



INTERNATIONAL CENTRE FOR REPRODUCTIVE HEALTH



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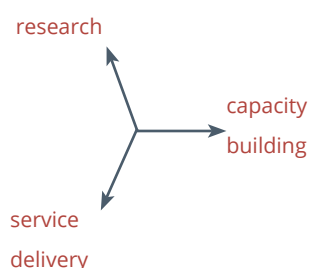
THE INTERNATIONAL CENTRE FOR REPRODUCTIVE HEALTH

THE INTERNATIONAL CENTRE OF REPRODUCTIVE HEALTH (ICRH) IS A MULTIDISCIPLINARY
RESEARCH INSTITUTE OPERATING WITHIN THE FACULTY OF MEDICINE AND HEALTH
SCIENCES AT GHENT UNIVERSITY, BELGIUM.

ICRH was established in 1994 by Professor Marleen Temmerman in response to the International Conference on Population and Development (ICPD, Cairo, 1994), where sexual and reproductive health and rights (SRHR) became an important focus point on the international agenda. In the light of the ICPD recommendations, ICRH defined its vision as contributing to sexual and reproductive health and promoting it as a human right, and its mission as being an interdisciplinary academic centre of excellence for SRHR.

ICRH maintains an international network of experts and partner institutions. This network includes two sister organizations in Kenya (ICRH-Kenya, founded in 2000) and Mozambique (ICRH-Mozambique, founded in 2009). Since 2004, ICRH has been designated as a World Health Organization (WHO) Collaborating Centre for Research on Sexual and Reproductive Health.

As an academic institution, the centre's activities revolve around three axes:



1. Research

ICRH conducts research, monitoring and evaluation in the field of SRHR using different approaches including observational studies and interventional studies as well as lab research. Research projects are currently running in Africa, Latin America, Asia and Europe. These projects vary from short small -scale assignments to long-term multinational projects.

2. Capacity building

Being a university centre, ICRH invests significantly in higher education both in Belgium and abroad, in the context of academic collaboration programmes. In addition, the integration of capacity building components in research projects has always been central in ICRH's approach. Information, education and communication activities are implemented with communities, and training initiatives for health care workers and civil society are provided.

3. Service delivery

ICRH and its partners have developed SRH services including a gender based violence recovery centre (Mombasa, Kenya), sex worker drop-in centres (Mombasa, Kenya), a night clinic for sex workers (Tete, Mozambique) and maternity shelters (Coast Region, Kenya). In addition, the centre advocates for SRHR at national, European and global level through membership in different forums and expert groups.

PREFACE

2016 was marked by some major events that each present new global challenges in the field of global sexual and reproductive health and rights; in which ICRH is committed to play its role. To start with: 2016 was the first operational year of the Sustainable Development Goals (SDG), that were agreed upon in the summer of 2015. Sexual and Reproductive Health and Rights (SRHR) lie at the immediate intersect of SDG3 (ensure healthy lives), SDG5 (achieve gender equality) and SDG10 (reduce inequalities), and has a direct link to many other goals. As a consequence, the achievement of the SDG will require a large number of SRHR-related policies, which in their turn need sound underlying scientific evidence and reliable follow-up and monitoring. With the establishment of ANSER (the Academic Network for Sexual and Reproductive Health and Rights Policy), we have -together with colleagues from other faculties of Ghent University and from other institutions- created a powerful interdisciplinary and international actor that is well-placed to take up this challenge. ANSER unites 23 academic institutions from around the world, and includes leading experts in all aspects of reproductive health and rights.

A second challenge was presented by the growing streams of refugees and migrants, leading to precarious humanitarian conditions and political tensions, and putting pressure on relief systems and institutions. In many of those settings, safeguarding the sexual and reproductive health and rights of migrating people is far from easy, and requires new research to uncover characteristics, causes and mechanisms of the problems, and to explore effective ways of dealing with them. ICRH is conducting this kind of research, and offers in addition specific training programmes for staff of relief institutions on how to identify and take care of survivors of sexual violence.

The third challenge originated from the election of Donald Trump as president of the United States of America on 8 November 2016. It was generally

known that he is no advocate for women's rights or development collaboration, and also his reinstatement of Global Gag Rule/Mexico City Policy on his first working day as president was no big surprise, but still the world was shocked to learn that his version is considerably more wide-ranging than the ones of his predecessors, potentially threatening several billions of dollars in support to development aid in the field of health. In addition, he took away funding from UNFPA, IPPF and other organisations that provide services in the field of sexual and reproductive health. Finally, the attitude of the USA at the Conference on Population and Development (New York, 3-7 April 2017) has shown that the adverse impact of the new USA government on SRHR will not only be financial but also political. There is a general fear in the international SRHR community that the political events in the USA will negatively affect the well-being of many women and communities in the South, by decreasing access to contraceptives and safe abortion. However, Donald Trump's initiatives also seem to provoke a worldwide counter movement, that may be able to compensate what is being lost. The precise overall impact of the new USA policy in the field of SRHR is impossible to predict at this stage, but ICRH will monitor the effects closely, on one hand out of scientific interest in the mechanisms and determinants of SRHR policies, but on the other hand also with a view of identifying needs and priorities for new projects and programmes.

The challenges mentioned above (and there are many others) are big but this doesn't scare us. On the contrary, we are looking forward to a new year of exciting projects and ground-breaking results. Together with our partners, we hope to be able to contribute to changing the world for the better.

Olivier Degomme,
Scientific Director

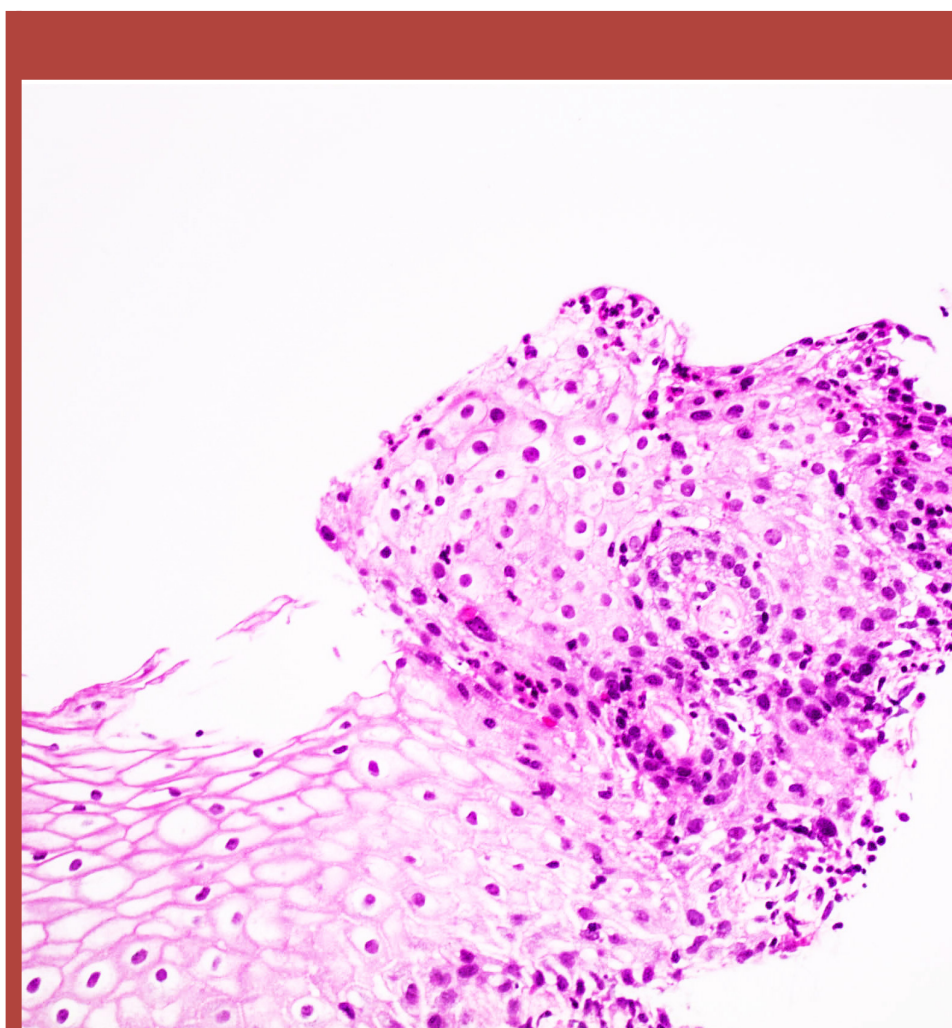
Dirk Van Braeckel,
Director of Finance
and Administration



ACTIVITIES

2016

1. SEXUALLY TRANSMITTED INFECTIONS



1.1 RESEARCH PROJECTS

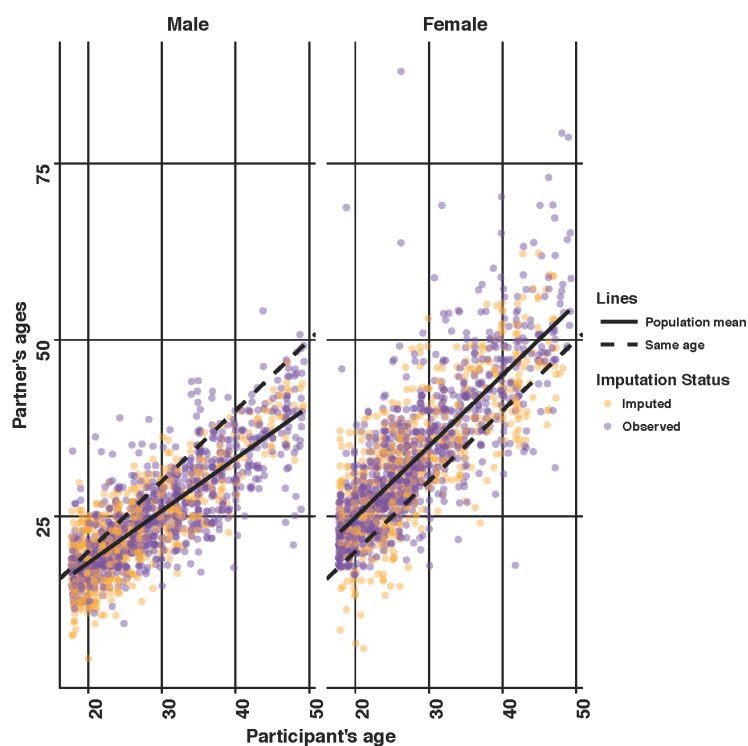
1.1.1 HIV prevention among young women in sub-Saharan Africa: statistical and epidemiological modelling to unite biological, sociological, behavioural and epidemiological science

It is well established that young women in southern Africa are at very high risk of HIV infection. Biological and behavioural risk factors, in combination with a complex sexual age-mixing pattern, have been proposed to explain this gender discrepancy. Age-mixing patterns characterized by the frequent occurrence of large age differences between sexual partners are thought to be the result of socio-economic inequalities in society. Young women may be participating in sexual relationships with older men in order to gain socio-economic benefits.

This FWO project investigates the age-mixing pattern and associated trends in socio-economic status and sexual risk behaviour in two settings in Malawi. Further, computer simulation models are used to explore how changes in the age-mixing pattern affect individual HIV risk and alter the course of the epidemic, taking into account the biology, sociology and behavioural science behind the epidemiology of HIV in young women in Malawi and other countries in southern Africa.

In 2015, we conducted an analysis of the age-mixing pattern on Likoma Island, Malawi, using the 2007/2008 survey data of the Likoma Network Study. We used generalized linear mixed effects models to quantify key features of the age-mixing pattern, and to find associations between relationship characteristics and age-difference (AD).

The women (n= 1068) and men (n= 854) in our study reported 1648 and 1688 relationships, respectively. Among both genders there was a positive linear relationship between age of participant and partner's ages (see Figure above). Our age-mixing study went beyond describing mean age-differences, and was able to break down the variation of age-differences



into a between-individual and within-individual component.

The relatively large within-individual variation in partner ages for women (standard deviation ≥ 4.1 years) means that there are opportunities to acquire HIV from men in one age group and then transmit to men in another age group. The potential for transmission between age groups is particularly high because in both men and women in our study,

individuals who had larger age-differences were more likely to be in spousal relationships, never use a condom during sex, and have had sex in the month prior to the survey. Moreover, men who had a partner whom they thought had a simultaneous relationship, also had larger age-differences.



Financed by:
Research Foundation Flanders (FWO),
Belgium



Budget:
259,000 EUR



Coordinator:
ICRH Belgium



Start date: 1 Januari 2014
End date: 31 December 2017



Partners:
SACEMA, South Africa
Hasselt University, Belgium
Johns Hopkins University, USA
Washington University, USA
World Bank, USA



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1.1.2 Identification of biomarkers for squamous epithelial lesions for application in 3D microscopy

Cervical lesions are now widely classified according to the Bethesda system. The intent of the two-tiered grading system is to standardize cytology and histology reports and to distinguish between abnormalities that are likely to be reversible and those that are prone to malignant transformation. Low grade squamous intraepithelial lesions (LSIL) show a distinctive prognosis compared to High grade squamous intraepithelial lesions (HSIL); LSIL is characterized by higher rates of spontaneous regression and lower rates of progression and invasion compared to HSIL. However, SIL diagnosis and grading based on morphology alone showed to be associated with interobserver variability. Therefore, a defined set of adjunctive tests is used in routine pathology on formalin fixed, paraffin-embedded (FFPE) tissue to improve accuracy in SIL diagnosis. None of the markers routine used markers (p16, Ki-67 and p53) showed to be highly specific for high grade lesions and thus is able to identify patients that need direct treatment. Therefore, further research has been directed for the identification of new diagnostic markers for HSIL.

Ovizio Imaging Systems developed a 3-D microscope, that is able to identify morphological changes associated with malignant transformation, based on

the cell intensity and the nuclear/cytoplasmatic ratio. The use of such automated system may significantly reduce interobserver errors. In clinical practice, however, it turns out that it sometimes is impossible to distinguish metaplastic cells from preneoplastic cells. Having this in mind, Ovizio pretends to include the use of biomarkers specific for neoplastic cells in addition to these morphological changes.

The main objective of this study is to define a protein or mRNA expression pattern in dysplastic cells as a molecular signature for HSIL or worse, in order to facilitate the management of patients in case of a HSIL cytology result. 4 biomarkers were selected based on previous differential expression pattern studies, and it is now needed to validate its performance in differentiating HSIL and LSIL from NILM cases, using the Ovizio 3-D microscope. This validation is to be performed in suspension cervical cells collected in Thinprep medium. The current project concerns an observational case-control study and has a duration of 1 year. The study may be extended to 3 year.



Financed by:
Ovizio



Budget:
130,600 EUR



Coordinator:
ICRH Belgium,
Pathology Department
Ghent University



Start date: September 2015
End date: August 2016



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1.1.3 Methylation in situ hybridization

DNA methylation is a powerful biomarker when compared to RNA or protein expression levels, and is therefore a blooming target for the development of novel diagnostic, therapeutic and research options for cancer and other diseases.

Until today, detection of methylation changes is limited to analysis in cell mixtures using techniques like methyl-specific PCR (MSP) and bisulfite sequencing. However, DNA methylation is cell-type-specific; key information is lost when using DNA extracts of affected regions. By using cell mixtures, the histological architecture is not taken into account, hereby losing often essential cell-type specific information. This implies that with the currently available technology, epigenetic changes cannot be detected specifically in the cancer cells, hereby limiting the interpretation of DNA methylation biomarkers.

Aim of this project is to optimize and validate of a new diagnostic method called Methylation in situ hybridization (MISH) using a new probe named the Uniprobe signal amplification system (UPSAS) which allows identification of methylation changes within individual transformed cells.

The detection of methylation markers in situ comprises two challenges: 1) small target-specific detection probes are needed to distinguish between a perfect match (e.g. hypermethylated promotor region) and a mismatch (e.g. unmethylated promotor region), 2) a strong signal should be generated that allows visualization of single DNA/RNA targets.

Our test addresses these challenges by using a new probe called UPSAS. Besides its application in MISH (liquid biopsies and FFPE tissue), UPSAS will also be tested for target-specific in situ detection of nucleic acids.



Financed by:
ICRH Belgium, IOF, Ghent University Hospital



Start date: 1 September 2016
End date: 31 August 2017



Coordinator:
ICRH Belgium



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1.1.4 Combining phylodynamics and agent-based HIV transmission modelling to advance epidemiological methodology and evidence based public health policies for HIV prevention and treatment

High rates of HIV transmission remain an important public health challenge. HIV Phylodynamics is the study of HIV viral genetic data to understand the HIV transmission dynamics behind an HIV epidemic. Agent-based HIV transmission models simulate how HIV epidemics evolve, based on estimates and assumptions of infectious disease parameters. Both methodologies could be combined synergistically, but this area of epidemiological methodology is underinvestigated. The proposed research aims to address this research gap, based on the hypothesis that such a combined approach can lead to a stronger evidence-base for policy making in HIV prevention and treatment.

This new project will focus on the development of new methodology and software implementation for integrating HIV phylodynamics and agent- based HIV transmission models, followed by a series of simulation experiments that demonstrate the added value of the new methodology. Although the focus of this project is the epidemiology of HIV infections among MSM in Switzerland, the new methodological framework has many more potential future applications, which may be explored in subsequent projects. These include estimation of the prevention impact of earlier access to HIV treatment, and monitoring the rate of acquired and transmitted HIV drug resistance in other European countries and South Africa.

In 2016, we published an extensive, narrative review of existing data and models for sexual network inference in HIV epidemiology. This review made clear that data on sexual networks come from an increasingly diverse array of sources, but that each of these sources only document parts of the networks through which HIV may spread. Egocentric network surveys suffer from

non-response, social desirability bias and the inability to probe beyond the immediate network connections of individuals. Through partner notification services, realised and potential HIV transmission pathways may be partially revealed, but in resource-poor settings with generalised HIV epidemics offering this may require prohibitively large investments. Phylogenetic tree analysis permits reconstructing parts of the HIV transmission chains by linking genetically related infections, but to be informative, HIV sequence data must be available for what may be an unfeasibly large sample of PLWH. Novel methods to combine these data sources are beginning to emerge from the collaborative efforts of experts in computational biology, social science, statistics, public health and epidemiological modelling. Further advances in network analysis for HIV epidemiology will require (1) important methodological developments in network modelling, as well as (2) a long-term, global commitment from researchers and funding agencies to ensure open access to analytical tools and multifaceted network datasets that include HIV sequences along with behavioural, demographic, clinical and programmatic information.



Financed by:
Research Foundation Flanders (FWO),
Belgium



Budget:
240,000 EUR



Coordinator:
Hasselt University, Belgium



Start date: 1 October 2015
End date: 30 September 2018



Partners:
ICRH Belgium, Belgium
ETH Zurich, Switzerland
SACEMA, South Africa
KU Leuven, Belgium



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1.2 OTHER ACTIVITIES

1.2.1 BREACH

ICRH is member of the Belgian AIDS and HIV Research Consortium (BREACH). This consortium unites all Belgian AIDS Reference Laboratories (ARLs) and AIDS Reference Centres (ARCs), as well as other organizations that play a significant role in AIDS-related research or prevention, such as ICRH and Sensoa. BREACH aims among others at setting up a Belgian AIDS cohort, that will centralize all data on HIV/AIDS in Belgium and make them available for research purposes.

Contact person at ICRH: Kristien Michielsens

1.2.2 Flemish STI consultation (*Vlaams soa-overleg*)

ICRH is a member of the Flemish STI consultation. This is a forum of professional people with an expertise in and interest for STIs, that meets twice a year. The objective is to informally inform each other on evolutions in the field. Participants are family physicians, clinical biologists, gynaecologists, urologists, epidemiologists, prevention workers, collaborators of AIDS reference labs, and researchers. Sensoa fulfils the role of the secretariat of the group.

Contact person at ICRH: Kristien Michielsens

1.2.3 ICRH-UZ Ghent HPV platform

The launch of an HPV research platform has provided researchers from Ghent University and the University Hospital a forum to discuss and harmonize their research activities in the field of cervical cancer/HPV research. Next to colleagues from Ghent, also partners from Antwerp University and the National Institute for Public Health join the meetings. The main goal of the platform is to streamline existing research efforts and to launch new projects. From the collaborative actions by the platform, an application to become HPV reference centre has been submitted.

Contact person at ICRH: Davy Vanden Broeck

1.2.4 VLIR-Moi IUC collaboration

Within a long-lasting collaboration between VLIR-UOS and the Moi University (Eldoret, Kenya), an important section is dedicated to reproductive health and focuses on HPV research. A Kenyan PhD student is investigating the impact of cervical cancer at the social level. In 2015, the collaboration was setup and in total two PhD projects are still in process.

Contact person at ICRH: Davy Vanden Broeck

2. INTERPERSONAL VIOLENCE



2.1 RESEARCH PROJECTS

2.1.1 Partner violence and pregnancy, an intervention study within perinatal care (MOM-study)

The MOM-study is a Belgian multi-centre study on IPV and pregnancy that consists of two phases. The first phase is a cross-sectional prevalence study and the second phase a single-blind randomised controlled trial (RCT). In brief, the prevalence study (based on a written questionnaire) aims to determine the prevalence of physical, sexual violence & psychological abuse and psychosocial health in a pregnant population. The RCT (based on two telephone interviews: one 10-12 months and one 16-18 months after the receipt of a resource card at the 6-week postpartum consultation) aims to assess the impact of an intervention (identifying IPV and handing out a resource card), on the evolution of IPV, psychosocial health, help-seeking and safety behaviour within a Belgian perinatal population.

We included data from 1894 women spread over 11 clinics in the prevalence study and one paper on prevalence and evolution of IPV before and during pregnancy was published (2014). A second paper that explores the correlation between IPV and psychosocial health, has also been published (2015).

From the 1894 women that participated in the first phase, 249 were randomised and we were able to analyse data from 101 women in the intervention group and 98 women in the control group. The results of the intervention study will be published in 2017. The defence of a doctoral thesis based on this study was done on 26 September, 2016.



Financed by:
Research Foundation Flanders (FWO),
Belgium



Budget:
180,000 EUR



Coordinator:
ICRH Belgium



Start date: 1 October, 2009
End date: 26 September 2016



Partners:
UZ Ghent, Dpt. Of Ob/Gyn, Belgium
AZ Groeninge Kortrijk, Belgium
AZ Jan Palfijn Gent, Belgium
AZ St Jan Brugge, Belgium
OLV ziekenhuis Aalst, Belgium
OLV van Lourdes ziekenhuis Waregem,
Belgium
UZA, Belgium
Virga Jesse ziekenhuis Hasselt, Belgium
ZNA Middelheim Antwerpen, Belgium
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2.1.2. Prevalence of violence against women in the Brussels Capital Region

Overall objective:

To conduct a policy-oriented study on prevalence and characteristics of violence against women in Brussels Capital Region.

Specific objectives:

- Assess the prevalence of violence against women during life-course, disaggregated by perpetrator/victim; different forms of violence (including physical, sexual, psychological, stalking and sexual intimidation);
- Assess the correlation between various risk factors including age, income, education, ethnicity/origin, place of residence (neighbourhood in Brussels), substance abuse, ...;
- Assess the physical/psychosocial/mental health consequences, as well as consequences on quality of life;
- Assess the willingness to report to police and judiciary;
- Assess need for, knowledge of and experience with support services;
- Propose recommendations for policy makers.

Methodology:

Randomised population-based study ('household survey') Sample size based on clustered random (probability) sampling design stratified according to community of Brussels, we will need 500 participants to obtain a representative sample of the Brussels female population between 18 and 74 year. We are interviewing in French, Dutch, English, Spanish and standard Arabic to cover 80% of the Brussels population.

Study instrument:

Study instrument: we developed a comprehensive questionnaire based on the FRA survey on violence against women (2014) and other validated instruments developed by ICRH (Van Parys et al., 2014; Roelens et al., 2008; Keygnaert et al., 2012/2014). The questionnaire is programmed into Computer Assisted Personal Interviewing software QDS®.



Financed by:

Regional Government Brussels
Department Equal Opportunities
Brussels Capital Region



Budget:

180,000 EUR



Start date: January 2016

End date: January 2018



Coordinator:

ICRH Belgium



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2.1.3 Towards a holistic approach of sexual violence in Belgium: Feasibility Study of Belgian Sexual Assault Referral Centres

The study aims to identify which model of sexual assault referral centres (SARC) is most appropriate and feasible in the Belgian context.

This project started with a baseline study of 2 field visits of a multidisciplinary group of experts of Flanders, Brussels and Wallonia to a SARC in London (UK) and another in Utrecht (NL). In addition 3 literature studies were conducted: 1) a review of international guidelines and good practices in providing holistic care to victims of sexual violence; 2) a critical interpretative synthesis on accessibility of SARCs for minorities and 3) a literature interview on accessibility for victims of former war-affected regions.

A second phase consisted of mixed method mapping of the current approaches and procedures followed in hospitals, police and justice in Flanders, Brussels and Wallonia. This comprised a survey among health care workers in 7 key services of each hospital, a survey among victims who just had a Sexual Aggression Set administered, in-depth interviews with victims, a survey and interviews with police and justice. We subsequently plotted these results against the

international guidelines and good practices and made a SWOT analysis of potential Belgian models, including their cost effectiveness.

All victims interviewed were thoroughly inquired on their views on the future Belgian SARC which helped to scope the draft model. Early October we held a focus group day bringing together a vast number of experts from healthcare, psychosocial care, forensics, police, public prosecutors, policy makers in order to discuss, refine and finalise the Belgian SARC model that can be tested in a Flemish, Brussels and Walloon hospital in the 2 subsequent years.

Eventually, the final report of the feasibility study, the model to pilot and the detailed budget estimation was submitted and approved by the State Secretary early December 2016.



Financed by:
Federal Government- IGVM



Budget:
99,951 EUR



Coordinator:
ICRH Belgium



Start date: 1 September 2015
End date: 31 October 2016



Partner:
IVGM, Belgium



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2.1.4 Preparation of a pilot project on Belgian Sexual Assault Referral centres

In parallel with the last months of the feasibility study, and in line with the request of the steering committee and the stakeholders at the Focus Group Day of the feasibility study, the State Secretary of Equality asked us to start inquiring whether piloting of the developed SARC model in three distinct Belgian regions would be feasible from mid-2017 onwards.

This firstly consisted of developing the profiles, tasks and training of each of the future SARC-staff with expert working groups. In addition, the SARC- forensic roadmap and uniform lesions list was being developed and validated by a working group of forensic doctors and DNA-experts.

Furthermore, a detailed, stepped wise planning was made outlying the topics of negotiations with all stakeholders at national, regional and local level in order to have signed agreements by mid-2017 to start the piloting with the training in September 2017 and the piloting in October 2017.

Based on the scientific analysis of the feasibility study, a selection report was made on the choice for Ghent to be the pilot city for Flanders, Brussels for the Brussels region and Liège for the Walloon region.

In every city a coordination working group was set up consisting of health care workers, hospital management, police and justice officials. The model was discussed at this coordination working groups as well as each of their directions upon which a specific planning for piloting was set up per region. All primary partners agreed to participate and are now making all necessary preparations to be able to pilot from October 2017 onwards.



Financed by:
Federal Government- IGVM



Budget:
84,020 EUR



Coordinator:
ICRH Belgium



Start date: 1 September 2016
End date: 28 February 2017



Partner:
IVGM, Belgium



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2.1.5 Holistic management of patients experiencing sexual and domestic violence in Belgian hospitals

This project aims at building capacity of healthcare workers of Belgian hospitals in the holistic management of patients experiencing sexual and domestic violence. The project comprises firstly of providing basic training to 12 Belgian hospitals (5 in Flanders, 2 in Brussels, 5 in Wallonia).

Secondly, a full day training with in-depth workshops on holistic (= medical, forensic and psychosocial) management of victims of sexual violence, violence against elderly, child abused and communication skills on violence will be given in Brussels.

Finally, the checklist for optimal care for victims of sexual violence in Belgian hospitals will be updated and disseminated to all Belgian hospitals by the Federal Agency of Public Health in Dutch and French.



Financed by:
Belgian Federal Agency Public Health



Budget:
54,995 EUR



Coordinator:
ICRH Belgium



Start date: 20 October 2016
End date: 30 September 2017



Partner:
Hospital CHU St Pierre, Belgium
Ghent University Hospital, Belgium



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2.1.6 Yes2=Sex : Sensitisation of students in higher education on prevention of sexual violence

This project consists of sensitising students in higher education on sexual violence, its prevalence, consequences and prevention possibilities. It focuses on how students can take up different bystander roles, acting actively against sexual violence.

To this purpose all universities and colleges of higher education in Belgium were invited to disseminate a call for sensitisation campaigns made by and for other students. Ines Keygnaert wrote an information package on sexual violence and bystander roles as a background for the participating student groups.

By the end of 2016 more than 90 student groups had enrolled in the programme to develop a proper sensitisation campaign which has to be submitted to a jury of experts by April 2017. In May 2017 the best campaigns will be pitched for a professional jury. The winner will be enabled to develop its campaign and have it implemented in the academic year of 2017-2018.



Financed by:
Federal Government- IGVM



Budget:
42,015 EUR



Coordinator:
Zijn vzw



Start date: 1 August 2016
End date: 30 June 2017



Partner:
Ghent University - ICRH
Université des Femmes Bruxelles



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2.1.7 Coordination of Ghent University Hospital holistic IPV protocol

Since 2004, Ghent University Hospital is implementing a gradually expanding protocol on sexual and partner violence. An evaluation in 2011 however revealed that too little key staff knew and applied this protocol in daily practice. Furthermore, the hospital was now more and more confronted with other types of violence too, which were not yet dealt with in the initial procedures. In the course of 2011-2012, a complete revision was done by a multidisciplinary working group. This resulted at the end of 2012 in an evidence-based, holistic, inclusive and ethically

sound protocol on interpersonal violence with sub procedures on sexual violence, child abuse and elderly abuse.

The update of 2015 was discussed with and validated by different departments in 2016 and put on the intranet of the Ghent University Hospital. This is however a temporary measure as Ghent University Hospital was selected to be one of the three Belgian hospitals in which the Belgian SARC model will be piloted from mid-2017 onwards.



Coordinator:
ICRH Belgium



Start date: 1 December 2010
End date: Not applicable



Partner:
Ghent University Hospital



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2.1.8 *Assessment of conditional preferences and decision making in utilization of SRH services among SGBV survivors in a refugee camp: Application of game theory*

This project is a multidisciplinary research project which is focused on developing evidence based recommendations for development of SRHR interventions targeted at migrants and refugees. It will combine health systems research with novel applications of econometric models. The study consists of two phases. A first phase is conducted in asylum centres and among refugees in Belgium. This phase of the research will help to understand the influence of social networks among refugee communities in Europe and other contextual factors that influence access

and uptake of SRH services among SGBV survivors, as well health system challenges experienced by service providers. Surveys (quantitative and qualitative) will be done among refugees, asylum seekers, service providers and other stakeholders. The findings of this research will be used to develop appropriate questionnaires for the second phase of the study focused on refugees and asylum seekers in Lebanon, and develop appropriate community engagement procedures for the field study.



Financed by:
Special Research Fund, Ghent University



Budget:
204,000 EUR



Coordinator:
ICRH Belgium







Start date: 1 February 2016
End date: 30 April 2020



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2.2 OTHER ACTIVITIES

2.2.1 *Training on Sexual and Gender-Based Violence for health care workers and social assistants from the Belgian Federal Agency of Asylum.*

| | | | |
|---|---|---|---|
|  | Financed by: Fedasil & UNHCR Benelux |  | Start date: September 2016 End date: February 2017 |
|  | Coordinator: ICRH Belgium |  | Contact person at ICRH: Ines Keygnaert Ines.Keygnaert@ugent.be |

Several international agreements and regulations- among others the European Council Convention of Istanbul on Violence against Women and the European Directive on Minimum Standards of Reception of Asylum Seekers- stipulate that asylum reception workers should be well trained in detecting of, coping with and caring for victims of sexual and gender-based violence (SGBV) in their premises. Furthermore they should be able to implement a prevention policy.

In order to meet these regulations, ICRH was contracted to develop a one day training on SGBV consisting of a first 3.5 hour module on getting good insight in what SGBV entails, how much it occurs, its consequences and how it can be detected.

A second module comprised of enhancing communication skills on SGBV in a context with migrants and asylum seekers as well as useful material to develop and implement SGBV prevention and response policies.

In 2016 four trainings were provided: two trainings in Dutch and two in French. In 2017 two more trainings are scheduled assuring that all health care workers and social assistants working at Fedasil and its partner organisations had the chance to enrol for a training.

2.2.2 *Other activities*

In addition to the national and international conferences and workshops that were organized within the context of the projects listed above, the violence team members participated in a wide range of advisory committees, expert meetings, round tables and/or networks. Several tutorials, training sessions, short courses, workshops and guest lectures were held on violence related topics tailored to the specific capacity building needs of students in health and social sciences, health professionals, policy makers, lay public but also global health players.

We have been collaborating closely with the State Secretary of Equality, Minister of Health (Flemish and Federal) and many cabinets of the different Ministers at federal and regional levels. Within the framework of several projects the team members were regularly interviewed by Belgian prime time television, radio and written press. The team was also part of the guideline development group of the WHO on the management of health complications from female genital mutilation. Ines Keygnaert is member of the expert advisory group for the Belgian National Action Plan on Violence and founding member of the Interfaculty Centre for Social Studies on Migration and Refugees (CESSMIR).

3. HARMFUL CULTURAL PRACTICES



UN photo- JC McIlwain

3.1 RESEARCH PROJECTS

3.1.1 Female genital mutilation: FGM-PREV, Estimating the prevalence of FGM in the EU

On 15 November 2014 the project 'Towards a better estimation of prevalence of female genital mutilation in the European Union (FGM-PREV)' has started at ICRH, in collaboration with the Institut National d'Etudes Démographiques in Paris and The Department of Sociology of the Università degli Studi di Milano-Bicocca in Italy.

The general aim of this project is to develop a common definition on FGM prevalence, a common methodology and minimum standards for prevalence estimates of FGM in the EU, in order to generate comparable data. The project includes a pilot study in France or Belgium and Italy. As a result it will be possible to support a number of initiatives developed to fight and prevent this specific form of violence. Moreover, it will guide policymaking, contribute to better target resources, plan interventions, substantiate claims for funds, monitor progress and assess trends. Target groups include civil society organizations, health care providers, child protection, police, schoolteachers and policy makers. The project will run until March 2017. In 2015, 3 face to face meetings were organized, including the kick-off meeting in Ghent (January 2015), the first face to face meeting in Ghent (July 2015) and a second one in Paris (October 2015). We conducted a situation analysis on prevalence studies in Europe through a systematic literature review and a SWOT-analysis. This analysis focused on strengths and weaknesses of the indirect estimation, and the findings were discussed at the first face-to-face meeting. Secondly, the methodology for the field studies were developed and discussed at the second face to face meeting in Paris.

In 2016, some changes were made to the practical organization of the pilot studies. Due to a delay in the

ethical procedure to pilot the designed methodology to estimate FGM prevalence in the EU member states in France, the pilot study took place in Belgium instead of in France. The direct estimation method was tested in Belgium and Italy from June until November 2016. The results were discussed on a face-to-face meeting in Milan in January 2017. They will be published in 2017 and were presented at the final conference of the project on the 27th and 28th of February 2017 in Brussels. In 2016, we also presented the results of the situation analysis on the ANSER Launch (December 2016) and the Scientific Congress of Sensoa (December 2016). A paper was published on the indirect estimation method: Van Baelen, L., Ortensi, L., & Leye, E. (2016) Estimates of First-Generation Women and Girls With Female Genital Mutilation in the European Union, Norway and Switzerland. *Eur J Contracept Reprod Health Care*, 21(6): 474-4821.



Prof. Els Leye and Lotte De Schrijver



Financed by:
European Commission Daphne Programme



Budget:
359,511 EUR



Coordinator:
ICRH Belgium



Start date: 15 November 2014
End date: 15 March 2017



Partners:
INED, France
Universita degli Studi di Milano, Bicocca,
Italy



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3.2 OTHER ACTIVITIES

3.2.1. ICRH becomes member of the Girls Not Brides Network

In 2016, ICRH became member of the Girls Not Brides network. This Network is a network of more than 700 civil society organisations worldwide, that are committed to end child marriage. <http://www.girlsnotbrides.org>. The activities of ICRH regarding child and forced marriages in 2016 included the publication of 'Forced Marriage in Belgium. An analysis of the current situation' by Els Leye and Alexia Sabbe, the ongoing PhD of Alexia Sabbe on 'Girls and women forced into marriage: understanding the impact of migration on Moroccan communities' and writing several research proposals (among others for the EC Daphne Programme, Belspo and NOW WOTRO). Els Leye provided also some trainings on the topic of child marriage in Belgium and provided input for the study 'Forced marriage from a gender perspective', for the European Parliament, DG Internal Policies. Policy Department Citizen's Rights and Constitutional Affairs.

3.2.2. WHO Guidelines on the Management of Health Complications from Female Genital Mutilation

Els Leye was a member of the Guideline Development Group (GDG) of the World Health Organisation. The GDG advised on the contents of the WHO Guidelines on the Management of Health Complications from Female Genital Mutilation, helped defining the research questions and outcomes that guided the evidence synthesis, collaborated with the interpretation of the evidence and formulated the evidence-based recommendations. The final recommendations were presented and discussed with the GDG and other during a Webex on the 22nd of January, and were released on the 6th of February 2016.

2.2.3. Short Course on Gender Based Violence in Mozambique

In September 2019, Els Leye gave a short course on Gender Based Violence, in Mozambique, from September 5 to September 16 at the University Eduardo Mondlane. The course was given in two cities: Maputo and Chibuto, and was organised in the framework of the VLIR IUS Project DESAFIO. Several lectures for students on female genital mutilation, so called honour violence and child/early/forced marriage were given for students in medicine, midwifery, nurse at Artevelde Hogeschool in Gent, Odisee in Brussels, University Hospital Gent, and PXL Hasselt.

At various occasions, Els Leye presented research work on FGM at international conferences.



Longmei Tang, Els Leye and Wei Hong Zang at the 14th ESC Congress – 2nd Global ESC Conference in Basel, May 4 – 7 2016.

4. CONTRACEPTION, MATERNAL AND NEWBORN HEALTH



UN Photo/Stuart Price

4.1 RESEARCH PROJECTS

4.1.1 Missed Opportunities in Maternal and Infant Health (MOMI)

In the past decade, maternal health projects have largely focused on antenatal and childbirth care. Yet this approach failed to address many underlying morbidities that are instrumental in generating high rates of maternal mortality, such as anaemia and inadequate birth spacing. Also missing is a direct focus on the substantial proportion of maternal deaths in the postpartum. The essential package and optimum structure of postpartum services for women and newborns in Africa remains poorly defined, with many missed opportunities for improved care.

The MOMI (Missed Opportunities in Maternal and Infant Health) project aimed to improve maternal, newborn, and infant health through improving postpartum care and services by designing, implementing and assessing context-specific interventions and strategies to strengthen health care delivery and services at both facility and community level throughout the first year after birth.

MOMI was implemented in four sub-Saharan African countries (Burkina Faso, Kenya, Malawi and Mozambique) by a consortium of five African and three European partners.

The final MOMI project management team meeting and an international MOMI dissemination conference have taken place 21 and 22 January 2016 in Mombasa, Kenya. At this conference, the MOMI project approach, implementation, results and project challenges and opportunities were presented by the MOMI researchers and discussed with the present stakeholders.

Project website: <http://www.momiproject.eu/>



Financed by:
European Commission – FP7



Budget:
2,997,647 EUR



Coordinator:
ICRH Belgium



Start date: 1 February 2011
End date: 31 January 2016



Partners:
Institut de Recherche en Sciences de la
Santé, Burkina Faso
ICRH Kenya
Parent and Child Health Initiative, Malawi
ICRH Mozambique
Eduardo Mondlane University
Faculdade de Medicina, Mozambique
Institute for Global Health, University College
of London, United Kingdom



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4.1.2. Enhancing motivation of family planning service providers as a lever to avoid stock-outs and increase quality of service

Sound supply-, counselling- and service provision systems, supported by good manuals and Standard Operating Procedures alone can't guarantee that stock-outs are completely avoided and that quality of service is sufficient to ensure high user satisfaction of both the services provided and the methods used. If stock-outs were a purely technical issue, the problem would have been solved already. In order to boost progress, it is necessary and urgent to explore non-technical factors that may contribute to paving the way forward. A crucial - but seldom considered - building block in optimizing family planning (FP) services is the human factor: the degree to which staff is motivated and feels responsible for delivering top quality and maximally meeting customer's needs and expectations.

We wanted to explore how and to which extent the motivational factor of FP service and commodity provision can be optimized, and the impact this can have on avoiding stock-outs, improving service quality and customer satisfaction. This was investigated by implementing different motivational actions and evaluating their impact on motivation, and the impact of motivation on good supply management (GSM) and quality of services.

Through a first intervention, health care providers received feedback on the quality of their supply management on a monthly basis. A second intervention added to these monthly visits material awards conditional on achieving good performance indicators, as well as reports regarding their performance compared with other health centres as to boost their motivation and working proud. Finally, motivational trainings were conducted among all health centres of the 2 intervention groups. Each intervention group contains of 5 health centres; another group of 5 health centres without interventions serves as a comparison group for counterfactual analysis. The 15 health centres are located in Manhica and Marracuene districts in Maputo Province, Mozambique.

After conducting the baseline survey, i.e. measuring motivation among providers, the interventions were rolled out and data regarding GSM was collected every month. After 5 and 10 months, follow-up surveys were implemented to measure the impact of the interventions on motivation. Our research showed that supportive supervision is key in improving health care providers' motivation and supply management skills. Continuous coaching, pointing out strengths and identifying problems with potential solutions, may have a major impact on health workers' motivation to reduce stock-outs and increase the quality of family planning services more generally. Extra attention should go to preventing stock-outs of family planning methods that are less used, given that these include the highly effective longer acting methods, and that stock-outs could be contributing to the lower demand.



Financed by:
PATH on behalf of the
Reproductive Health supplies Coalition



Budget:
196,400 USD



Coordinator:
ICRH Belgium



Start Date: 1 September 2014
End Date: 30 June 2016



Partner:
ICRH Mozambique



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4.1.3 Integrating Post-Abortion Family Planning Services into China's Existing Abortion Services in Hospital Settings (INPAC)

The INPAC project aims at integrating post-abortion family planning services into existing abortion services in hospital settings in China and at evaluating the effect of this integration on the decrease of unintended pregnancies and repeat abortions, in order to provide policy recommendations on health system organization, and at improving equitable access to reproductive healthcare and family planning service.

The project has four phases: phase I - situation analysis, phase II - development of interventions strategies, phase III - intervention implementation and monitoring and phase IV - operational and analytical evaluation. The achievements of the project has been presented in the INPAC Final Dissemination Conference held from 13th to 15th January 2017 in Beijing. The conference was attended by members of the partner organisations, honourable guests from the European Union, Embassy of Belgium in China, national and international healthcare organisations, along with experts of INPAC's Scientific Advisory Board, representatives of the participating hospitals, and media.

The main finding and impacts of the project are:

Characteristics of women undergoing abortion

Data collected in 2013 across 30 provinces in China showed a repeat abortion rate of 65.4% among 79,174 women from the age of 13 to 58 (Average 28.9) undergoing abortions within 12 weeks of pregnancy. The primary reasons for a current unintended pregnancy were contraception failure (50.3%) and non-use of contraception (44.4%).



INPAC Intervention

The cluster randomized trial took place within 90 hospitals across 30 provinces between 2014 and 2016. There were two intervention groups and one control group, the intervention group 1 included interventional package: training of abortion service providers; providing to the service users through education and communication (IEC); face-to-face counselling and continuous counselling during follow-up period; making free contraceptive methods available in hospitals; emphasizing the involvement of male partners. The intervention group 2 included providing incentives to service providers for offering PAFP services, in addition to the intervention package of group 1. The control group received normal care, with no intervention.

The preliminary results indicate that after 6 months follow-up :

1. The rates of modern contraceptive methods use in both intervention groups are higher than the control group.

2. The unintended pregnancy rates in both intervention groups are lower than the control group (intervention group 1 : 1.18%, intervention group 2 : 1.16%, control group : 3.22%)

3. The repeat abortion rates in both intervention groups are lower than the control group (intervention group 1 : 0.90%, intervention group 2 : 0.82%, control group : 1.60%)

INPAC Policy recommendations

Based on INPAC implementation experience and expert opinions, INPAC group has developed 7 main policy recommendations on the way on Integrate PAF services into existing abortion services guidelines. The recommendations have been largely disseminated in the course of the project to policy makers at national and provincial levels.

INPAC others impacts

The INPAC impact also included 4 published scientific papers, 28 presentations at international conferences, 2 master students trained through INPAC and 1 ongoing PhD thesis. Finally an academic monograph named 'Intervention Study of Post-Abortion Family Planning Services in China: Design and Implementation of the EU-FP7 INPAC project' was published in Chinese and distributed to all participation hospitals.

The INPAC project was well received by national and international scientific committees, policy makers, international organisations, participating hospitals and the news media. This is first randomized control trial conducted in such a large scale of 30 provinces in China.

Project website: <http://www.inpacproject.eu>



Financed by:
European Commission – FP7



Budget: 2,928,384 EUR



Coordinator:
ICRH Belgium



Start date: 1 August 2012
End date: 31 January 2017

Partners:

Chinese Society for Family Planning-Chinese
Medical Association, China

Fudan University, China

National Research Institute for Family Planning,
China

Sichuan University, China

University of Aarhus, Danish Epidemiology

Science Centre, Denmark

Liverpool School of Tropical Medicine, UK



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4.2 OTHER ACTIVITIES

4.2.1 Public health aspects of migrant health: a review of the evidence on maternal health of migrants in the WHO European Region.

In September 2015, ICRH was contracted to write the Health Evidence Network (HEN) Report on Migration and Maternal Health for the WHO European Region. REPORT MIGRATION AND MATERNAL HEALTH: This was coordinated by Ines Keygnaert and co-authored by Olena Ivanova, Aurore Guieu, An-Sofie Van Parys, Els Leye and Kristien Roelens.

Several skype and mail contacts between September 2015 and June 2016 were held with the WHO HEN team and PHAME team. Ines Keygnaert and Olena Ivanova participated in the HEN writing workshop Venice February 16-17th 2016 hosted by the WHO European Office for Investment for Health and Development/ PHAME and the Division of Information, Evidence, Research and Innovation & PHAME.

By mid-June the HEN report was approved by WHO. It was published online in September 2016 and presented and disseminated at the General Board of the WHO European Region in September 2016 as well. By October 2016, it was also indexed as a book in the

PubMed database.

Keygnaert I, Ivanova O, Guieu A, Van Parys A, Leye E, Roelens K (2016): *What is the evidence on the reduction of inequalities in accessibility and quality of maternal health care delivery for migrants? A review of the existing evidence in the WHO European Region. Health Evidence Network Synthesis Report nr 45, WHO Europe, Copenhagen. ISBN 9789289051576*

www.sh-capac.org/pluginfile.php/2274/mod_resource/content/1/SH-CAPAC_resourcePackage.pdf

=> indexed in PubMed:

<https://www.ncbi.nlm.nih.gov/books/NBK390809/>



Financed by:
WHO European region



Budget:
8,000 EUR



Coordinator:
ICRH Belgium



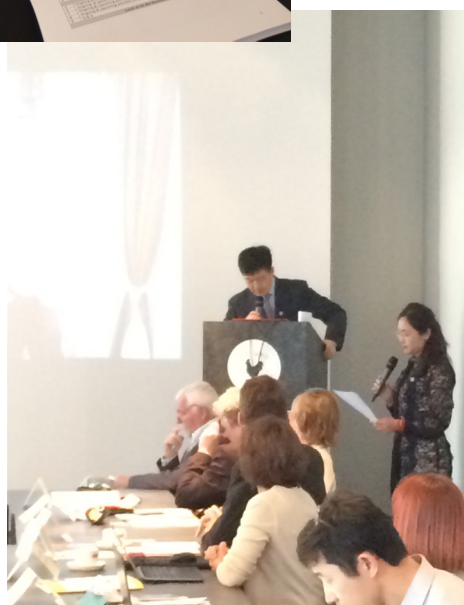
Start date: September 2015
End date: September 2016



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The 3rd INPAC Project Management Meeting



5. ADOLESCENT SEXUAL AND REPRODUCTIVE HEALTH



5.1 RESEARCH PROJECTS

5.1.1 The Global Early Adolescent Study (GEAS) - Belgium, Ecuador, South-Africa

The ages 10-14 years are among the most critical for human development, yet one of the most poorly understood stages. While the biological processes that adolescents go through are universal, the social contexts within which they occur vary considerably. During the transition from child to adult, young people are expected to assume socially defined gender roles that determine their sexual and reproductive health future.

The Global Early Adolescent Study (GEAS) aims at understanding the factors in early adolescence that predispose young people to subsequent sexual health risks and that conversely contribute to healthy sexuality so as to provide the information needed to improve sexual and reproductive health outcomes. GEAS is led by Johns Hopkins School of Public Health (Baltimore, USA) and the Department of Reproductive Health and Research of the World Health Organisation. It takes place in fifteen cities around the world. A cross-country comparison offers a unique perspective on the commonalities and differences of the role of parents, peers as well as media in shaping young people's sexuality and the role of gender norms in that development across diverse cultural settings.

Initially, financial support of the Flemish Minister for Innovation, made it possible for ICRH to participate in the first phase of this prestigious research project together with its long-term partner, the University of the Western Cape, South Africa. Since 2015, FWO and Senescyt are funding the study in Ecuador. In 2016 additional funding was approved by FWO and the South African National Research Fund to continue this study in Belgium and Ecuador.

In 2016, the GEAS study mainly focused on the development of scales to measure different aspects of early adolescents sexual wellbeing, including gender norms. All sites pilot jointly developed a first version of the survey that was subsequently pilot tested among 120 young adolescents in the 15 countries. Based on statistical analyses changes were made that will be re-piloted in a selection of sites in 2017.

Furthermore, the consortium has written a number of papers based on the qualitative data that was collected in 2015. These papers were peer reviewed and will be published in a special issue of the Journal for Adolescent Health early 2017.



Financed by:
FWO, Senescyt (Ecuador), National Research
Fund of South Africa



Budget: 224,991 EUR
(Belgium and South Africa)



Coordinator:
Johns Hopkins Bloomberg School of Public
Health, US



Start date: 1 May 2014
End date: 1 March 2019



Partners:
Johns Hopkins Bloomberg School of Public
Health, USA
WHO Department of Reproductive Health and
Research World Health Organization,
Switzerland
ICRH Belgium, Belgium
African Population and Health Research Center
(APHRC), Kenya
Assiut University, Egypt
Obafemi Awolowo University (OAU), Nigeria
Population Council, India
Shanghai Institute of Planned Parenthood
Research (SIPPR), China
University of Malawi, Malawi
University of St. Andrews, Child and Adolescent
Health Research Unit, Scotland
University of the Western Cape, South Africa
Academy of Social Sciences Institute for
Sociology, Vietnam
Institute for Human Development, Bolivia
Institut Supérieur des Sciences de la Population
(ISSP) at the University of Ouagadougou, Burkina
Faso
Kinshasa School of Public Health, University of
Kinshasa, Democratic Republic of Congo
Faculty of Medical Sciences, University of
Cuenca, Ecuador



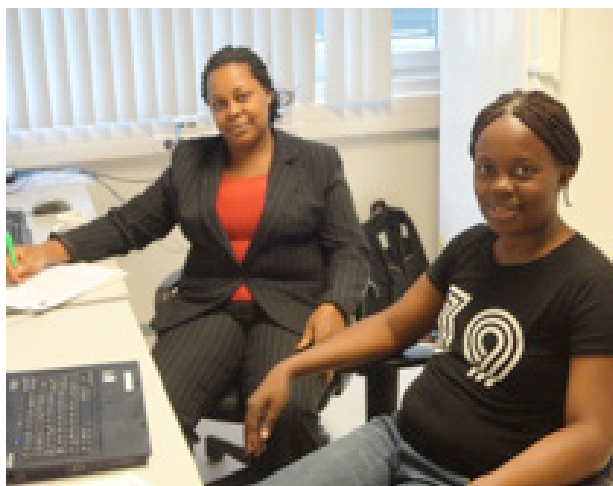
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5.1.2 Mitigating adverse sexual and reproductive health outcomes through a comprehensive primary school sexuality education program in South-Western Uganda

In Uganda, young people suffer from negative SRH outcomes such as unintended pregnancies, unsafe abortion, maternal mortality, sexually transmitted infections, HIV/AIDS, exploitation, and sexual violence. The overall project objective is to improve adolescent sexual and reproductive health (ASRH) through comprehensive sexuality education for young adolescents in South Western Uganda using a university student outreach programme. The project aims to assess the gaps in SRH education using mixed methods and to develop, implement and test an interdisciplinary ASRH school model with integrated gender-perspective for young adolescents in primary schools. The project is innovative for two main reasons. Firstly, it focusses on young adolescents: even though the stage of early adolescence is one of the most crucial phases of human development, it is often overlooked in SRH research. Secondly, the project pays specific attention to the process of development and implementation of a comprehensive SRHR programme.

In 2016, the project made important progress. We obtained ethical approval from the different institutions to start the research. We developed a survey that was interviewer-administered among

1070 early adolescents in rural and urban schools. The data were entered using the necessary quality checks and have undergone a first analysis. Furthermore, qualitative interviews were done with policy makers on different levels, with teachers, parents and young



Ugandese researchers Anna B Ninsiima and Elizabeth Kimigisha during their stay in Gent late 2015

adolescents to assess the enabling environment to implement comprehensive sexuality education. Anna and Elizabeth – the two Ugandese PhD students recruited for this project – spent three months in Belgium during the fall of 2016.



Financed by:
VLIR-UOS



Budget: 272,634 EUR



Coordinator:
ICRH Belgium



Start date: 1 April 2015
End date: 31 March 2019



Partners:
RHEA/Free University Brussels, Belgium
Mbarara University of Science and Technology,
Uganda
Institute of Ethics and Development Studies,
Martyrs University, Uganda



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5.2 OTHER ACTIVITIES

5.2.1 End-of-programme evaluation of Unite for Body Rights and Access, Services and Knowledge projects of the SRHR Alliance and Youth Empowerment Alliance

ICRH and Kaleidos Research conducted an end-of-programme evaluation for two large-scale programmes. Firstly, Unite for Body Rights (UFBR), a programme focusing on sexual and reproductive health and rights (SRHR). The evaluation was initiated by the SRHR alliance that consisted of five organisations: Rutgers, Amref, CHOICE, dance4life and Simavi. From 2010 to 2015 these organizations supported young people with regards to their sexual health and rights in five African and four Asian countries. In the programme sexuality education, health services such as HIV screening and provision of condoms were combined with providing an environment where sexual and reproductive health and rights can be discussed and accepted. Secondly, Access, Knowledge, Services (ASK), a programme focusing on sexual and reproductive health and rights (SRHR). The evaluation was initiated by the Youth Empowerment Alliance (YEA) alliance that consists of seven organisations: Rutgers, Amref, CHOICE, dance4life, International Planned Parenthood Federation, Simavi and STOP AIDS NOW! From 2013 to 2015 these organizations supported young people

with respect to their sexual health and rights in five African and two Asian countries. In the programme information, health services such as HIV screening and provision of condoms were combined with providing an environment where sexual and reproductive health and rights can be discussed and accepted.

Both programmes were evaluated using a mixed methods design including a field visit in three countries, in-depth interviews, focus group discussions, online survey, most significant change method, and a document review. The results were presented to and approved by the commissioner in March 2016.



Financed by:
SRHR Alliance and
Youth Empowerment Alliance



Budget: 189,010 EUR



Coordinator:
ICRH Belgium and Kaleidos Research



Start date: 1 September 2015
End date: 31 March 2016



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5.2.2 Evaluation of Share-Net, the Dutch knowledge platform on SRHR

The Knowledge Platform on SRHR including HIV and AIDS, called Share-Net International, was established following a proposition of the Ministry of Foreign Affairs to strengthen knowledge management and support evidence-based policy and interventions by the establishment of knowledge platforms in areas of Dutch priority themes for international development cooperation. Share-Net International aims at strengthening the role of knowledge in developing evidence-based policies and practices and ensuring that resources are used strategically and to maximum effect at local, national and international level.

The Steering Committee of Share-Net International requested an evaluation to assess the progress of Share-Net International since its start-up in September 2013. The overall objective of the evaluation is to assess the progress of Share-Net International in relation to its mandate and objectives and to formulate

recommendations to strengthen the platform, ensure its continuation and improve its ability to realise its objectives.

ICRH and Kaleidos Research applied a mixed method approach to obtain a clear view of the relevance, effectiveness, efficiency and sustainability of the network. We used a combination of different and complementary methods – including document analysis, online survey and qualitative interviews, allowing to draw a complete picture of the processes and activities of Share-Net International and how they contribute to the outcomes.



Financed by:
Share-Net



Budget: 40,000 EUR



Coordinator:
ICRH Belgium and Kaleidos Research



Start date: 1 October 2016
End date: 31 February 2017



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5.2.3 Expert group on Sexuality Education in Europe

ICRH is a member of the Expert Group on Sexuality Education in Europe. This group is led by the German Federal Centre for Health Education (BZGA) in collaboration with the World Health Organization. ICRH co-led the effort to develop a new framework for evaluating holistic sexuality education. A position paper was accepted for publication in the European Journal for Contraception and Reproductive Health. Furthermore, the Expert Group developed policy briefs to promote holistic sexuality education and started a new initiative on defining key capacities of educators working with adolescents on sexual and reproductive health (Workshop October 2015) .

5.2.4 Platform Adolescents, Relationships and Sexuality – Week of spring fever

The Platform Adolescents, Relationships and Sexuality is a consultation platform for Flemish organizations who work on topics related to relationships and sexuality. The platform is coordinated by Sensoa - the Flemish centre of expertise for sexual health. Since 2010 ICRH is one of the members of the platform. During the meetings, the members of the platform and external experts debate on various topical subjects. Each year they also organize the 'week of spring fever' during which they sensitize adolescents on sexual and reproductive health topics. In 2016 special attention was given to body image. Numerous activities were set up in the week of 15-19 February. ICRH distributed leaflets and posters and announced the activities on their website and Facebook page.





6. SEX WORKERS



6.1 RESEARCH PROJECTS

6.1.1 *Diagonal Interventions to Fast Forward Enhanced Reproductive Health (DIFFER)*

The DIFFER project (Diagonal Interventions to Fast-Forward Enhanced Reproductive Health) aimed at improving access to sexual and reproductive health (SRH) for the most vulnerable by a better linkage between interventions targeted at most-at-risk populations, in particular female sex workers (FSW), and the general reproductive health services. The project was implemented at four sites in Kenya (Mombasa), Mozambique (Tete), South Africa (Durban) and India (Mysore). The project had a strong south-south component and aimed at translating previous successes and lessons learned in India to the Sub-Saharan African context.

In the first phase of the project (2011-2014), a broad situational and policy analysis was conducted and, based on its results, a package of interventions was developed and implemented during 2014-2015 at each of the 4 sites. During 2016, the intervention packages were evaluated for their performance. The evaluation assessed the feasibility, relevance, effectiveness, sustainability, cost and equity of the interventions, by combining qualitative and quantitative research methods.



Research assistant interviewing a female sex worker in Tete, Mozambique



The participants of the final DIFFER symposium at the Comics Arts Museum in Brussels

Also in 2016, south-south exchange and capacity strengthening continued through exchange visits between the Indian and the African partners. In September, the DIFFER consortium met in Brussels, Belgium, to present the findings, discuss them with key stakeholders of each of the four countries and international agencies, and formulate the most important lessons learned. The project ended on September 30, 2016. During the year, four papers were published in scientific journals.

DIFFER progress is communicated through its newsletter, published after each consortium meeting, and its website.



Financed by:
European Commission – FP7



Budget:
2,997,443 EUR



Coordinator:
ICRH Belgium



Start date: 1 October 2011
End date: 30 September 2016

Partners:

Ashodaya Samithi, India

ICRH Kenya, Kenya

ICRH Mozambique Mozambique

University of The Witwatersrand –

MatCH-Research, South Africa

University College London, Institute for Global

Health, United Kingdom



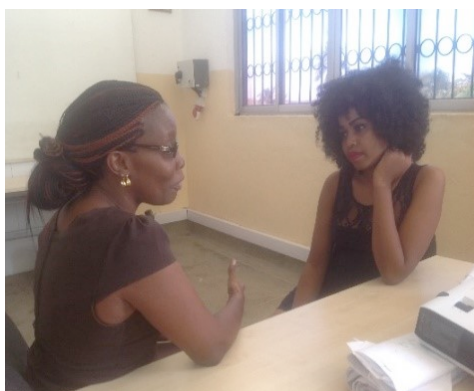
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6.1.2 HIV prevention interventions targeting sex workers and their clients in Kenya (BORESHA)

The BORESHA (Kiswahili for 'to improve') project is a 3-years study testing the feasibility of implementing and evaluating the impact of venue-based HIV prevention interventions, targeting male and female sex workers (SWs) and their clients, in Coast Province, Kenya. The study develops and pilots a multi-level intervention in nightclubs/bars in Mombasa. In a first phase, the socio-cultural context of risk behaviour, beliefs/understandings of HIV and risk; barriers to and facilitators of risk-reduction and responses to intervention messages were assessed through in-depth depth interviews among 25 male clients, 25 male SWs and 25 female SWs. Key results of these interviews were presented in July 2016 at the 21th International AIDS Conference in Durban, South Africa. Based on the results of the interviews, a venue-based intervention was developed and is being piloted since October 2016.



Interview practice during the training of the research assistants.



It combines activities to promote safe sex, such as peer mobilization, skits, videos shows and condom fashion shows, with moonlight clinics offering sexual health counselling, HIV testing, STI care, contraception, TB screening and ART adherence counselling, and with structural components, such as training of bar staff, meetings with bar managers and law enforcement sensitisation. Previous to the intervention, in June-July 2016, a baseline cross-sectional survey was conducted among 160 female sex workers, 160 male sex workers, 80 clients of female sex workers and 80 clients of male sex workers in the three bars where the intervention is tested, and three bars that serve as control. In 2017, we will evaluate the feasibility, and the exposure to, and appreciation of, the intervention activities among the target populations.



Financed by:
National Institute for Health (NIH) of the United States of America



Budget:
900,000 USD



Coordinator:
HIV Center for Clinical and Behavioral Studies at the New York State Psychiatric Institute and Columbia University



Start date: 1 April 2014
End date: 31 March 2017



Partners:
ICRH Belgium, Belgium
Stat-Gent CRESCENDO
of the University Ghent, Belgium
ICRH Kenya , Kenya



Contact person at ICRH:
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Peer educators demonstrating condoms at one of the intervention venues.



Nurse providing services to a female sex worker at one of the intervention venues.



Moonlight clinic at one of the intervention venues.



7. OTHER TOPICS

7.1 THE ACADEMIC NETWORK FOR SRHR POLICY (ANSER)

In September 2015, 193 governments formally approved a set of 17 Sustainable Development Goals (SDG) as a follow-up to the Millennium Development Goals (MDG) that expired last year. In light of this, governments across the world will be required to develop and implement new policies in the coming years in order to achieve the targets set for these goals. Sexual and Reproductive Health and Rights (SRHR) lies at the immediate intersect of SDG3 (ensure healthy lives), SDG5 (achieve gender equality) and SDG10 (reduce inequalities), and has a direct link to many other goals. As a consequence, SRHR should have a central position in these new policies. The development of these new policies necessitates an evidence base to ensure their adequacy and effectiveness. Also, the success of their implementation is closely linked to reliable follow-up and monitoring by professionals with the required training and expertise. Finally, regular exchange of knowledge and sharing of experiences between different types of stakeholders and different countries can contribute to improving existing approaches and policies.

In light of the above, in 2016, Ghent University established an Academic Network for Sexual and Reproductive Health and Rights Policy (ANSER) that aims to become a global resource for SRHR policy research, education and service delivery by establishing an international platform for research on SRHR policy related topics; by developing a portfolio of education and training programmes on SRHR policy; and by fostering interaction between SRHR researchers and policy makers.

In discussion with the members, ANSER selected five priority topics to work on over to coming years:

- Abortion, contraception and family planning
- SRHR monitoring and evaluation
- Adolescent SRHR
- Sexual health, including sexual wellbeing, sexual identity, gender identity
- Gender, rights, and interpersonal violence

On November 30th 2016 ANSER was officially launched. This festive event took place at event centre New Zebra. Several high level speakers took the stage to stress the importance of ANSER and express their expectations towards the network, including Miss Elke Sleurs, Secretary of State for a.o. Scientific Policy and Dr Metin Gulmezoglu, Human Reproduction Programme (HRP) of the World Health Organization. The speeches were followed by a debate on "What role for ANSER in the global SRHR scene?" moderated by Sander Spanoghe (department Flanders International) with Dr Metin Gulmezoglu, Sietske Steneker, Director UNFPA Brussels, Neil Datta, Secretary of the European Parliamentary Forum on Population and Development and Laura Derycke, medical student at Ghent University.



On 1 and 2 December 2016, the ANSER Network organised its first international conference. The purpose of the conference was to present research results in the field of SRHR, discuss their implications for policy and link researchers with policy makers. The conference was open to all researchers, policy makers, students and others interested in SRHR policy research and about 120 people coming from 23 different countries from around the world were registered.

The conference was abstract-driven and focused on 6 main themes: 1) adolescent SRHR, 2) abortion, contraception and family planning, 3) gender, rights and interpersonal violence, 4) rights and policy perspectives, 5) SRHR monitoring and evaluation, 6) maternal health. A short video illustrating the atmosphere during these two days can be found on: <http://www.ugent.be/anser/en/news-events/news/conference2016>.

Parallel to this international conference, the different working groups of ANSER met to discuss areas for collaboration.





Financed by:
Ghent University



Coordinator:
ICRH Belgium



Partners:
Ghent University, Belgium:
faculty of Medicine and Health Sciences,
faculty of Law,
faculty of Psychology and Educational Sciences,
faculty of Arts & Philosophy,
faculty of Social and Political Sciences

Centre for International Health, Burnet Institute,
Australia

Dept Public Health and Dept Women & Child
Health Research Centre, Institute of Tropical
Medicine, Belgium

Laboratory for Research in Human Reproduction,
Faculty of Medicine, Université Libre de Bruxelles
Belgium

Tsinghua University, School of Medicine, Research
Center for public Health, China

National Research Institute for Family Planning,
Social Medicine Center, China

Institute of Population Research, WHO
Collaborating Center in Reproductive Health and
Population Science, China

University of Cuenca, Faculty of Health Sciences,
Faculty of Philosophy, Ecuador

Jimma University, Population and Family Health
Ethiopia

University of Potsdam, Department of social
Psychology, Germany

Klinikum of Ludwig- Maximilians- Universität,
Division of Infectious Diseases and Tropical
Medicine, Germany

Aga Khan University East-Africa, Centre of
Excellence in Women and Child Health, Kenya

Nairobi University, Africa Coordinating Centre
for the Abandonment of FGM/C - Department of
Obstetrics and Gynecology, Kenya

Eduardo Mondlane University, Faculty of Medicine,
Mozambique

Norwegian Centre for Violence and Traumatic Stress
Studies, Department of children and adolescent,
Norway

Universidade Nova de Lisboa, Institute of Hygiene
and Tropical Medicine, International Public health &
Biostatistics, Portugal

Foundation for Professional Development , South Africa

Karolinska Institutet, Department of Obstetrics
and Gynecology, Women's and Children's Health,
Sweden

Mbarara University of Science and Technology,
Institute of Interdisciplinary Training and Research,
Gender and Women Studies, Uganda

University of St. Andrews, Child and Adolescent
Health Research Unit, United Kingdom

Edge Hill University, Faculty of Sociology and Social
Philosophy, Social Sciences, United Kingdom

Coventry University, Health and Life sciences:
Centre for Communities and Social Justice,
United Kingdom

Johns Hopkins University, John Urban Health
Institute, Department of Population, Family and
Reproductive Health, USA



Budget:
300,000 EUR



Start date: 1 January 2016
End date: 31 December 2020



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7.2 SUPPORTING HEALTH COORDINATION, ASSESSMENTS, PLANNING, ACCESS TO HEALTH CARE AND CAPACITY BUILDING IN MEMBER STATE UNDER PARTICULAR MIGRATORY PRESSURE' (SH-CAPAC).

In light of the increased migratory influx into the European Union, the European Commission decided to provide support from the Health programme to organisations able to quickly support Member States under particular migratory pressure to rapidly respond to possible health threats. The SH-CAPAC project was aimed at building capacity in areas of coordination practices, needs assessments, planning actions to strengthen the public health response of local health systems, improving access to health care, and developing health workers' competencies for the delivery of migrant/refugee sensitive health services.

As part of Work Package 1, the Coordination Framework for addressing the health needs of the recent influx of refugees, asylum seekers and other migrants into the European Union countries was completed. It is currently being used in the country support missions and has been disseminated in all the SH-CAPAC workshops as well as in the on-line training course.

A regional workshop on effective health sector coordination for addressing health needs of refugees, asylum seekers and other migrants in EU countries was held in Ghent, Belgium on 23-24 February 2016 with the participation of a large number (twelve) of target Member States and other international stakeholders, involved in the health response to the large migratory influx. The meeting served as a consultation for further developing the draft framework for coordination.

As part of Work Package 2, the Guide for Assessment of Health Needs and Health Protection Resources was produced. As part of Work Package 3 set of Guidelines for the Development of Action Plans for Implementing a Public Health Response and to strengthen Country's Health Systems to address the needs posed by the influx of refugees, asylum seekers and other migrants were produced. They

have been aimed at helping relevant stakeholders in target Member States to develop action plans and contingency plans to address the health needs posed by the influx of refugees, asylum seekers and other migrants.

As part of Work Package 4 a Resource Package for Ensuring Access to Health Care of Refugees, Asylum Seekers and Other Migrants in the European Union Countries was developed. It identifies a series of barriers for accessing health care, and formulates recommendations to overcome those barriers. The Resource Package is based on a large number of interviews and focus groups, conducted in several project target countries.

As part of Work Package 5 a training strategy was developed, circulated and discussed first in the Reggio Emilia workshop in June, and subsequently in the Granada workshop in September. A subsequent Training of Trainers workshop was conducted in Granada, Spain, from September 15 to 16, 2016. This finally resulted in a highly participatory online training course which was delivered over a period of six weeks from mid-October until the end of November 2016.

Finally six missions to Member States were carried out for introducing, disseminating and discussing the frameworks, methodologies and tools developed. They took place in Bulgaria (Sofia and Haskovo) from June 29 to July 3, 2016; to the South Aegean, Greece (Rhodes and Kos) 31st August- 2nd September; to the Catalonia Region (Barcelona), Spain, 21-23rd September; to Slovakia (Bratislava) 24-26th October; to the Andalusia Region (Granada) Spain, on 13th and 14th December and to Greece (Athens) on 15th and 16th December. In December 2016 the final reporting was done and dissemination over Europe discussed with CHAFAEA.



Financed by:
CHAFEA



Budget:
61,710 EUR



Coordinator:
Andalousian School of Public Health, Granada,
Spain



Start date: 11 January 2016
End date: 31 December 2016



Partners:
ICRH Belgium
Azienda Unita Sanitaria Locale di Reggio Emilia in
Italy,
Trnava University, Slovakia
Jagiellonian University, Poland,
Copenhagen University, Denmark,
Academic Medical Centre of the University of
Amsterdam, Netherlands



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7.3 WHO COLLABORATING CENTRE

ICRH has been designated as a WHO Collaborating Centre for Research on Sexual and Reproductive Health since 2004. The terms of reference are:

- To conduct epidemiological, operations and implementation research on family planning, STIs (including HIV), gender-based violence and harmful practices
- To support WHO's capacity building efforts in the area of reproductive health
- To communicate the results of research relevant for policy-making

For each of these terms of reference, concrete actions have been defined.

In 2016, ICRH experts participated in several WHO expert panels and collaborated with other WHO collaborating centres on several occasions. An important project was the production of a report on indicators for sexual and reproductive health, with the aim to support WHO/Europe with information on selected SRHR indicators and their appropriateness, particularly for the European context. 184 possible indicators were identified and reviewed by four WHO-collaboration centres, resulting in a selection of 75 indicators that were discussed in depth by a scientific and Technical Advisory Group, that selected 25 core indicators which were presented in a report to the WHO.

7.4 FWO INTERNATIONAL COORDINATION

The Research Foundation Flanders supports the International Research Network of ICRH 'WHO Collaborating Centre for Research on Sexual and Reproductive Health'.

The aim of this network is to provide technical and logistical support for:

- Operational and applied research;
- The design, planning, implementation, monitoring and evaluation of reproductive health programmes;
- Established and new networks;
- Training;
- Policy dialogue and advocacy.



Financed by:
Research Foundation Flanders



Budget:
225,000 EUR



Coordinator:
ICRH Belgium



Start date: 1 January 2015
End date: 31 December 2017



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7.5 INSTITUTIONAL UNIVERSITY COOPERATION PROGRAM WITH THE UNIVERSITY EDUARDO MONDLANE OF MOZAMBIQUE (DESAFIO)

ICRH is coordinating the VLIR-UOS-funded Institutional University Cooperation (IUC) Program with the University Eduardo Mondlane (UEM) of Mozambique. The program, called DESAFIO, has the objective to strengthen UEM as a developmental actor in the Mozambican society in the area of sexual and reproductive health and rights (SRHR) and HIV/AIDS. It is based on a long term collaboration between UEM and all Flemish universities, comprising a two-years preparatory pre-partner program and two five-years partner programs. The program consists of seven projects. Four projects address a sub-theme of the central theme (human rights; social rights and social protection; gender, health and family issues; and reproductive health and HIV/AIDS) and three cross-cutting projects strengthen capacity in specific areas.

Activities include conducting joint research in the different areas of reproductive health and HIV/AIDS; enhancing the capacity of UEM academic staff through training, including master and PhD degrees; strengthening UEM's training capacity by developing master courses; strengthening teaching and research skills, ICT, library sciences, academic English and biostatistics at UEM; and conducting community-based outreach activities. The first phase of the project started in April 2008. In September 2013, the second five year phase of the project was officially launched. Currently, eight Mozambican PhD students are doing research on health-related topics and are enrolled at UGent within the framework of the DESAFIO project



Financed by:
Belgian Development Cooperation through
the Flemish Interuniversity Council - University
Cooperation for Development (VLIR-UOS)



Budget (phase 2):
2,680,000 EUR



Coordinator:
ICRH Belgium



Start date (phase 2): 1 April 2013
End date (phase 2): 31 December 2017

Partners:
University Eduardo Mondlane, Mozambique
Ghent University, Belgium
University of Antwerp, Belgium
Vrije Universiteit Brussel, Belgium
Katholieke Universiteit Leuven, Belgium
Hasselt University, Belgium



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7.6 FOCUSING ON MEDICAL HEALTH PROBLEMS IN (POST)CONFLICT SITUATIONS

Several years of recurrent conflict in the Congo have ended up destroying the health system of the Republic of Congo (DRC) in general, but particularly in Eastern Congo. In the South Kivu Province, this resulted in an increase in chronic non-communicable diseases during this decade. The research focus will be placed on finding suitable sites for cohorts to be followed longitudinally in rural and urban areas.

The scientific focus is on chronic non-communicable diseases. The projects seek to study the causes of neonatal death and bacterial microflora.

Three PhD students are currently working on the projects.



Financed by:
Flemish Interuniversity Council



Budget:
252,871 EUR



Coordinator:
ICRH Belgium



Start date: April 2011
End date: April 2023



Université Catholique de Bukavu,
Democratic Republic of Congo



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7.7 GHENT AFRICA PLATFORM

ICRH is a member of the Ghent Africa Platform (GAP). GAP is an umbrella organisation of several, sometimes very diverse, actors belonging to the Ghent University Association, that focus on the African continent. It offers a forum where they can intensify mutual contacts, get to know and discuss their collective, interdisciplinary interests and possibly turn this into joint research, publications and/or the implementation of these within the scope of development aid.



7.8 BE-CAUSE HEALTH

ICRH is member of Be-cause health, a pluralistic Belgian platform which is open to institutional and individual members that are involved in international health issues. ICRH is mainly active in the working group Sexual and Reproductive Health and Rights & HIV. This working group is constituted of representatives from DGD, the Belgian Development Agency/BTC, academic institutions, organisations and associations from the civil society, and aims at contributing to the development and the implementation of Belgian Development Cooperation policies on SRHR, HIV and AIDS.

This working group aims at exchanging knowledge, information and experiences and at supporting the Belgian development policy and cooperation in the field of sexual and reproductive health.

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7.9 PHD DEFENSES IN 2016



An-Sofie Van Parys:

'Partner violence in pregnancy, an intervention study in perinatal care'

26 September 2016.

Supervisors: prof. dr. Marleen Temmerman (UGent)
and prof. dr. Hans Verstraelen (UGent).



Heleen Vermandere:

'Introduction of HPV vaccination in Kenya'

13 June 2016.

Supervisors: Prof. dr. Olivier Degomme (UGent)
and Prof. dr. Kristien Michiels (UGent).



Els Duysburgh:

'Quality of Maternal and Infant Care in sub-Saharan Africa:
Challenges and Opportunities'

11 March 2016.

Supervisors: Prof. dr. Marleen Temmerman (UGent)
and Prof. dr. Antje Blank (Heidelberg University).

7.10 MASTER THESES SUBMITTED IN 2016, SUPERVISED BY ICRH STAFF

Master of Medicine

Jeroen Bauwens: 'Associaties tussen burgerconflicten en de prevalentie van gender-based en seksueel geweld' (Associations between civil conflicts and prevalence of gender-based and sexual violence). Supervisor: Olivier Degomme.

Thomas Bossier: 'Improving ART adherence among HIV positive adolescents and youth using a digital health intervention: a field study in Mombasa, Kenya'. Supervisor: Kristien Michielsens.

Griet Cannoot: 'Unmet need for family planning: personal and organisational barriers and opportunities in access to family planning'. Supervisor: Kristien Michielsens, co-supervisor: Els Duysburgh.

Bavo Hendriks: 'Belgian Sexual Assault Referral Centres - towards holistic and gender-sensitive care for victims of sexual violence'. Supervisor: Ines Keygnaert.

Isatis Maes: 'Kennis, attitudes en praktijken van huisartsen in Oost-Vlaanderen in verband met long acting reversible contraceptives voor adolescenten' (Knowledge, attitudes and practices of general practitioners related to long acting reversible contraceptives for adolescents) . Supervisor: Kristien Michielsens, co-supervisor: Dirk Van Braeckel.

Laura Peeters: 'Belgian Sexual Assault Referral Centres: the Perspective of the victim on current and future care for victims of sexual violence'. Supervisor: Ines Keygnaert.

Sara Pillen: 'Mitigating adverse sexual and reproductive health outcomes through a comprehensive primary school sexuality education program in South-West Uganda'. Supervisors: Kristien Michielsens, Olivier Degomme.

Michelle Sagaert: 'Perinatal outcome of triplets: Comparison of EFPTS dataset to existing literature'. Supervisor: Olivier Degomme, co-supervisor: Catherine Derom.

Fien Suy: 'Comparison of different models in holistic care for victims of sexual violence in Europe'. Supervisor: Ines Keygnaert.

Ellis Van Daele: 'Perinatal outcome of triplets: Comparison of EFPTS dataset to existing literature. Supervisor: Olivier Degomme, co-supervisor: Catherine Derom.

Anke Vandenberghe: 'Holistic care for victims of sexual violence in a Belgian SARC: the role of the health care provider in patient-centered care'. Supervisor: Ines Keygnaert.

Anne-Sophie Vandenecker: 'De link tussen gender en seksuele gezondheid bij adolescenten' (the link between gender and sexual health in adolescents'). Supervisor: Kristien Michielsens, co-supervisor: Sara De Meyer.

Lisa Vander Stichele: 'Bacteriële vaginosis en geselecteerde seksueel overdraagbare infecties in vrouwen met genitale verminking: een meta-analyse' (Bacterial vaginosis and selected sexually transmitted infections in women with genital mutilation: a meta-analysis). Supervisor: Els Leye, co-supervisor: Davy VandenBroeck.

Philippe Vande Velde: 'Effectieve strategieën ter preventie van tienerzwangerschap' (Effective strategies for prevention of teenage pregnancies). Supervisor: Olivier Degomme, co-supervisor: Peter Decat.

Margot Vanwijnsberghe: 'Reductie van kindersterfte onder vijf jaar in sub-Sahara Afrika: een vergelijking van beleid, interventies en resultaten tussen Ethiopië, Kenia en Nigeria' (Reduction of under-five-mortality in sub-Saharan Africa: a comparison of policy, interventions and results between Ethiopia, Kenya and Nigeria). Supervisor: Olivier Degomme, co-supervisor: Dirk Van Braeckel

Master of Gender & Diversity

Leila Musson: 'Accessibility of vulnerable groups to future Belgian sexual assault referral centres'. Supervisor: Ines Keygnaert.

Master of Health promotion and Disease Prevention

Nathalie Jacquemyn: 'Seksuele gezondheid van adolescenten in Finland (Sexual health of adolescents in Finland). Supervisors: Kristien Michielsens, Benedicte Deforche.

Master of Health Management and Policy

Nele Schelstraete: 'Midwifery-led care in Vlaanderen: kwalitatief onderzoek naar de beleidsmatige aanpak voor de implementatie van vroedvrouwgeleide zorg in Vlaanderen' (Midwifery-led care in Flanders: qualitative research into the policy approach for implementation of midwifery-led care in Flanders). Supervisors: Kristien Michielsens, An-Sofie Van Parys, Anna Galle.

Master of Conflict and Development

Nieke Deleu: 'Lessons learned in holistic care for war-affected victims of sexual violence for future SARCs in Belgium'. Supervisor: Marlies Casier, co-supervisor: Ines Keygnaert.

Master of Social Pedagogy

Bieke Demeester: 'Access to health care for undocumented migrants in Belgium'. Supervisor: Ilse Derluyn, co-supervisor: Ines Keygnaert.

7.11 ICRH INTERNSHIP PROGRAM

ICRH has a research internship program for postgraduates considering a career in reproductive health research. The program aims at exposing junior researchers to the various aspects of research with a focus on themes such as sexually transmitted infections, maternal and child health, sexual violence and family planning. The trainee is supervised by ICRH's Scientific Director and is involved together with other researchers in the centre's normal research activities including proposal writing, project management, scientific analysis and article writing. The internship consists of a six months stay in Ghent, followed by a six months stay in Africa, during which the intern will have the opportunity to experience the implementation of field research. In 2016, Ibraheem Adebayo did an internship at ICRH. He spent his second half-year of the internship in South- Africa.

More information: Olivier.degomme@ugent.be



PUBLICATIONS

I. ARTICLES IN JOURNALS INCLUDED IN THE SCIENCE CITATION INDEX, SOCIAL SCIENCES CITATION INDEX AND HUMANITIES INDEX. (A1)

1. Arbyn M, Broeck DV, Benoy I, Bogers J, Depuydt C, Praet M, Sutter PD, Hoorens A, Hauben E, Poppe W, Van Ranst M, Delvenne P, Gofflot S, Petein M, Engelen F, Vanneste A, Beeck LO, Damme PV, Temmerman M, Weyers S. *Surveillance of effects of HPV vaccination in Belgium. Cancer Epidemiol.* 2016;41:152-8.

Early effects of HPV (human papillomavirus) vaccination are reflected by changes observable in young women attending cervical cancer screening. SUBJECT AND METHODS: The SEHIB study included HPV geno-typing of approximately 6000 continuous and 650 pathological cervical cell specimen as well as biopsies, collected from women in Belgium in 2010-2014. Data were linked to vaccination status. RESULTS: HPV vaccination offered protection among women aged <30years against infection with HPV16 (vaccine effectiveness [VE]=67%, 95% CI: 48-79%), HPV18 (VE=93%, 95% CI: 52-99%), and high-risk HPV (VE=16%, 95% CI: 2-29%). Vaccination protected also against cytological lesions. Vaccination protected against histologically confirmed lesions: significantly lower absolute risks of CIN1+ (risk difference [RD]=-1.6%, 95% CI: -2.6% to -0.7%) and CIN3+ associated with HPV16/18 (RD=-0.3%, 95% CI -0.6% to -0.1%). Vaccine effectiveness decreased with age. Protection against HPV16 and 18 infection was significant in all age groups, however no protection was observed against cytological lesions associated with these types in age-group 25-29. CONCLUSION: The SEHIB study demonstrates the effectiveness of HPV vaccination in Belgian young women in particular in age group 18-19. Declining effectiveness with increasing age may be explained by higher tendency of women already exposed to infection to get the vaccine.

2. Arbyn M, Vanden Broeck D, Bogers J, Van Damme P, Temmerman M, Weyers S. *Enrolment of young women attending cervical cancer screening to survey effectiveness of HPV vaccination. Cancer Epidemiol.* 2016;45:178-9.

In his letter, W. Tjalma expresses concerns regarding cervical screening in Belgium before the age of 25 [1]. Having authored the European Guidelines for Quality Assurance in Cervical Cancer Screening and/or acted as advisor for the development of Belgian recommendations for cervical cancer prevention, we confirm that screening of women before the age of 25 years is generally not cost-effective and potentially harmful [2]. Although not recommended, the reality is that a relatively large proportion of younger women in Belgium do have Pap smears taken [3]. In the period 2002–2006, the proportion of women with a Pap smear within the previous 3 years, was 17% and 51%, in age groups 15–19 and 20–24, respectively [4].

3. Azmat SK, Hameed W, Hamza HB, Mustafa G, Ishaque M, Abbas G, Khan OF, Asghar J, Munroe E, Ali S, Hussain W, Ali S, Ahmed A, Ali M, Temmerman M. *Engaging with community-based public and private mid-level providers for promoting the use of modern contraceptive methods in rural Pakistan: results from two innovative birth spacing interventions. Reprod Health.* 2016;13:25.

Family planning (FP) interventions aimed at reducing population growth have negligible during the last two decades in Pakistan. Innovative FP interventions that help reduce the growing population burden are the need of the hour. Marie Stopes Society–Pakistan implemented an operational research project--‘Evidence for Innovating to Save Lives’, to explore effective and viable intervention models that can promote healthy timing and spacing of pregnancy in rural and under-served communities of Sindh, Punjab and Khyber Pakhtunkhwa provinces of Pakistan. METHODS: We conducted a quasi-experimental (pre- and post-intervention with control arm) study to assess the effectiveness of each of the two intervention models, (1) Suraj model (meaning ‘Sun’ in English), which uses social franchises (SF) along with a demand-side financing (DSF) approach using free vouchers, and (2) Community Midwife (CMW) model, in promoting the use of modern contraceptive methods compared to

respective controls. Baseline and endline cross-sectional household surveys were conducted, 24 months apart, by recruiting 5566 and 6316 married women of reproductive age (MWRA) respectively. We used Stata version 8 to report the net effect of interventions on outcome indicators using difference-in-differences analysis. Multivariate Cox proportional hazard regression analysis was used to assess the net effect of the intervention on current contraceptive use, keeping time constant and adjusting for other variables in the model. RESULTS: The Suraj model was effective in significantly increasing awareness about FP methods among MWRA by 14% percentage points, current contraceptive use by 5% percentage points and long term modern method--intrauterine device (IUD) use by 6% percentage points. The CMW model significantly increased contraceptive awareness by 28% percentage points, ever use of contraceptives by 7% percentage points and, IUD use by 3% percentage points. Additionally the Suraj intervention led to a 35% greater prevalence (prevalence ratio: 1.35, 95% CI: 1.22-1.50) of contraceptive use among MWRA. CONCLUSION: Suraj intervention highlights the importance of embedding subsidized FP services within the communities of the beneficiaries. The outcomes of the CMW intervention also improved the use of long-term contraceptives. These findings indicate the necessity of designing and implementing FP initiatives involving local mid-level providers to expand contraceptive coverage in under-served areas.

4. *Beauclair R, Helleringer S, Hens N, Delva W. Age differences between sexual partners, behavioural and demographic correlates, and HIV infection on Likoma Island, Malawi. Sci Rep. 2016;6:36121.*

Patterns of age differences between sexual partners - "age-mixing" - may partially explain the magnitude of HIV epidemics in Sub-Saharan Africa. However, evidence of age-disparity as a risk factor for HIV remains mixed. We used data from a socio-centric study of sexual behaviour in Malawi to quantify the age-mixing pattern and to find associations between relationship characteristics and age differences for 1,922 participants. Three age difference measures were explored as predictors of prevalent HIV infection. We found that for each year increase in male participant age, the average age difference with their partners increased by 0.26 years, while among women it remained approximately constant around 5 years. Women in the study had larger within-individual variation in partner ages compared to men. Spousal partnerships and never using a condom during sex were associated with larger age differences in relationships of both men and women. Men who were more than five years younger than their partners had 5.39 times higher odds (95% CI: 0.93-31.24) of being HIV-infected than men 0-4 years older. The relationship between HIV-infection and age-asymmetry may be more complex than previously described. The role that women play in HIV transmission should not be under-estimated, particularly in populations with large within-individual variation in partner ages.

5. *Bellizzi S, Sobel HL, Mathai M, Temmerman M. Does place and attendance at birth improve early neonatal mortality? Secondary analysis of nine Demographic and Health Surveys. BJOG. 2016.*

OBJECTIVES: To determine the relation between place and skilled birth attendance at birth and early neonatal mortality. DESIGN: Retrospective analysis using data from Demographic and Health Surveys on obstetric complications. SETTING: Nine low and middle income countries between 2006 and 2013. POPULATION: 71 758 women aged 15-49 years. METHODS: A secondary analysis was carried out to investigate the occurrence and effect of obstetric complications on early neonatal mortality and association with place and attendance at birth. Obstetric complications studied were prolonged labour, puerperal infection and eclampsia.

MAIN OUTCOME MEASURES: Association between early neonatal mortality and place and attendance at birth, unadjusted and adjusted for presence of severe obstetric complications. RESULTS: Thirty-five percent of all births were at home: 70% of these were without skilled attendants. Obstetric complications were reported in 17 079 women: 82% of these women gave birth in health facilities. Overall, no association was observed between place of birth or attendance at birth and early neonatal mortality. When adjusted for obstetric complications, the

odds of early neonatal deaths for births at home without a skilled attendant were 1.3 (95% CI 1.1-1.5) compared with 1.2 (95% CI 1.0-1.5) with a skilled attendant and births in health facilities. CONCLUSIONS: When adjusted for obstetric complications, births in health facilities were associated with reduced early neonatal mortality. However, reporting and referral bias account for at least part of the association. TWEETABLE ABSTRACT: Births in health facilities are linked with fewer early newborn deaths when adjusted for obstetric complications.

6. *Blondeel K, Say L, Chou D, Toskin I, Khosla R, Scolaro E, Temmerman M. Evidence and knowledge gaps on the disease burden in sexual and gender minorities: a review of systematic reviews. Int J Equity Health. 2016;15:16.*

Sexual and gender minorities (SGM) include individuals with a wide range of sexual orientations, physical characteristics, and gender identities and expressions. Data suggest that people in this group face a significant and poorly understood set of additional health risks and bear a higher burden of some diseases compared to the general population. A large amount of data is available on HIV/AIDS, but far less on other health problems. In this review we aimed to synthesize the knowledge on the burden of communicable and non-communicable diseases, mental health conditions and violence experienced by SGM, based on available systematic reviews. We conducted a global review of systematic reviews, including searching the Cochrane and the Campbell Collaboration libraries, as well as PubMed, using a range of search terms describing the populations of interest, without time or language restrictions. Google Scholar was also scanned for unpublished literature, and references of all selected reviews were checked to identify further relevant articles. We found 30 systematic reviews, all originally written in English. Nine reviews provided data on HIV, 12 on other sexually transmitted infections (STIs), 4 on cancer, 4 on violence and 3 on mental health and substance use. A quantitative meta-analysis was not possible. The findings are presented in a narrative format. Our review primarily showed that there is a high burden of disease for certain subpopulations of SGM in HIV, STIs, STI-related cancers and mental health conditions, and that they also face high rates of violence. Secondly, our review revealed many knowledge gaps. Those gaps partly stem from a lack of original research, but there is an equally urgent need to conduct systematic and literature reviews to assess what we already know on the disease burden in SGM. Additional reviews are needed on the non-biological factors that could contribute to the higher disease burden. In addition, to provide universal access to health-care for all, more information is needed on the barriers that SGM face in accessing health services, including the attitudes of health-care providers. Understanding these barriers and the additional health risks they impose is crucial to improving the health status of SGM.

7. *Chavane L, Dgedge M, Bailey P, Loquiha O, Aerts M, Temmerman M. Assessing women's satisfaction with family planning services in Mozambique. J Fam Plann Reprod Health Care. 2016.*

The contraceptive prevalence rate in Mozambique was estimated as 11.3% in the last Demographic and Health Survey. The impact of family planning (FP) on women's health and on the reduction of maternal mortality is well known. METHODS: Acknowledging the importance of user satisfaction in the utilisation of health services, exit interviews were used to assess women's satisfaction with FP services in Mozambique. The survey, conducted in 174 health facilities, was representative at the national level, covered all provinces, and both urban and rural areas.

RESULTS: Overall, 86% of respondents were satisfied with FP services, but issues such as insufficient supplies of oral contraceptives and the low quality of healthcare provider/client interactions were given as reasons for women's dissatisfaction. CONCLUSION: Defined actions at the level of health service provision are needed to tackle the identified issues and ensure improved satisfaction with, and better utilisation of, FP services in Mozambique

8. Chersich MF, Blaauw D, Dumbaugh M, Penn-Kekana L, Dhana A, Thwala S, Bijlmakers L, Vargas E, Kern E, Becerra-Posada F, Kavanagh J, Mannava P, Mlotshwa L, Becerril-Montekio V, Footman K, Rees H. *Local and foreign authorship of maternal health interventional research in low- and middle-income countries: systematic mapping of publications 2000-2012. Global Health. 2016;12(1):35.*

Researchers in low- and middle-income countries (LMICs) are under-represented in scientific literature. Mapping of authorship of articles can provide an assessment of data ownership and research capacity in LMICs over time and identify variations between different settings. METHODS: Systematic mapping of maternal health interventional research in LMICs from 2000 to 2012, comparing country of study and of affiliation of first authors. Studies on health systems or promotion; community-based activities; and haemorrhage, hypertension, HIV/STIs and malaria were included. Following review of 35,078 titles and abstracts, 2292 full-text publications were included. Data ownership was measured by the proportion of articles with an LMIC lead author (author affiliated with an LMIC institution). RESULTS: The total number of papers led by an LMIC author rose from 45.0/year in 2000-2003 to 98.0/year in 2004-2007, but increased only slightly thereafter to 113.1/year in 2008-2012. In the same periods, the proportion of papers led by a local author was 58.4 %, 60.8 % and 60.1 %, respectively. Data ownership varies markedly between countries. A quarter of countries led more than 75 % of their research; while in 10 countries, under 25 % of publications had a local first author. Researchers at LMIC institutions led 56.6 % (1297) of all papers, but only 26.8 % of systematic reviews (65/243), 29.9 % of modelling studies (44/147), and 33.2 % of articles in journals with an Impact Factor ≥ 5 (61/184). Sub-Saharan Africa authors led 54.2 % (538/993) of studies in the region, while 73.4 % did in Latin America and the Caribbean (223/304). Authors affiliated with United States (561) and United Kingdom (207) institutions together account for a third of publications. Around two thirds of USAID and European Union funded studies had high-income country leads, twice as many as that of Wellcome Trust and Rockefeller Foundation. CONCLUSIONS: There are marked gaps in data ownership and these have not diminished over time. Increased locally-led publications, however, does suggest a growing capacity in LMIC institutions to analyse and articulate research findings. Differences in author attribution between funders might signal important variations in funders' expectations of authorship and discrepancies in how funders understand collaboration. More stringent authorship oversight and reconsideration of authorship guidelines could facilitate growth in LMIC leadership. Left unaddressed, deficiencies in research ownership will continue to hinder alignment between the research undertaken and knowledge needs of LMICs.

9. Cuschieri K, Geraets D, Cuzick J, Cadman L, Moore C, Vanden Broeck D, Padalko E, Quint W, Arbyn M. *Performance of a Cartridge-Based Assay for Detection of Clinically Significant Human Papillomavirus (HPV) Infection: Lessons from VALGENT (Validation of HPV Genotyping Tests). J Clin Microbiol. 2016;54(9):2337-42.*

The Validation of Human Papillomavirus (HPV) Genotyping Tests (VALGENT) studies offer an opportunity to clinically validate HPV assays for use in primary screening for cervical cancer and also provide a framework for the comparison of analytical and type-specific performance. Through VALGENT, we assessed the performance of the cartridge-based Xpert HPV assay (Xpert HPV), which detects 14 high-risk (HR) types and resolves HPV16 and HPV18/45. Samples from women attending the United Kingdom cervical screening program enriched with cytologically abnormal samples were collated. All had been previously tested by a clinically validated standard comparator test (SCT), the GP5+/6+ enzyme immunoassay (EIA). The clinical sensitivity and specificity of the Xpert HPV for the detection of cervical intraepithelial neoplasia grade 2 or higher (CIN2+) and CIN3+ relative to those of the SCT were assessed as were the inter- and intralaboratory reproducibilities according to international criteria for test validation. Type concordance for HPV16 and HPV18/45 between the Xpert HPV and the SCT was also analyzed. The Xpert HPV detected 94% of CIN2+ and 98% of CIN3+ lesions among all screened women and 90% of CIN2+ and 96% of CIN3+ lesions in women 30 years and older. The specificity for CIN1 or less (\leq CIN1) was 83% (95% confidence interval [CI], 80 to 85%) in all women and 88% (95% CI, 86 to 91%) in women 30 years

and older. Inter- and intralaboratory agreements for the Xpert HPV were 98% and 97%, respectively. The kappa agreements for HPV16 and HPV18/45 between the clinically validated reference test (GP5+/6+ LMNX) and the Xpert HPV were 0.92 and 0.91, respectively. The clinical performance and reproducibility of the Xpert HPV are comparable to those of well-established HPV assays and fulfill the criteria for use in primary cervical cancer screening.

10. Davis J, Vyankandondera J, Luchters S, Simon D, Holmes W. Male involvement in reproductive, maternal and child health: a qualitative study of policymaker and practitioner perspectives in the Pacific. *Reprod Health*. 2016;13(1):81.

The importance of involving men in reproductive, maternal and child health programs is increasingly recognised globally. In the Pacific region, most maternal and child health services do not actively engage expectant fathers and fathers of young children and few studies have been conducted on the challenges, benefits and opportunities for involving fathers. This study explores the attitudes and beliefs of maternal and child health policymakers and practitioners regarding the benefits, challenges, risks and approaches to increasing men's involvement in maternal and child health education and clinical services in the Pacific. **METHODS:** In-depth interviews were conducted with 17 senior maternal and child health policymakers and practitioners, including participants from five countries (Cook Island, Fiji, Papua New Guinea, Solomon Island, and Vanuatu) and four regional organisations in the Pacific. Qualitative data generated were analysed thematically. **RESULTS:** Policymakers and practitioners reported that greater men's involvement would result in a range of benefits for maternal and child health, primarily through greater access to services and interventions for women and children. Perceived challenges to greater father involvement included sociocultural norms, difficulty engaging couples before first pregnancy, the physical layout of clinics, and health worker workloads and attitudes. Participants also suggested a range of strategies for increasing men's involvement, including engaging boys and men early in the life-cycle, in community and clinic settings, and making health services more father-friendly through changes to clinic spaces and health worker recruitment and training. **CONCLUSIONS:** These findings suggest that increasing men's involvement in maternal and child health services in the Pacific will require initiatives to engage men in community and clinic settings, engage boys and men of all ages, and improve health infrastructure and service delivery to include men. Our findings also suggest that while most maternal and child health officials consulted perceived many benefits of engaging fathers, perceived challenges to doing so may prevent the development of policies that explicitly direct health providers to routinely include fathers in maternal and child health services. Pilot studies assessing feasibility and acceptability of context-appropriate strategies for engaging fathers will be useful in addressing concerns regarding challenges to engaging fathers.

11. De Schrijver L, Leye E, Merckx M. A multidisciplinary approach to clitoral reconstruction after female genital mutilation: the crucial role of counselling. *Eur J Contracept Reprod Health Care*. 2016;21(4):269-75.

Female genital mutilation (FGM) is becoming more widely seen in the West, due to immigration and population movement. Health services are being confronted with the need to provide care for women with FGM. One of the more recent trends is the provision of clitoral reconstruction. It remains unclear, however, what constitutes good practice with regard to this type of surgery. **METHODS:** Based on a keynote presentation about reconstructive clitoral surgery, we briefly discuss the possible consequences of FGM and the findings from recent publications on clitoral reconstruction. Recognising individual differences in women, we suggest a multidisciplinary counselling model to provide appropriate care for women requesting clitoral reconstruction.

RESULTS: The literature shows that FGM influences physical, mental and sexual health. Clitoral reconstructive surgery can lead to an increase in sexual satisfaction and orgasm in some, but not all, women. A multidisciplinary approach would enable a more satisfactory and individually tailored approach to care. The multidisciplinary team should consist of a midwife, a gynaecological surgeon, a psychologist-psychotherapist, a sexologist and

a social worker. Comprehensive health counselling should be the common thread in this model of care. Our proposed care pathway starts with taking a thorough history, followed by medical, psychological and sexological consultations. CONCLUSIONS: Women with FGM requesting clitoral reconstruction might primarily be looking to improve their sexual life, to recover their identity and to reduce pain. Surgery may not always be the right answer. Thorough counselling that includes medical, psychological and sexual advice is therefore necessary as part of a multidisciplinary approach.

12. De Wilde KS, Tency I, Boudrez H, Temmerman M, Maes L, Clays E. The Modified Reasons for Smoking Scale: factorial structure, validity and reliability in pregnant smokers. *J Eval Clin Pract.* 2016;22(3):403-10.

Smoking during pregnancy can cause several maternal and neonatal health risks, yet a considerable number of pregnant women continue to smoke. The objectives of this study were to test the factorial structure, validity and reliability of the Dutch version of the Modified Reasons for Smoking Scale (MRSS) in a sample of smoking pregnant women and to understand reasons for continued smoking during pregnancy. METHODS: A longitudinal design was performed. Data of 97 pregnant smokers were collected during prenatal consultation. Structural equation modelling was performed to assess the construct validity of the MRSS: an exploratory factor analysis was conducted, followed by a confirmatory factor analysis. Test-retest reliability (<16 weeks and 32-34 weeks pregnancy) and internal consistency were assessed using the intraclass correlation coefficient and the Cronbach's alpha, respectively. To verify concurrent validity, Mann-Whitney U-tests were performed examining associations between the MRSS subscales and nicotine dependence, daily consumption, depressive symptoms and intention to quit. RESULTS: We found a factorial structure for the MRSS of 11 items within five subscales in order of importance: tension reduction, addiction, pleasure, habit and social function. Results for internal consistency and test-retest reliability were good to acceptable. There were significant associations of nicotine dependence with tension reduction and addiction and of daily consumption with addiction and habit. CONCLUSIONS: Validity and reliability of the MRSS were shown in a sample of pregnant smokers. Tension reduction was the most important reason for continued smoking, followed by pleasure and addiction. Although the score for nicotine dependence was low, addiction was an important reason for continued smoking during pregnancy; therefore, nicotine replacement therapy could be considered. Half of the respondents experienced depressive symptoms. Hence, it is important to identify those women who need more specialized care, which can include not only smoking cessation counselling but also treatment for depression.

13. Delva W, HELLERINGER S. Beyond Risk Compensation: Clusters of Antiretroviral Treatment (ART) Users in Sexual Networks Can Modify the Impact of ART on HIV Incidence. *PLoS One.* 2016;11(9):e0163159.

Concerns about risk compensation-increased risk behaviours in response to a perception of reduced HIV transmission risk-after the initiation of ART have largely been dispelled in empirical studies, but other changes in sexual networking patterns may still modify the effects of ART on HIV incidence. METHODS: We developed an exploratory mathematical model of HIV transmission that incorporates the possibility of ART clusters, i.e. subsets of the sexual network in which the density of ART patients is much higher than in the rest of the network. Such clusters may emerge as a result of ART homophily-a tendency for ART patients to preferentially form and maintain relationships with other ART patients. We assessed whether ART clusters may affect the impact of ART on HIV incidence, and how the influence of this effect-modifying variable depends on contextual variables such as HIV prevalence, HIV serosorting, coverage of HIV testing and ART, and adherence to ART. RESULTS: ART homophily can modify the impact of ART on HIV incidence in both directions. In concentrated epidemics and generalized epidemics with moderate HIV prevalence (approximately 10%), ART clusters can enhance the impact of ART on HIV incidence, especially when adherence to ART is poor. In hyperendemic settings (approximately 35% HIV prevalence), ART clusters can reduce the impact of ART on HIV incidence when adherence to ART is high.

but few people living with HIV (PLWH) have been diagnosed. In all contexts, the effects of ART clusters on HIV epidemic dynamics are distinct from those of HIV serosorting. CONCLUSIONS: Depending on the programmatic and epidemiological context, ART clusters may enhance or reduce the impact of ART on HIV incidence, in contrast to serosorting, which always leads to a lower impact of ART on HIV incidence. ART homophily and the emergence of ART clusters should be measured empirically and incorporated into more refined models used to plan and evaluate ART programmes.

14. Delva W, Leventhal GE, HELLERINGER S. Connecting the dots: network data and models in HIV epidemiology. *AIDS*. 2016;30(13):2009-20.

Effective HIV prevention requires knowledge of the structure and dynamics of the social networks across which infections are transmitted. These networks most commonly comprise chains of sexual relationships, but in some populations, sharing of contaminated needles is also an important, or even the main mechanism that connects people in the network. Whereas network data have long been collected during survey interviews, new data sources have become increasingly common in recent years, because of advances in molecular biology and the use of partner notification services in HIV prevention and treatment programmes. We review current and emerging methods for collecting HIV-related network data, as well as modelling frameworks commonly used to infer network parameters and map potential HIV transmission pathways within the network. We discuss the relative strengths and weaknesses of existing methods and models, and we propose a research agenda for advancing network analysis in HIV epidemiology. We make the case for a combination approach that integrates multiple data sources into a coherent statistical framework.

15. Duysburgh E, Temmerman M, Ye M, Williams A, Massawe S, Williams J, Mpembeni R, Loukanova S, Haefeli WE, Blank A. Quality of antenatal and childbirth care in rural health facilities in Burkina Faso, Ghana and Tanzania: an intervention study. *Trop Med Int Health*. 2016;21(1):70-83.

To assess the impact of an intervention consisting of a computer-assisted clinical decision support system and performance-based incentives, aiming at improving quality of antenatal and childbirth care. METHODS: Intervention study in rural primary healthcare (PHC) facilities in Burkina Faso, Ghana and Tanzania.

In each country, six intervention and six non-intervention PHC facilities, located in one intervention and one non-intervention rural districts, were selected. Quality was assessed in each facility by health facility surveys, direct observation of antenatal and childbirth care, exit interviews, and reviews of patient records and maternal and child health registers. Findings of pre- and post-intervention and of intervention and non-intervention health facility quality assessments were analysed and assessed for significant ($P < 0.05$) quality of care differences. RESULTS: Post-intervention quality scores do not show a clear difference to pre-intervention scores and scores at non-intervention facilities. Only a few variables had a statistically significant better post-intervention quality score and when this is the case this is mostly observed in only one study-arm, being pre-/post-intervention or intervention/non-intervention. Post-intervention care shows similar deficiencies in quality of antenatal and childbirth care and in detection, prevention, and management of obstetric complications as at baseline and non-intervention study facilities. CONCLUSION: Our intervention study did not show a significant improvement in quality of care during the study period. However, the use of new technology seems acceptable and feasible in rural PHC facilities in resource-constrained settings, creating the opportunity to use this technology to improve quality of care.

16. Ezeh A, Bankole A, Cleland J, Garcia-Moreno C, Temmerman M, Ziraba AK. *Burden of Reproductive Ill Health. In: Black RE, Laxminarayan R, Temmerman M, Walker N, editors. Reproductive, Maternal, Newborn, and Child Health: Disease Control Priorities, Third Edition (Volume 2). Washington (DC)2016.*

This chapter presents the burden of global reproductive ill health and, where data permit, regional estimates for selected conditions. Ill health refers to morbid conditions such as infections and injury and to nonmorbid measures of reproductive health that directly contribute to adverse reproductive health outcomes, including unwanted pregnancies and violence against women. The chapter is organized into six subsections: unintended pregnancies, unsafe abortions, non-sexually transmitted reproductive tract infections (RTIs), infertility, violence against women, and female genital mutilation (FGM). Unintended pregnancies lead to unintended births and induced abortions. Unintended births often occur among young women who are emotionally and physiologically not mature, which has effects on the health of the mother, the pregnancy, and its outcome. Induced abortions in countries where the practice is illegal are often provided in unsafe environments and by untrained personnel, which contribute to the high maternal death from abortion complications. Sexually transmitted infections (STIs) of the reproductive tract receive attention in programming and research, but little attention is focused on other infections that affect fertility and increase the risk of transmission of other infections. Violence against women violates their rights, including limiting access to and use of prevention and treatment services in addition to physical injury and death. FGM causes bodily disfigurement and may present immediate surgical complications and long-term risk of poor reproductive outcomes, especially during delivery.

17. Festin MP, Peregoudov A, Seuc A, Kiarie J, Temmerman M. *Effect of BMI and body weight on pregnancy rates with LNG as emergency contraception: analysis of four WHO HRP studies. Contraception. 2017;95(1):50-4.*

To estimate the effect of increased body weight and body mass index (BMI) on pregnancy rates with levonorgestrel (LNG) 1.5mg used as emergency contraception (EC). METHODS: The study reviewed data from 6873 women in four WHO-HRP randomized trials on EC conducted between 1993 and 2010. Participants took either 1.5mg of LNG as a single dose or in two doses 12h apart, up to 120h of unprotected intercourse. Contraceptive efficacy (pregnancy rates) at different weight and BMI categories was evaluated. RESULTS: Overall pregnancy rate was low at 1.2%. Pregnancy rates were also low in women weighing over 80kg (0.7%) and who were obese (BMI over 30kg/m²) (2.0%). The pooled analyses for pregnancy demonstrated that BMI over 30kg/m² decreased efficacy significantly (odds ratio 8.27, 95% confidence interval = 2.70-25.37) when compared to women in lower BMI categories, mainly influenced by pregnancies in obese women from one study site. Sensitivity analyses excluding that site showed that obesity was no longer a risk factor; however, the other studies included too few obese women in the sample to exclude a substantial decrease in efficacy. CONCLUSIONS: Pregnancy rates with use of LNG 1.5mg for EC were low at less than 3% across different weight and BMI categories. Pooled analyses showed an increase in pregnancy rates among obese women (BMI more than 30kg/m²) compared to women with normal BMI levels, influenced by pregnancies all coming from one study site. IMPLICATIONS: Access to LNG as EC should still be promoted to women who need them, and not be restricted in any weight or

18. Franck E, Vanderhasselt MA, Goubert L, Loeys T, Temmerman M, De Raedt R. *The role of self-esteem instability in the development of postnatal depression: A prospective study testing a diathesis-stress account. J Behav Ther Exp Psychiatry. 2016;50:15-22.*

Understanding vulnerability factors involved in the development of postnatal depression has important implications for theory and practice. In this prospective study, we investigated whether self-esteem instability during pregnancy would better predict postnatal depressive symptomatology than level of self-esteem. In addition, going beyond former studies, we tested the possible origin of this instability, examining whether day-to-day fluctuations in self-esteem could be explained by fluctuations in mood state, and whether this day-to-day

self-esteem reactivity would predict postnatal depressive symptoms. **METHODS:** 114 healthy never-depressed women were tested during the late second or third trimester of their gestation (Time 1) and at 12 weeks after delivery (Time 2). Day-to-day levels of self-esteem and depressed mood state were assessed at Time 1. At Time 2, postnatal depressive symptoms were assessed. **RESULTS:** The results show that, after controlling for initial depressive symptomatology, age and socio-economic status, postnatal depressive symptomatology at 12 weeks after childbirth could be predicted by self-esteem instability and not level of self-esteem. In addition, multi-level analyses demonstrated that these changes in day-to-day levels of self-esteem are associated with changes in day-to-day levels of depressed mood state and that those subjects with greater prenatal self-esteem reactivity upon depressed mood report higher levels of depressive symptoms post-partum. **LIMITATIONS:** We used paper and pencil day-to-day measures of state self-esteem, which can be subject to bias. **CONCLUSION:** These results provide evidence for a diathesis-stress account of postnatal depression, highlighting the importance of a multi-dimensional view of self-esteem and the predictive role of self-esteem instability.

19. Ginsburg O, Badwe R, Boyle P, Derricks G, Dare A, Evans T, Eniu A, Jimenez J, Kutluk T, Lopes G, Mohammed SI, Qiao YL, Rashid SF, Summers D, Sarfati D, Temmerman M, Trimble EL, Padela AI, Aggarwal A, Sullivan R. *Changing global policy to deliver safe, equitable, and affordable care for women's cancers. Lancet. 2016.*

Breast and cervical cancer are major threats to the health of women globally, particularly in low-income and middle-income countries. Radical progress to close the global cancer divide for women requires not only evidence-based policy making, but also broad multisectoral collaboration that capitalises on recent progress in the associated domains of women's health and innovative public health approaches to cancer care and control. Such multisectoral collaboration can serve to build health systems for cancer, and more broadly for primary care, surgery, and pathology. This Series paper explores the global health and public policy landscapes that intersect with women's health and global cancer control, with new approaches to bringing policy to action. Cancer is a major global social and political priority, and women's cancers are not only a tractable socioeconomic policy target in themselves, but also an important Trojan horse to drive improved cancer control and care.

20. Guieu A, Zhang WH, Lafort Y, Decat P, De Meyer S, Wang S, Kerstens B, Duysburgh E. *Practical lessons for bringing policy-makers on board in sexual and reproductive health research. BMC Health Serv Res. 2016;16(1):649.*

The need to translate research into policy, i.e. making research findings a driving force in agenda-setting and policy change, is increasingly acknowledged. However, little is known about translation mechanisms in the field of sexual and reproductive health (SRH) outside North American or European contexts. This paper seeks to give an overview of the existing knowledge on this topic as well as to document practical challenges and remedies from the perspectives of researchers involved in four SRH research consortium projects in Latin America, sub-Saharan Africa, China and India. **METHODS:** A literature review and relevant project documents were used to develop an interview guide through which researchers could reflect on their experiences in engaging with policy-makers, and particularly on the obstacles met and the strategies deployed by the four project consortia to circumvent them. **RESULTS:** Our findings confirm current recommendations on an early and steady involvement of policy-makers, however they also suggest that local barriers between researchers and policy-making spheres and individuals can represent major hindrances to the realization of translation objectives. Although many of the challenges might be common to different contexts, creating locally-adapted responses is deemed key to overcome them. Researchers' experiences also indicate that - although inevitable - recognizing and addressing these challenges is a difficult, time- and energy-consuming process for all partners involved. Despite a lack of existing knowledge on translation efforts in SRH research outside North American or European contexts, and more particularly in low and middle-income countries, it is clear that existing pressure on health and policy systems in these settings further complicates them. **CONCLUSIONS:** This article brings together literature findings

and researchers' own experiences in translating research results into policy and highlights the major challenges research conducted on sexual and reproductive health outside North American or European contexts can meet. Future SRH projects should be particularly attentive to these potential obstacles in order to tailor appropriate and consistent strategies within their existing resources.

21. Hofmeyr GJ, Singata-Madliki M, Lawrie TA, Bergel E, Temmerman M. Effects of the copper intrauterine device versus injectable progestin contraception on pregnancy rates and method discontinuation among women attending termination of pregnancy services in South Africa: a pragmatic randomized controlled trial. *Reprod Health*. 2016;13:42.

The copper intrauterine device (IUD) is under-utilised in South Africa, where injectable progestin contraception (IPC) dominates contraception usage. There is a lack of robust comparative data on these contraceptive options to inform policy, programs, clinical counseling, and women's choices. METHODS: Within the context of a South African program to increase women's access to the IUD, we conducted a pragmatic, open-label, parallel-arm, randomised controlled trial of the IUD versus IPC at two South African hospitals. The target sample size was 7,000 women and the randomisation ratio was 1:1. The random sequence was computer-generated and group allocation was concealed in sealed, opaque, consecutively-numbered envelopes. Counselling, consenting women attending termination of pregnancy services were randomly assigned to IUD or IPC immediately post-termination. Condoms were promoted for the prevention of sexually-transmitted infections. The primary outcome was pregnancy; secondary outcomes were discontinuation, side-effects, and HIV acquisition and disease progression. Pregnancy and discontinuation outcomes are reported here. RESULTS: The trial closed early with 2,493 participants randomised (IUD = 1,247, IPC = 1,246), due to international concerns regarding a possible association between IPC and HIV acquisition. Median follow-up was 20 months; 982 and 1000 participants were followed up in the IUD and IPC groups, respectively. Baseline group characteristics were comparable. Pregnancy occurred significantly less frequently among women allocated to the IUD than IPC: 56/971 (5.8%) versus 83/992 (8.4%), respectively; risk ratio (RR) 0.69, 95% confidence interval (CI) 0.50 to 0.96; $P = 0.025$. There were more protocol violations in the IUD group; however, discontinuation rates were similar between IUD and IPC groups (141/855 [16.5%] and 143/974 [14.7%], respectively). Women in the IUD group were more likely to discontinue contraceptive use due to abdominal pain or backache and non-specific symptoms, and those in the IPC group due to oligo- or amenorrhoea and lack of sexual activity. CONCLUSIONS: The IUD was significantly more effective in preventing pregnancy than IPC. Efforts to expand contraception options and improve access to the IUD in settings where it is under-utilised are worthwhile. This trial shows that randomising long-acting, reversible contraceptives is feasible. TRIAL REGISTRATION: Pan African Clinical Trials Registry number PACTR201409000880157 (04-09-2014).

22. Holmes W, Shajehan R, Kitnasamy S, Abeywickrama C, Arsath Y, Gnanaraj F, Inbaraj S, Jayakody G, Durrant K, Luchters S. Impact of vision impairment and self-reported barriers to vision care: The views of elders in Nuwara Eliya district, Sri Lanka. *Glob Public Health*. 2016:1-14.

The growing burden of vision impairment (VI) among older people is a development challenge in Asian countries. This study aimed to understand older people's views and experiences about the impact of VI and barriers to eye care to inform policies to address this challenge. We conducted 12 focus group discussions in 2013 with retired Tamil and Sinhala elders in Nuwara Eliya district, Sri Lanka ($n = 107$). Data were analysed thematically. Older people described the broad impacts VI has on their lives. They worry about becoming dependent. VI restricts their ability to contribute to their families and communities, access information, socialise, maintain their health, and earn. Barriers to eye care services include transport difficulties, costs of treatment, fear, lack of knowledge, waiting times, and health staff attitudes. Older people experience and fear the impacts of VI on their health and well-being. Eye health promotion and care services need strengthening and integration with the primary health

care system to address the backlog and growing need among older people in an equitable way. Older people should be consulted about how to overcome the economic, social, and cultural barriers to access to eye care and to minimise the impact of VI. ABBREVIATIONS: FGDs: focus group discussions; GBD: global burden of disease; NCDs: non-communicable diseases; VI: vision impairment.

23. Ivanova O, Pozo KC, Segura ZE, Vega B, Chandra-Mouli V, Hindin MJ, Temmerman M, Decat P, De Meyer S, Michielsen K. *Lessons learnt from the CERCA Project, a multicomponent intervention to promote adolescent sexual and reproductive health in three Latin America countries: a qualitative post-hoc evaluation. Eval Program Plann. 2016;58:98-105.*

The Community-Embedded Reproductive Health Care for Adolescents (CERCA) Project was implemented in Bolivia, Ecuador and Nicaragua (2011-2014) to test the effectiveness of interventions preventing teenage pregnancies. As the outcome evaluation showed limited impact, a post-hoc process evaluation was carried out to determine if and how CERCA's design, implementation, monitoring and evaluation affected the results. We did a document analysis and conducted 18 in-depth interviews and 21 focus group discussions with stakeholders and beneficiaries. Transcripts were analyzed using directed content analysis. Data showed that CERCA sensitized stakeholders and encouraged the discussion on this sensitive issue. In terms of design, a strong point was the participatory approach; a weak point was that the detailed situation analysis was completed too late. In terms of implementation, a strong point was that multifaceted activities were implemented; a weak point was that the activities were not pilot tested for feasibility/acceptability and evolved substantially throughout the Project. In terms of monitoring, strong points were that regular monitoring kept the Project on track administratively/financially; a weak point was that monitoring indicators did not change as the intervention package changed. In terms of evaluation, weak points were the substantial attrition rate and narrow focus on adolescents. This study provides recommendations for future projects.

24. Ketting E, Friele M, Michielsen K. *Evaluation of holistic sexuality education: A European expert group consensus agreement. Eur J Contracept Reprod Health Care. 2016;21(1):68-80.*

Holistic sexuality education (HSE) is a new concept in sexuality education (SE). Since it differs from other types of SE in a number of important respects, strategies developed for the evaluation of the latter are not necessarily applicable to HSE. In this paper the authors provide a basis for discussion on how to evaluate HSE. METHODS: First, the international literature on evaluation of SE in general was reviewed in terms of its applicability to HSE. Second, the European Expert Group on Sexuality Education extensively discussed the requirements of its evaluation and suggested appropriate indicators and methods for evaluating HSE. RESULTS: The European experience in SE is scarcely represented in the general evaluation literature. The majority of the literature focuses on impact and neglects programme and implementation evaluations. Furthermore, the current literature demonstrates that evaluation criteria predominantly focus on the public health impact, while there is not yet a consensus on sexual well-being criteria and aspects of positive sexuality, which are crucial parts of HSE. Finally, experimental designs are still considered the gold standard, yet several of the conditions for their use are not fulfilled in HSE. Realising that a new evaluation framework for HSE is needed, the European expert group initiated its development and agreed upon a number of indicators that provide a starting point for further discussion. CONCLUSIONS: Aside from the health impact, the quality of SE programmes and their implementation also deserve attention and should be evaluated. To be applicable to HSE, the evaluation criteria need to cover more than the typical public health aspects. Since they do not register long-term and multi-component characteristics, evaluation methods such as randomised controlled trials are not sufficiently suitable for HSE. The evaluation design should rely on a number of different information sources from mixed methods that are complemented and triangulated to build a plausible case for the effectiveness of SE in general and HSE in particular.

25. *Keygnaert I, Guieu A. What the eye does not see: a critical interpretive synthesis of European Union policies addressing sexual violence in vulnerable migrants. Reprod Health Matters. 2015;23(46):45-55.*

In Europe, refugees, asylum seekers and undocumented migrants are more vulnerable to sexual victimisation than European citizens. They face more challenges when seeking care. This literature review examines how legal and policy frameworks at national, European and international levels condition the prevention of and response to sexual violence affecting these vulnerable migrant communities living in the European Union (EU). Applying the Critical Interpretive Synthesis method, we reviewed 187 legal and policy documents and 80 peer-reviewed articles on migrant sexual health for elements on sexual violence and further analysed the 37 legal and 12 peer-reviewed articles among them that specifically focused on sexual violence in vulnerable migrants in the EU-27 States. Legal and policy documents dealing with sexual violence, particularly but not exclusively in vulnerable migrants, apply 'tunnel vision'. They ignore: a) frequently occurring types of sexual violence, b) victimisation rates across genders and c) specific risk factors within the EU such as migrants' legal status, gender orientation and living conditions. The current EU policy-making paradigm relegates sexual violence in vulnerable migrants as an 'outsider' and 'female only' issue while EU migration and asylum policies reinforce its invisibility. Effective response must be guided by participatory rights- and evidence-based policies and a public health approach, acknowledging the occurrence and multiplicity of sexual victimisation of vulnerable migrants of all genders within EU borders.

26. *Keygnaert I, Ivanova O, Guieu A, Van Parys AS, Leye E, Roelens K. What is the Evidence on the Reduction of Inequalities in Accessibility and Quality of Maternal Health Care Delivery for Migrants? A Review of the Existing Evidence in the WHO European Region. Copenhagen: World Health Organization 2016.2016.*

The number of female migrants of childbearing age is rapidly increasing, which poses specific maternal health needs. Via a systematic academic literature review and a critical interpretive synthesis of policy frameworks, this review aimed to assess interventions and policies that work to improve the accessibility and the quality of maternal health care for migrants in the WHO European Region. The review demonstrated that most migrant women face poorer maternal health outcomes than non-migrant women throughout the WHO European Region. Identified risk factors are not only linked to pregnancy, childbirth and the postpartum period but also to events before conception. Migrant women's access to maternal health care is jeopardized by restricted entitlement and problems with familiarity, knowledgeability, acceptability, availability and affordability. Assuring universal access to care and providing culturally sensitive care will enhance access and quality of maternal health care and eventually improve migrant maternal health.

27. *Kosgei RJ, Sitienei JK, Kipruto H, Kimenye K, Gathara D, Odawa FX, Gichangi P, Callens S, Temmerman M, Sitienei JC, Kihara AB, Carter EJ. In reply. Int J Tuberc Lung Dis. 2016;20(3):425-6.*

We appreciate the comments raised by Dr Horton and colleagues. The issues raised were already well covered in the manuscript. Our study analysed gender differences, i.e., the differences between males and females, underscoring the fact that men, too, count. However, the differences reveal the need for a differentiated approach, to ensure adherence and a beneficial outcome. Addressing the needs of both men and women must ultimately lead to better health outcomes for all. The authors question the interpretation of some of the study's findings in relation to odds ratios showing no significant difference. We concur with the authors that these results are statistically non-significant; however, they have important clinical and policy implications. We intentionally restricted the study population to all patients with a definitive treatment outcome, i.e., cure, failure or died, cognisant of the limitations of analysing retrospective routinely collected programme data, which do not capture information on patients who are lost to follow-up. We do, however, identify with the need for prospective studies on the lost to follow-up cohort, as a large proportion of the people lost to follow-up may indeed have a

negative health outcome. Attrition rates have been studied largely in human immunodeficiency virus treatment programmes using a public health approach, and less in tuberculosis programmes. Our study results highlight the need for prospective studies.

28. Lafort Y, Greener R, Roy A, Greener L, Ombidi W, Lessitala F, Haghparast-Bidgoli H, Beksinska M, Gichangi P, Reza-Paul S, Smit JA, Chersich M, Delva W. *Where Do Female Sex Workers Seek HIV and Reproductive Health Care and What Motivates These Choices? A Survey in 4 Cities in India, Kenya, Mozambique and South Africa. PLoS One. 2016;11(8):e0160730.*

To identify gaps in the use of HIV prevention and care services and commodities for female sex workers, we conducted a baseline cross-sectional survey in four cities, in the context of an implementation research project aiming to improve use of sexual and reproductive health services. METHODS: Using respondent-driven sampling, 400 sex workers were recruited in Durban, 308 in Tete, 400 in Mombasa and 458 in Mysore and interviewed face-to-face. RDS-adjusted proportions were estimated by nonparametric bootstrapping and compared across cities using post hoc pairwise comparison. RESULTS: Condom use with last client ranged from 88.3% to 96.8%, ever female condom use from 1.6% to 37.9%, HIV testing within the past 6 months from 40.5% to 70.9%, receiving HIV treatment and care from 35.5% to 92.7%, care seeking for last STI from 74.4% to 87.6% and having had at least 10 contacts with a peer educator in the past year from 5.7% to 98.1%. Many of the differences between cities remained statistically significant ($P < 0.05$) after adjusting for differences in FSWs' socio-demographic characteristics. CONCLUSION: The use of HIV prevention and care by FSWs is often insufficient and differed greatly between cities. Differences could not be explained by variations in socio-demographic sex worker characteristics. Models to improve use of condoms and HIV prevention and care services should be tailored to the specific context of each site. Programmes at each site must focus on improving availability and uptake of those services that are currently least used.

29. Lafort Y, Greener R, Roy A, Greener L, Ombidi W, Lessitala F, Haghparast-Bidgoli H, Beksinska M, Gichangi P, Reza-Paul S, Smit JA, Chersich M, Delva W. *HIV prevention and care-seeking behaviour among female sex workers in four cities in India, Kenya, Mozambique and South Africa. Trop Med Int Health. 2016;21(10):1293-303.*

A baseline cross-sectional survey among female sex workers (FSWs) was conducted in four cities within the context of an implementation research project aiming to improve FSWs' access to HIV, and sexual and reproductive health (SRH) services. The survey measured where FSWs seek HIV/SRH care and what motivates their choice. METHODS: Using respondent-driven sampling (RDS), FWSs were recruited in Durban, South Africa ($n = 400$), Tete, Mozambique ($n = 308$), Mombasa, Kenya ($n = 400$) and Mysore, India ($n = 458$) and interviewed. RDS-adjusted proportions were estimated by non-parametric bootstrapping, and compared across cities using post-hoc pairwise comparison tests. RESULTS: Across cities, FSWs most commonly sought care for the majority of HIV/SRH services at public health facilities, most especially in Durban (ranging from 65% for condoms to 97% for HIV care). Services specifically targeting FSWs only had a high coverage in Mysore for STI care (89%) and HIV testing (79%). Private-for-profit clinics were important providers in Mombasa (ranging from 17% for STI care and HIV testing to 43% for HIV care), but not in the other cities. The most important reason for the choice of care provider in Durban and Mombasa was proximity, in Tete 'where they always go', and in Mysore cost of care. Where available, clinics specifically targeting FSWs were more often chosen because of shorter waiting times, perceived higher quality of care, more privacy and friendlier personnel. CONCLUSION: The place where care is sought for HIV/SRH services differs substantially between cities. Targeted services have limited coverage in the African cities compared to Mysore. Convenience appears more important for choosing the place of care than aspects of quality of care. The best model to improve access, linking targeted interventions with general health services, will need to be tailored to the specific context of each city.

30. *Lafort Y, Jocitala O, Candrinho B, Greener L, Beksinska M, Smit JA, Chersich M, Delva W. Are HIV and reproductive health services adapted to the needs of female sex workers? Results of a policy and situational analysis in Tete, Mozambique. BMC Health Serv Res. 2016;16:301.*

In the context of an implementation research project aiming at improving use of HIV and sexual and reproductive health (SRH) services for female sex workers (FSWs), a broad situational analysis was conducted in Tete, Mozambique, assessing if services are adapted to the needs of FSWs. METHODS: Methods comprised (1) a policy analysis including a review of national guidelines and interviews with policy makers, and (2) health facility assessments at 6 public and 1 private health facilities, and 1 clinic specifically targeting FSWs, consisting of an audit checklist, interviews with 18 HIV/SRH care providers and interviews of 99 HIV/SRH care users. RESULTS: There exist national guidelines for most HIV/SRH care services, but none provides guidance for care adapted to the needs of high-risk women such as FSWs. The Ministry of Health recently initiated the process of establishing guidelines for attendance of key populations, including FSWs, at public health facilities. Policy makers have different views on the best approach for providing services to FSWs-integrated in the general health services or through parallel services for key populations-and there exists no national strategy. The most important provider of HIV/SRH services in the study area is the government. Most basic services are widely available, with the exception of certain family planning methods, cervical cancer screening, services for victims of sexual and gender-based violence, and termination of pregnancy (TOP). The public facilities face serious limitations in term of space, staff, equipment, regular supplies and adequate provider practices. A stand-alone clinic targeting key populations offers a limited range of services to the FSW population in part of the area. Private clinics offer only a few services, at commercial prices. CONCLUSION: There is a need to improve the availability of quality HIV/SRH services in general and to FSWs specifically, and to develop guidelines for care adapted to the needs of FSWs. Access for FSWs can be improved by either expanding the range of services and the coverage of the targeted clinic and/or by improving access to adapted care at the public health services and ensure a minimum standard of quality.

31. *Lafort Y, Lessitala F, Candrinho B, Greener L, Greener R, Beksinska M, Smit JA, Chersich M, Delva W. Barriers to HIV and sexual and reproductive health care for female sex workers in Tete, Mozambique: results from a cross-sectional survey and focus group discussions. BMC Public Health. 2016;16:608.*

In the context of an operational research project in Tete, Mozambique, use of, and barriers to, HIV and sexual and reproductive health (HIV/SRH) commodities and services for female sex workers (FSWs) were assessed as part of a baseline situational analysis. METHODS: In a cross-sectional survey 311 FSWs were recruited using respondent driven sampling and interviewed face-to-face, and three focus group discussions were held with respectively 6 full-time Mozambican, 7 occasional Mozambican and 9 full-time Zimbabwean FSWs, to investigate use of, and barriers to, HIV/SRH care. RESULTS: The cross-sectional survey showed that 71 % of FSWs used non-barrier contraception, 78 % sought care for their last sexually transmitted infection episode, 51 % of HIV-negative FSWs was tested for HIV in the last 6 months, 83 % of HIV-positive FSWs were in HIV care, 55 % sought help at a health facility for their last unwanted pregnancy and 48 % after sexual assault, and none was ever screened for cervical cancer. Local public health facilities were by far the most common place where care was sought, followed by an NGO-operated clinic targeting FSWs, and places outside the Tete area. In the focus group discussions, FSWs expressed dissatisfaction with the public health services, as a result of being asked for bribes, being badly attended by some care providers, stigmatisation and breaches of confidentiality. The service most lacking was said to be termination of unwanted pregnancies. CONCLUSIONS: The use of most HIV and SRH services is insufficient in this FSW population. The public health sector is the main provider, but access is hampered by several barriers. The reach of a FSW-specific NGO clinic is limited. Access to, and use of, HIV and SRH services should be improved by reducing barriers at public health facilities, broadening the range of services and expanding the reach of the targeted NGO clinic.

32. *Luchters S, Bosire W, Feng A, Richter ML, King'ola N, Ampt F, Temmerman M, Chersich, MF. "A Baby Was an Added Burden": Predictors and Consequences of Unintended Pregnancies for Female Sex Workers in Mombasa, Kenya: A Mixed-Methods Study. PLoS One. 2016;11(9):e0162871.*

Female sex workers (FSW) have high rates of unintended pregnancy, sexually transmitted infections including HIV, and other adverse sexual and reproductive health outcomes. Few services for FSWs include contraception. This mixed-methods study aimed to determine the rate, predictors and consequences of unintended pregnancy among FSWs in Mombasa, Kenya. METHODS: A prospective cohort study of non-pregnant FSWs was conducted. Quantitative data were collected quarterly, including a structured questionnaire and testing for pregnancy and HIV. Predictors of unintended pregnancy were investigated using multivariate logistic regression. Qualitative data were gathered through focus group discussions and in-depth interviews with FSWs who became pregnant during the study, and interviews with five key informants. These data were transcribed, translated and analysed thematically. RESULTS: Four hundred women were enrolled, with 92% remaining in the cohort after one year. Fifty-seven percent reported using a modern contraceptive method (including condoms when used consistently). Over one-third (36%) of women were using condoms inconsistently without another method. Twenty-four percent had an unintended pregnancy during the study. Younger age, having an emotional partner and using traditional or no contraception, or condoms only, were independent predictors of unintended pregnancy. Women attributed pregnancy to forgetting to use contraception and being pressured not to by clients and emotional partners, as well as "bad luck". They described numerous negative consequences of unintended pregnancy. CONCLUSION: Modern contraceptive uptake is surprisingly low in this at-risk population, which in turn has a high rate of unintended pregnancy. The latter may result in financial hardship, social stigma, risk of abandonment, or dangerous abortion practices. FSWs face considerable barriers to the adoption of dual method contraceptive use, including low levels of control in their emotional and commercial relationships. Reproductive health services need to be incorporated into programs for sexually transmitted infections and HIV, which address the socially-determined barriers to contraceptive use.

33. *Martins-Fonteyn EM, Sommerland N, Meulemans H, Degomme O, Raimundo I, Wouters E. Targeting vulnerable populations: a synthetic review on alcohol use and risky sexual behaviour among migrant populations. AIDS Res Ther. 2016;13:33.*

BACKGROUND: Research has demonstrated a link between alcohol use and risky sexual behaviour among different types of migrant populations. Therefore, research investigating risk factors associated with alcohol consumption among them is a public health priority. This review aimed to explore the intersection between migration, alcohol consumption and risky sexual behaviour. METHODS: This article is a synthetic review of empirical studies on the association of alcohol and high-risk sexual behaviour among different types of the migrant populations, focusing on measurable outcomes generated from quantitative data. A descriptive analysis generated from global and situational studies was used to interpret the reviewed research and to discuss critically the factors that drive migrants to engage in alcohol consumption and high-risk behaviour. RESULTS: This review found out that there is a significant and positive association between global and situational alcohol use and several outcomes of risky sexual behaviour among different types of migrant populations. This association was however mainly observed at high quantities and frequencies of alcohol use, mainly among male migrants, and was often tied to a specific situation or context, for instance the type of sexual partner, the level of mobility and to environmental factors such as living arrangements and entertainment venues. CONCLUSIONS: The study supports previous research that alcohol use is associated with risky sexual behaviour among different types of migrant populations. Therefore, future interventions should target mobile, male migrant heavy drinkers. Additional research is needed using more event-level and longitudinal methodologies that overcome prior methodological limitations.

34. *Mason-Jones AJ, De Koker P, Eggers SM, Mathews C, Temmerman M, Leye E, De Vries P J, De Vries H. Intimate partner violence in early adolescence: The role of gender, socioeconomic factors and the school. S Afr Med J. 2016;106(5):60.*

BACKGROUND: Intimate partner violence (IPV) among adolescents is common worldwide, but our understanding of perpetration, gender differences and the role of social-ecological factors remains limited. OBJECTIVES: To explore the prevalence of physical and sexual IPV perpetration and victimisation by gender, and associated risk and protective factors. METHODS: Young adolescents (N=2 839) from 41 randomly selected public high schools in the Western Cape region of South Africa (SA), participating in the PREPARE study, completed a self-administered questionnaire. RESULTS: The participants' mean age was 13.65 years (standard deviation 1.01), with 19.1% (541/2 839) reporting being victims/survivors of IPV and 13.0% (370/2 839) reporting perpetrating IPV. Girls were less likely to report being a victim/survivor of physical IPV (odds ratio (OR) 0.72; 95% confidence interval (CI) 0.57 - 0.92) and less likely to be a perpetrator of sexual IPV than boys (OR 0.33; 95% CI 0.21 - 0.52). Factors associated with perpetration of physical and sexual IPV were similar and included being a victim/survivor (physical IPV: OR 12.42; 95% CI 8.89 - 17.36, sexual IPV: OR 20.76; 95% CI 11.67 - 36.93), being older (physical IPV: OR 1.26; 95% CI 1.08 - 1.47, sexual IPV: OR 1.36; 95% CI 1.14 - 1.62), having lower scores on school connectedness (physical IPV: OR 0.59; 95% CI 0.46 - 0.75, sexual IPV: OR 0.56; 95% CI 0.42 - 0.76) and scoring lower on feelings of school safety (physical IPV: OR 0.66; 95% CI 0.57 - 0.77, sexual IPV: OR 0.50; 95% CI 0.40 - 0.62). CONCLUSIONS: Physical and sexual IPV was commonly reported among young adolescents in SA. Further qualitative exploration of the role of reciprocal violence by gender is needed, and the role of 'school climate'-related factors should be taken into account when developing preventive interventions.

35. *Menon S, Wusiman A, Boily MC, Kariisa M, Mabeya H, Luchters S, Forland F, Rossi R, Callens S, Vanden Broeck D. Epidemiology of HPV Genotypes among HIV Positive Women in Kenya: A Systematic Review and Meta-Analysis. PLoS One. 2016;11(10):e0163965.*

BACKGROUND: There is a scarcity of data on the distribution of human papillomavirus (HPV) genotypes in the HIV positive population and in invasive cervical cancer (ICC) in Kenya. This may be different from genotypes found in abnormal cytology. Yet, with the advent of preventive HPV vaccines that target HPV 16 and 18, and the nonavalent vaccine targeting 90% of all ICC cases, such HPV genotype distribution data are indispensable for predicting the impact of vaccination and HPV screening on prevention. Even with a successful vaccination program, vaccinated women will still require screening to detect those who will develop ICC from other High risk (HR) HPV genotypes not prevented by current vaccines. The aim of this review is to report on the prevalence of pHR/HR HPV types and multiple pHR/HR HPV genotypes in Kenya among HIV positive women with normal, abnormal cytology and ICC. METHODS: PUBMED, EMBASE, SCOPUS, and PROQUEST were searched for articles on HPV infection up to August 2nd 2016. Search terms were HIV, HPV, Cervical Cancer, Incidence or Prevalence, and Kenya. RESULTS: The 13 studies included yielded a total of 2116 HIV-infected women, of which 89 had ICC. The overall prevalence of pHR/HR HPV genotypes among HIV-infected women was 64% (95%CI: 50%-77%). There was a borderline significant difference in the prevalence of pHR/HR HPV genotypes between Female Sex workers (FSW) compared to non-FSW in women with both normal and abnormal cytology. Multiple pHR/HR HPV genotypes were highly prominent in both normal cytology/HSIL and ICC. The most prevalent HR HPV genotypes in women with abnormal cytology were HPV 16 with 26%, (95%CI: 23.0%-30.0%) followed by HPV 35 and 52, with 21% (95%CI: 18%-25%) and 18% (95%CI: 15%-21%), respectively. In women with ICC, the most prevalent HPV genotypes were HPV 16 (37%; 95%CI: 28%-47%) and HPV 18 (24%; 95%CI: 16%-33%). CONCLUSION: HPV 16/18 gains prominence as the severity of cervical disease increases, with HPV 16/18 accounting for 61% (95%CI: 50.0%-70.0%) of all ICC cases. A secondary prevention program will be necessary as this population harbors multiple pHR/HR HPV co-infections, which may not be covered by current vaccines. A triage based on FSW as an indicator may be warranted.

36. *Menon SS, Rossi R, Harebottle R, Mabeya H, Vanden Broeck D. Distribution of human papillomaviruses and bacterial vaginosis in HIV positive women with abnormal cytology in Mombasa, Kenya. Infect Agent Cancer. 2016;11:17.*

BACKGROUND: HPV is the major etiological factor in the causal pathway for cervical cancer, which is the leading cancer among women in sub-Saharan Africa. HIV is associated with a higher prevalence and a broader range of high-risk HPV genotypes. Studies have shown a positive association between Bacterial vaginosis (BV) and HPV and HIV. Also, in African women, BV was found to be significantly associated with vaginal inflammation. The high prevalence of BV, HIV and HPV infections in the African continent makes elucidation of the interactions with one another of utmost public health interest. The aims of the current study are to examine the frequency of HPV genotypes and BV as well as their respective risk factors within an HIV infected population with abnormal cytology in the resource-constrained setting of Mombasa, Kenya and, secondly, highlight issues to consider for triple co-infection clinical management. METHOD: Cross-sectional analysis with a sample drawn from an ongoing cohort study. All consenting, non-pregnant HIV infected women, between 18 and 50 years of age, without a history of cervical cancer or hysterectomy, between November 2005 and April 2006 were screened for HR HPV DNA in Mombasa, Kenya. 1 out of 4 HIV positive women fulfilled the criteria by having SIL (24.9 %). 600 HIV infected women were tested to reach a cohort of 74 HIV women with abnormal cytology. To assess which factors were associated with HR HPV, crude statistical analysis was performed through logistic regression. RESULTS: Bacterial vaginosis (BV) was found in 46 women out of 74 (62.2 %). Cervicitis was diagnosed in 15 % of women (n = 11), of which 8 had BV. The most prevalent HPV genotypes were HPV 16 (33.8), HPV 53 (24.3) and HPV 18 (17.6 %), while 65 % of the participants had multiple genotype infection. Statistically significant associations between CD4 counts <200 cells/mul and multiple HPV prevalence, adjusted for age were also noted (OR = 3.7; 95 CI: 1.2-12.1; p = 0.03) and HPV53 (OR = 4.4, 95 % CI: 1.4-13.6; p = 0.01). A statistically significant association was found between CD4 count \geq 350 mul and HPV 16 adjusted for age (OR = 2.9; 95 % CI: 1.0- 8.3; p = 0.05). A borderline statistically significant association was observed between BV and HPV58 (crude OR = 4.1, 95 % CI: 0.8-21.0; p = 0.07). CONCLUSION: The most prevalent HPV genotypes observed were HPV 16, HPV 53, and HPV 18, which have a combined prevalence of 76 %. Our results show that a triage based on CD4 count should start at CD4 count \geq 350 mul as our study suggests that HPV 16 are more prevalent when women are moderately immunosuppressed. Given the high prevalence of HPV 53 in a HIV infected population with abnormal cytology, its cervical carcinoma genesis potential as a stand-alone genotype and as well as its synergism with multiple infections should be investigated. The new WHO guideline in resource-poor settings to rescreen women for HPV within ten years may be more effective if BV and cervicitis management become a major component for HIV-HPV management.

37. *Michielsen K, De Meyer S, Ivanova O, Anderson R, Decat P, Herbiet C, Kabiru CW, Ketting E, Lees J, Moreau C, Tolman DL, Vanwesenbeeck I, Vega B, Verhetsel E, Chandra-Mouli V. Reorienting adolescent sexual and reproductive health research: reflections from an international conference. Reprod Health. 2016;13:3.*

On December 4th 2014, the International Centre for Reproductive Health (ICRH) at Ghent University organized an international conference on adolescent sexual and reproductive health (ASRH) and well-being. This viewpoint highlights two key messages of the conference--(1) ASRH promotion is broadening on different levels and (2) this broadening has important implications for research and interventions--that can guide this research field into the next decade. Adolescent sexuality has long been equated with risk and danger. However, throughout the presentations, it became clear that ASRH and related promotion efforts are broadening on different levels: from risk to well-being, from targeted and individual to comprehensive and structural, from knowledge transfer to innovative tools. However, indicators to measure adolescent sexuality that should accompany this broadening trend, are lacking. While public health related indicators (HIV/STIs, pregnancies) and their behavioral proxies (e.g., condom use, number of partners) are well developed and documented, there is a lack of consensus on

indicators for the broader construct of adolescent sexuality, including sexual well-being and aspects of positive sexuality. Furthermore, the debate during the conference clearly indicated that experimental designs may not be the only appropriate study design to measure effectiveness of comprehensive, context-specific and long-term ASRH programmes, and that alternatives need to be identified and applied. Presenters at the conference clearly expressed the need to develop validated tools to measure different sub-constructs of adolescent sexuality and environmental factors. There was a plea to combine (quasi-)experimental effectiveness studies with evaluations of the development and implementation of ASRH promotion initiatives.

38. Ochako R, Askew I, Okal J, Ouch J, Temmerman M. Modern contraceptive use among migrant and non-migrant women in Kenya. *Reprod Health*. 2016;13(1):67.

Manifest socio-economic differences are a trigger for internal migration in many sub-Saharan settings including Kenya. An interplay of the social, political and economic factors often lead to internal migration. Internal migration potentially has significant consequences on an individual's economic growth and on access to health services, however, there has been little research on these dynamics. In Kenya, where regional differentials in population growth and poverty reduction continue to be priorities in the post MDG development agenda, understanding the relationships between contraceptive use and internal migration is highly relevant. METHODS: Using data from the 2008-09 Kenya Demographic and Health Survey (DHS), we analyze data from 5,905 women aged 15-49 years who reported being sexually active in the last 12 months prior to the survey. Bivariate and multivariate logistic regressions are fitted to predict correlates of contraceptive use in the presence of migration streams among other explanatory variables. RESULTS: Modern contraceptive use was significantly higher among women in all migration streams (non-migrant urban (OR = 2.8, $p < 0.001$), urban-urban (OR = 2.0, $p < 0.001$), urban-rural (OR = 2.0, $p < 0.001$), rural-urban (OR = 2.6, $p < 0.001$), rural-rural (OR = 1.7, $p < 0.001$), than non-migrant rural women. CONCLUSION: Women who internally migrate within Kenya, whether from rural to urban or between urban centres, were more likely to use modern contraception than non-migrant rural women. This phenomenon appears to be due to selection, adaption and disruption effects which are likely to promote use of modern contraceptives. Programmatically, the differentials in modern contraceptive use by the different migration streams should be considered when designing family planning programmes among migrant and non-migrant women.

39. Ochako R, Izugbara C, Okal J, Askew I, Temmerman M. Contraceptive method choice among women in slum and non-slum communities in Nairobi, Kenya. *BMC Womens Health*. 2016;16:35.

Understanding women's contraceptive method choices is key to enhancing family planning services provision and programming. Currently however, very little research has addressed inter and intra-regional disparities in women's contraceptive method choice. Using data from slum and non-slum contexts in Nairobi, Kenya, the current study investigates the prevalence of and factors associated with contraceptive method choice among women. METHODS: Data were from a cross-sectional quantitative study conducted among a random sample of 1,873 women (aged 15-49 years) in two non-slum and two slum settlement areas in Nairobi, Kenya. The study locations were purposively sampled by virtue of being part of the Nairobi Urban Health and Demographic Surveillance System. Bivariate and multivariate logistic regression were used to explore the association between the outcome variable, contraceptive method choice, and explanatory variables. RESULTS: The prevalence of contraceptive method choice was relatively similar across slum and non-slum settlements. 34.3 % of women in slum communities and 28.1 % of women in non-slum communities reported using short-term methods. Slightly more women living in the non-slum settlements reported use of long-term methods, 9.2 %, compared to 3.6 % in slum communities. Older women were less likely to use short-term methods than their younger counterparts but more likely to use long-term methods. Currently married women were more likely than never married women to use short-term and long-term methods. Compared to those with no children, women with three or more children

were more likely to report using long term methods. Women working outside the home or those in formal employment also used modern methods of contraception more than those in self-employment or unemployed. CONCLUSION: Use of short-term and long-term methods is generally low among women living in slum and non-slum contexts in Nairobi. Investments in increasing women's access to various contraceptive options are urgently needed to help increase contraceptive prevalence rate. Thus, interventions that focus on more disadvantaged segments of the population will accelerate contraceptive uptake and improve maternal and child health in Kenya.

40. Patton G, Temmerman M. Evidence and Evidence Gaps in Adolescent Health. *J Adolesc Health*. 2016;59(4S):S1-S3.

The momentum to bring adolescents and young adults to center stage in global health and international development is palpable. Adolescents are increasingly seen as a crucial group for the success of the newly adopted Agenda for Sustainable Development [1]. Sitting within the Agenda for Sustainable Development framework, the 2030 Global Strategy for Women's, Children's and Adolescents' Health has extended the Every Woman, Every Child agenda to adolescence [2]. The strategy articulates the need for adolescent responsive health systems as well as social determinants, a focus that extends to legal and policy environments [3]. Countries seeking to adopt this more holistic approach to adolescent health and human rights must extend their public health efforts beyond the traditional yet still essential focus on HIV and sexual and reproductive health to address other infectious diseases, injuries, undernutrition, violence, self-harm, mental health, and the prevention of risks for noncommunicable diseases.

41. Pham MD, Agius PA, Romero L, McGlynn P, Anderson D, Crowe SM, Luchters S. Performance of point-of-care CD4 testing technologies in resource-constrained settings: a systematic review and meta-analysis. *BMC Infect Dis*. 2016;16(1):592.

CD4 testing is, and will remain an important part of HIV treatment and care in low and middle income countries (LMICs). We report the findings of a systematic review assessing acceptability and feasibility of POC CD4 testing in field settings.

METHODS: Electronic databases were searched for studies published in English between 2005 and 2015 that describe POC CD4 platforms. Studies conducted in LMICs and under field conditions outside a laboratory environment were eligible. Qualitative and descriptive data analysis was used to present the findings. **RESULTS:** Twelve studies were included, 11 of which were conducted in sub-Saharan countries and used one POC CD4 test (The Alere Pima CD4). Patients reported positively regarding the implementation of POC CD4 testing at primary health care and community level with $\geq 90\%$ of patients accepting the test across various study settings. Health service providers expressed preference toward POC CD4 testing as it is easy-to-use, efficient and satisfied patients' needs to a greater extent as compared to conventional methods. However, operational challenges including preference toward venous blood rather than finger-prick sampling, frequent device failures and operator errors, quality of training for test operators and supervisors, and increased staff workload were also identified. **CONCLUSIONS:** POC CD4 testing seems acceptable and feasible in LMICs under field conditions. Further studies using different POC CD4 tests available on the market are required to provide critical data to support countries in selection and implementation of appropriate POC CD4 technologies.

42. Pham MD, Agius PA, Romero L, McGlynn P, Anderson D, Crowe SM, Luchters S. Acceptability and feasibility of point-of-care CD4 testing on HIV continuum of care in low and middle income countries: a systematic review. *BMC Health Serv Res*. 2016;16(a):343.

Point-of-care (POC) CD4 testing increases patient accessibility to assessment of antiretroviral therapy eligibility. This review evaluates field performance in low and middle-income countries (LMICs) of currently available POC CD4 technologies. **METHODS:** Eight electronic databases were searched for field studies published between January 2005 and January 2015 of six POC CD4 platforms: PointCare NOW, Alere Pima CD4, Daktari CD4 Counter,

CyFlow(R) CD4 miniPOC, BD FACSPresto, and MyT4 CD4. Due to limited data availability, meta-analysis was conducted only for diagnostic performance of Pima at a threshold of 350 cells/mul, applying a bivariate multi-level random-effects modelling approach. A covariate extended model was also explored to test for difference in diagnostic performance between capillary and venous blood. RESULTS: Twenty seven studies were included. Published field study results were found for three of the six POC CD4 tests, 24 of which used Pima. For Pima, test failure rates varied from 2 to 23 % across study settings. Pooled sensitivity and specificity were 0.92 (95 % CI = 0.88-0.95) and 0.87 (95 % CI = 0.85-0.88) respectively. Diagnostic performance by blood sample type (venous vs. capillary) revealed non-significant differences in sensitivity (0.94 vs 0.89) and specificity (0.86 vs 0.87), respectively in the extended model (Wald $\chi^2(2) = 4.77$, $p = 0.09$). CONCLUSIONS: POC CD4 testing can provides reliable results for making treatment decision under field conditions in low-resource settings. The Pima test shows a good diagnostic performance at CD4 cut-off of 350 cells/mul. More data are required to evaluate performance of POC CD4 testing using venous versus capillary blood in LMICs which might otherwise influence clinical practice.

43. Schneider M, Chersich M, Temmerman M, Parry CD. Addressing the intersection between alcohol consumption and antiretroviral treatment: needs assessment and design of interventions for primary healthcare workers, the Western Cape, South Africa. Global Health. 2016;12(1):65.

BACKGROUND: At the points where an infectious disease and risk factors for poor health intersect, while health problems may be compounded, there is also an opportunity to provide health services. Where human immunodeficiency virus (HIV) infection and alcohol consumption intersect include infection with HIV, onward transmission of HIV, impact on HIV and acquired immunodeficiency syndrome (AIDS) disease progression, and premature death. The levels of knowledge and attitudes relating to the health and treatment outcomes of HIV and AIDS and the concurrent consumption of alcohol need to be determined. This study aimed to ascertain the knowledge, attitudes and practices of primary healthcare workers concerning the concurrent consumption of alcohol of clinic attendees who are prescribed antiretroviral drugs. An assessment of the exchange of information on the subject between clinic attendees and primary healthcare providers forms an important aspect of the research. A further objective of this study is an assessment of the level of alcohol consumption of people living with HIV and AIDS attending public health facilities in the Western Cape Province in South Africa, to which end, the study reviewed health workers' perceptions of the problem's extent. A final objective is to contribute to the development of evidence-based guidelines for AIDS patients who consume alcohol when on ARVs. The overall study purpose is to optimise antiretroviral health outcomes for all people living with HIV and AIDS, but with specific reference to the clinic attendees studied in this research. METHODS: Overall the research study utilised mixed methods. Three group-specific questionnaires were administered between September 2013 and May 2014. The resulting qualitative data presented here supplements the results of the quantitative data questionnaires for HIV and AIDS clinic attendees, which have been analysed and written up separately. This arm of the research study comprised two, separate, semi-structured sets of interviews: one face-to-face with healthcare workers at the same primary healthcare clinics from which the clinic attendees were sampled, and the other with administrators from the local government health service via email. The qualitative analysis from the primary healthcare worker interviews has been analysed using thematic content analysis. RESULTS: The key capacity gaps for nurses include the definition of different patterns and volumes of alcohol consumption, resultant health outcomes and how to answer patient questions on alcohol consumption while on antiretroviral treatment. Not only did the counsellors lack knowledge regarding alcohol abuse and its treatment, but they were also they were unclear on their role and rights in relation to their patients. Doctors highlighted the need for additional training for clinicians in diagnosing alcohol use disorders and information on the pharmacological interventions to treat alcoholism. CONCLUSION: Pertinent knowledge regarding patient alcohol consumption while taking ARVs needs to be disseminated to primary healthcare workers.

44. *Shamu S, Zarowsky C, Roelens K, Temmerman M, Abrahams N. High-frequency intimate partner violence during pregnancy, postnatal depression and suicidal tendencies in Harare, Zimbabwe. Gen Hosp Psychiatry. 2016;38:109-14.*

INTRODUCTION: Intimate partner violence (IPV) is a common form of violence experienced by pregnant women and is believed to have adverse mental health effects postnatally. This study investigated the association of postnatal depression (PND) and suicidal ideation with emotional, physical and sexual IPV experienced by women during pregnancy. METHODS: Data were collected from 842 women interviewed postnatally in six postnatal clinics in Harare, Zimbabwe. We used the World Health Organization versions of IPV and Centre for Epidemiological Studies - Depression Scale measures to assess IPV and PND respectively. We derived a violence severity variable and combined forms of IPV variables from IPV questions. Logistic regression was used to analyse data whilst controlling for past mental health and IPV experiences. RESULTS: One in five women [21.4% (95% CI 18.6-24.2)] met the diagnostic criteria for PND symptomatology whilst 21.6% (95% CI 18.8-24.4) reported postpartum suicide thoughts and 4% (95% CI 2.7-5.4) reported suicide attempts. Two thirds (65.4%) reported any form of IPV. Although individual forms of severe IPV were associated with PND, stronger associations were found between PND and severe emotional IPV or severe combined forms of IPV. Suicidal ideation was associated with emotional IPV. Other forms of IPV, except when combined with emotional IPV, were not individually associated with suicidal ideation. CONCLUSION: Emotional IPV during pregnancy negatively affects women's mental health in the postnatal period. Clinicians and researchers should include it in their conceptualisation of violence and health. Further research must look at possible indirect relationships between sexual and physical IPV on mental health.

45. *Shangani S, Naanyu V, Mwangi A, Vermandere H, Mereish E, Obala A, Vanden Broeck D, Sidle J, Operario D. Factors associated with HIV testing among men who have sex with men in Western Kenya: a cross-sectional study. Int J STD AIDS. 2017;28(2):179-87.*

HIV diagnosis is an important step in the HIV cascade of prevention and treatment. However, men who have sex with men in low- and middle-income countries have limited access to HIV care services. We examined factors associated with prior HIV testing among men who have sex with men in western Kenya. We recruited 95 men who have sex with men aged 18 years and older, and who reported at least one sexual contact with a man in the past 6 months; however, this analysis is restricted to 89 participants who completed questions on HIV testing. Logistic regression model was used to determine factors associated with HIV testing in the past one year. Results indicate that 23 (26%) had not been tested in the past 12 months. Bivariate analyses demonstrated that condomless anal sex (odds ratio = 3.29, 95% confidence interval = 1.18-9.17) and comfort with healthcare providers (odds ratio = 1.15, 95 % CI = 1.05-1.26) were associated with higher odds of HIV testing in the past 12 months. Experiencing social stigma was associated with lower odds of HIV testing in the last 12 months (odds ratio = 0.91, 95% confidence interval = 0.84-0.94). In multivariable models, social stigma remained significantly associated with lower odds of HIV testing in the last 12 months odds ratio = 0.90, 95% confidence interval = 0.82-0.99) after inclusion of sexual risk and individual level variables. Development of men who have sex with men-sensitive HIV-testing services, addressing stigma, and training healthcare workers to provide culturally sensitive services may assist in effectively engaging men who have sex with men in the HIV treatment cascade.

46. *Steyn PS, Cordero JP, Gichangi P, Smit JA, Nkole T, Kiarie J, Temmerman M. Participatory approaches involving community and healthcare providers in family planning/contraceptive information and service provision: a scoping review. Reprod Health. 2016;13(1):88.*

As efforts to address unmet need for family planning and contraception (FP/C) accelerate, voluntary use, informed choice and quality must remain at the fore. Active involvement of affected populations has been recognized as one of the key principles in ensuring human rights in the provision of FP/C and in improving quality of care. However, community participation continues to be inadequately addressed in large-scale FP/C programmes.

Community and healthcare providers' unequal relationship can be a barrier to successful participation. This scoping review identifies participatory approaches involving both community and healthcare providers for FP/C services and analyzes relevant evidence. The detailed analysis of 25 articles provided information on 28 specific programmes and identified three types of approaches for community and healthcare provider participation in FP/C programmes. The three approaches were: (i) establishment of new groups either health committees to link the health service providers and users or implementation teams to conduct specific activities to improve or extend available health services, (ii) identification of and collaboration with existing community structures to optimise use of health services and (iii) operationalization of tools to facilitate community and healthcare provider collaboration for quality improvement. Integration of community and healthcare provider participation in FP/C provision were conducted through FP/C-only programmes, FP/C-focused programmes and/or as part of a health service package. The rationales behind the interventions varied and may be multiple. Examples include researcher-, NGO- or health service-initiated programmes with clear objectives of improving FP/C service provision or increasing demand for services; facilitating the involvement of community members or service users and, in some cases, may combine socio-economic development and increasing self-reliance or control over sexual and reproductive health. Although a number of studies reported increase in FP/C knowledge and uptake, the lack of robust monitoring and evaluation mechanisms and quantitative and comparable data resulted in difficulties in generating clear recommendations. It is imperative that programmes are systematically designed, evaluated and reported.

47. Tang L, Wu S, Li J, Wang K, Xu J, Temmerman M, Zhang WH and INPAC consortium. Post-abortion family planning counselling practice among abortion service providers in China: a nationwide cross-sectional study. *Eur J Contracept Reprod Health Care*. 2017;22(1):24-9.

To assess the practice of post-abortion family planning (PAFP) counselling among Chinese abortion service providers, and identify the influencing factors. **METHODS:** A cross-sectional questionnaire survey was conducted between July and September 2013 among abortion services providers in 30 provinces in China. Univariate and multivariable logistic regression analyses were used to identify the factors that influenced PAFP counselling. **RESULTS:** 94% of the 579 service providers responded to the questionnaire in the survey. The median age was 39 years (range 20-72), and 95% were females. 92% providers showed a positive attitude and had promoted the PAFP counselling services; however, only 57% spent more than 10 min for it. The overall knowledge on PAFP was limited to the participants. After adjusting for potential confounding factors: providers from the middle region (compared with 'east region', ORadj = 3.33, 95% CI: 2.12-5.21) conducted more PAFP counseling; providers with more knowledge (ORadj = 2.08, 95% CI: 1.38-3.15) provided more counseling; and compared with 'middle school and below', providers with higher education gave more counseling [ORadj(95% CI)] for 'college', 'university' and 'master/doctor'. **CONCLUSIONS:** The majority of providers could provide PAFP counselling to women undergone an abortion, but some of them had insufficient time to make it available. Education, knowledge about fertility and reproductive health and residence region were the main factors influencing the practice. Training of health providers and integrating family planning as a part of abortion services are essential to provide adequate PAFP to abortion seekers, thereby reducing the risk of unintended pregnancy.

48. Temmerman M. Caesarean section surgical techniques: all equally safe. *Lancet*. 2016;388(10039):8-9.

Since 1985, a caesarean section rate of 10–15% has been deemed optimum by the international health-care community.¹ When caesarean section rates rise towards 10% across a population, maternal and newborn deaths decrease; when they are higher than 15%, there is no evidence of reduced mortality. ¹ Complications of caesarean sections can be substantial and sometimes permanent for both mothers and babies, and can result in disability or death, especially in settings with inadequate facilities or capacity to undertake safe surgery and treat surgical complications.

49. *Urban MF, Olivier L, Louw JG, Lombard C, Viljoen DL, Scorgie F, Chersich MF. Changes in drinking patterns during and after pregnancy among mothers of children with fetal alcohol syndrome: A study in three districts of South Africa. Drug Alcohol Depend. 2016;168:13-21.*

Mixed ancestry populations in South Africa have amongst the highest rates of fetal alcohol syndrome (FAS) worldwide. Defining the drinking patterns of women with a FAS child guides FAS preventive interventions. METHODS: Data were drawn from FAS prevalence surveys conducted in three districts: Witzenberg (Cape Winelands), Frances Baard (inland mining town) and Saldanha Bay (coastal towns). 156 mothers and 50 proxy informants of school-entry children diagnosed with FAS and partial-FAS were interviewed, and compared with 55 controls recruited in Saldanha Bay. RESULTS: Study participants were of low socio-economic status (SES), and a majority of children were either in foster care (12%) or had been cared for by relatives for long periods (44%). Of cases, 123/160 (77%) reported current drinking, similar between sites. During pregnancy, only 35% (49/139) of cases had stopped drinking, varying between sites (from 21% to 54% in chronological order of surveys; $p < 0.001$), while 6% (7/109) increased drinking. Though many women who stopped in pregnancy resumed postpartum, cessation in pregnancy was strongly associated with discontinuation in the long run ($OR = 3.3$; $95\%CI = 1.2-8.9$; $p = 0.005$). At interview, 36% of cases (54/151) and 18% of controls (9/51) were at risk of an alcohol-exposed pregnancy ($p = 0.02$). Median maternal mass of cases was 22kg lower than controls, with 20% being underweight and 14% microcephalic. CONCLUSIONS: Increasing rates of drinking cessation during pregnancy over time suggest rising awareness of FAS. Cessation is associated with recidivism after pregnancy but also with reduced long-term drinking. Interventions should target alcohol abstinence in pregnancy, but extend into the puerperium.

50. *Valentine K, Vanden Broeck D, Benoy I, Truyens M, Bogers J. Cytology at the Time of HPV: Some Things to Think about when Discussing HPV. Acta Cytol. 2016;60(6):527-33.*

'In the current 28 Member States of the European Union (EU), approximately 34,000 new cases of cervical cancer and 13,000 deaths occur' [Ferlay et al.: Eur J Cancer 2014;49:1374-1403]. 'The current 10-fold gradient in the mortality rates of cervical cancer among the EU Member States largely reflects the persistent absence, or inadequate implementation of cervical cancer screening programmes more than 10 years after organized, population-based screening programmes following European quality assurance guidelines were unanimously recommended by the Health Ministers of the EU' [Council of the European Union: Off J Eur Union 2003;327:34-38]. This article will compare the strengths, weaknesses and risks of the following 4 cervical health screening strategies: HPV as a triage of cytology, cytology as a triage of HPV, cotesting (parallel) or cytology at the time of HPV (HPV-informed guided screening). 'The optimal screening strategy should identify those cervical cancer precursors likely to progress to invasive cancers (maximizing the benefits of screening) and avoid the detection and unnecessary treatment of transient HPV infection and its associated benign lesions that are not destined to become cancerous (minimizing the potential harms of screening)' [Saslow et al.: Am J Clin Pathol 2012;137:516-542].

51. *Van Baelen L, Ortensi L, Leye E. Estimates of first-generation women and girls with female genital mutilation in the European Union, Norway and Switzerland. Eur J Contracept Reprod Health Care. 2016;21(6):474-82.*

Female genital mutilation (FGM) is the practice of partial or total removal of female genitalia for non-medical reasons. The procedure has no known health benefits but can cause serious immediate and long-term obstetric, gynaecological and sexual health problems. Health workers in Europe are often unaware of the consequences of FGM and lack the knowledge to treat women adequately. OBJECTIVE: Our goal was to estimate the number of first-generation girls and women in the European Union, Norway and Switzerland who have undergone FGM. Before migration from FGM-practicing countries began, FGM was an unknown phenomenon in Europe. METHODS: Secondary analysis of data from the 2011 EU census and extrapolation from age-specific FGM prevalence rates in the immigrants' home countries to these data were used to provide our estimates. Estimates

based on census and other demographic data were compared to our results for Belgium. RESULTS: In 2011 over half a million first-generation women and girls in the EU, Norway and Switzerland had undergone FGM before immigration. One in two was living in the UK or France, one in two was born in East-Africa. CONCLUSIONS: For the first time, scientific evidence gives a reliable estimate of the number of first-generation women and girls in Europe coming from countries where FGM is practiced. The use of census data proves reliable for policy makers to guide their actions, e.g., regarding training needs for health workers who might be confronted with women who have undergone FGM, or the need for reconstructive surgery.

52. Vermandere H, van Stam MA, Naanyu V, Michielsen K, Degomme O, Oort F. Uptake of the human papillomavirus vaccine in Kenya: testing the health belief model through pathway modeling on cohort data. *Global Health*. 2016;12(1):72.

Many studies investigate HPV vaccine acceptability, applying health behavior theories to identify determinants; few include real uptake, the final variable of interest. This study investigated the utility of the Health Belief Model (HBM) in predicting HPV vaccine uptake in Kenya, focusing on the importance of promotion, probing willingness to vaccinate as precursor of uptake and exploring the added value of personal characteristics. METHODS: Longitudinal data were collected before and after a pilot HPV vaccination program in Eldoret among mothers of eligible girls (N = 255). Through pathway modeling, associations between vaccine uptake and the HBM constructs, willingness to vaccinate and adequate promotion were examined. Adequate promotion was defined as a personal evaluation of promotional information received. Finally, baseline cervical cancer awareness and socio-demographic variables were added to the model verifying their direct, mediating or moderating effects on the predictive value of the HBM. RESULTS: Perceiving yourself as adequately informed at follow-up was the strongest determinant of vaccine uptake. HBM constructs (susceptibility, self-efficacy and foreseeing father's refusal as barrier) only influenced willingness to vaccinate, which was not correlated with vaccination. Baseline awareness of cervical cancer predicted uptake. CONCLUSIONS: The association between adequate promotion and vaccination reveals the importance of triggers beyond personal control. Adoption of new health behaviors might be more determined by organizational variables, such as promotion, than by prior personal beliefs. Assessing users' and non-users' perspectives during and after implementing a vaccination program can help identifying stronger determinants of vaccination behavior.

53. Vorsters A, Cornelissen T, Leuridan E, Bogers J, Vanden Broeck D, Benoy I, Goossens H, Hens N, Van Damme P. Prevalence of high-risk human papillomavirus and abnormal pap smears in female sex workers compared to the general population in Antwerp, Belgium. *BMC Public Health*. 2016;16:477.

Although female sex workers (FSWs) are a well-known high-risk group for Human Papillomavirus (HPV) infections, few tailored intervention programmes for HPV have been established worldwide. The lack of reliable data on the prevalence of HPV and related cervical lesions hampers the establishment of evidence-based intervention programmes. The objectives of this study were to describe the prevalence of high-risk Human Papillomavirus (hrHPV) infections and abnormal pap smears in FSWs compared to a control group in Antwerp, Belgium. METHODS: HPV genotyping and cytology data were analysed from routine Pap smear tests that were collected from both FSWs and the general population (1334 samples for each group) between June 2006 and June 2010. Within the laboratory database, all FSWs were matched 1:1 for age and testing date to determine the ORs of hrHPV genotypes, DNA and cytology outcome. RESULTS: The prevalence of hrHPV DNA in FSWs was 41.7 % compared to 19.8 % in the age-matched controls with an overall OR of 2.8 (95 % CI: 2.3-3.4). Significant differences were observed in all age groups, and the most significant differences were observed in the cohort under 21 years of age (prevalence of 64.4 % in FSWs versus 14.8 % in controls; OR 10.3 (95 % CI: 5.0-21.2). Significantly more cervical lesions were observed in FSWs, particularly in the 17- to 21-year old age group (OR for LSIL or HSIL: 10.3 (95 % CI: 3.2-33.8). In both groups, HPV 16 was the most prevalent at 12.1 and 6.6 % in the

FSW and control groups, respectively. HPV 18 was the 8(th) and 7(th) most frequent genotype at 5.0 and 2.5 % in the FSW and control groups, respectively. CONCLUSIONS: FSWs have a significantly higher prevalence of hrHPV and more abnormal Pap smears than does the general population in Antwerp, Belgium. The hrHPV prevalence in FSWs is similar to that reported in the literature. The need for tailored intervention programmes should be investigated further.

54. Weeks A, Temmerman M. New WHO antenatal care model-quality worth paying for? *Lancet*. 2016;388(10060):2574-5.

The 2016 WHO guidelines on antenatal care were published earlier this month and are widely welcomed because they are not only academically robust, but also relevant to end-users and patients. The guidelines cover antenatal care for normal pregnancies and have adopted a woman-centred, holistic approach to care. They cover nutritional interventions, maternal and fetal assessment, preventive measures, interventions for common physiological pregnancy symptoms, and health systems interventions to improve the use and quality of antenatal care.

55. Yugbare Belemsaga D, Bado A, Goujon A, Duysburgh E, Degomme O, Kouanda S, Temmerman M. A cross-sectional mixed study of the opportunity to improve maternal postpartum care in reproductive, maternal, newborn, and child health services in the Kaya health district of Burkina Faso. *Int J Gynaecol Obstet*. 2016;135 Suppl 1:S20-S6.

To propose a rationale to improve maternal postpartum care in reproductive, maternal, newborn, and child health (RMNCH) services. METHODS: We conducted a cross-sectional mixed study in the Kaya health district in Burkina Faso based on two data collection exercises conducted between December 2012 and May 2013. A household survey of 757 mothers in their first year after delivery was processed. It was complemented with a qualitative analysis using in-depth interviews with key informants, focus group discussions with mothers, and participant observation. RESULTS: Postpartum services showed serious weaknesses. Overall, 52% (n=384) of mothers did not receive any maternal postpartum care; however among them, 47% (n= 349) received infant postpartum care. CONCLUSION: We suggest the integration of maternal postpartum care in RMNCH services as a key step to improving postpartum care. The intervention would require the overcoming of challenges related to the quality and cost of services, and to reaching the poor populations with low education and a high parity.

56. Zhang XD, Myers S, Yang HJ, Li Y, Li JH, Luo W, Luchters S. Prevalence and correlates of sexual and gender-based violence against Chinese adolescent women who are involved in commercial sex: a cross-sectional study. *BMJ Open*. 2016;6(12):e013409.

Despite the vast quantity of research among Chinese female sex workers (FSWs) to address concerns regarding HIV/sexually transmitted infection (STI) risk, there is a paucity of research on issues of sexual and gender-based violence (SGBV) and the missed opportunity for sexual and reproductive health (SRH) promotion among young FSWs. Our research aimed to assess the prevalence and correlates of SGBV among Chinese adolescent FSWs, and to explore SRH service utilisation. DESIGN AND METHODS: A cross-sectional study using a one-stage cluster sampling method was employed. A semistructured questionnaire was administered by trained peer educators or health workers. Multivariable logistic regression was conducted to determine individual and structural correlates of SGBV. SETTING AND PARTICIPANTS: Between July and September 2012, 310 adolescent women aged 15-20 years, and who self-reported having received money or gifts in exchange for sex in the past 6 months were recruited and completed their interview in Kunming, Yunnan Province, China. RESULTS: Findings confirm the high prevalence of SGBV against adolescent FSWs in China, with 38% (118/310) of participants affected in the past year. Moreover, our study demonstrated the low uptake of public health services and high rates of prior unwanted pregnancy (52%; 61/118), abortion (53%; 63/118) and self-reported STI symptoms (84%; 99/118) in participants who were exposed to SGBV. Forced sexual debut was reported by nearly a quarter of FSWs (23%;

70/310) and was independently associated with having had a drug-using intimate partner and younger age (<17 years old) at first abortion. When controlling for potential confounders, having experienced SGBV was associated with frequent alcohol use, having self-reported symptoms of STI, having an intimate partner and having an intimate partner with illicit drug use. CONCLUSIONS: This study calls for effective and integrated interventions addressing adolescent FSWs' vulnerability to SGBV and broader SRH consequences.

57. Menon, Sonia; Vanden Broeck, Davy; Rossi, Rodolfo; Ogbe, Emilomo; Harmon, Stacy; Mabeya, Hillary. Associations Between Vaginal Infections and Potential High-risk and High-risk Human Papillomavirus Genotypes in Female Sex Workers in Western Kenya. Clinical Therapeutics 2016. Vol. 38. Issue 12.

Purpose: Infection with and persistence of high-risk human papillomavirus (HR HPV) are the strongest risk factors for cervical cancer. Little is known about the prevalence and role of concurrent sexually transmitted infections (STIs) found in HPV-infected female sex workers (FSW) in Africa. This study purports to test our a priori hypotheses that STIs are associated with genotypes pertaining to the a-group species 9. The objectives were to determine the prevalence of bacterial vaginosis (BV), *Trichomonas vaginalis*, and *Candida* spp in FSW, the association between these STIs and the prevalence of any potential HR and HR HPV genotypes in FSWs. Methods: A cross-sectional study design of 616 FSW from Western Kenya aged between 18 and 61 years during 2009-2015 using a peer recruitment sampling strategy. Inclusion criteria for the study entailed female sex and > 18 years of age and having engaged in transactional sex in exchange for money, goods, services, or drugs in the last 3 months. Women were excluded if they were pregnant, <18 years of age, had a history of cervical dysplasia or cancer, had current abnormal bleeding, or had a hysterectomy. Findings: Of the FSW, 33.3% had HIV and 57.7% harbored a potential HR and HR HPV genotype. The 2 most prevalent potential HR and HR genotypes were HPV 16 (16.10%) and HPV 59 (12.20%). BV was the most common infection (48.3%), followed by *Trichomonas vaginalis* (31.4%) and *Candida* spp (19.9%). A multivariate regression revealed significant associations with both a-group 9 and 6; BV and HPV 58 (adjusted odds ratio [aOR] = 2.3; 95% CI, 1.0-5.2; P = 0.05), *Trichomonas vaginalis* and HPV 31 and HPV 35 (aOR = 2.0; 95% CI, 1.0-3.8; P = 0.04 and aOR = 1.8; 95% CI, 1.0-3.3, P = 0.05 respectively); and between *Candida* spp and HPV 53 (aOR = 2.0; 95% CI, 1.1-4.0; P = 0.03) and 16 (aOR = 1.9; 95% CI, 1.1-3.3; P = 0.03).

II. ARTICLES IN INTERNATIONAL SCIENTIFIC JOURNALS, REVIEWED BY INTERNATIONAL EXPERTS, NOT INCLUDED IN THE SCIENCE CITATION INDEX, SOCIAL SCIENCES CITATION INDEX AND HUMANITIES INDEX. (A2)

1. *Leye E. Midwifery training needs identified when caring for women with female genital mutilation. Evid Based Nurs. 2016;19(1):7.*

Commentary on: Dawson A, Turkmani S, Fray S, et al. Evidence to inform education, training and supportive work environments for midwives involved in the care of women with female genital mutilation: a review of global experience. *Midwifery* 2015;31:229 –38. Implications for practice and research. More studies are needed to examine the experiences and needs of midwives to help guide the design of interventions for optimal care for women with female genital mutilation (FGM). Multidisciplinary and integrated programmes involving midwives and their professional associations and other sectors, should develop strategies to help abandon and advocate against FGM.

2. *Keygnaert I. In Search of the Third Eye, When the Two Others Are Shamefacedly Shut? Comment on “Are Sexual and Reproductive Health Policies Designed for All? Vulnerable Groups in Policy Documents of Four European Countries and Their Involvement in Policy Development”. Int J Health Policy Manag. 2016;5(5):325-7.*

Ivanova et al explored how vulnerable groups and principles of human rights are incorporated into national sexual and reproductive health (SRH) policies in 4 countries. They adapted the EquiFrame of Amin and colleagues of 2011, to SRH vulnerable groups which we believe could now be used for analysis of national SRH policies beyond those 4 countries. Although we fully agree with the authors’ two main findings that vulnerable groups and human rights’ principles are not sufficiently integrated in SRH policies nor granted the possibility to participate in the process of development in those four countries, we do believe that these shortcomings are not limited to those countries only nor to the identified vulnerable groups either. We are convinced that the issue of SRH as such is still framed within a very limited logic for all with vulnerable groups being perceived as an extra threat or an extra burden.

III. PRESENTATIONS AND POSTERS (C3)

1. De Meyer S, Kagesten A, Mmari K, McEachran J, Chilet E, Karibu C, Maina B, Jerves EM, Currie C, Michielsen K. Conference on Adolescence, Youth and Gender: Building knowledge for Change. Conference abstracts. P19-19. Oxford, UK, 08/09-09/09/2016.
2. Yu C, Zuo X, Blum RW, Tolman DL, Kagesten A, Mmari K, De Meyer S, Michielsen K, Basu S, Acharya R, Lian Q, Lou C. Conference on Adolescence, Youth and Gender: Building knowledge for Change. Conference abstracts. P62-62. Oxford, UK, 08/09-09/09/2016.

IV. PHD ICRH MONOGRAPHS (D1)

1. Duysburgh Els. Quality of Maternal and Infant Care in sub-Saharan Africa: Challenges and Opportunities. ICRH Monographs. ISBN 9789078128427.
2. Vermandere Heleen. Introduction of HPV vaccination in Kenya. ICRH Monographs. ISBN 9789078128434.
3. Van Parys An-Sofie. Intimate Partner Violence and Pregnancy, an Intervention Study in Perinatal Care. ISBN 9789078128441
4. Van Raemdonck An. Female Genital Cutting and the Politics of Islamicate Practices in Egypt - Debating Development and the Religious/Secular Divide.

HUMAN RESOURCES

Conducting a state-of-the art HRM policy is far from easy given the strict regulations imposed by Ghent University and the fact that the vast majority of our staff depends on project funding and therefore can only be given contracts of limited duration. Nevertheless, within these limitations ICRH has taken measures aimed at creating an encouraging and comfortable working environment. These measures include:

- flexible working hours;
- a policy for working from home;
- evaluation talks for every staff member and functioning talks on demand.

List of employees in 2016

| | |
|---------------------|---|
| Kimberly Absher ** | Volunteer |
| Ibraheem Adebayo * | Intern |
| Saar Baert * | Researcher |
| Roxanne Beauclair | Researcher |
| John-Paul Bogers | Visiting Professor |
| Marleen Bosmans | Voluntary post-doctoral collaborator |
| Steven Callens | Senior Researcher |
| Matthew Chersich | Visiting Professor |
| Olivier Degomme | Scientific Director, assistant Professor |
| Wim Delva | Assistant Professor |
| Sara De Meyer | Researcher |
| Cindy De Muyck | Administration and support |
| Lotte De Schrijver | Researcher |
| Lou Dierick | ICRH Kenya |
| Els Duysburgh ** | Researcher & Team Leader Maternal Health |
| Anna Galle | Researcher |
| Peter Gichangi | Visiting Professor |
| Sally Griffin | ICRH Mozambique |
| Ines Keynaert | Senior Researcher & Team Leader GBV |
| Yves Lafor | Researcher & Team Leader HIV/STI |
| Els Leye | Assistant Professor |
| Hon Chung Li * | Researcher |
| Marusya Lieveld | Researcher |
| Jin-Lin Liu * | Visiting researcher |
| Limin Liu * | Researcher |
| Stanley Luchters | Visiting Professor |
| Kishen Mandaliya ** | Intern |
| Kristien Michielsen | Assistant Professor and post-doctoral assistant |
| Chris Moreel | Financial Assistant |
| Katherine Muylaert | Administrative Project Manager |
| Emilomo Ogbe | PhD Fellow & Researcher |
| Zhou Shu ** | Visiting Researcher |
| Longmei Tang ** | Researcher |

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| Marleen Temmerman | Full Professor |
| Luk Van Baelen ** | Senior Researcher |
| Dirk Van Braeckel | Director of Finance and Administration |
| Davy Vanden Broeck | Assistant Professor |
| Margot Van den Heede * | Researcher |
| Katrien Van Impe | Communication officer |
| An-Sofie Van Parys | Senior Researcher |
| Heleen Vermandere | Senior Researcher |
| Zhu Yi * | Visiting researcher |
| Anny Yu ** | Researcher |
| Ouyang Yunwei * | Visiting researcher |
| Alexandria Williams * | Researcher |
| Wei-Hong Zhang | Senior Researcher |

* Joined ICRH in the course of 2016 or in the beginning of 2017. Welcome to the ICRH family!

** Left ICRH in the course of 2016. Thanks a lot for the work you have done with us, and good luck in your career!

ICRH AND THE ENVIRONMENT

Even if the environmental impact of research activities is rather limited compared to other sectors, it is by no means negligible. We hold ourselves responsible for striving to limit our environmental footprint as much as possible. Our main impacts stem from transportation, paper use and energy consumption. In each of these fields, we have taken measures to avoid excessive consumption of resources or emissions.

Transportation

For reducing the impacts of commuting of ICRH employees, we benefit from the general stimulation measures of Ghent University:

- Public transport commuting expenses are fully reimbursed;
- Commuting by car is discouraged and related costs are not reimbursed;
- Employees can rent a bicycle from the university at favorable conditions, and employees commuting by bicycle receive a financial compensation.

Waste production

ICRH produces almost exclusively office waste, such as paper and ink cartridges. Waste is sorted and the fractions are separately removed by the maintenance staff. We will continue our ongoing efforts to limit paper use, by continuously insisting on compliance with printing and copying guidelines (recto-verso, black and white, and if possible on several pages per sheet) and by stimulating the shift from paper to electronic document storage.

Energy use

The non-transportation related energy consumption of ICRH is mostly limited to office heating and lighting. There is no separate tracking of energy consumption for the ICRH offices. We try to bring down our energy consumption by 'good housekeeping measures', such as switching off the lights and turning down the heating whenever possible. All work stations are equipped with multiple plug sockets with on/off switch, allowing to cut off electricity completely when the equipment is not in use. This can save at least 3,500 KWh per year. Since the move to temporary container offices in the summer of 2015, every room has an individual heating/cooling system, which is –in combination with poor isolation - certainly not the most environmentally friendly solution. We try to limit the impact by recommending to make use of the timer function of the climate regulation system and to switch off the systems in case of weekends or holidays.

The Ghent University Sustainability Pact

In the course of 2011, Ghent University students, together with the university's environmental and communication departments, launched a university-wide initiative to reduce the environmental burden. Departments, laboratories and offices are requested to sign a sustainability pact, in which they commit to a number of very diverse environmental measures, ranging from energy saving actions like switching off lights, heating and computers, over applying environmental criteria to purchases, to encouraging environmentally friendly commuting. ICRH was the first department within the Faculty of Medicine and Health Sciences to sign the Pact. One of our actions within the framework of this plan is a gradual shift towards sourcing vegetarian, organic and fair trade catering for meetings and receptions.

ICRH GROUP

The International Centre for Reproductive Health in Belgium works closely together with its sister organizations ICRH Kenya, based in Mombasa and Nairobi, and ICRH Mozambique, based in Maputo and Tete. In order to formalize the close ties between these organizations, and to facilitate coordination, an umbrella organization has been set up in 2009 under the name of ICRH Global.

The Board of Directors of this not-for-profit organization consists of representatives from ICRH Belgium, ICRH Kenya, ICRH Mozambique, and the Ghent University, and vice versa, ICRH Global also appoints representatives in the management structures of the individual ICRHs. In 2016, prof. Marleen Temmerman was elected as Chair of the Board.

In addition to its coordination tasks, ICRH Global organizes networking and information activities in the field of sexual and reproductive health and rights.

Contact: ICRH Global, Ghent University Hospital, De Pintelaan 185, UZP114, 9000 Ghent, Belgium, dirk.vanbraeckel@ugent.be

Member organisations

ICRH KENYA (ICRH-K): an independent organization established in the year 2000. ICRH-K deals with many aspects under the wide umbrella of 'Reproductive Health': Mother and Child Health, Sexual and Gender-based Violence, Sexually Transmitted Infections, HIV and AIDS prevention, treatment and care, Adolescent Health, improving Services in resource-poor settings that serve also the vulnerable populations... ICRH-K performs actual intervention projects and research studies. Interventions are always coupled with a critical analysis and evidence gathering towards best practices. All the work is done in close collaboration with local and national health authorities and service providers. The organization is thoroughly based on local Kenyan staff at all levels, with a large majority of women. ICRH-K has offices in Mombasa and Nairobi.
www.icrhk.org

ICRH MOZAMBIQUE (ICRH-M): ICRH-M is a Mozambican nonprofit association of scientific character, with legal personality and administrative, financial and patrimonial autonomy. Since November 2009, ICRH-M is officially registered as an association, aiming at improving sexual and reproductive health in Mozambique in its broadest sense. The Scientific Council of ICRH-M is composed of high level representatives of national and international institutions such as the Ministry of Health, the National Institute of Health, Universidade Eduardo Mondlane and ICRH-Global. ICRH-M uses operational research and policy analysis, training, and advocacy. Its main partners are the Government, Education Institutions and cooperation partners. ICRH-M has offices in Tete and Maputo.

www.icrh-m.org

ICRH BELGIUM (ICRH-B): ICRH-B is a multidisciplinary centre operating within the Faculty of Medicine and Health Sciences at Ghent University. It conducts research projects throughout the world, most often in partnerships with other research institutions and NGOs. Besides research activities, ICRH-B is active in the field of training and service delivery.

www.icrh-b.org

THE MARLEEN TEMMERMAN FUND

Prof. dr. Marleen Temmerman, the founding mother of ICRH, is widely known as an obstetrician-gynaecologist who worked all over the world for the health and rights of women and children.

At the International Conference on Population and Development (Cairo, 1994), the international community made a firm commitment to step up the struggle for improving women's rights. An ambitious Program of Action was adopted, aiming at:



- giving all women in the world access to modern contraception
- guaranteeing their reproductive rights
- ensuring gender equality and access to education
- fighting poverty by improving opportunities for women.

In the same year, Marleen Temmerman established ICRH. By doing this, she wanted to contribute to these aims. And now, 20 years later, ICRH is carrying out projects in Africa, Latin America, Asia and Europe, together with sister organisations in Kenya and Mozambique.

Through the Marleen Temmerman Fund, Ghent University wants to honour this inspired and inspiring academic and to support the further development of the International Centre for Reproductive Health. By doing this, Ghent University aims at contributing to the wellbeing of women, but also of men and children and of society as a whole. Because women can make a difference! Indeed, more rights for women, full and universal access to health including contraceptives, maternal health care, and good sexual and reproductive health, advance the development opportunities of both women and children, and stimulate the socio-economic prosperity of communities.

You too can make a difference. Your contributions to the Marleen Temmerman Fund will be used to support the activities of ICRH worldwide.



More information on www.marleentemmermanfund.org, or contact us at: fondsmarleentemmerman@ugent.

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