ASRH and youths who are the largest population proportion. **Methodology/Interventions**: Stage media have been mobilizing, sensitizing, conducting community outreaches, civic education and training young people on advocacy on YFS and family planning, doing media engagements, attending public participation, presenting memos and meetings with policy makers like the director of Health, RH coordinators, Chair of the Health Committee, Clerk of the County assembly, chair public accounts, chair budget committee and CEC budget economics and planning. **Results:** Meetings with policy makers on the prioritization of FP in the CIDP-Resulted to CIDP having an RHFP program. We have been able to successfully ensure that the county invests in youth friendly centers and fp programs – county annual work plans have FP programs – e.g. fp commodity distribution in 17/18 plans. Public participation process is now conducted in a better way; Information is shared earlier, mobilization is done through the radio and newspapers and the public is allowed to participate without bias. Memos calling for FP and YFC investment resulting to establishment of equipped 8 youth friendly centres, CIP formulation, FP being allocated Ksh 750,000 in FY 2017/18 and 3.2m in FY 18/19; 10M allocated for YFC in the CIDP 2018-2022.Media engagements have ensured increased visibility on RH / Family Planning gaps / needs of young people in Bungoma – created a buzz and conversations around Youth Friendly investment. During this process we were able to identify 15 other Youth advocates who have been helping us to continue with advocacy, community mobilization/engagement and budget processes in ASRH focusing on investing in FP and YFCs. The requisite compositions of YFS are; there is a familiarity with adolescent physiology and development amongst service providers, Counseling training, Ability to honor youth privacy and confidentiality, convenient location and equipment with adequate space and High quality adolescent RH information available and accessible. **Conclusion:** When Counties consider a review of Youth Friendly services prioritization in their ADPs and budgets this will ensure future resource allocation towards fp, reduced cases of HIV/AIDs infection and teenage pregnancies together with deaths and complication that result from unsafe abortions. The requisite compositions of YFS are; there is a familiarity with adolescent physiology and development amongst service providers, Counseling training, Ability to honor youth privacy and confidentiality, convenient location and equipment with adequate space and high quality adolescent RH information available and accessible. **Recommendations:** Equip and increase the number of YFCs to at least 3 in each sub-county so as to service the growing population youths Itemizing and creating a budget line on Youth friendly services and FP/RH issues in the County

MOH budget should be a priority due to ever increasing demanding for FP and other services. Conduct civic education to the community and policy makers on importance of investing on Reproductive Health so as to avoid dependence from Donors. Empower more Youths to help in advocacy, policy formulation and budget allocation process.

P-125 • Evaluation of sexuality and quality of life of women complaining abnormal uterine bleeding

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Objectives: To evaluate the sexual function of women with abnormal uterine bleeding through the scores obtained from the Female Sexual Function Index- FSFI, and the quality of life of women with abnormal uterine bleeding through the scores obtained from the World Health Organization Quality of Life Questionnaire WHOQOL- BREF; **Hypotheses:** Women with abnormal uterine bleeding show risks to sexual dysfunction and lower quality of life. **Methods:** A cross-sectional descriptive study including 80 women, aged 18 to 49 years, active sex life, and complaint of abnormal uterine bleeding attended between August 2018 and June 2019, who answered FSFI and WHOQOL-BREF. We excluded women who did not have a sexual partnership and with partner who problem of premature ejaculation and / or erectile dysfunction. Descriptive data analysis was performed using Statistical Analysis System (SAS) for Windows, version 9.2. **Results:** 140 women were invited to participate in the study, 104 answered the questionnaires, and 24 were excluded according to pre-established exclusion criteria. Of the 80 women included in the study most women had > 7 years of schooling, and had had < 2 pregnancies. The mean of age was of 35.0 + 8.7 years old. The period of uterine bleeding was 38.7 + 47.06 days of continuous bleeding. The total of participants, 27.83% scored FIFS SOCRE <26.55. Regarding quality of life, the percentage of poor scores in the physical health, psychological, social relationships and environmental domains were 26.25%, 18.7%, 11.3%, 35.25%, respectively. **Conclusions**: Results suggested risks for sexual dysfunction and decreased quality of life of women complaining abnormal uterine bleeding.

P-126 • Inne, a new approach to fertility monitoring

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Inne is a new approach to fertility monitoring for a hormone-free contraception. Innovation on female contraceptive options has been only on hormonal, invasive, or implantable products since 1960. Little has been done on natural contraception options for women such as the Fertility Awareness Method (FAM) despite their high effectiveness. Recent innovations of fertility tracking apps such as Natural Cycles (www.naturalcycles.com) based on the basal body temperature method, have attracted large numbers of women to natural contraception. Thus, confirming a market need for contraceptive options aligning with healthy lifestyle choices. Such products come with usability limitations, like strict measurement time window daily or errors when users have fever or work night shifts. Inne offer a simple and accurate solution for fertility

monitoring. It consists of three different parts, inne STRIP, inne READER and inne APP. Inne STRIP is the first lateral flow strip measuring the hormone progesterone in saliva samples. The sensitivity of the inne STRIP is used to monitor salivary progesterone changes across the menstrual cycle. The daily measurement associates hormonal data to different phases of the cycle. The inne STRIP also includes a sample collector integrated with a sample delivery mechanism, avoiding the need for additional swabs or other sampling devices. The role of progesterone in relation to the menstrual cycle has been studied for decades. In particular, the rise in progesterone confirms that ovulation has occurred and the onset of the luteal phase, closing the fertile window of the cycle. Moreover, the correlation of salivary progesterone and serum progesterone has been well researched and established in academic research. Inne READER is a portable and compact lateral flow reader, equipped with BLE and Wi-Fi for the real-time transmission of hormonal data to the inne APP. The performance of the inne READER has been compared with a commercially available laboratory reader, showing great accordance in terms of sensitivity and kinetic response. Inne APP is an iOS app that communicates with the reader unit seamlessly via BLE or Wi-Fi for the transfer and analysis of the hormonal data. Starting from the daily progesterone measurement and from the duration of the menstrual cycle, the inne APP predicts the daily chance of pregnancy, thanks to a self-learning algorithm. Results have shown the ability of inne in detecting the luteal phase onset, confirming the occurred ovulation and closing the fertile window of the menstrual cycle.

P-127 • The Australian Contraceptive ChOice pRoject (ACCORd): A cluster randomised controlled trial aimed at increasing LARC uptake

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Objective: LARCs reduce unintended pregnancy and abortion rates but uptake in Australia is low. General Practitoners (GPs) are ideally placed to promote LARCs to women. The Australian Contraceptive ChOice pRoject (ACCORd), adapted from the successful US Contraceptive CHOICE study, evaluated whether a complex intervention in primary care can increase LARC uptake. **Design and Methods:** ACCORd was a **c**luster randomised controlled trial undertaken in family medicine practices in metropolitan Melbourne, Australia. Eligible GPs (N=57) worked three or more sessions weekly, had computerised practice and supportive reception staff. Each GP aimed to recruit a minimum of 14 women. Women were invited to complete an eligibility survey via an iPad in the waiting room. Eligible women were sexually active, non-pregnant, not planning pregnancy in following year, spoke English, had not undergone hysterectomy nor tubal ligation, had partners who had not undergone a vasectomy,

and were interested in contraceptive counselling or taking up a new, reversible contraceptive. Intervention GPs received a) training to provide effectiveness-based structured contraceptive counselling and b) access to rapid referral pathways to LARC insertion clinics. Control GPs received neither. The primary outcome was the proportion of women in each group with LARC insertion at 4 weeks. Secondary outcomes included women's choice of contraceptive method, quality of life (QOL) and LARC use at 6 and 12 months. **Results:** Twenty-five intervention GPs and 32 control GPs recruited 307 and 433 women respectively (N=740). Referral for LARC insertion within 4 weeks of initial consultation- Intervention group: 37%; Control group: 18% (RR 1.98, 95%CI 1.39-2.8; p<0.001). LARC inserted by 4 weeks- Intervention: 19%; Control: 12% (RR 2.03, CI 1.06-3.89; p=0.033). Using LARC at 6 months- Intervention: 45%; Control: 29% (R1.66, 95%CI 1.28-2.16; p<0.001), and at 12 months LARC use in the intervention group had further risen- Intervention: 46.6%; Control 32.8% (RR 1.5, 95% CI 1.2-2.0; P=0.0015). There was no difference in age nor parity with LARC uptake across the groups.
Conclusions: The ACCORd intervention resulted in significantly greater LARC uptake at 4 weeks and 6 and 12 months than in the control group. Implementation of this approach in family practice more broadly, particularly in contexts where LARC uptake is low, free contraception is not feasible, and specific sexual and reproductive health services are either not available or accessible, could lead to reductions in unplanned pregnancies and abortion.

P-128 • Detection of fertile window in irregular cycles using a wearable medical device

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Objectives: Although polycystic ovaries syndrome (PCOS) is one of the most common endocrinopathies in women of reproductive age, little is known about the hormonal patterns within the menstrual cycle of women affected by this condition. Such hormonal fluctuations largely affect the probability of conceiving. Using the Ava bracelet, a fertility tracking wearable device measuring five physiological parameters every night, and a corresponding mobile application, we assessed hormonal patterns and the performance of the underlying algorithm in identifying fertile days in women with irregular cycles with and without diagnosed PCOS. **Method:** The six-day fertile window is defined as the day of ovulation and the five days preceding ovulation. Ovulation was confirmed using a home-based LH urine test. Data from an ongoing prospective trial including women with irregular cycles and/or PCOS was used to assess the performance of the Ava algorithm in identifying the fertile window. Since many causes of irregular cycles, such as PCOS, lead to fluctuating hormonal levels that are typically reflected in the physiological patterns, the algorithm looks for multiple fertile windows within a cycle.
Results: Preliminary results include 145 cycles of women with irregular but undiagnosed or unknown PCOS status and 100 cycles of women with confirmed PCOS. The mean cycle length among women with diagnosed PCOS is 35.9 days (95% CI 33.7 to 38.2), whereas it is 31.4 days (95% CI 30.1 to 32.7) among women without diagnosed PCOS but irregular cycles. Having diagnosed PCOS increases the cycle length by 3.6 days (95% CI 0.39 to 6.81; p=0.034). The accuracy in identifying fertile days in irregular cycles with undiagnosed PCOS was 87.7% (95% CI 86.0 to 89.5) and 82.1% (95% CI 79.3 to 85.0) for women with diagnosed PCOS (p=

0.0022). Almost 60% of these cycles had more than one fertile window with a maximum of four and an average of 1.5 fertile windows per cycle. **Conclusions:** While the physiological parameters measured during sleep confirmed the fluctuating hormonal patterns in women with irregular cycles, the Ava algorithm detected the fertile days with a relatively high accuracy. The results demonstrate that a wearable medical device may contribute to a higher probability of conceiving in this subgroup, even for women diagnosed with PCOS.

P-129 • Practice facilitation improves adolescent reproductive health preventive services in pediatric primary care

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Objective: Provision of reproductive health preventive services to adolescents is critical given their high rates of sexually transmitted infections and unintended pregnancies. Pediatricians are well-positioned to provide these services, but often face barriers. Practice facilitation is an evidence-based approach to improve primary care outcomes through a relationship between an external facilitator and a primary care practice. The aim of this study was to use practice facilitation to build quality improvement (QI) capacity within community pediatric practices to improve adherence to national guidelines for adolescent reproductive health preventive services. **Method:** In 2016, an accountable care organization (ACO) overseeing healthcare delivery for low-income children in the Midwest U.S. engaged in practice facilitation to support affiliated pediatric practices in implementing reproductive health QI projects. Six interested practices chose to focus projects on access to: 1) contraceptive and sexual risk reduction counseling (reproductive health assessments [RHAs]; (n=1); 2) etonogestrel (ENG) implants (n=2); or 3) both (n=3). Using the Institute for Healthcare Improvement's Model for Improvement framework, the ACO's QI team helped practices build customized key driver diagrams and implement selected interventions. Practice facilitators conducted learning sessions, bimonthly practice visits, abstracted patient-level data, and compiled individualized practice reports. Outcomes of interest included number of ENG implant insertions and proportion of AWCs with RHAs completed. As QI work, IRB review and informed consent weren't required. **Results:** Between November 2016 and June 2019, 6 practices serving over 7,000 adolescents (12 to 19 years) participated in this project. There was an increase in the proportion of AWCs with completed RHAs per month from 0% to76.1% ($p < 0.001$) in the 4 practices focused on RHAs. In one of these practices, the proportion rose from 0% to 74% within 12 months of project initiation. There was an increase in ENG insertions per quarter from 0 to 25.4 across the 5 practices focused on ENG insertions ($p < 0.001$). The most successful of these practices inserted a total of 261 ENG implants over 32 months. Practices with an identified project champion were more successful in implementing interventions and demonstrated improvements in outcomes. Challenges that prevented two practices from successfully achieving their aims included staff

turnover and low clinician buy-in. **Conclusions:** Practice facilitation is an effective way to increase adherence to national guidelines for adolescent reproductive health preventive services within primary care. We credit the program's success to the practice-specific customization of interventions and ongoing, hands-on support of the practice facilitators.

P-130 • Male involvement in prevention of mother to child transmission of human immunodeficiency virus and associated factors in Enebsiesarmider District, East Gojjam Zone, North West Ethiopia, 2018

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Background: Globally, male involvement has been identified as a priority target area to be strengthened in PMTCT but, testing male partners for HIV in the context of preventing mother-to-child transmission remains a big problem of most low- and middle-income countries including Ethiopia. In Ethiopia even though male involvement is one of the guiding principle in testing and counseling of HIV, the magnitude of male involvement in PMTCT is not well known. Therefore, this study aimed to assess male involvement in prevention of mother to child transmission of HIV and associated factors among males whose wife gave birth in the last six months in Enebsiesarmider district, Eastern Gojjam Zone, Ethiopia. **Methods:** A Community-based cross-sectional study was employed on a total of 525 males by using stratified cluster sampling method from February 10- 30, 2018. The collected data were entered into Epi-data 4.2.0.0 and exported to Statistical Package for Social Science version 24 for analysis. Adjusted odds ratio with 95% CI was estimated to identify factors associated with male involvement using multivariable logistic regression analysis. **Result:** Overall male involvement in PMTCT was found to be 26.1% [95%CI, 22.1-29.5]. Attending secondary education and above [AOR 2.45, 95%CI, 1.47-4.11], knowledge on PMTCT [AOR 2.57, 95%CI, 1.58-4.18], knowledge on ANC [AOR 2.10, 95%CI, 1.28-3.44], cultural **barriers** [AOR 2.20, 95%CI, 1.34-3.63] and programmatic **barriers** [AOR 2.40, 95%CI, 1.37- 4.20] were statistically associated with male involvement in prevention of mother to child transmission of HIV. **Conclusion and Recommendation**: The result of this study revealed that male involvement in PMTCT was low in the study area. Educational level, knowledge on PMTCT and ANC, cultural and programmatic **barriers** were significantly associated with male involvement in PMCT. Therefore, much work is needed to engage males with PMTCT services by providing males centered care. **Keyword**: Enebsiesarmider District, Ethiopia, Male Involvement, Prevention of Mother-to-Child Transmission of HIV.

P-131 • Unwanted pregnancies in Germany: Prevalence, characteristics and conclusions on the concept of "unwantedness"

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Objective: The prevalence of unwanted pregnancy is considered an important indicator of reproductive health. International research agrees upon a concept and measure of pregnancy

intention which at least differentiates between "unwanted" and "mistimed" (wanted, but the pregnancy should occur later) within the category "unintended pregnancy", if not stating a multidimensional continuum between „planned" and „unwanted". Furthermore, responses to questions about pregnancy intention may change over time and the pregnancy intention of the man involved should be included, too. **Design & Methods**: The German study "Family planning in the life course of women" ("frauen leben 3", Institute for Social Science Research on Gender Issues SoFFI F., Freiburg i.Br., on behalf of the Federal Center for Health Education, Cologne) focusses on these topics. Carried out between 2012 and 2018, it included n= 14.522 women aged 20 to 44 years (random sample) reporting n= 17.409 pregnancies, ending in birth or abortion. The retrospective, population-based study is representative for 12 of 16 federal states. For all pregnancies, data are available on the pregnancy intention, the use of contraception, aspects of the situation in which the pregnancy occurred, responses when the pregnancy was confirmed, some aspects of decision making in case of an unwanted pregnancy and the outcome of the pregnancy. Additionally, n=119 women who experienced an unintended pregnancy were interviewed in depth, asking for a free narration of their reproductive biography. **Results & Conclusions:** The study provides results concerning the lifetime prevalence and the rate of unwanted pregnancy in Germany, using four categories ("wanted and at the right time/pregnancy should happen sooner", "wanted, but should happen later", "ambivalent", "unwanted"; abortions are assumed to be outcomes of an unwanted pregnancy). Our analyses reveal regional and social differences in the rates. Furthermore, we contribute to the discussion on the conceptualization and measurement of "unwanted" pregnancy as a multifaceted phenomenon. In a first step, frequency, determinants and interrelations of omitting contraceptive devices before getting pregnant, of a positive response after it was confirmed, of a spontaneous, unquestionable decision in favour of a child and, last but not least, of carrying the pregnancy to full-term (although the pregnancy was declared as "unwanted" - are analysed as steps in a process. Second, for those who spoke about their reproductive biography in in-depth interviews, the standardized information and the open narration on pregnancy intention can be compared (validation).

P-132 • "*Sex is meant for adults*"; The influence of community perception on female adolescent sexual and reproductive health (ASRH) in South-Western Nigeria.

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Objective: Nigeria is the most populated country in Africa with female adolescents constituting about one-quarter of its population. While 2 out of 5 female adolescents are sexually active, consistent use of contraception is low, resulting into high fertility rates, which is above the global average. This high proportion of unintended pregnancies and the restrictive abortion laws in Nigeria increases the rate of unsafe abortions among adolescents and this contributes to high rates of maternal morbidity and mortality amongst them. A major barrier which hinders access and implementation of ASRH services are socio-cultural barriers (such as ethnic belief systems and negative perceptions to the provision female ASRH). This present study was conducted to explore how community perception influences female adolescent access to Sexual and Reproductive Health (SRH) knowledge and services in South Western Nigeria. **Methods:** Semi-

structured interviews were conducted with 24 young mothers (15-19 years) and 10 key informants (teachers, community health-workers, religious leaders and community chiefs) in Osun-state, Nigeria. Interviews were transcribed and analyzed thematically using interpretative phenomenological analysis. **Results:** The findings of this study are presented under three thematic areas; *"sex is meant for adults", "avoidance of sexual intercourse is a female responsibility"* and *"consequences for erring"*. Most of the young mothers were either completely ignorant or had inaccurate knowledge of contraception leading to unintended pregnancies. There was a prevalent socio-cultural belief that sexual intercourse is only acceptable amongst adults. Consequently, there is a concern that providing comprehensive sex education to female adolescents will encourage promiscuity amongst them. Parents and schools who provided comprehensive sex education were seen to contribute to the moral decline in the society. Hence, they experienced a lot of pressures to reduce the information provided during sex education. Thus, female adolescents are systematically denied of their right to access SRH services in the society. Findings from this study also showed that young mothers were discriminated against and blamed for unintended pregnancies. These social consequences (i.e. the stigmatization and discriminations associated with teenage pregnancy and motherhood) were also found to be the deterrents used by the society to discourage sexual practices amongst female adolescents in South-Western Nigeria. **Conclusion:** The negative constructions surrounding adolescent sexuality deprives adolescent girls from accessing SRH services. To achieve a paradigm shift which provides knowledge and access to SRH services, it is necessary to deconstruct the current negative social perceptions surrounding the sexuality of Nigerian adolescent girls through community partnership interventions.

Service provision: roles and responsibilities of different health care professionals; new ways of providing services

P-133 • Developing and evaluating a vaginal postpartum intrauterine contraception (PPIUC) training programme for midwives

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Objectives: Improving access to effective contraceptive methods after childbirth can reduce unintended pregnancies and short inter-pregnancy intervals. Midwives are highly skilled practitioners who are well-placed to counsel and provide postpartum contraception, however access to training in practical skills such as immediate PPIUC insertion is limited. Our aim was to design and evaluate a targeted training programme in PPIUC insertion for midwifery staff working in a large public maternity service in Lothian (Edinburgh and surrounding areas). **Methods:** Prior to introduction of an immediate vaginal PPIUC service across Lothian maternity hospitals, midwifery staff working within labour and postnatal areas were invited to attend 'opt in' training in PPIUC insertion. Training was delivered by clinical research staff (midwife and doctor)The training programme design was based on resources from the Royal College of Obstetricians & Gynaecologists (adapted for a high-income setting) are consisted of: attendance at a half-day theoretical and practical workshop including model simulation of the Kelly forceps insertion technique on a postpartum uterus model (Mama-U). This was followed by a period of supervised clinical practice until a minimum number of successful 'live' insertions was achieved,

and maintenance of a training logbook. Following additional supervised experience midwives could become a PPIUC 'trainer'. Training sessions and workplace supervision was provided by designated clinical research staff (midwife and doctor) prior to the availability of on-site supervisors. Following completion of the initial training, midwives were invited to complete an anonymous, paper-based survey of their experience and information about PPIUC procedures was obtained from the routinely-collected insertion log. **Results:** A total of 63 labour ward midwives attended training during an 18-month period and 17 are now PPIUC trainers. 100% of those completing training rated the complexity level as 'easy' or 'about right'. Of the 379 vaginal PPIUC insertions performed during the study period, 240 were performed by midwives (63%) and 93% of these were successful. From the survey, identified facilitators to training included: support from senior staff to attend, knowledgeable trainers and availability of the postpartum uterus model to practice the technique. Barriers included: lack of immediate access to an 'on the job' supervisor and time to access training. **Conclusion:** Midwives were interested to receive training in vaginal PPIUC insertion and did not find this too complex. The training programme resulted in a high number of midwife-led insertion procedures, most of which were successful. Development of on-site PPIUC 'trainers' is necessary to ensure sustainability of practical training in PPIUC, and utilising novel training modalities e.g. e-learning may further increase access to training for midwifery staff.

P-134 • Current family planning practices in the South of Benin: an ethnographic explorative study

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Objectives: Despite a high use of antenatal care (83% for at least one visit) and facility-based delivery (84%), contraceptive prevalence for modern methods remains low (12%) among married women in Benin. The aim of this study was to explore current beliefs, needs and practices (biomedical and others) regarding family planning in Benin. **Methods:** This study used an ethnographic design. Data were collected in 2018-19 in a rural district in the South of Benin. Using a theoretical sampling, a total of 73 in-depth and 85 informal interviews, 23 observations and three focus groups discussions were conducted with community members and health care providers. Data analysis was a flexible and iterative process and thematic content analysis was used. **Results:** Alternative family planning care or practices such as post-partum abstinence, but also herbal medicine, specific objects (rings) are still commonly used. These methods are self-administrated, provided by a senior member of the family or by a specialized traditional healer. Spiritual care is grounded on a supranatural representations of reproduction and provided by endogenous or exogenous religious leaders and initiated practitioners through diagnosis divination followed by a prescription of specific rituals and prayers. Modern contraceptives methods are well known and many women have tried them. In biomedical clinics the choice of the contraceptive method is often oriented or forced because of the lack of training of some health workers for instance inserting an IUD, the lack of confidence in recommending some methods (the providers not being themselves convinced by their use), and the unavailability of some methods. These factors lead to discontinuity and may result in close

pregnancies and induced abortions. Modern contraceptives injectables, pills, implants and IUD are considered as methods that can introduce troubles in the natural functioning of the woman reproductive cycles, with mainly uncontrolled vaginal bleeding. This side effect has in the community a special negative connotation because it may lead to social exclusion of women such as denied access to church or restricted income in case of polygamous couples. Spiritual and alternative family planning methods tend to be considered as "safer" as they do not change the natural functioning of the body. **Conclusions:** The social acceptability of family planning methods requires further attention. Our findings also question the quality of the family planning services including adequate continuity of care to support modern contraceptive users and to be more responsive to the major personal and social challenges they may face while using the methods.

P-135 • Umbrella Sexual Health service – improving contraception access

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Objectives: Umbrella, the integrated sexual health (SH) service based in Birmingham and Solihull in the UK, started 3 years ago after the previous fragmented SH and contraception services were put out to tender. Three of 10 key service deliverables are contraception focussed. **Method:** The model of 7 integrated contraception and SH clinics complemented by a large network of partner pharmacies and GPs offering contraception and STI testing mean that a wide range and number of clients can be reached. Umbrella is also partnered with other organisations (e.g. LGBT and youth groups, drug and alcohol services, support groups for sexual assault and domestic abuse, and other groups supporting vulnerable and hard to reach groups) that provide a range of services, from signposting to the service, providing condoms and facilitating STI screening. Each partner has been selected because of the access that they provide to priority groups who have traditionally been hard to reach. Branded Umbrella health promotion is used throughout the partner network, on its website and on social media and this provides consistent health promotion, signposting and advice across the city. **Results:** It has expanded its pharmacy network from approximately 100 to over 175 and this continues to grow, with over 4500 pharmacy interventions per month. Pharmacies have been able to provide 7 times as much emergency hormonal contraception as the clinics. They also provide short acting and injectable contraceptives. Over 100 Umbrella partner GP practices provide long active reversible contraceptives to both registered and non-registered patients, and between April 2018 and June 2019 fitted 1.5 time more LARCs. This shows how the use of directly linked partners expands consistent contraception access to clients. Free condoms provision is provided in clinics and from partners. Three of Umbrella's 10 key deliverable standards are about contraception one of which is to reduce under 18s conceptions. The latest data on under-18 conceptions show that, whilst the number fell by 8% on average across England, it fell by 27% in Birmingham over the same period. **Conclusion:** In the face of shrinking public heath budgets the Umbrella service model continues to widen access to contraception and SH services within the Birmingham area.

P-136 • Research into the role of smartphones in delivering contraceptive advice in Kenya

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The rising ownership of mobile phones could support and improve access to contraceptive information and services in Nairobi, Kenya. The acceptability, feasibility and appropriate service model remain unclear. We conducted semi-structured interviews, lasting 40-50 minutes with 20 women, aged between 15-24 from 6 different locations in Nairobi. The interview topic guide focused on awareness and experience of contraception, as well as understanding how women used their mobile phone on a day to day basis. Interviews were recorded and fully transcribed and an inductive, thematic analysis was completed. Insights from the research indicate there is still huge stigma about accessing sexual health services. Women lacked information about all contraception methods, but particularly about long acting reversible methods which were thought to cause infertility. Sources of information on contraception included previous experience, family and friends and health services. Reliance on emergency contraception as a primary method of contraception was common as it is inexpensive, easy to access and perceived to be safe and effective. Even though women did not have much experience buying things online from formal e-commerce websites (online shops selling hair and beauty products for instance) there was a definite interest in buying things online. Social media is popular, in particular Instagram and Facebook, and some women we spoke to had purchased second hand clothes through these platforms. Women did not use Google for health related questions, but they did rely on informal digital networks (such as WhatsApp groups of friends or new mums) to find out answers to the questions about contraception. Women tended to buy data on a daily basis for accessing online services, with a tendency to use this on low data consumption apps (such as WhatsApp and Facebook). With the rise of smartphone ownership, we believe online advice and information about contraception would be hugely beneficial - particularly if provided via a familiar platform that doesn't use huge amounts of data (WhatsApp, Facebook etc). Accessing this information online would address the lack of care and concern currently experienced by many women interacting with existing traditional services, and offer women more choice and information about other methods. Rising mobile phone ownership presents an opportunity to provide accurate information and valuable support to women during their contraceptive journeys, even more so in areas where stigma and inability to access contraception are still present.

P-137 • A New Holistic Model for Women's Health: Creating the NHS National Female Genital Mutilation Support Clinics (NFGMSC)

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Objective(s): We aimed to establish eight NHS National FGM Support Clinics (NFGMSC) across the country to provide a place for women with FGM to discuss their health needs in a sensitive and non-judgmental environment. The services provide a holistic approach by an all-female team and include: physical assessments and treatment (including deinfibulation if

required, emotional support and counselling, general information, access to FGM Health Advocates and referral to a specialist consultant if needed) as well as other interventions such as cervical screening. These clinics are targeted at non-pregnant women over 18 years particularly younger women who may not be contemplating pregnancy. **Methods:** The location of these clinics was based on data from the FGM Enhanced Data set where professionals encounter FGM and have collected information on those affected. We engaged with stakeholders at several meetings to ensure that these clinics were meeting the needs of the community. The NHS Advocacy lead used long-established contacts to identify community advocates and translators that could be employed within each service. We worked with Integrate UK (a leading charity working with young people) to devise a film aimed at younger people affected by FGM through using social media. A learning day was created with teams from different clinics to disseminate up to date knowledge on managing FGM and deinfibulation techniques. **Results:** The eight NFGMCS sites opened in early October and continue to provide care on a weekly or bi-weekly basis. The social media campaign across Twitter and Facebook has been launched and continues to engage younger demographics using the #NFGMSC and #FGMQuestions hashtags. Feedback from the first patients and the staff has been positive. **Conclusions:** The development of the NFGMCS presents a unique opportunity to create new holistic models of SRH provision which are community based. They may provide a template for managing other SRH issues in the community setting. In addition, the clinics galvanise a network of highly skilled interdisciplinary professionals around FGM and provide the opportunity to train others in this field. It also allows us to understand more about the SRH needs of those affected by FGM. A research team will continue to collect data on those presenting to the service so that more information can be gathered about the experiences of those affected by FGM in the UK and develop future services.

P-138 • Sexual and reproductive health care for young people in the capitol of Serbia

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Objective: At the end of 20th century young people were offered sex education workshops and contraception counselling in youth friendly sexual and reproductive health care services (YFS) that were developed in primary health care institutions of all 10 central municipalities of Belgrade, as the capitol of Serbia. The focus of this investigation was to explore the situation in this sphere 20 years later. **Design & Methods:** The investigation included field visits to primary health care institutions, structured interviews with the management of health centres and a professional team of YFSs, as well as focus group discussions with adolescents in those 10 municipalities of Belgrade. **Results:** Currently, YFS do not function in 4 out of 10 health centres. In the remaining six health centres, young people may receive either sex education workshops, or contraceptive counselling. The main reason for the non-functioning or partially functioning of the YFS are, according to the opinion of the management, a reduction in the expenditure for the primary health care and, consequently, a reduction in the number of doctors employed. On the other hand, professional team of YFSs cannot charge provided medical services due to health care reform and the introduction of the concept of the family doctor. In a discussion with young people, their need for sex education and counselling on contraception is apparent, but also of their inability to meet these needs within the healthcare system. They search for relevant

information on the internet, because sex education is not a part of school curricula in Serbia. If they have a problem related to sexual and reproductive health young people borrow money and go either to a pharmacy or a private gynaecologist. **Conclusion:** Instead of improvements in the work, YFSs are nowadays either non-functioning or partially functioning, even in the central municipalities of the Serbian capital. The findings of this study indicate the great unmet needs of young people in the field of sexuality and contraception, for which there is no solution in the current organization of the health system in Serbia.

P-139 • Protocol for a scoping review of pharmacy-based initiatives for preventing unintended pregnancy

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Objectives: Due to a high global incidence of unintended pregnancy and associated inequities, finding novel ways to reduce access and equity barriers to contraceptive services is critical. Community pharmacists are highly accessible healthcare providers, however the evidence base for community pharmacy unintended pregnancy initiatives is largely unconsolidated despite a number reviews synthesising evidence for specific populations, contexts and contraceptive products. Therefore, the objective of this study is to scope pharmacy-based initiatives for preventing unintended pregnancy. We intend to report the range of interventions adopted in a community pharmacy setting, feasibility implications and associated health and economic outcomes. **Methods:** The Joanna Briggs Institute Methodology for Scoping Reviews and PRISMA extension for scoping reviews will inform the review's conduct and reporting. We will search seven databases for articles published in English since 2000 and will forward search for studies using a range of research designs. These will include observational studies, intervention studies and systematic, scoping and narrative reviews. The search strategy will include terms related to pharmacy, contraception, unintended pregnancy and health services accessibility. Screening will be undertaken using Covidence software, where two authors will screen the titles and abstracts for their relevance to the inclusion criteria. The full texts of relevant articles will then be reviewed. Literature will be included if they describe or evaluate an initiative within a community pharmacy setting that has been actively implemented as a strategy to address unintended pregnancy. Outcomes of interest include feasibility (provider-reported practices, barriers and facilitators for service provision), acceptability (patient and provider attitudes towards services and experiences of service utilisation), effectiveness (contraceptive and unintended pregnancy outcomes) and economic outcomes (e.g. cost-utility, cost-effectiveness and quality of life indicators). The findings of included articles relevant to the review outcomes will be summarised in-text and an evidence map will be generated to highlight gaps in high quality evidence that are necessary to target in future interventions and research. This will be supported by a critical appraisal of the literature. **Results:** The scoping review review will be completed by December 2019. **Conclusions:** The scoping review will map community pharmacists' current role in unintended pregnancy prevention strategies and highlight important areas for future research, policy and practice.

P-140 • Clinical triage of patients: Not always straight forward

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Objective: Following re commission of our regional sexual health service, we developed a new model of patient care pathway. Patients seeking care were referred to centralised booking centre (Intelligence Centre- IC) where trained staff using a standardised care pathway directed patients to the most appropriate service or clinic. The assumption was that majority of the asymptomatic patients contacting our service and requesting tests for sexually transmitted infection (STI) tests would be directed to use an on line platform called Sexual Health 24 (SH24) from where they could order self-sampling STI testing. These kits would be posted to the patients' physical address. This would free up clinic staff time and allow them to see symptomatic and more complex patients requiring face to face contact. A snapshot retrospective analysis of all appointments revealed a significant number of asymptomatic patients were still being seen face to face in clinic. Our aim was to identify and understand reasons why a significant proportion of asymptomatic patient are seen still seen face to at one of our busy clinic, identify sources of patient's referral, identify ways of improving care pathway. **Methodology:** Retrospective review of 222 consecutive case notes of patient who were clinically coded as asymptomatic, and were seen face to face in one of our busy hub clinic. **Results:** Out of the 222 case notes reviewed, 100 (45 %) were booked via the IC, 122(55 %) were booked directly by the clinic staff. Men were 120 (54%) and Women were 102(46%). Age groups were as follows: Below 16 years (1 %), 16-21 years (28%), 22-39 years (57%), 40+ years (14 %). Audit identified total of 108 (49 %) cases which were deemed suitable for SH24 testing (no identifiable reason not to use online testing). Audit identified 114 (51%) cases where various reasons were given by clients why they wanted to be seen face to face clinic in the clinic. Reasons included concerns about confidentiality e.g. self-sampling STI test kits posted to their residential address, clients requiring additional tests which were not available via on line testing, clients requiring treatment, language barriers , clients did not want to disclose symptoms when booking appointment, no fixed address, below age eligible for ordering testing kits on line. **Conclusion:** Audit identified key areas that required improvement. These included reenforcing policy requiring staff not to book patients directly but instead refer them to central booking centre. Reviewing and improving the clinical triage pathway. Re training central booking staff and offering them virtual support from nursing and medical team.

P-141 • Nationwide survey of community pharmacists' knowledge, attitudes and practices for contraceptive counselling: study protocol

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Objectives: Community pharmacists are one of the most accessible health care providers in community settings. Pharmacists counsel upon dispensing medications, including contraceptives. However, little is known about whether comprehensive contraceptive counselling could occur in a community pharmacy setting to increase access to information on the range of methods available. Barriers to delivering contraceptive counselling may include pharmacists' perceptions of women's receptiveness to counselling, a lack of time, knowledge, and misconceptions about certain contraceptive methods. However, the perspectives of pharmacists has not been well described in the international literature. Therefore, the objectives of this study are: to determine community pharmacists' current knowledge, attitudes and practices (KAP) regarding counselling for non-emergency contraception and; understand the importance of barriers and facilitators pharmacists face to delivering contraceptive counselling services. **Method:** A cross-sectional web-based/postal survey will be undertaken with pharmacists from a nationally representative sample of community pharmacies stratified by State and Territory and Accessibility/Remoteness Index of Australia categories. A study-specific survey tool will be developed using previously validated questions where appropriate relating to: participant characteristics, knowledge of non-emergency contraception, attitudes to providing contraceptive counselling services, current counselling practices for non- emergency contraception and perceived barriers and facilitators. Invitations to complete an anonymous web-based or postal survey will be sent via mail. Reminders will be sent 2 and 4 weeks from the initial invitation. Bivariate analyses, Chi-squared tests and logistic regression will be undertaken using univariate and multivariate models with participant demographic characteristics. Demographic information will be compared to the latest Pharmacy Labour Force figures by the Australian Institute of Health and Welfare. **Results**: This study will be undertaken in 2020. From approximately 5,700 Australian community pharmacies a sample size of 360 would provide a target 5% margin of error for population percentage estimates with a level of 95% confidence. Based on an estimated 18% minimum participation rate, surveys will be distributed to 2,000 pharmacies to obtain generalisable findings. A nationally representative sample of respondents is anticipated. **Conclusions:** Increasing the availability of contraceptive information and counselling services from community pharmacies has important implications for improving women's literacy regarding contraceptive options and equitable access to contraceptives. This proposed research will inform the design of future interventions involving the provision of comprehensive contraceptive counselling in a community pharmacy setting.

P-142 • Improving provision of postnatal contraception at the RVI

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Objectives: Conception in the postnatal period can lead to short interpregnancy intervals (IPIs) and an increased rate of termination of pregnancies (TOPs). Short IPIs (<12 months) are associated with maternal and neonatal risks including low birth weight, small for gestational age and pre-term delivery. Birth spacing by means of postnatal contraception (PNC) can reduce these risks. All women should be able to receive their chosen contraceptive method before they are discharged postnatally. The aims of this work were to a) Assess the current state of provision of PNC at a tertiary obstetric centre, b) assess potential consequences of lack of provision, c) assess

patients' demand for this service. **Method:** A four-point approach: 1) Retrospective audit of booking data. Aim: identify proportion of short IPIs (<12months and <18months according to RCOG & WHO guidance), 2) Retrospective audit of 50 postnatal discharges. Aim: estimate proportion counselled, and/or discharged with a form of PNC. (Standard: FSRH guidelines), 3) Audit of 100 women undergoing TOP. Aims: a) identify proportion of postnatal TOPs at the RVI (in the UK, 1 in 13 TOPs are <1 year of previous birth.) and b) compare provision of contraception following TOP to provision postnatally, 4) Patient involvement: Questionnaires distributed on the postnatal wards to assess views regarding PNC and pregnancy spacing. **Results:** 1) 937 women had at least 2 live births within a 3-year time period. 81% and 50% booked within 18 months and 12 months of previous delivery. 2) 78% had no documented discussion and no audited woman received PNC. 3) 1 in 5 TOPs were <12 months of a previous birth. 95% women received contraception before discharge after TOP. 4) No postnatal women planned to conceive again within a year. Although many women planned to obtain contraception at their GP 6-week check, over half wanted PNC before discharge if available. **Conclusion:** Provision of PNC at the RVI is failing to provide the quality of care recommended and meet women's needs. A steering group has been established to action interventions, including education sessions to empower health care practitioners to counsel and safely provide PNC, patient group directives for midwives to provide progesterone only methods as a main method/ bridging method until women can access intrauterine methods, and patient education, focusing on contraceptive planning antenatally. The four scoping audits will be re-audited to measure the impact of change and ensure standards are being met.

P-143 • Evaluation of Health Improvement Activities in a Disadvantaged Area of the City, In Terms of Women's Health

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Objective; The primary target group of women's health education programs is women with limited income and low education levels, living in disadvantaged regions of the city. This group, which has extensive reproductive health problems, also has significant obstacles in accessing reproductive health services. This study was primarily carried out to meet the health education needs of these women and improve the basic protective health behaviors of families. **Method:** Women's Health Training Program (WHTP) was carried out in a protocol with Eskisehir Osmangazi University Youth Friendly Unit (ESOGU GEDAB) and governmental health authorities of the city. The study was conducted with 64 women who wanted to participate in the WHTP, who accepted a 13 week program, covering 90 minutes a week. The sessions included education, inter-active practice and the problems experienced by the participants. The questionnaire form for strengthening women's health, as pretest-posttest in the form of true or false, was developed by researchers and consisted 50 questions. The questionnaire was repeated 13 weeks later to evaluate the effectiveness of the women's health education program. Statistical analysis of the data was assessed by using McNemartest. The statistical significance level was taken as $p<.05$. **Results:** According to Early Cancer Diagnosis and Awareness in Turkey

(KETEM) program, breast cyst in seven women, ovarian cyst in five women and cervicitis in seven women were diagnosed through physical examination and laboratory results, and treatment was started. Anemia was detected in four women due to excessive vaginal bleeding and treatment was started. Four women were hospitalized, and hysterectomy was performed. Another module was related to human rights and 32 women who were exposed to violence by their husbands. Importantly, the rate of physical violence decreased by 50%. After the WHTP, there was a 90% increase in women's health promotion knowledge, and this was statistically significant. **Conclusion**: Improvements aimed by this study are, to replace the risky behavior of women in their daily lives with the right information and behavior, to increase the use of early screening services, especially in reproductive health, to treat sexually transmitted diseases, to increase health and public service demands, to maintain the life of a woman at risk of hemorrhagic shock, and to create positive impact on reducing inequalities in women's health.

P-144 • Who uses family planning services when offered free-of-charge to all?

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Objectives: To evaluate who uses family planning services when these are offered free-of-charge to all women. **Methods**: Residents of the City of Vantaa, Finland, have been offered contraceptive services in family planning clinics within the city's primary health care since 1975. These clinics provide contraceptive counselling, a comprehensive mix of hormonal contraceptives, and initiation and removal of long-acting reversible contraception (LARC). Since 2012 the clinics have been responsible for abortion referrals and post-abortion follow-up. The clinics operate with a nurse-led approach. The nurses are responsible for contraceptive counselling and follow-up whereas general practitioners provide consultation, prescriptions and insertions and removal of the LARC methods. The visits are offered free-of-charge to all fertile-aged women with no income limits. Since 2013 all women have been offered their first LARC method free-of-charge. We collected information on marital and socioeconomic status, education level, mother-tongue, history of delivery, abortion, and sexually transmitted infections (STIs) from national registers for 11,758 women aged 15-44 years who used the services and for 42,278 women aged 15-44 years living in Vantaa, who did not use the services in 2013-2014. We calculated odds ratios (ORs) with 95% confidence intervals (95%CIs) for factors associated with service use using a multivariate logistic regression model. **Results**: Women aged 15-19 years (OR 1.93; 95% CI 1.79-2.07) and women aged 20-29 years (OR 1.95; 1.85-2.06) were more likely to use the services, compared to women aged over 30 years. Married women (OR 1.50;1.43-1.58), parous women (OR 1.77; 1.66-1.87), those with a history of delivery (OR 2.78; 2.56-3.02) or induced abortion (OR 2.78; 2.56-3.02) within the preceding year, and those who had had an STI within the previous two years (OR 1.91; 1.68-2.18) were more likely to use the services. Women speaking another mother tongue than the national languages Finnish and Swedish, were less likely to use the services (OR 0.65; 0.61-0.69). Socioeconomic status or education level were not associated with service use. **Conclusions**: When family planning services are offered free-of-charge to all women, young, married, parous women and women with history of induced abortion or STI, all qualities linked to an active sex life, are more likely

to use the services. Unfortunately, women with a foreign background are underrepresented among the service users.

P-145 • "I've got a text!" – using SMS to deliver pre-fit intrauterine contraception information

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Objectives: In 2017 it was identified that clients attending for intrauterine contraception (IUC) were provided with inconsistent pre-fit information, impacting on attendance and clinical activity. To improve this, upon booking clients received an automated SMS detailing appointment details, with a link to a newly developed pre-fit IUC webpage. An additional SMS reminder was generated 48 hours prior to appointment. The aim was to increase on the day IUC completion rates, reduce waiting times and DNA rates. The impact of using SMS to deliver pre-fit information was evaluated. Research is limited in this area. **Method:** A mixed method service evaluation was performed over a similar 7 day period in 2017 and 2018, with chi-squared testing used with direct comparisons. The components include: 1) Anonymous service-user questionnaire (2017: n=19, response rate 38.8%) vs (2018: n=28, response rate 36.4%), 2) Analysis of IUC clinical activity from electronic records (2017: N=72, 2018: N=77). **Results:** Overall attendance increased by 21.6% (***p=0.03*** (2017; n=49/72) vs. (2018; n=52/58)), with successful completion rates increasing by 9.1% % (*p=0.25* (2017; n=37/49) vs. (2018; n=44/52)). Reasons for non-completion in 2017 were attributed to lack of pre-fit information, compared to procedural/clinical reasons in 2018. 71.4% (n=20/28) of clients who completed the questionnaire received the SMS, with 40% (n=8) following the link. In 2018 significantly more (22.7%) were aware of IUC types (***p=0.02***), with an additional 12.2% feeling better prepared (*p=0.29*). Potentials barriers identified included language, no permission to use mobile number, lack of time and incompatible technology. **Conclusion:** Since adapting the SMS system, there were significant increases in clinic attendance and knowledge. It is unclear if this has been due to the additional reminder SMS, or the weblink. Completion rates have also increased, with more feeling better prepared. Potential barriers have been addressed by developing translations in common languages and reviewing client information administration pathways.

P-146 • A systematic review of the effectiveness of counselling strategies for modern contraceptive methods: what works and what doesn't?

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Objectives. The objectives of this systematic review was to synthesize the evidence on the comparative effectiveness of different counselling strategies for modern contraception on contraceptive behaviour and satisfaction, and to examine their advantages and disadvantages. **Methods**. Six electronic databases (Medline, Embase, Global Health, Popline, CINAHL Plus,

and Cochrane Library) were searched to identify publications comparing two or more contraceptive counselling strategies and reporting quantitative results on contraceptive use, uptake, continuation or switching, or client satisfaction. Studies of women or couples from any country, published in English since 1990 were considered. **Results**. A total of 63 publications corresponding to 61 studies met the inclusion criteria. There was substantial heterogeneity in study settings, interventions and outcome measures. Interventions targeting women initiating a method (including structured counselling on side-effects) tended to show positive effects on contraceptive continuation. In contrast, the majority of studies of provider training and decision-making tools for method choice did not find evidence of an effect. Additional antenatal or postpartum counselling sessions were associated with increased postpartum contraceptive use, regardless of their timing in pregnancy or postpartum period. Dedicated pre-abortion contraceptive counselling was associated with increased use only when accompanied by broader contraceptive method provision. Male partner or couples counselling was effective at increasing contraceptive use in two of five studies targeting non-users, women initiating implants or seeking abortion. High-quality evidence is lacking for the majority of intervention types. **Conclusions**. The evidence base and quality of studies is limited, and further research is needed to determine the effectiveness of many counselling interventions in different settings.

Sexual health and sexual infections – all aspects

P-147 • HPV vaccinations among Polish adolescents depending on the region, sex and received sexual education - analysis from POLKA 18 pilot study

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Objectives: To measure the HPV vaccination level among 18-19 year old students in Poland and its associations with gender, region of living and level of received sexual education programme. **Method:** The HPV vaccination data were taken from POLKA 18 study, funded by ESC, which uses original self-reported paper-based questionnaire distributed in schools in five Polish voivodeships. The questionnaires were distributed in April-June 2019 by local research associates, who are medical students. The study is in progress, the pilot phase has been conducted between April-June 2019, phase II is taking place in October-December 2019. The obtained data has been analysed using STATA 16. **Results:** We received 650 results and included 632 in our final analysis. 16% (n=59) girls and 15% (n=39) boys reported being vaccinated against HPV (p=0.27). There is a high chance that the HPV vaccination rate is associated with the region: 27% Poznan, 14.6% Lublin, 14% Slask, 10% Warszawa, 8.7% Gdansk respectively (p=0.003). There is strong evidence that attending “Family life education” classes (which constitutes the limited sexuality education in Poland) has no influence on the HPV vaccination status level (p<0.0001). **Conclusions:** Even though the majority of European

countries have HPV vaccines refunded by national health services, it is not the case in Poland. Its high costs and limited access within the public system results in a low vaccination rate, as presented in the results of our study, which is one of the lowest in Europe (European Centre for Disease Prevention and Control, 2019). Only local immunisation programmes, mostly run by city councils, are introduced in Poland. Regions with immunisation programmes introduced to their provincial capitals - Poznan, Lublin and Katowice (Slask) had higher vaccination rates in our study. It indicates the need of introduction of refunded vaccines in national immunisation programme for the vaccination rate to grow. In Poland, there is no universal sexual education, only "Family life education" classes, which showed not to influence the HPV vaccination status. Moreover, most recent Polish study (Kotowski et al., 2020) on knowledge about HPV and related cancers among young polish women has shown that the education on this subject is insufficient. It could suggest a need for implementing universal sexual education that would include thorough information about STIs including HPV.

P-148 • The users' beliefs- and experiences of internet-based self-sampling test for Chlamydia trachomatis and Neisseria gonorrrhoeae in Sweden

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Objectives In Sweden, there is an increasing number of tests against sexually transmitted infections. Self-sampling test services are more common, provided free of charge at the national eHealth website. There is limited knowledge about the users' experiences and opinions, therefore our aim was to get a deeper understanding of users' beliefs, and experiences of Chlamydia tracheotamis (CT) and Neisseria gonorrhoeae (NG) self-sampling test service. **Method** This qualitative study is a part of the project '*Chlamydia and gonorrhea self-sampling test'*, conducted in mid Sweden. Individuals ordering a free of charge CT/NG self-sampling test from the eHealth website were invited to participate, and 1785 individuals completed a web-based questionnaire. Of those, a representative sample of 100 individuals agreed to participate. In total, 20 females and males aged 18-49 years participated in a telephone interview in spring in 2019. The semi-structured interviews lasted 30-52 minutes and were analyzed with a deductive approach using The Health Belief Model (HBM), a widely used framework for understanding health behavior. **Results** The following HBM-perspectives emerged from the analysis; *Perceived Susceptibility, Perceived Severity, Perceived Benefits*, *Perceived Barriers*, *Ques-to-action and Self-efficacy*. Various beliefs were revealed regarding perceived risk for a CT. Some believed the risk was high due to many partners and unprotected sex while others perceived low risk due to a monogamy relationship. A CT-infection was considered severe mainly for emotional reasons. They did not want to be the one who spread the infection ant they did not want to be the one hurting or letting anyone down. On the other hand, if they had a CT-infection, it was not a big deal, they only had to eat antibiotics for a week and then everything was fine. However, health and especially fertility was important to preserve in order to be able to have children in the future. It was convenient to do the self-sampling test at home and beneficial for personal privacy. The test was used to check health status after unprotected sex- or if a new partner, but it was also a way to check partner infidelity. **Conclusions** The participants were in favor of the chlamydia self-sampling test, it was convenient, easy to use and beneficial for personal privacy. CT-

infections were mainly severe for emotional reasons although it would be severe if the infection affected the fertility.

P-149 • "…nothing exciting about getting a sexually transmitted infection": Focus group study among young men

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Objectives: The incidence rates of Chlamydia infections in Iceland have been very high in comparison to European countries. Most individuals are diagnosed in the age group15-24 years old. According to the HBSC study in 2013/2014 the use of condoms at last intercourse by 15 year old boys in Iceland was 72%. Greater use was demonstrated in 12 European countries. In the WHO Action Plan for Sexual and Reproductive Health in Europe (2016) easy access to safe contraception is emphasized. The purpose of this focus group study was to explore influencing factors regarding condom use by young men. **Design and Methods:** Focus group study was carried out in the spring of 2018 in Reykjavík and in a town in north of Iceland, Akureyri. Participants were students attending secondary schools. The interviews took place in the schools. They were transcribed verbatim and analysed based on the framework method by Gale and coworkers (2013). An independent analysis was conducted by the students and their supervisor and results compared. **Results:** Six focus groups were interviewed, totally 35 young men who were in the age group 18-23 years old. Three themes were identified. They were a) knowledge about the condom, b) obtaining the condom and c) using the condom- in the heat of the moment. Their knowledge about condoms varied and it had never been explained to them how condoms should be used from the first to the last step. They felt that more sexuality education (SE) was needed in schools and they received limited SE from parents. They described several difficulties buying the condom such as the location of the shop, the location of condoms in the shop and comments they received from sales persons. They felt the condom was expensive and inconvenient to use. For some it was difficult to use the condom in the heat of the moment due to various reasons. **Conclusions:** The study shows numerous obstacles regarding condom access and use which need to be removed. Lack of knowledge, negative attitudes and the belief that the condom is very expensive shows the need among young men for SE. Further studies are also needed about how the "moment" can play an important role in condom use.

P-150 • Do children who are younger than sixteen present to the Sexual Health Service differently if they are known to Social Services?

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Objectives: The aim of this audit is to identify if children less than sixteen years old present to the sexual health service in Cornwall differently if they are already known to Social Services. There has been a 56% increase in abuse of children through sexual exploitation between 2014 and 2016. The risk factors of child sexual exploitation include children being in care, having a recent bereavement and history of abuse. These factors increase the vulnerability

of the child, but also mean the child is more likely to be known by Social Services (SS). **Methods:** A retrospective review of electronic health records for the first time attendances by patients under the age of 16, who presented to the Cornwall Sexual Health Service between 1/10/16 - 31/08/17. The children already known to SS were compared to those who were not. Results were analysed using IBM SPSS v24 and Pearson's/Fishers tests as appropriate. Statistical significance was accepted if $p<0.05$. **Results:** 103 children between the ages of 13-15 attended Cornwall's Sexual Health Service for the first time in the 11-month period. 79 (77%) were female and 24 (23%) were male. 37 (36%) of the attendees were already known to Social Services. The children known to Social Services were statisticallymore likely to book an appointment ($p<0.08$) and to attend a genito-urinary medicine (GUM) clinic compared to a family planning clinic ($p<0.05$). Within our sample, SS already knew all the children attending the service due to a sexual assault and all the children receiving mental health treatment. **Conclusions:** These results call for further research into why children known to Social Services use the Sexual Health Service differently. It raises questions such as: Is there something about GUM clinics that make children known to Social Services feel more secure? Do the Social Services provide clearer advice on Sexual Health Services than other children receive?

P-151 • treatment support, quality of life and self-reported adherence to antiretroviral therapy among HIV positive patients in state specialist hospital Akure, Ondo-state

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Objectives: This study assessed treatment support, quality of life and self-reported adherence to antiretroviral therapy. It also identified relationship between treatment support, quality of life and ART adherence among HIV positive patients at the State Specialist Hospital Akure, Ondo-State. The study was a descriptive cross-sectional survey. These were with a view to providing information that will be useful in planning and implementing appropriate and effective interventions to improve medication adherence. **Method:** The study was a cross-sectional survey carried out among 350 HIV positive patients receiving care at the Hospital who are 18years above and have been on ART for at least one month. They were selected using a systematic sampling technique and information were collected using a semi-structured interviewer-administered questionnaire. The question on adherence was adapted from AIDSTAR-One and was reviewed by the United State Agency for International Development. (June 2010). The questions on Quality of life was adapted from WHOQOL-HIVBREF, while the question on treatment support was adapted from Interpersonal Support Evaluation List. Statistical significance was determined at p-value less than 0.05. **Results:** The result shows that 62 (17.7%) were males while 288 (82.3%) are females; the age of the participants range from 18 to 71 years with a mean age was 37.4 ±9.97 years. The level of adherence (≥ 95%) to antiretroviral therapy among the population was 93.4%. Forgetfulness, strike, adverse side effects were the main reason given for poor adherence. **Conclusions:** Two hundred and fifty nine (74%) had social support, 208 (59.4%) had financial support while only 102 (29.1%) had treatment reminder. Three hundred and twenty six (93.1%) had one or more support while 24 (6.9%) had

no form of support. Treatment reminder and having supports were found to be significantly associated with good adherence to ART ($p<0.05$). The overall mean scores for QoL were 66.9 for the physical domain, 73.3 for psychological domain, 71.7 for level of independence, 75.2 for social domain, 74.2 for environment domain, and 58.8 for spiritual religion and personal belief. Significant differences were observed in social, environment and psychological domains among patients who had good adherence to antiretroviral therapy when compared with those with poor adherence. Adherence to ART, marital status and level of education predict better QoL in this study. This study concluded that the level of adherence to ART was high. Treatment support and quality of life were found to influence good adherence to antiretroviral therapy.

The role of sexual identity: gender; sexual orientation; pornography; FGM; sexual dysfunction

P-152 • Factors affecting Perception of Sexual Double Standards among adults and young adults in Nigeria

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The presence of sexual double standards (SDS) in our society is not new. Developed, developing and under-developed countries alike have SDS occurring at different levels. However, it is necessary to explore the perception of SDS in developing and under-developed countries concerning strong cultural and socio-religious diversity. **Objective:** To determine the effects of psychosexual variables: gender, sexual orientation, marital status, and level of sexual satisfaction on the perception of SDS. **Method:** Ninety respondents participated in the study by filling an internet-broadcasted, adapted, and validated the structured questionnaire. Thirty-eight identified themselves to be male while fifty-two regard themselves as female. Respondents have a different sexual orientation, with the majority being heterosexuals. The data generated were analysed using *IBM SPSS Statistics version 20,* and the scale adapted to measure the level of perception was the scale for assessment of sexual standard for youths. **Result:** This study showed that gender has no significant role in the perception of SDS as 47.9% of the respondents with a high perception of SDS are male, while 52.1% are female. The findings showed that Sexual orientation has no significant role in the respondent's perception of SDS, as most of the respondents regardless of their sexual orientation endorses or has a high perception of SDS. Over seventy percent of respondents indicated their acceptance of SDS. The majority of respondents from all marital statuses also responded in favor of their high inclination towards SDS however, about sixty percent of the respondents have low sexual satisfaction, which may not be unconnected with the finding that about sixty percent of the respondents admitted to having low sexual satisfaction. **Conclusion:** None of the psychosexual variables examined by this study has a significant effect on the participants' perception of SDS. It is also important to note that all respondents have tertiary education as their level of education. Traditions and backgrounds of the respondents being from the same geographical location and share communal values seem to have an effect on their perception of SDS rather than their psychosexual factors. This research, therefore, fulfills the aim of the European Society of Contraception and

Reproductive Health (ESC) to improve, facilitate and share sexual and reproductive health care knowledge. This necessitates the need for further studies with a larger population from developing and under-developed countries to assess the role of traditions and culture in the perception of SDS.

P-154 • 'Porn Literacy' as Pedagogy?: Key Stakeholder Perspectives on Understanding and Responding to Young People's Interactions with Internet Pornography

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Objectives: The literature is saturated with research on the potential negative impacts of internet pornography (IP) on young people. There is a call for a shift in the focus of research to understanding how young people interact with and make sense of IP, in order to support them in navigating this material in a way that promotes their healthy sexual socialisation. The aim of this research is to promote the sexual, psychological and reproductive health of young New Zealanders', and to understand how IP shapes their sexual socialisation as a gendered process. Explored through the perspectives of young people, this research investigates how they interpret the representations displayed in IP in relation to normative gendered sexual scripts, and what their needs are regarding porn literacy education according to key stakeholders (16-18 year olds, parents/guardians, and educators). **Design & Methods:** Operating under a social constructionist paradigm, this project is predominantly informed by sexual scripting theory. Methodological triangulation is employed by way of a mixed-methods sequential explanatory design. There are two phases to the project; phase one is quantitative (online survey) and phase two is qualitative (interviews). Tosystematically explore the subjectivity of participants' viewpoints on porn literacy education, Q methodology (which uses both quantitative and qualitative elements) is employed. Additionally, a story completion method is used as a novel technique to explore young people's sense making of IP. Descriptive statistical analyses from the survey responses provide initial insight into the research topic, and inform the development of in-depth semi-structured individual interviews. Qualitative analyses are carried out using an iterative process of critical thematic analysis (otherwise known as social constructionist thematic analysis). Participants from the key stakeholder group, phase one (N=484) and phase two (N=20), were recruited through 10 schools from across the North Island of New Zealand. **Results:** Preliminary results are available to participating schools by way of a summary reports in December 2020. Finalised results will be submitted for publication in academic journals throughout 2020/1. **Conclusions:** This research will provide evidence to support and advise educational policy makers. This will assist in the development of beneficial education programmes that seek to improve the sexual, psychological and reproductive health of young people, in the modern, fast-paced, hyper-sexualised digital age. Through gaining a comprehensive understanding of key stakeholders' perspectives, the findings of this research will expand scholarly knowledge and provide practical inquiry in to the potential of porn literacy as pedagogy.

The use of the internet in social media; knowledge; education; self-testing; internet governance; data protection; telemedicine

P-155 • Videos on contraceptive methods for public and supplementary health service users

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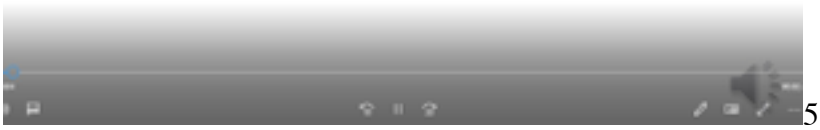
Objectives: This project aims to disseminate, through videos, the different contraceptive methods currently available in Brazil's Unified Health System (SUS) and Supplementary Health, reinforcing their effectiveness rate, advantages, disadvantages, adverse effects, risks and benefits, to help women in decision making. Thus, the project intends to create a reliable data source, certified by Federal University of Rio Grande do Sul (UFRGS) ObGyn professors, to bring information to the community through a simple and easily accessible way (videos that will be disseminated on social networks). **Method:** The videos were developed and edited using PowerPoint tools. The content of the videos was based on the book "Introduction to Gynecology and Obstetrics", written by UFRGS ObGyn professors. The videos were reviewed by the researcher and her fellows, corrected to obtain a simple and understandable language for the entire population. **Results:** At this moment, 5 informative videos were produced:

1. *Video cover titled "Oral Contraceptives".*

2. *Video cover titled "IUD".*

3. *Video cover titled "Injectable Contraceptives".*

4. *Video cover titled "Emergency Contraception".*



5. *Video cover titled "Surgical Contraception".*

Conclusions: There is a lot of misinformation about the contraceptive methods available today. Often patients seek contraceptive information from friends, family, or Internet (Google, social networks, websites), and may receive incorrect or inconsistent data, frequently loaded with taboos or cultural influences, which may interfere in their choice. So, the dissemination of contraceptive methods available in SUS and in supplementary health is extremely relevant, especially considering the high pregnancy rates in adolescence, a population that is known to turn to Internet channels to search for information. This tool can help young people achieve safe contraception, and may be available in hospital apps in the future.

P-156 • Adolescents and sexuality. Identities, messages and sexual relationships through social networks.

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Main objective: To describe and to analyze the key messages related to sexuality that are observed in the social networks as Instagram and Facebook, their interpretations and their influence on the modes of relationship and identities of adolescents from Montevideo, Uruguay. **Method:** The study was organised in two steps: 1) First one: a qualitative study based on focus groups, 3 of them with adolescents aged 15-17 years old and 3 groups with adolescents aged 18-19 years old. The adolescents came from different environments (socioeconomic levels). In total, 41 participants attended the focus groups. b) Second one: a quantitative study to collect data (on line surveys and personal interviews) with a sample of 396 adolescents representing the adolescent population of Montevideo. The survey allows analysing data using transversal variables such as gender, age, economic level (error calculated 5%). Finally we perform Datamining Analysis that allows us to create profiles of users of social networks. **Results:** Adolescents are exposed, daily, to a sexual socialization by the messages that come from digital environments that practically do not have adult mediation. The data indicate that the classic agents of sexual socialization are being displaced by messages from digital environments, in terms of frequency of exposure. However, adolescents declare to value more the messages that come from traditional socializing agents. Regarding their level of exposure in networks, they preserve their privacy on social networks and tend to publish the best version of their lives. In Uruguay, sexting is a socially accepted practice among teenagers, being part of the rituals of "conquest" of a partner. **Conclusion:** Most adolescents safeguard their privacy in networks. Most

of them have a relatively low activity in terms of sexuality and intimacy. However, a minority group, but significant (20% of the sample), is aggressive with profiles that do not match their normative and beliefs on sexuality.

P-157 • Innovative trial design using digital approaches: an example from reproductive medicine

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Objectives: Evaluate digital approaches to conduct clinical trials: Loss to follow-up and missing data are two of the most common reasons for clinical studies failure. Implementing digital methods in clinical trials has the potential to increase participants retention and procedural compliance, while reducing participant burden and maintaining their satisfaction. We recently conducted an innovative trial utilizing only digital methods to assess the accuracy of a wearable medical device for fertility tracking, and therein we examined participants' retention, compliance, and satisfaction. **Methods:** We designed a prospective longitudinal study in women to assess the relative accuracy of a multi-parameter wearable fertility device to detect ovulation ("Ava Fertility Tracker", Ava AG). Participants (n=66) wore the device nightly for up to 6 cycles, syncing their bracelet, taking body-temperature measurements, and urinary luteinizing hormone tests to determine their ovulation-day each cycle. Participants were recruited remotely through social media, online registration platforms, and email invitations. We collected all patient-reported outcomes and data from the wearable via a mobile app, wherein the study coordinator could monitor daily participant activity and send procedures reminders when forgotten. Participants could contact an independent customer support team for technical support. Finally, we surveyed the participants' perception of the site-less study design. **Results:** Participants were Swiss-residing women with an average age of 27.5 years(SD=4.1, range=19-36). Overall, 92% of participants completed the minimum requirement of trial (3 cycles) and 48.5% completed 6 cycles. Women who responded to the satisfaction survey(n=56, 85%) rated their experience with the social media recruitment(83%), online registration(98%) and online invitations(98%) as good or very good. 61% of respondents considered the trial design easy or very easy to integrate into their everyday life, which might be correlated to the observed high compliance (87% of study days had all three procedures conducted). Two thirds of participants (64%) preferred some personal contact with research staff, particularly during the onboarding process. Furthermore 98% of respondents found the study coordinator's remote support very helpful and 78% of participants were highly satisfied with the remote technical support. **Conclusions:** In this report we demonstrated that using digital approaches for clinical studies leads to a high rate of completion (92%) and procedural compliance (87%), while maintaining participants' satisfaction (>90% good or very good). This suggests site-less design could help maximize clinical data collection while minimizing participants' burden. Future studies with longer follow-up time will be needed to confirm these findings and assess whether the sampled population is biased towards digital natives. Moreover, digital approaches raise data protection and privacy concerns given the sensitivity of collected data. Overall, we believe that increasing

the utilization of digital approaches in reproductive health research could increase the quality and the quantity of the data collected in this underrepresented research field.

P-158 • How do women using a fertility awareness smartphone app access information and healthcare when trying to conceive? The Freyja study

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Objectives: to explore the role of fertility awareness app *Natural Cycles* in relation to use of healthcare services for pregnancy planning. **Methods:** We conducted a qualitative study to explore users' and their partners' views, experiences and practices of the app in the context of their daily lives, drawing on critical digital health studies. In 2019, we undertook 30 in-depth interviews with people (cis-women and partners) who used the app in 'plan a pregnancy' mode and live in the UK, analysing data iteratively and inductively. **Results:** Key themes included: 1) silences around planning pregnancy; 2) (not) knowing when to seek advice; 3) trust in body versus trust in science and medical expertise; and 4) equity in fertility support. Users described how most often they did not seek advice from healthcare professionals when thinking about planning pregnancy. Those who had sought advice when having difficulties conceiving described, often with frustration, how they were told not to worry and to "come back in a year". Use of fertility awareness apps, such as *Natural Cycles*, allowed some women to feel in control and gain a greater understanding of their bodies, without overburdening an already overstretched health service. However, it held women responsible for conceiving and could cause anxiety and uncertainty when this did not occur quickly. Lack of human support and the potential to miss clinically important signs when relying on technology was also raised. Data, including visual representations, from the *Natural Cycles* app were used by women during consultations with providers to confirm or validate ovulation dates or pregnancies. Limited knowledge about fertility amongst healthcare providers, particularly in primary care, was mentioned. Feelings on whether *Natural Cycles* should be made freely available via the National Health Service (NHS) were mixed: some felt it would save the NHS money in the long-term if the need for investigations for infertility were reduced, while others felt the NHS had other priorities. However, it was acknowledged that having to pay for the app would exclude some women from using it, and some participants felt it should be freely available on equity grounds or at least promoted via the NHS. **Conclusions:** Fertility awareness apps, such as *Natural Cycles*, can be useful tools to help women better understand their bodies and try to conceive, particularly if used to facilitate conversations about fertility. Apps should provide women with guidance on when to seek further advice from healthcare professionals.

P-159 • #Decolonising Contraception - Can Twitter be a new way to engage Black people in conversations on sexual & reproductive health (SRH) and raise awareness about barriers amongst professionals?

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Objectives: Black and other marginalised groups continue to experience multiple disparities within sexual & reproductive health (SRH) in the UK and there have been difficulties targeting affected groups. Decolonising Contraception (DC) is a community group led by Black & people of colour working in SRH who are using innovative ways to engage their communities on SRH issues. A higher proportion of Black people utilise Twitter than any other demographic; 'Black twitter' is a community (a term used to describe Black twitter users) has been credited for advancing the "Black lives matter" movement and other social justice causes. As well as starting important conversations about increased rates of sexual assault experienced by Black women with hashtags like #AreYouOkaySis and #MeToo. DC established our own Twitter presence in March 2018 to see if we could start engaging both the public and SRH professionals in conversations on the historical, cultural impacts affecting Black and people of colour. **Methods:** The #DecolonisingContraception was established as part of an article on a platform aimed at 'women and non-binary people of colour' and a blog piece written for the British Medical Journal (BMJ) SRH blog. This attracted both followers from our target demographics and professionals working in the field. We create 3-5 new posts a week & promote our account at events. Our data analysis is provided by Twitter analytics and by looking through our own interactions. **Results:** At the time of writing DC account currently have 1, 500 followers; 78% of those being women and 73% being based in the UK. More than half of our followers are those from the targeted demographics. 92% of our followers state that one of their key interests is science news. Our impressions made over a 28 day period are 41.2K and this appears to be increasing by an average of 2% every day. **Conclusions:** Whilst the #DecolonisingContraception has not become 'viral' as some of the aforementioned hashtags. The DC Twitter account does appear to be attracting many new followers from targeted demographics, helping share articles on SRH issues affecting them and raising awareness about barriers to healthcare. Social media is allowing for discussions that are not being had in medical journals. Further research needs to be done on this topic, but in light of the range of poorer outcomes seen in SRH compared to non-black people, social media may provide an important tool in community engagement.

P-160 • Effectiveness of the Web Sites of the Youth Friendly Units in Their Contribution to the "Conscious Youth, A Healthy Future" Program

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Introduction: One of the most important activities of Eskisehir Osmangazi University Youth Friendly Unit (ESOGU GEDAB) is to provide access to health information and health services for the youth. Use of internet is included in carrying out this activity. **Aim**: This study was planned to determine the effectiveness of the web site of ESOGU GEDAB for the young people.

Method: The web site of ESOGU GEDAB was examined to determine the efficiency of the data provided on the site. **Results**: Between March 2003 and September 2019, individual counseling for 6590 students, and group counseling for 30982 students were provided in our unit. The topics of service delivery and counseling that students receive are effective communication and leadership, effective use of time, methods of coping with stress, health rights, suggestions on healthy living, reproductive health and sexual health, sexually transmitted infections, HIV/AIDS, hepatitis, contraceptive methods including oral contraceptive methods, contraceptive injectables and barrier methods, alcohol and drug addiction, and breast self-examination. Our university website was activated in March 2017. Our web site was visited by 340.570 students from March 2017 to September 2019. The findings show that; while GEDAB has given counseling and service delivery to a total of 37,572 students in 16 years, it was found that our website had reached nearly ten times more students in a short period of nearly 2 years. **Conclusion**: These results have revealed that the young people are certainly in need of reaching the right information through internet. Therefore new arrangements should be made to improve the efficiency of the web site. **Keywords**: Youth, Health Problems of the Youth, Turkey, Youth Health Politics, Young Friendly Health Services

P-161 • Routine self-testing to facilitate early pregnancy recognition: a pilot study

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Unintended pregnancy is prevalent in South Africa and late presentation for abortion care is common. Studies show that the longest step in obtaining an abortion is from last menstrual period to confirmation of pregnancy. **Objectives:** To strengthen earlier recognition of unintended pregnancy, this pilot feasibility study aimed to 1) evaluate pregnancy self-testing behavior among women provided with free urine pregnancy test kits and 2) explore acceptability of regular self-testing for pregnancy with a view to conducting a randomized controlled trial. **Methods:** This prospective longitudinal study enrolled women attending a student health center (n=35), women seeking abortion at a registered non-governmental facility (n=3) and community participants (n=38 women) recruited through snowball sampling from March to May, 2018 in the Western Cape, South Africa. Eligibility criteria were age 18-35 years, currently sexually active but not desiring pregnancy, owning a mobile phone, willing to receive text reminders to test for pregnancy, not using contraception or using short-term methods including oral contraceptives and condoms. Informed consent was obtained from interested and eligible women and interviews were conducted by a trained research assistant. Participants were provided with five free midstream urine pregnancy tests, instructed on their use and how to interpret results. Monthly pre-scripted reminders to test for pregnancy and requesting test result by return text were sent on the first day of three consecutive months where after participants were contacted to complete a phone interview. Study outcomes were proportion of participants conducting regular self-testing over three consecutive months, interest in pregnancy test kits for home use, acceptability of routine self-testing and satisfaction with reminder text messages. **Results:** We followed up 71/76 participants at three months. Of these, all participants tested promptly in the first month. At

month two and three, 55/71 and 49/71 performed pregnancy testing, respectively. Most (66/71) found the tests easy to do, easy to read (70/71) and had no problems with privacy (68/71). Most (63/71) said they would be interested in continuing to test every month; 70/71 would recommend routine testing to a friend. Most, (57/71) reported that the messages were "not bothersome at all"; none said they were "very bothersome". Two participants had new pregnancies. Both used two tests to confirm the result. **Conclusion:** Providing free pregnancy tests supplemented by text reminders on mobile phones for routine self-testing for pregnancy appears feasible as a strategy to strengthen early pregnancy recognition and should be evaluated in a larger randomized controlled trial.

P-162 • Sources of information and level of knowledge on emergency contraception among Portuguese women

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Introduction: Improving the use of emergency contraception (EC) will mainly depend on the increased dissemination and awareness of both society and health professionals, in particular for the accessibility of this important therapeutic intervention. The main objective of this study is to evaluate the level of knowledge about emergency contraception and its sources of acquisition of a portuguese subpopulation of our medical area. **Methods:** Transversal and analytical study. Through an original anonymous questionnaire which includes fourteen knowledge assessment questions, a sample of portuguese women (n=280) in fertile age (average age 33.83 ± 8,76 years) and with active sexual life were studied. They had access to primary and secondary healthcare. Statistical analyses were performed using SPSS® version 21.0. All statistical calculations were performed considering $p<0.05$ as statistically significant. **Results:** 27.7% used EC, of wich 50% without any counselling, 22.4% and 18.4% after counseling by friends and healthcare professional, respectively. The pharmacy was the place of acquisition of EC in 97%. Only 17.1% changed or started a regular contraceptive method after using a EC. Despite 92.1% of women claim to have knowledge about EC, only 12.6% answered correctly to almost all of the questions (>10) about knowledge assessment. Most (67,5%) considers EC associated to severe adverse reactions; harmful to fertility (64.3%); and show not to know the period of time to use it (94.3%). Only 27% know that EC is provided free of charge in community health centers and hospitals. The education level ($p<0.01$) and previous use of EC (<0.01) were the determining factors of the level of knowledge. 45% would recommend and 49.5% would definitely use EC if needed. The *media* (mainly internet) was the most frequent source of information (63.4%), followed by friends and family in 43.11%, health professionals in 41.2% and school in 5%. In 60.6% consider

that there is little information about EC and 83.9% thinks it is important to have more information disclosure, mainly by health professionals (78.6%), internet (31.7%), school/university (26.6%) and television/radio (23.2%). **Conclusion:** The low knowledge about EC, especially regarding the correct period of use, place of acquisition and safety may be associated to low intention or recommendation to use the EC. Given the specific results of our population, this study can be a starting point for improving accessibility, information content and sexual and reproductive health counseling. Leaflets were created and distributed in health centres of our region.

P-163 • The Effect of Education on Breast Cancer Health Literacy of Disadvantaged Women

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Objective: Breast cancer is by far the most common cancer in women worldwide. Programs should be implemented to raise awareness among women for breast cancer risk. By improving health literacy, disadvantaged women gain the ability to understand early signs and symptoms and screening by clinical breast examination. This study was conducted to determine the effect of education on breast cancer health literacy among disadvantaged women. **Method**: This is a pre-test and post-test study conducted on 94 women volunteers admitted to two Public Education Centers. The study data was collected by using a developed breast cancer health literacy questionnaire form, consisting of 35 questions in the form of true or false, 5 questions on general information, 8 questions on early diagnostic methods, 14 questions on risk factors and 8 questions on symptoms. The questionnaire was repeated one week later to assess the effectiveness of the training. Statistical analysis of the data was assessed by using McNemar test. The statistical significance level was taken as $p<.05$. **Results**: After training, breast cancer health literacy rates increased in 29 out of 35 women, which is statistically significant ($p<.05$). This increase was, in 3 out of 5 women for general knowledge of breast cancer, in 7 out of 8 for early diagnostic methods, in 11 out of 14 for risk factors, and in 8 out of 8 for symptoms (for each, $p<.05$) The highest increase was in general information (‘ Breast cancer is the most common malignant tumour among women worldwide’), which was from 6.4% to 35.1%. Increase in knowledge of early diagnostic methods (‘Every woman should have her first mammography between the ages of 30-40’) was from 8.5% to 53.2%. Increase in risk factors (‘ Presence of benign breast disease increases the likelihood of having breast cancer’) was from 33.0% to 95.7%. Increase in knowledge of symptoms (‘ Withdrawal of the breast skin’) was from 48.9% to 86.2% (for each, $p<.05$). **Conclusion**: According to this study, the education significantly enhanced breast cancer health literacy rates of disadvantaged women. To improve breast cancer health literacy of disadvantaged women in informal education areas such as public education centers and continuity of education is also important. Policy makers are recommended to support these groups.

ABSTRACTS ONLY

A-01 • Lifetime abortion prevalence in Turkey: A mixed-methods study

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Objectives: Abortion behaviors are notoriously difficult to measure; yet, accurate estimates are critical in developing reproductive health programs and allocating resources. The list experiment is able to measure sensitive health behaviors and reduce pressure to underreport due to stigma, legal restrictions, or privacy concerns. However, few studies have assessed the applicability and validity of this method in measuring abortion behaviors across a variety of country contexts. We implemented and tested the validity of a list experiment conducted on lifetime abortion prevalence in Istanbul, Turkey. We also sought to understand reasons for our findings using in-depth interviews with key informants. **Method:** We conducted a cross-sectional household survey in Istanbul between March–June 2018. In a random sample of 4,040 married, reproductive age women, we implemented a double list experiment. Difference in means calculations between the average counts for each list were averaged to provide an estimate of the population proportion that has had an abortion. Because of the novelty of the method, we also tested the method for key assumptions and compared the estimates with estimates from a direct measure of abortion history captured within the same sample of women. Further, we conducted in-depth interviews with 16 Turkish family planning providers and community stakeholders to contextualize the findings and provide insight into possible explanations for the quantitative results. **Results:** We found no evidence of a design effect in list experiment data. The abortion prevalence estimate from the list experiment was similar to that of the direct question estimate (3.25% vs. 2.97%). Key informant narratives suggests that differing definitions of abortion, inaccessibility and provider bias, ignorance of abortion laws and safety, religious norms, and pregnancy fatalism could contribute to either low prevalence of abortion or under-reporting. **Conclusions:** Our study is the first to apply the abortion list experiment in Turkey. The list experiment did not either (1) reduce under-reporting of lifetime abortion prevalence or (2) capture oddly low levels of abortion prevalence. Results from the qualitative study suggest that women may, indeed, have difficulty obtaining abortions and prevalence may be low. However, it was also clear that abortion is highly stigmatized, and women face real social consequences after obtaining abortions. Measuring experiences of abortion is critical to understanding women's needs and informing harm-reduction strategies. Improvement of abortion measures and tracking prevalence and trends over time is useful for evaluating the effectiveness of policies related to family planning.

A-02 • Contraceptive use in women under 20 years of age: A study in Iran

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Introduction: Contraception methods are one of the most important factors in population control. A choice of safe and effective methods available to adolescents may guarantee their and society's safety. **Objective:** The purpose of the present study was to evaluate the rate and kind of contraceptive methods used by women under 20 years of age and finding the related demographic factors. **Method:** A prospective descriptive study was performed on women under 20 years of age in Tehran, Iran. The 500 women who finished the study were evaluated regarding the rate of contraceptive use, which method was used and finding the probable demographic related factors. **Results:** More than half (51.6%) of the women used contraception. The most common method was breastfeeding (27.1%) although only 2.8% were aware of breastfeeding as a contraceptive method. Other common methods used were IUD (intrauterine device) (24.8%) and the withdrawal method (24.8%). The usage of contraception was directly related to the number of pregnancies, the age of marriage and the woman's age at the first pregnancy. It related indirectly to the level of education, the number of brothers and sisters and size of the family, socioeconomic status, the age of mother when married and the age of menarche. **Conclusion:** Knowledge of the related factors of contraceptive use may help the public health organizers to make these factors correct.

A-03 • Nano Copper Loop

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Introduction: Copper intra uterine loop is the most common used loop either alone or in combination with silver, since Nano technology appeared a great concern of this arises in the design of the IUD. **Aim of the work:** Is to test a new Nano copper loop and compare it with the commonly used copper (T) loop. **Material and Methods:** We compare side effect, duration, pregnancy rate , between Nano copper loop in 50 cases and the commonly used copper (T) loop in 50 controls for a follow up period of 7 years. **Results:** Statistically significant decrease of all side effects (bleeding, PID, Pain, discharge, most important is PID with P-value <0.01). No pregnancy reported in Nano copper loop, but 5 cases were reported of being pregnant in the control group having ordinary copper (T) loop during the follow up period. **Conclusion:** Nano copper loop is a new version in the development of IUD.

A-04 • Experiences of abortion fund service recipients in one US Southern state

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Objectives: This paper describes a secondary data analysis of a health dataset representing the experiences of abortion fund service recipients (ASRs) in the US State of Florida who received financial assistance to help pay for unaffordable abortion costs. **Methods:** We analyzed cases of 3,216 Florida ASRs from 2001 to 2015. Demographic characteristics, service utilization rates, and the personal hardships reported by the sample were assessed. The personal hardships of the Florida ASRs were compared to the hardships that were reported by ASRs who received assistance from a national fund. **Results:** Results indicate that these ASRs are primarily people

of color who are single, in their mid-twenties, already parenting children, and receiving assistance in the second trimester of pregnancy, on average. ASRs in this study are experiencing multiple personal hardships while trying to access an abortion, including economic hardships, such as lack of insurance coverage and unemployment, and trauma, including rape and partner violence. **Conclusions:** When compared to the ASRs at the national level, these state level ASRs reported higher percentages of unemployment, partner violence, and rape, which suggests that the Florida ASRs face more dire circumstances compared to ASRs at the national level. Repeal of policy that restricts public funding of abortion in Florida is recommended in order to improve access to abortion.

A-05 • Hormonal contraception and depression. Can we explain the different results in different studies?

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Objectives: Several observational studies and few randomized studies have assessed depression development in users of hormonal contraception, with quite different results. The aim of this study was to explore possible explanations for these different results. **Method.** We assessed the association between different study designs and the results emerging from each design. **Results.** The methodological parameters explaining the different results include a) the design of the study; cohort-study vs case-control study vs cross sectional designs vs randomized studies, b) whether starters or long-term users are investigated, c) which age groups the study includes, d) the inclusion criteria of each study in terms of previous use of hormonal contraception, e) whether the reference group is never-users or non-users (previous users plus never-users) of hormonal contraception f) the sample size, and g) the control for relevant confounders. **Conclusion.** What seems to be quite different results is apparently just a consequence of different study designs. The most reliable results emerge from large-scale prospective studies following women from they start using hormonal contraception with never-users as the reference group and close follow-up. Alternatively sufficiently powered randomized studies with only never-users of hormonal contraception at inclusion. Healthy user bias is the main reason for diverging results.

A-06 • Assessment of Family Planning Service Availability and Readiness in 10 African Countries

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Objectives: Access to family planning services and appropriate contraceptive methods is crucial for ensuring good health outcomes for women and adolescent girls. The World Health Organization worked with the U.S. Agency for International Development to develop the Service. Availability and Readiness Assessment (SARA) survey to measure health facility capacity to provide end users with appropriate, high-quality health care. In this study, we looked at the service availability and readiness of health facilities to provide contraception in 10 African countries: Benin, Burkina Faso, the Democratic Republic of the Congo, Djibouti, Mauritania,

Niger, Sierra Leone, Tanzania, Togo, and Uganda. **Methods:** This study compared SARA survey data on family planning services from each of the 10 countries. We conducted a descriptive analysis of variations in facility readiness and the availability of services, contraceptive methods, trained staff, family planning guidelines, and basic health care equipment. **Results:** Overall, many of the countries surveyed had a relatively high availability of at least 1 contraceptive method. Rural facilities tended to have more availability of contraception than urban facilities, and government facilities tended to have higher availability of family planning than other providers. The countries differed in their particular dominant contraceptive method, and stock-outs of contraceptive methods were observed. Countries had overall low levels of all 6 tracer items (availability of family planning guidelines, staff trained in family planning, blood pressure apparatuses, combined oral contraceptive, injectable contraceptives, and male condoms on the day of the assessment), indicating low health system readiness. There were discrepancies between reported and observed availability of blood pressure apparatuses and family planning guides and having at least 1 staff member trained to use these tools. In all countries, unmarried adolescents appeared to have less access to family planning than the general population. **Conclusion:** Stock-outs and logistics management problems were common among the countries surveyed. Critical gaps between reported and actual availability of products and services often makes it difficult for end users to access appropriate family planning methods. To address many of the issues, additional health worker training is needed and more effort to target and support adolescents should be undertaken. To achieve universal health coverage targets for family planning, gaps in the availability and readiness of health systems to provide contraceptive products and services must be reduced.

A-07 • Violence against women in Uganda: a review of the literature surrounding health outcomes, community and healthcare based interventions

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Background: Violence against women and girls (VAWG) is a major public health problem world-wide. More than half of the women in Uganda have experienced physical or sexual violence. There are numerous debilitating physical, sexual and mental health outcomes associated with different forms of VAWG. Community and healthcare based interventions exist to support victims affected by it. This is the first project to review the literature surrounding health outcomes and community and healthcare based interventions for VAWG in Uganda since 2008. **Methods:** A literature search was conducted on Web of Science, Medline, Embase, PsycInfo and CINAHL. This resulted in 23 papers which met the relevant inclusion and exclusion criteria. CASP checklist tools were used to critically analyse the papers. **Results:** Findings indicate a range of papers detailing adverse outcomes for victims of VAWG. Five papers reported mental health outcomes, three papers sexual health outcomes, two papers HIV outcomes, one paper physical and mental health outcomes and one paper on child maltreatment outcomes. Papers reporting interventions were all focused on community based interventions, with seven reporting on *SASA!*, two on SHARE and two on interventions targeting men. Most papers focused on IPV and DV. No papers reported healthcare based interventions. **Conclusion:** Mental health outcomes and community interventions relating to VAWG in Uganda since 2008 are well documented. More research is needed regarding integrating health

care based interventions into responses to VAWG in LMICs like Uganda. Additionally, further research is required investigating forms of VAWG other than IPV.

A-08 • How to Promote Positive Sexuality Among Youth? The Role of the Gynecologist

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Objectives: Integration of positive sexuality and prevention into clinical practice. **Method:** Evidence based gynecological aspects of prevention that can impact adolescent sexuality and sexual well-being are described using office based routine examples for primordial, primary, secondary, or tertiary prevention. **Results:** In primordial prevention, the use of correct nomenclature for the reproductive organs from early childhood seems to have a positive impact on girls' appreciation of their bodies and their reproductive organs. This subsequently translates into making consensual decisions about intimate contact and choosing the best contraceptive approach in-line with personal needs, preferences and values. In primary prevention, evidence-based knowledge about HPV vaccination can help to dispel myths and address concerns, potentially leading to higher vaccination rates and better population protection. Primary prevention may also be achieved through optimizing the choice of contraception for preventing unwanted pregnancies, and healthcare providers can assist adolescent individuals to determine their own reproductive health needs, resulting in enhanced effectiveness, satisfaction, and continuation rates. In secondary prevention, increasing awareness of sexually transmitted diseases among adolescents and healthcare providers may reduce their burden through earlier detection and lower transmission rates. In tertiary prevention, the challenges are multiple, and a key example of this is polycystic ovary syndrome. Tertiary prevention challenges in this condition include early diagnosis and rapid initiation of preventive measures such as, weight control and physical activity to avoid metabolic syndrome, cardiovascular risk, and manage anxiety and/or depression, which can result in a diminished quality of life and sexual life. **Conclusions:** Prevention at all levels can be readily incorporated into gynecological clinical encounters. Prevention can be achieved through encouraging self-esteem, including positive sexuality, whether in screening or during the management of different conditions.

A-09 • Uterine cervix; sphincter or not

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Objectives: Cervix is the anatomical part of the uterus, but functionally is a separate organ. Center of the cervical resistance to dilatation, either natural or artificial, is located in the zone of the inner uterine mouth. Based on the attitude of the internal cervical os, and cervix as a whole, during dilatation, it can be said that uterine cervix behaves as a sphincter, although it does not have the anatomical structure of the sphincter. **Method:** To monitor the process of cervical dilatation and its resistance, we have used the system for continuous and controllable balloon dilatation. Research included 42 patients, whose cervix has been dilatated prior the termination

of unwanted pregnancy. **Results:** During the course of dilatation process, we have captured and documented the point in which the cervical tissue stop resisting the force of dilatation, and we have labeled it as the cervical breaking point. Statistically significant correlation between the cervical breaking point and the number of previous births or abortions has not been found. **Conclusions:** Uterine cervix behaves as a sphincter during the course of balloon dilatation, which is verified by the existence of cervical breaking point, which values do not differ with the number of previous cervical dilatations, both artificial and physiological.

A-10 • The effect of L-carnitine on adolescent polycystic ovary syndrome patients with irregular cycles

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Background: Polycystic Ovarian Syndrome (PCOS) is a complex endocrine disorder that affects women in their reproductive age. L-Carnitine (LC) is a small water-soluble molecule that plays a basic role in the normal mitochondrial oxidation of fatty acids and generation of energy. Consequently LC is expected to play a positive role in enhancing ovarian functions. This work was primarily designed to assess those positive effects of treatment with LC among adolescent PCOS patients. Objective: To assess the effect of treating adolescent PCOS patients with LC, in terms of improvement in menstrual irregularities, hormonal imbalance and body weight. **Setting**: Department of Obstetrics and Gynecology, Suez Canal University Hospitals, Ismailia**. Patients and Methods:** This prospective randomized clinical trial included 25 adolescent PCOS patients with menstrual irregularity between the age of 14 and 19 years. They were given LC in a dose of 1 g daily for three months. Hormonal profile, menstrual pattern and body mass index (BMI) were assessed before and three months after treatment**. Main outcome measures**: Changes in menstrual cycle, hormonal profile and body weight. **Results**: The mean BMI decreased significantly after treatment from 29.34 ± 1.73 to 27.88 ± 1.45 (p value = 0.03). Prior to treatment, all the participants complained of menstrual irregularity, the most common form of menstrual irregularity was oligomenorrhea representing 56% (n=14) followed by irregular cycles (32% , n = 8) ,and finally secondary amenorrhea (12% , n =3).After treatment with LC for 3 months 36% (n=9) of the study population regained regular cycles. **Conclusion**: Treatment of adolescent PCOS patient with LC help in regaining regular cycles and proved to be efficient in decreasing BMI and further large scale studies may be needed with larger sample sizes and more longer treatment period to elude all potential beneficial effects of LC in this age group. **Keywords:** L-carnitine, PCOS, adolescent.

A-11 • Are family planning vouchers effective in increasing use, improving equity and reaching the underserved? An evaluation of a voucher program in Pakistan

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Objectives: Low modern contraceptive prevalence rate and high unmet need in Pakistan aggravates the vulnerabilities of unintended pregnancies and births contributing to maternal morbidity and mortality. This research aims to assess the effectiveness of a free, single-purpose

voucher approach in increasing the uptake, use and better targeting of modern contraceptives among women from the lowest two wealth quintiles in rural and urban communities of Punjab province, Pakistan. **Methods:** A quasi-interventional study with pre- and post-phases was implemented across an intervention (Chakwal) and a control district (Bhakkar) in Punjab province (August 2012–January 2015). To detect a 15% increase in modern contraceptive prevalence rate compared to baseline, 1276 women were enrolled in each arm. Difference-in-Differences (DID) estimates are reported for key variables, and concentration curves and index are described for equity. **Results:** Compared to baseline, awareness of contraceptives increased by 30 percentage points among population in the intervention area. Vouchers also resulted in a net increase of 16% points in current contraceptive use and 26% points in modern methods use. The underserved population demonstrated better knowledge and utilized the modern methods more than their affluent counterparts. Intervention area also reported a low method-specific discontinuation (13.7%) and high method-specific switching rates (46.6%) amongst modern contraceptive users during the past 24 months. The concentration index indicated that voucher use was more common among the poor and vouchers seem to reduce the inequality in access to modern methods across wealth quintiles. **Conclusion:** Vouchers can substantially expand contraceptive access and choice among the underserved populations. Vouchers are a good financing tool to improve equity, increase access, and quality of services for the underserved thus contributing towards achieving universal health coverage targets.

A-12 • Androgenicity of oral contraceptive pills influences women's sexual arousal responses

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Objectives: The present study examined physiological and subjective sexual arousal in women taking low-dose androgenic and anti-androgenic oral contraceptive pills (OCPs), as well as naturally cycling women. It was hypothesized that dampened sexual responses would be most pronounced in women taking anti-androgenic OCPs followed by those taking androgenic pills. It was hypothesized that naturally cycling women would exhibit the greatest sexual responses. **Design & Methods:** Naturally cycling women ($n = 35$) and women taking androgenic ($n = 35$) and anti-androgenic ($n = 15$) OCPs participated in this study. In a laboratory setting, women's physiological and subjective sexual arousal were continuously measured in response to a sexual film. Physiological arousal was measured with a vaginal photoplethysmograph, and subjective sexual arousal was measured with an arousometer. Moderated growth curve modeling was used to assess the effect of contraceptive use on these variables. **Results:** Women's arousal responses varied significantly by group. Women taking androgenic OCPs exhibited significantly greater physiological arousal compared to naturally cycling women ($t(7257) = 6.84$, $p < .001$) and women taking anti-androgenic OCPs ($t(5710) = 6.79$, $p < .001$). No significant differences emerged between the latter two groups of women on this measure. With regards to subjective sexual arousal, a similar pattern emerged. Women taking androgenic OCPs demonstrated a significantly greater arousal response compared to naturally cycling women ($t(7257) = 8.89$, $p < .001$) and those taking anti-androgenic OCPs ($t(5710) = 3.02$, $p < .001$). Women taking anti-androgenic OCPs exhibited a slightly greater subjective sexual response compared to naturally cycling women ($t(4877) = 3.38$, $p < .001$), deviating from the pattern observed in their

physiological responses. **Conclusions:** These preliminary results provide evidence for both physiological *and* subjective effects of OCPs on women's sexual arousal. Specifically, there appears to be an enhancing effect of low doses of estrogen coupled with androgenic progestins on arousal responses. These results have important implications for prescribing physicians, as it may be prudent to assess and possibly modify women's use of OCPs if they present with concerns regarding their arousal response.

A-13 • "Nothing about us without us" - POLKA 18 youth-led study results analysing contraceptive and sexual behaviours of Polish adolescents

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Objective: To evaluate the interdisciplinary connections between contraceptive and sexual health behaviours among Polish adolescents. **Method:** POLKA18 is a youth-led cross-sectional study funded by a scientific grant from European Society of Contraception and Reproductive Health. The adapted self-reported questionnaire with six main sections to help create interdisciplinary logic model on adolescent healthcare: (1) mental health; (2) non-communicable diseases (NCDs); (3) sexual and reproductive health; and looking at enabling environment: (4) quality of healthcare services; (5) school and relationships; (6) rights and freedom from violence. Our team follows four specific principles: (1) SRHR is crucial for adolescents health and well-being; (2) Holistic approaches; (3) Strategic partnerships; (4) FOR youth BY youth - adolescents and youth are actively involved in every stage of the project - from design to implementation. The study is in progress, pilot phase has been conducted between April-June 2019, phase II is taking place in October-December 2019. Data collection takes place in five during the pilot stage and six in phase II (out of sixteen) Polish voivodeships among the Polish adolescents aged 18. Data have been collected transcribed and analysed using STATA16. **Results:** During the pilot phase we received 650 results and included 632 in our analysis. 48.7% of the respondents reported being sexually active (45.9% girls and 52.5% boys, p=0.05) Sexual debut starts on average of 16.7 years, slightly later for girls. 1 in 4 reported only one sexual partner, whereas 7.4% of young women and 12.5% of young men reported 4 and more partners throughout their lifetime. (p=0.004) 27% of participants of the study declared being under the influence of alcohol during the sexual intercourse in their lifetime (25.4% girls vs 29.2% boys, p=0.04). The most frequently used contraceptive method is condoms (76% of sexually active adolescents have used condoms during first sexual intercourse, 67.8% during last intercourse), followed by pills (14.7%), and coitus interruptus (5%). 21.2% (n=124) adolescents used Emergency Contraception throughout their lifetime. Using the results of the study we have created a logic model for interdisciplinary associations between reproductive health outcomes and mental health and

NCDs prevalence, exposure to violence and quality relationships. **Conclusions:** In Poland conducting studies among adolescents in the topic of sexual and reproductive health is very challenging and data are fragmentary and research is not funded, hence our results will support formulating comprehensive evidence-based policy recommendations to integrate sexual and reproductive health into holistic adolescent health strategies.

A-14 • Implications of negative cultures in access to sexual reproductive health amongst adolescent girls and young women, in Kilifi county, Kenya

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Background: Cultural and ethnic diversity is the cornerstone behind the beauty of the world. The diversity of the world has made it a habitable place guided by the five pillars of social interaction which are cooperation, accommodation, conflict, competition, and exchange. This notwithstanding, our cultural and ethnic differences expose us differently to health implications. More importantly, while we claim our cultural and ethnic diversity to be our pride and joy we must embrace positive cultures and demystify the negative ones which years along with having continued to put adolescents and young women, women and youths health indicators low. For instance, the "mwenye syndrome" in Kilifi County, Kenya which precisely denotes that women must get approval from their husbands in whatever they do has set a barrier to women making sound decisions of the power of option in accessing contraceptives and reproductive health services. In addition, these retrogressive cultures have seen many adolescents and young women contract HIV and get pregnant due to delay in accessing health facilities. **Objectives:** To promote improved access to Sexual Reproductive Health Rights (SRHR) services among Adolescent Girls and Young Women (AGYW) by demystifying retrogressive cultures through community dialogues and online advocacy in Kilifi County. **Methodology:** Community dialogues and online advocacy targeting AGYW, gatekeepers, opinion leaders, and policymakers will be conducted in Kilifi County to demystify retrogressive cultures such as "mwenye syndrome" and increase awareness of SRHR services and information amongst AGYW. **Results:** According to Kenya National Bureau of Statistics (2014), only 20% of adolescent girls aged 15-19 years were using contraceptives in Kilifi, 59% of this population had unmet needs which are more than the national average of 23%. Teenage pregnancy stood at 30% in 2018 higher than the national average at 26%. Moreover, on gender women HIV prevalence stood at 5.4% higher compared to that of men at 2.3% (Kenya HIV County Profiles 2018 - Kilifi County). Through community forums and online advocacy, there will be gender equality in accessing SRHR services and information. **Conclusion:** This goes without saying, that there is a dire need to intensify community forums which will spark gender equality dialogues to progressively address negative cultural practices which makes Kilifi County and Kenya unable to achieve 90.90.90 viral load suppression, power of option in accessing contraceptives amongst AGYW.

A-15 • "We're kidding ourselves if we say that contraception is accessible": A Qualitative Study of General Practitioners' Attitudes Towards Adolescent LARC use and Proactive LARC Provision

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Introduction: Adolescent uptake of long acting reversible contraceptives (LARCs) in New Zealand is low. In response, we created the concept of a proactive LARC provision (PLP) programme to overcome barriers to LARC uptake. Previously, this concept was discussed with adolescents, and was positively received. As one of the barriers to LARCs identified in the literature and by adolescents was lack of provider awareness, we sought the views of primary healthcare providers, specifically general practitioners (GPs). **Aim:** To gauge whether LARCs and their proactive promotion for use in adolescents are acceptable to GPs? **Methods:** Nine New Zealand GPs were interviewed about their contraception provision to adolescents, and were then asked to comment on the concept of a PLP programme. The data collected were transcribed and analysed using a general inductive approach to identify common themes and ideas. We concurrently interviewed and analysed interviews, and continued to recruit GPs until we reached thematic saturation. **Results:** Six themes were identified from the interviews: These themes were: Contraceptive Decision-making; the GP Role; Sexual Activity; Social Context; Gauging Adolescent Understanding; and Youth. When we proposed PLP, the GPs responded positively. **Discussion:** The research demonstrates that LARC uptake is affected by a lack of provider awareness. These findings align with other international studies that identify barriers to adolescent contraceptive use. Many GPs would be supportive of aPLP programmein New Zealand.

A-16 • Effectiveness of Prenatal Vitamin D Deficiency Screening and Treatment Program: A Stratified Randomized Field Trial

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Context: Despite evidence on the association between hypovitaminosis D and adverse pregnancy outcomes and the positive impact of vitamin D supplementation, no evidence exists supporting a universal screening program in pregnancy as part of routine prenatal care. **Objective:** We sought to determine the effectiveness of a prenatal screening program on optimizing 25-hydroxyvitamin D [25(OH)D] levels and preventing pregnancy complications. Also, to identify a safe regimen, we compared several regimens in a subgroup of vitamin D-deficient pregnant women. **Design:** Two cities of Masjed-Soleyman and Shushtar from Khuzestan province, Iran, were selected as the screening and nonscreening arms, respectively. Within the screening armm, a randomized controlled trial was conducted on 800 pregnant women. **Setting:** Health centers of Masjed-Soleyman and Shushtar cities. **Patients or Participants:** Pregnant women aged 18 to 40 years. **Intervention:** Women with moderate [25(OH)D, 10 to 20 ng/mL] and severe [25(OH)D, <10 ng/mL] deficiency were randomly

divided into four subgroups and received vitamin D3 (D3) until delivery. **Main Outcome Measure:** Maternal concentration of 25(OH)D at delivery and rate of pregnancy complications. **Results:** After supplementation, only 2% of the women in the nonscreening site met the sufficiency level (>20 ng/mL) vs 53% of the women in the screening site. Adverse pregnancy outcomes, including preeclampsia, gestational diabetes mellitus, and preterm delivery, were decreased by 60%, 50%, and 40%, respectively, in the screening site. A D3 injection in addition to monthly 50,000 IU maintenance therapy contributed the most to achievement of sufficient levels at delivery. **Conclusions:** A prenatal vitamin D screening and treatment program is an effective approach in detecting deficient women, improving 25(OH)D levels, and decreasing pregnancy adverse outcomes.

A-17 • Health Systems Evaluations of the Barriers to Access, Availability, Utilization and Readiness of Contraception Services in Zika Affected Areas in Brazil

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Background: ZIKV can be transmitted vertically from an infected pregnant woman to her fetus and has been shown to cause microcephaly and other severe brain anomalies in newborns when the mother is infected prenatally. In February 2016, ZIKV outbreak was declared by the WHO as a Public Health Emergency of International Concern. During Zika outbreak, Latin American health officials recommended that population should postpone or avoid pregnancy. The objectives of this WHO study was to evaluate the status of family planning services and to understand the health system organization and gaps in responding to surge in demands in sexual and reproductive health (SRH) services. **Methods:** This study employed quantitative survey and qualitative stocktaking to assess health facilities readiness and availability of services in SRH and client perceptions. The study was carried out in collaboration with the Ministries of Health in countries, with WHO regional and country offices and with local academic institution. The study used WHO SARA tool for assessment of SRH services availability and readiness. Here "availability" which refers to facility and health worker physical locations, numbers, and distribution per capita. "Readiness" refers to the capacity to deliver services (including basic amenities, equipment and supplies, diagnostics, essential medicines and commodities, and competencies of healthcare providers). **Results:** In Brazil, the assessment was conducted in 43 health facilities in 4 urban areas: City of Santana do Ipanema, Alagoas, City of Balsas and Sao Luis, Maranhão. In addition to reviewing facility records for contraceptive stock availability, methods mix offered, and utilization pattern, the facility managers and senior health officials in the state were interviewed. The research highlighted shortage and stock outs of both short and long term reversible contraceptives (LARCs) were either absent or mostly out of stock, and the survey also pointed to deficiencies in health infrastructure limiting readiness of facilities to respond to the needs of population for standard contraception services and commodities. **Conclusions:** The data derived from this research project provided a better understanding of the impact of ZIKV on contraception care programs at the regional and community level, to policy makers and health managers to develop and strengthen policies and services to be more responsive to community needs. These policies and services relates to ensuring availability of adequate method mix, accessibility and affordability and women centred services in contraception. The study also has implications on future steps towards addressing the

ZIKV epidemic in Latin America. The results of this study will aid in understanding service gaps in health systems and formulating interventions to improve facilities' readiness to provide contraception services in the face of the ZIKV epidemic and beyond. The results and insights gleaned from this study will guide future research and interventions that focus on overcoming access and utilization barriers, and may guide the development of a planning preparedness model for other countries i.e. provide a set of tools and processes, which can be applied in other settings, to ensure consistent quality reproductive healthcare in the context of health emergencies.

A-18 • Trends, Patterns and Predictors of Risky Sexual Behaviour Among Never Married Young People in Nigeria: Evidence from the Nigeria Demographic and Health Survey

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Objectives: Reproductive health indices of young people remain worrisome despite several interventions both nationally and globally. In Nigeria, despite having a relatively young population, with implication on sexual and reproductive health, there exist dearth of study examining Risky Sexual Behaviour (RSB) among young people, characterized by early age at sexual debut, low condom use, rising number of young people engaging in premarital sex and other risky behaviour which put them as risk of HIV and other STIs. This study, examined trend and pattern of risky sexual behaviour (RSB) among sexually active young people (15-24 years) and ascertained factors predicting risky sexual behaviour among young people in Nigeria. ***M*ethods***:* Four rounds of the National HIV and AIDS and Reproductive Health Survey (NARHS), a nationally representative household survey of females (age 15–49 years) and males (age 15–64 years) of reproductive age, have so far been conducted in Nigeria – in 2003, 2005, 2007, and 2012 – primarily to provide data for monitoring the impact of HIV and reproductive health interventions over a 10-year period. The NARHS data is a nationally representative. For this study, the sample size consist of 2872 (2003), 3388 (2005) 3495 (2007) and 7258 (2012) sexually active young people (aged 15-24 years) 12 months preceding the survey period who are never married and currently living with or without a sexual partner. RSB was measured using: frequency of condom use with sexual partner and multiple sexual partnership. Never use of condom was coded as 1, else 0 and having multiple sexual partner was coded as 1, else 0 and used to generate a composite variable RSB. This necessitated performing binary logistic regression. Data analysis was performed using Stata 14 software. **Result*:*** Throughout the study period, the mean age at first sexual debut was 16 years. The prevalence of RSB was high (58.8%) among the young people, with highest prevalence reported in the year 2007 (62.9%) and lowest prevalence reported in 2003 (56.1%). Prevalence of condom use was not significantly different by sex; male (66.6%) and female (65.2%), while multiple sexual partnership differ significantly by sex: male (33.4%) and female (6.0%). Multivariate analysis revealed factors that significantly predicted RSB include: sex, region of residence, religion, comprehensive HIV/AIDS knowledge, household wealth and ethnicity. **Conclusion***:* The study demonstrated high prevalence of RSB among young people throughout the study period, while gender consistently predicted RSB among young people.

A-19 • Sexual dysfunctions and related factors in the postpartum period in Hungary: a prospective longitudinal study

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Objective: Although the prevalence of postpartum sexual dysfunctions is relatively high, the profile of these disturbances has not been well investigated in Hungary yet. This study was conducted to determine the sexual dysfunctions and postpartum-related factors among hungarian women. **Design & Methods:** The study involved the total of 245 hungarian females after childbirth (aged 21-44 years) who were personally recruited from two obstetric clinics in Budapest. We assessed the women's sexual life at 3 months (T1, n=245) and 6 months (T2, n=174) after delivery. Online questionnaires were applied, including validated and self-constructed questions to measure sexual functions in addition to important predictors which may be responsible for sexual dysfunctions: mode of delivery, infant feeding method and urinary incontinence. Sexual dysfunctions were evaluated by the Hungarian version of the Female Sexual Function Index. **Results:** Sexual intercourse was resumed by 81,49% of women at T1 and 90,80% at T2. 48,79% of women at T1 and 48,25% of women at T2 reported sexual dysfunctions according to total FSFI scores. The mean score of all types of sexual dysfunction increased over time after delivery. The most common sexual dysfunction was dissatisfaction and lubrication (T1) in addition lubrication and pain (T2). We found correlation at a tendential level between urinary incontinence and sexual dysfunctions (p=0,006) at T1, and no significant connection at T2 (p=0,09). FSFI score was significantly lower in breastfeeding group comparing to formula feeding group both at T1 (p=0,004) and T2 (p=0,0007). No significant connection was found between mode of delivery and postpartum sexual dysfunction at T1 and T2. **Conclusions:** The rate of women with sexual dysfunctions remained at the same level at 6 months postpartum, however risk factors and their effects changed over time. Breastfeeding and urinary incontinence seems to be potential risk factors of sexual dysfunction in the first six months after delivery. Considering these results and the high prevalence of sexual disorders in our study, more attention and targeted support is needed to this area.

A-20 • A national population-based survey in Sweden: the results of reproductive health and rights

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Objectives: Assigned to the Public Health Agency of Sweden by the government, a population-based survey about sexual and reproductive health and rights (SRHR) was conducted in 2017. The survey focused on sexual and reproductive health as a health determinant from a perspective of public health, equity and gender equality. Contraceptive use, reproductive experiences such as pregnancy, abortion, miscarriage, and child delivery are important parts of our reproductive health and are closely linked to our psychological, sexual, and general health. **Methods:** The survey was sent out to a randomized stratified sample of 50 000 individuals based on the total

population registry. The response rate was 31,5 per cent. A non-response analysis revealed a higher non-response rate among people with lower education and people born outside of Sweden. The reasons for the non-response rate was similar to other surveys and was dealt with via weighting in order for the responses to represent the population of Sweden as far as possible. **Results:** The results show that fewer women aged 16–29 use birth-control pills among those with higher income and education, compared to women with lower income and education. A third of all women reported they have had at least one abortion. When women reported about their child deliveries, 26 percent said they had entailed physical consequences, 17 percent reported psychological consequences, and 14 percent reported sexual consequences. These consequences differ depending on age and educational attainment. Partners participating during the delivery of their child were also affected psychologically, physically, and sexually, although to a lesser extent. Most people reported that they have the number of children that they want, except for men with lower education. Three percent are involuntarily childless, whereas 5 percent in all age brackets do not want children. Approximately 7 percent of both women and men aged 30 to 84 have become parents without wanting to. **Conclusions:** SRHR2017 showed that use of contraceptives among women in Sweden varies depending on age and need, but also on income and educational level. Reproductive experiences such as pregnancy, abortion, miscarriage, and child delivery vary depending on a range of factors such as age, income, education, sexual identity, and sometimes region. Further knowledge on associations with more variables is needed to know how to best go about addressing inequities in reproductive health.

A-21 • Early adolescents' perception of gender socialization in schools using Photovoice- a participatory research method

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Objective: Gender socialization at early ages has been shown to shape future health outcomes, especially, sexual and reproductive health. Gender socialization, the teaching of norms that encourages societies to ascribe more value to a particular sex than the other, aids the perpetuation of gender inequalities. School is a place where adolescents congregate for extended period of time and where gender norms are being reinforced. There is scarcity of studies that have involved adolescents in gender socialization ence, this study aimed at adopting a participatory research approach, involving early adolescents, to identify the barriers and enablers to the development of positive gender norms and sexual and reproductive health in schools. **Method:** Eight young adolescents (10-13 years) including boys and girls were randomly selected from 4 middle schools in 2 local government areas of Ile Ife, Nigeria. These adolescents were trained on gender socialization, as well as the techniques of taking picture for the purpose of photovoice research. Afterwards, they were given camera devices to take pictures of events in their schools that reflects the barriers and enablers of the development of positive gender norms and sexual and reproductive health in schools. Each of the adolescents was assigned to research assistant. The pictures were captioned on a daily basis. A focused group discussion as held afterwards. The photos and the focused group discussion were analyzed thematically. **Results:** The pictures taken revealed differential treatment of very young adolescents based on their sexes. Girls were found to engage in non-productive and non-brain tasking games in schools while their male counterparts were involved in meaningful sports like football and table tennis. Chores, like

fetching water, washing of teachers' plates in schools and sweeping of floors, were also disproportionately allocated to girls. In addition, more boys were seen to exercise leadership roles, while more of girls come late to the school probably as a result of the house chore burden on them. On the other hand, the boys were shown to be involved in risky and daring activities in the schools. **Conclusion:** The study revealed unhealthy gender socialization among early adolescents in school. Understanding early adolescents' perception of gender norms and socialization will help in defining interventions to nip it in the bud so as to foster healthy gender socialization and prevent gender inequality and its consequences even in later years.

A-22 • "Menstruation, isn't this meant for girls?" A quantitative study into young adult male understanding and attitudes towards menstruation in Malaysia

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Objectives Investigate male students' level of understanding and attitudes towards menstruation in Malaysia. Investigate the demographic predictors of attitude and knowledge level of male students. Identify the sources and preferred sources of menstrual information for male students. **Method** A questionnaire was administered to young adult male students on Sunway University Campus, Kuala Lumpur. The male students were sampled using convenience sampling of those passing by two high traffic locations. Microsoft Excel and IBM SPSS Statistics were used for data analysis. **Results** Four main themes of results were identified: demographics; knowledge of menstruation; attitudes towards menstruation; and source of menstruation knowledge. Knowledge of menstruation was generally well answered but with notable exceptions for the ages of menarche and menopause. Out of a potential score of eight symptoms, the most common number of symptoms recognised was four. Home-setting, the studying of a healthcare-related degree, the prior receipt of menstruation information, and whether a participant thought menstruation was embarrassing or not were significant predictors of symptom score. Adolescent home-setting had statistically significant correlation with normal event, bleeding source, and length of bleeding. The receipt of prior information about menstruation had a significant correlation with normal event, bleeding source, not pregnant, and whether a participant though menstruation was shameful or not. The majority of participants did not have negative attitudes towards menstruation however over one-third reported that they change their attitudes towards females if they know they are menstruating. Formal education was the most common source of menstruation information and the most preferred source. Over half the participants wished for more menstruation information. **Conclusion** This study's findings of incomplete levels of menstruation knowledge amongst the male population is similar to other studies in the region. Rural and urban differences in knowledge levels of menstruation is well known with differences in ethnicity potentially an explanation. The finding of a generally positive attitude towards menstruation amongst the male population is contrary to other studies of similar populations. This positive attitude, alongside the majority of participants wishing for more information, provides optimism that young adult men can become strong advocates for menstruation.

A-23 • Female Genital Cutting in Nigeria: Perception, Practice and Associated Factors

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Objective: Globally, the prevalence of Female Genital Cutting (FGC) in Nigeria is ranked third highest. Though the practice is reportedly declining (from 27% in 2011 to 18.4% in 2017), it remains a major challenge in Nigeria, with regional variation in prevalence and practice. Data from the four rounds of DHS (1990-2013) in Nigeria, indicates South-west and southeast region accounts for highest prevalence in the practice. Intervention targeting its eradication have include: knowledge, attitude and behaviour change among others. Yet, social-demographic and household factors continues to account for regional variation in the practice across the country. Understanding of the drivers of the practice will ensure the development of interventions tailored to each region. Hence, this study. **Design and Methods:** The research design was cross sectional with multistage sampling technique. The data was nationally representative, Nigeria Demographic and Health Survey, 2008 and 2013. Specifically, the women recode dataset was analysed. The weighted sample size for this study was (33,385 in 2008 and 38, 948 in 2013) women of reproductive age. The outcome variable is support for discontinuation of FGC, coded as 1, otherwise 0. This informed performing binary logistic regression analysis. Data were analysed using Stata 14 software. **Results**: Type I FGC (clitoridectomy, involving the removal of the flesh area) remains common among the women with higher prevalence from the Southeast (28.4% in 2008 vs. 40.7 in 2013) than Southwest (26.4% in 2008 vs. 34.5% in 2013). The level of rejection of the practice revealed (74.2% in 2008 and 73.6% in 2013) of the women did not support the continuation of the practice with significant regional variation. Sociodemographic factors were significantly associated with support for discontinuation of the practice. The result of 2008 and 2013 data revealed family type, age of woman, region of residence, education, household wealth, religion and type of FGC performed were significantly associated with rejection of the practice. Findings from the southeast model for 2008 and 2013 data revealed: woman's age, education, religion and person performing the FGC (TBA) were significantly associated with rejection of the practice, while the result of the southwest model revealed: family type, woman's age, education, type of FGC performed and persons performing the FGC were significantly associated with rejection of the practice. **Conclusion:** The study revealed slight regional variations in factors associated with rejection of the practice of FGC, with direct implication on policies targeting its eradication in Nigeria.

A-24 • The invisibility of young black heterosexual men in sexual health discourses

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Historically, young men have been marginalized in the United Kingdom in discourses around sexual and reproductive health. Young black men are subject to a number of differing and contradictory constructions of masculinity in contemporary society where notions of masculinity and male privilege are challenged by young women and other socio-economic and cultural changes. The objective of the study was to investigate the factors which influenced and shaped the sexual health attitudes of young men as they made their transition into adulthood. The study took place in South East London over a period of several months. Twenty young men took part

and their ages were between 16-18 years of age, 19 were of Afro Caribbean origin and one was Caucasian. Focus group interviews were used in this qualitative study in order to gain a better perspective about the lives of young black men. In effect, allowing the power of the narrative to be the 'voice' of the young men. The study drew on Foucault's insight on sex, power, governmentality and surveillance. The work of Foucault on power provides a framework for exploring how power operates at a micro and macro level. Power is exerted within individual relationships and society as well as in the structures that comprise it. The study reveals how these young men position themselves in relation to sexual subjects and their need to adhere to scripts which are the 'blue print' for behavior in (hetero) sexual encounters. The three key themes which emerged from the data focused around: a) the preservation of the dominant and powerful male, b) the 'all knowing' but at the same time 'not knowing' male, c) the attribution of sexual power from young women. In conclusion, the findings suggest that broader conceptualization of attitudes and beliefs stem from strong notions and codes of masculinity. Many of the young men felt marginalized within school provision of relationships and sex education. There is a need to understand the influences of masculinity on young men and this includes an understanding of how social pressures bear on their lives. Caught between a historical macho past and an evolving feminist future, some of the young men appear ill prepared for the competing tensions they experience. Their need to adhere to scripts which are the 'blue print' for behavior in (hetero) sexual encounters were a key feature of their experiences.

A-25 • Using Social Media for Health Research

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Objective: The popularity and diversity of social media platforms would appear to make them an ideal pathway to access subjects for health research. The most obvious use is as a recruitment tool for clinical studies, but social media platforms may also be used directly for data collection and to deliver targeted health interventions. The objective of this presentation is to examine the present contemporary literature on this subject, with a particular emphasis on ensuring the ethical and responsible conduct of such research. **Method:** In June 2019 a large pharmaceutical company in Australia targeted oral contraceptive Pill users via Facebook, Instagram and Google. The women were then directed to a short online survey which sought to evaluate their Pill use and satisfaction, with a view to directing them to their doctor for a further discussion. It was expected that 5000 surveys would be completed over 3 months. Instead, by the close of the survey in early October 2019, the company had over 20,000 responses. **Results:** The size of the response to this survey was completely unexpected. This presentation will provide a brief overview of these findings as background, in order to illustrate the amount of data which can be amassed in a relatively short time period. It also provides some interesting findings as to the use of the oral contraceptive in Australia. The main aim of this presentation however is to present a review of the current literature examining the potential of social media as a medium for meaningful health research, both qualitative and quantitative. Intrinsic to this will be an examination of the ethics of such research, given the impact of the 2018 Cambridge Analytica scandal. **Conclusions:** Social media has the potential to revolutionise the conduct and reach of health research. However the rules and conventions which cover traditional health research in

terms of privacy, informed consent and the ethical use of data may need to be re-examined if this increasingly-used research tool is to provide the insights it promises for the future.

A-26 • Puting safe abortion back into our own capable hands -supporting self-managed abortion outside of formal health system in Poland.

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The change of abortion law in Poland took place on January 7, 1993, when, after very turbulent debate, the Sejm passed a law on family planning, protection of the human fetus and conditions of abortion. Abortion is only admissible if there is a reasonable suspicion that pregnancy is the result of a prohibited act, constitutes a threat to the life or health of a pregnant woman or if prenatal or other medical indications demonstrate a high probability of severe and irreversible fetal impairment or an incurable disease threatening its life. Feminist activists working with abortion discussed that the 25-year-old ban on abortions called by the next authorities "hard-working compromise", religion taught in schools, and cooperation of the Catholic Church with each successive government came to fruition. The law and the great activity of the anti-choice movement, strongly cooperating with the Catholic Church, shaped low awareness about reproductive rights, appropriated the language and shifted the way people speak about abortion. Abortion has become solely a matter of opinion, and even a political declaration espiecally for doctors. Having an abortion in Poland is one of the biggest taboo, and woman who admit to had an abortion may be victim of judgment and stigmatized. Yet there are underground abortion providers and many who have an unwanted pregnancy receive abortion pills through telemedicine services. There is a group “Kobiety w Sieci“, which is the safe abortion hotline in Poland and it exists since 2006. Group brings together women with the experience of abortion and lack of medical education. They share their experiences with other women who are faced with such a decision. In a country where having an abortion in formal medical system is almost impossible there are activists working to put abortion pills in women’s hands and de-stigmatize the practice of self-management and the language around home use of abortion pills. Accordingly to polish abortion law this activity might be seen as a illegal. In Poland, abortion is legally restricted - having abortion is legal but helping in abortion is criminal act. Everyday, women from „Kobiety w Sieci” and other groups are risking by helping many others to reach abortion. Since December 2018 I'm conducting interviews with women who had a medication abortion with support from a helpline and after their abortion experience they decided to stay in online forum and started to help others.The interview include questions about perception of abortion and knowledge of medication abortion, perception of their acitivity in anti-abortion law context, their attitude before and after abortion towards self - managed abortion by pills.