



ACTIVITY REPORT

2015





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

The least that can be said about 2015 was that it was an eventful year, both for the world as a whole and for ICRH. Conflicts and disasters forced millions of people to abandon their homes and communities and embark on an insecure adventure. More than 100 million people are in need of humanitarian assistance, and these populations face considerable sexual and reproductive health risks (SRHR). More than half of under-five-mortality and maternal death occurs in settings of conflict, displacement or natural disasters. Living conditions in refugee camps or 'on the road' are often incompatible with sound protection against infections and unwanted pregnancy, and the vulnerability of refugees makes them plausible victims for violence and abuse. In light of this, ICRH is stepping up its efforts to contribute to improve the sexual and reproductive health of refugees by doing research and developing tools.

But of course the issue of refugees, though very serious and urgent, is far from being the only remaining challenge. The Millennium Development goals in the field of reproductive health have not been fully achieved, though there have been important reductions in maternal and child mortality and the HIV epidemic has been slowed down considerably. We are happy to see that the Sustainable Development Goals, which have been adopted by the United Nations as successors of the Millennium Development Goals, include major aspects of SRHR. This is very explicitly the fact in goals 3 (good health and well-being) and 5 (gender equality), but also most of the other 15 goals are indirectly related to - or even depending on- sexual and reproductive health and rights. We strongly believe that scientific research is a powerful and indispensable tool for reaching the ambitious goals, and with ICRH we are

committed to play our part in this. We are however very well aware that research in itself does not change the world, and that a crucial and frequently neglected stage in both scientific research and strategic planning is the translation of research findings into comprehensible, clear-cut and practicable policy recommendations. Research and policy operate too often in completely separated worlds, without much communication and dialogue. ICRH wants to contribute to bridging the gap by establishing an 'Academic Network for Sexual and Reproductive Health and Rights Policy' (ANSER). Seventeen research institutions from all continents will join forces to optimize the fine-tuning between societal needs and research agenda setting, and the dissemination of research results as input for policy dialogue. This Network was prepared in 2015 and will be launched in 2016. We are confident that the establishment of ANSER will boost the impact of the SRHR research on policy making at all levels, and we look very much forward to working together with our partners on this.

2015 has been busy and successful for ICRH: in addition to the more than 30 projects and the 55 scientific articles, about which you will read more in this report, we also continued the work on our strategy. The overall strategy document that was presented at the end of 2014 during the celebration of the 20th anniversary of ICRH forms the guiding principle for future research and has been translated into more concrete action plans. The first projects stemming from these action plans have started, but we hope that there will be many more in the coming years.

Olivier Degomme,
Scientific Director

Dirk Van Braeckel,
Director of Finance
and Administration

In the spotlight

THE INTERNATIONAL THEMATIC NETWORK FOR SEXUAL AND REPRODUCTIVE HEALTH AND RIGHTS POLICY

In 2015, Ghent University launched a first call to establish International Thematic Networks. An international thematic network is a body for support, cooperation and advice consisting of Ghent University staff members and international partners concerning a specific topic of excellence in education and research at Ghent University.

ICRH was granted funding to establish the Academic Network for Sexual and Reproductive Health and Rights Policy. This network aims to address a real global need. 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 this 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. 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 (such as ending hunger and addressing ecological challenges). 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, the Academic Network on Sexual and Reproductive Health and Rights Policy aims to become a global resource for SRHR policy research, education and service delivery:

- Research objective: to establish the network as a platform for research on SRHR policy related topics
- Education objective: to develop a portfolio of education and training programmes on SRHR policy
- Service to society objective: to establish interaction between SRHR researchers and policy makers

The Network will be officially launched on 30 November with an international kick-off meeting on 1-2 December 2016



WE ARE PROUD TO INCLUDE THE FOLLOWING INSTITUTIONS IN THIS GLOBAL NETWORK

GHENT UNIVERSITY, BELGIUM

FACULTY OF MEDICINE AND HEALTH SCIENCES

FACULTY OF PSYCHOLOGY AND EDUCATIONAL SCIENCES

FACULTY OF SOCIOLOGY

FACULTY OF ARTS&PHILOSOPHY

FACULTY OF LAW

EDGE HILL UNIVERSITY, UK

FACULTY OF SOCIOLOGY AND SOCIAL PHILOSOPHY, SOCIAL SCIENCES

UNIVERSITY OF CUENCA, ECUADOR

FACULTY OF GYNECOLOGY AND OBSTETRICS

FACULTY OF PHILOSOPHY

UNIVERSITÉ LIBRE DE BRUXELLES, BELGIUM

FACULTY OF MEDICINE, LABORATORY FOR RESEARCH IN HUMAN REPRODUCTION

FREE UNIVERSITY OF BRUSSELS, BELGIUM

FACULTY OF MEDICINE

NATIONAL RESEARCH INSTITUTE FOR FAMILY PLANNING, PR CHINA SOCIAL MEDICINE CENTER

UNIVERSITY EDUARDO MONDLANE, MOZAMBIQUE

FACULTY OF MEDICINE

INSTITUTE OF POPULATION RESEARCH

WHO COLLABORATING CENTER IN REPRODUCTIVE HEALTH AND POPULATION SCIENCE

UNIVERSITY OF ST. ANDREWS, UK

CHILD AND ADOLESCENT HEALTH RESEARCH UNIT

JOHN HOPKINS, BLOOMBERG SCHOOL OF PUBLIC HEALTH, US

DEPARTMENT OF POPULATION, FAMILY AND REPRODUCTIVE HEALTH

NORWEGIAN CENTRE FOR VIOLENCE AND TRAUMATIC STRESS STUDIES, NORWAY

DEPARTMENT OF CHILDREN AND ADOLESCENTS

JOHN HOPKINS URBAN HEALTH INSTITUTE,

BURNETT INSTITUTE, MELBOURNE, AUSTRALIA

CENTRE FOR INTERNATIONAL HEALTH

TSINGHUA UNIVERSITY, PR CHINA

SCHOOL OF MEDICINE, RESEARCH CENTER FOR PUBLIC HEALTH

UNIVERSITY OF POTSDAM, GERMANY

DEPARTMENT OF SOCIAL PSYCHOLOGY

AFRICA COORDINATING CENTRE FOR THE ABANDONMENT OF FGM/C, KENYA

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

COVENTRY UNIVERSITY HEALTH AND LIFE SCIENCES, UK

CENTRE FOR COMMUNITIES AND SOCIAL JUSTICE

KAROLINA INSTITUTET, SWEDEN

DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY, WOMEN'S AND CHILDREN'S HEALTH

UNIVERSITY OF NOVA LISBON, PORTUGAL

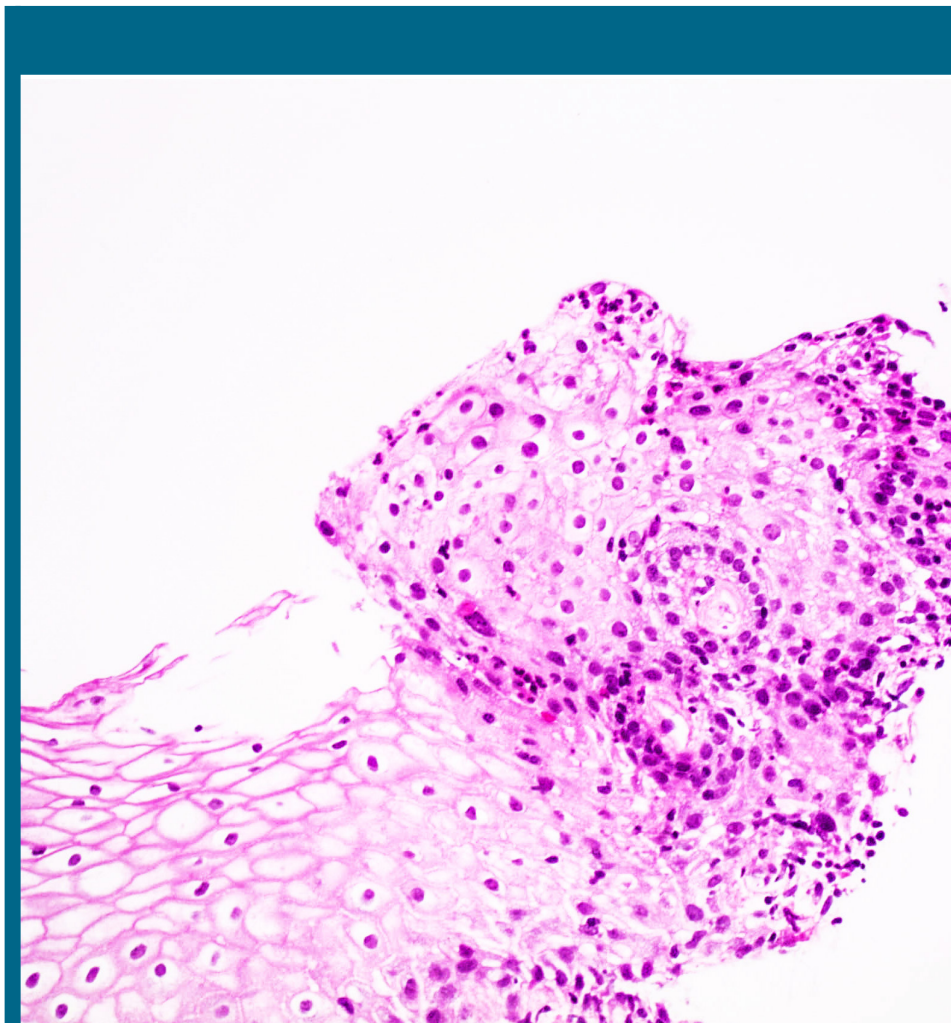
INSTITUTE OF HYGIENE AND TROPICAL MEDICINE, INTERNATIONAL PUBLIC HEALTH & BIostatISTICS



ACTIVITIES

2015

1. SEXUALLY TRANSMITTED INFECTIONS



1.1 RESEARCH PROJECTS

1.1.1 Age-disparity, sexual connectedness and HIV infection in disadvantaged communities around Cape Town, South Africa

This sexual behaviour surveillance project aimed at getting more detailed insights into the role of the sexual network structure in the spread and control of HIV in South Africa. The project has resulted in characterisation of age-mixing and concurrency patterns in the formation of sexual relationships; construction of an epidemiological model to simulate sexual partnership dynamics and the impact of early, wide-scale HIV treatment on HIV incidence; training of MSc and PhD students and the introduction of a post-graduate programme in applied statistics; and transfer of information to policy makers and other stake holders.

The final activity took place in March 2015, with the organisation of a results showcase event in one of the communities where the sexual behaviour survey was conducted. During the event, the results from the

survey on sexual behaviour dynamics in three urban areas of Cape Town with a high prevalence of HIV were made public. It was well attended with approximately 250 people present. A local community leader facilitated presentations by the principle investigator, Prof. Wim Delva and Shiela Mc Cloen, Deputy Director of comprehensive health programs in Khayelitsha.

	Financed by: Research Foundation Flanders (FWO), Belgium VLIR-UOS, Belgium		Budget: 500,000 EUR
	Coordinator: ICRH Belgium		Start Date: 1 January, 2010 End Date: 31 March 2015
	Partners: SACEMA, South Africa Hasselt University, Belgium		Contactperson at ICRH: Wim Delva Wim.Delva@ugent.be

1.1.2 Summer school 'Network Models in STI Epidemiology'

Network modelling is gaining importance in the field of STI epidemiology. Analyses of sexual network data have made crucial contributions to an improved understanding of the epidemiology and sociology behind the transmission of sexually transmitted infections.

Primarily aimed at postgraduate students from Flemish Universities, but open to anybody studying or working in the field of STI epidemiology and/or infectious disease modelling, this summer school sought to offer participants a detailed understanding and hands-on experience in applying statistical and computational models to analyse the dynamics of epidemics of STIs. During the first part of the course, a short recap of network representation and basic concepts in STI epidemiology was followed by an introduction to Exponential-family Random Graph Models (ERGMs) for (static) networks and Separable Temporal ERGMs (STERGMs) for dynamic networks.

In the second part of the course, participants were introduced to an agent-based modelling (ABM) approach to simulating sexual networks and the transmission of STIs across these networks.

During computer practicals, freely available and well documented R packages were used for the simulating and analysing STI epidemics in sexual networks: EpiModel, developed by the team of international lecturers from Washington University, and RSimptactCyan, developed by the course organisers at Ghent and Hasselt University.



Financed by:
Research Foundation Flanders (FWO),
Belgium
Hasselt University Doctoral Schools,
Belgium



Budget:
13,000 EUR



Coordinator:
Hasselt University, Belgium



Start Date: 7 september 2015
End Date: 11 september 2015



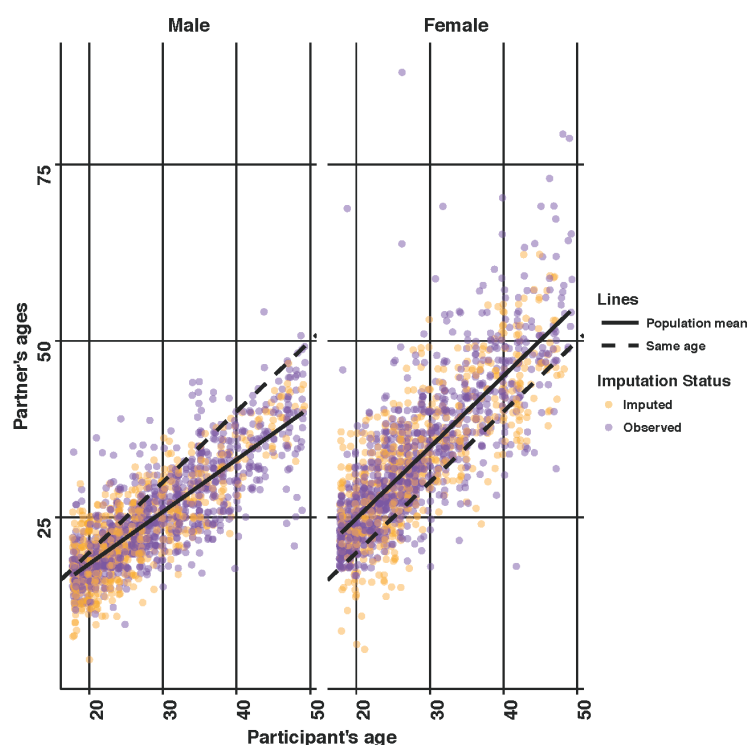
Partners:
Hasselt University, Belgium
ICRH Belgium



Contactperson at ICRH:
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1.1.3 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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1.1.4 *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 2015, we embarked on an extensive, narrative review of existing data and models for sexual network inference in HIV epidemiology.



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
ETH Zurich, Switzerland
SACEMA, South Africa
KU Leuven, Belgium








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1.1.5 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 showed to be highly specific for high grade lesions and thus is able to identify patients that need direct treatment.

Therefore, further research is performed to identify new diagnostic markers for HSIL. The main objective of the 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.

The current project concerns an observational case-control study and has a duration of 1 year. The study may be extended to 3 years.

 Financed by: Ovizio	 Budget: 130,600 EUR
 Coordinator: ICRH Belgium Pathology Department Ghent University	 Start Date: September 2015 End Date: August 2016
	 Contactperson at ICRH: Marusya Lieveld Marusya.Lieveld@ugent.be

1.1.6 Surveillance of HPV infections and HPV related disease subsequent to the introduction of HPV vaccination in Belgium (SEHIB)

The introduction of the HPV vaccine could lead to a change in the distribution of HPV types in the population. The vaccine includes the types 16 and 18 which are causing the majority of all cervical cancers (app. 70%). There is a possibility that these could be replaced by other types which are also carcinogenic and which are currently not covered by the vaccine. Therefore monitoring and surveillance of the HPV type distribution after the introduction of the vaccine is necessary. In addition, cross-protection (protection against disease associated with types other than the vaccine types but related to them) will result in a protection of the vaccinated population that is greater than expected. Detailed surveillance can help to disentangle these possible effects. The current study is in line with the request of the European Medicines Agency (EMA) to investigate the HPV type-specific prevalence and the potential non-vaccine type replacement in the post-vaccine era in non-Nordic EU member states.

This population-based, cross-sectional study has a duration of 4 years. Study samples are collected from women between 18 and 64 years of age, attending cervical cancer screening in 5 university and 4 periphery centres. The main objectives of the study are to assess the HPV vaccination status in the study population, to estimate the crude and age-standardized prevalence of HPV infection and of cytological cervical lesions in both the vaccinated and the general study population and to study the correlation between HPV vaccination status and cytological and histological findings. Furthermore, the detection rate of cytology for histological confirmed lesions, the correlation between HPV type infection and cytological and histological findings and the impact of HPV vaccination on the correlation of HPV infection and cytology/histology are being studied. SEHIB has been completed in 2014, after data-analysis, a comprehensive manuscript has been submitted and accepted for publication by Cancer Epidemiology (2015).



Financed by:
SPMSD



Budget:
1,007,555 EUR



Coordinator:
ICRH Belgium



Start date: December 2009
End date: December 2015



Partners:
University Hospital, Belgium
Labo Riatol, Belgium
Institute for Public Health, Belgium



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1.1.7 HPV/BV interaction

Bacterial vaginosis (BV) has been described to be an important cofactor in acquisition of several STIs. Alterations of the vaginal microbiota are more frequently found in an African population, and this could also contribute to the higher prevalence of STIs and related disease in Sub-Saharan Africa. Regarding HPV and related cervical cancer, the relationship BV/HPV remains less clear, with contradicting scientific evidence, and even lacking evidence for the African continent.

This research aims at investigating the relationship of HPV and BV, focusing on African women. Via meta-analysis, potential associations on existing data will be investigated. Furthermore, a nested cross-sectional study will enrol women with BV and confirm HPV infection in this population (Mombasa, Kenya). These samples are subjected to state-of-the-art laboratory techniques, to unravel potential underlying cell biological reasons. In cervico-vaginal samples, obtained from women with and without HPV infection, differentially expressed proteins will be detected and their functionality will be investigated.

Preliminary results show indeed a positive correlation between BV and HPV and BV and cervical lesions. Data on African women are being collected and laboratory methods have been prepared.

Findings of the study have been analysed and were accepted for publication by Infectious Agents and Cancer (2015).



Financed by:
Research Foundation Flanders (FWO),
Belgium



Budget:
234,000 EUR



Coordinator:
ICRH Belgium



Start date: October 2008
End date: September 2014



Partners:
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1.1.8 Vertical transmission of HPV

HPV is a very common, sexually transmitted virus; the lifetime incidence is estimated to be as high as 80% (Einstein, 2009). Until recently, it was generally assumed that HPV infection and related diseases in children were due to sexual abuse. This paradigm, however, has been changed over the past decade. Children with no history of sexual abuse can equally suffer from HPV related diseases, the latter presumably including: skin and anogenital warts, oral papillomas and recurrent respiratory papillomatosis. Data on HPV infection in children, including newborns, is slowly becoming available. The extent to which HPV and HPV related diseases in minors can be found, remains however ambiguous. Prevalence rates of HPV infections ranging from 0% up to 70% have been described in the recent literature. Factors contributing to this extremely large range potentially include technical limitations; some studies were conducted when optimal HPV detection (PCR based) was not readily available and probably resulted in false negative outcomes.

Towards infection of a child, the route of effective infection with HPV remains still unclear. Suggested is that infection can occur in a vertical manner, i.e. in utero and during birth, but also an important

contribution of horizontal transmission, e.g. during nursing or breastfeeding cannot be excluded. The existence of new and better techniques will now make it possible to find clear answers regarding mother-to-child-transmission (MTCT) of HPV and its prevalence. The objectives of the study are to determine HPV type specific prevalence in different sample sites, including amniotic fluid, vaginal swab, placenta and breast milk, and to elucidate MTCT of HPV during pregnancy, delivery and breastfeeding.

The study on amniotic fluid has been completed, including laboratory analyses. The prevalence in amniotic fluid was found to be rather low, and there seemed to be no correlation with vaginal HPV infections. The sub study on breast milk is currently ongoing. Samples have been collected and analysed for the breast milk study and findings are currently being analysed and published. A meta-analysis on HPV in breast milk has equally been conducted and submitted for publication. Also the placental part of the study was initiated. Hereto, collaboration was sought with the TWINS study. It is foreseen that samples will be collected and analysed second half of 2015. The first paper is presented for publication.



Coordinator:
ICRH Belgium



Start date: October 2010
End date: September 2015



Partner:
Free University of Brussels, Belgium



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1.1.9 Evolution of human papillomavirus infection in pregnant women infected with human immunodeficiency virus

Human papillomavirus (HPV) infection is the main etiological factor for cervical cancer, the second most common cancer in women worldwide. In immune compromised women, such as human immunodeficiency virus (HIV) infected patients, HPV infection displays a different natural history with a faster disease progression, more and higher grade disease, and with less efficient response to treatment. Furthermore, pregnant women have been proven to be at higher risk to develop HPV related cervical lesions. In addition, the effect of HAART on HPV infection is still a matter of debate. The combination of both immune suppression, different regimens of HAART, and pregnancy is largely unknown, hence the topic of this research proposal.

The overall objective of this study is to gain insight in HPV co-infection in HIV positive pregnant women.

Specific objectives include the determination of the

prevalence of type-specific HPV infections in HIV positive women during pregnancy and at 3 months postpartum, and the assessment of the influence of different HAART regimens on clearance of HPV infection and of the relationship between CD4 cell count and genotype specific HPV infection. A total of 250 participants from the Kesho Bora Mombasa study site who had 2 cervicovaginal samples taken; one during pregnancy and one at three months postpartum were selected for HPV genotyping. The sample is a convenience sample from a large multi-country, multi-centre interventional study.

HPV genotyping was performed at the International Centre for Reproductive Health laboratory in Kenya. Data are analysed and a draft manuscript will be presented for publication.



Coordinator:
ICRH Belgium



Start date: February 2011
End date: January 2016



Partner:
ICRH Kenya



Contact person at ICRH:
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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.

1.2.3. 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

1.2.4 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.

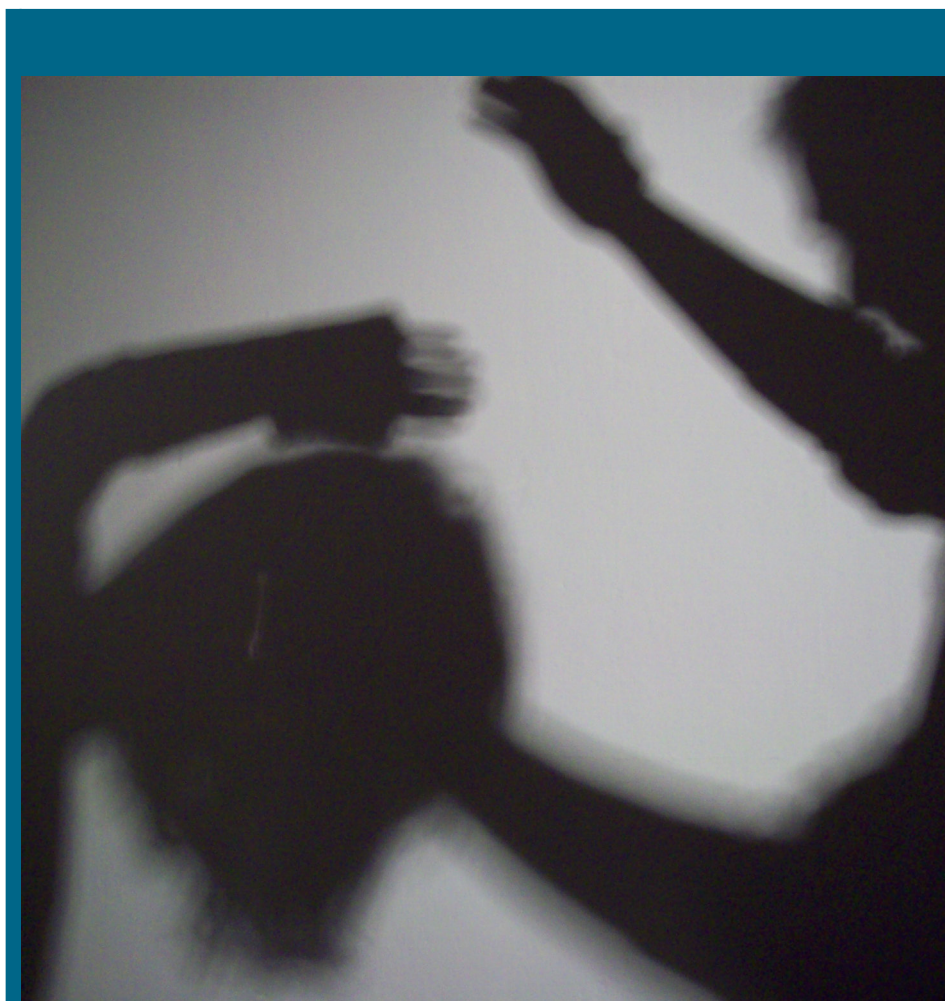
Contact person at ICRH: Davy Vanden Broeck, Heleen Vermandere

1.2.6 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. Not only is Heleen Vermandere doing her PhD research within this setting, also a Kenyan PhD student is investigating the impact of cervical cancer at the social level. In 2015, the collaboration was setup and in total 3 PhD projects are still in process.

Contact person at ICRH: Davy Vanden Broeck, Heleen Vermandere

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 were able to include data from 1894 women 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 2016. The defense of a doctoral thesis that is based on this study is also planned in 2016.

In 2012, the recruitment for the first part of the study (questionnaire) was finalized. We managed to gather data for 1894 women spread over 12 hospitals.

The data of the study were analysed and two papers have been published. One paper focuses on the prevalence and patterns of violence before and during pregnancy and another paper explores the correlation of IPV with psychosocial health and satisfaction with antenatal care. More publications will follow in 2016.



Financed by:
Research Foundation Flanders (FWO),
Belgium



Budget:
180,000 EUR



Coordinator:
ICRH Belgium



Start Date: 1 October, 2009
End Date: 30 September 2014



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
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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.

- Assess need for, knowledge of and experience with support services;
- Propose recommendations for policy makers.

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;

Methodology:

Randomised population-based study ('household survey') Sample size: representative sample of the Brussels female population between 18 and 74 year. We will interview in Dutch, French, English, Spanish and Arabic (dialect still to be determined) to cover 80% of the Brussels population. Sample size calculation: based on clustered random (probability) sampling design stratified according to community of Brussels, we will aim for 500 participants

Study instrument:

A questionnaire will be developed 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).



Financed by:
Regional Government Brussels
Department Equal Opportunities
Brussels Capital Region



Budget:
180,000 EURO



Coordinator:
ICRH Belgium



Start date: January 2016
End date: January 2018



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2.1.3 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.

In 2015, several services noted that the implementation of the protocol on sexual violence was not always correctly followed which was discussed at meetings upon which a few internal trainings were given. Also the medication was slightly altered in line with new international guidelines issued in 2015.

Furthermore, this protocol was not only simulated and distributed as a good practice in an in-depth training for caregivers in Belgian hospitals, it also served as a basis for a checklist on holistic care for victims of

violence in Belgian hospitals (see supra). It also served as a reference for a national documentary (Panorama) with interviews and a full simulation of the process a victim has to go through from filing a complaint, over forensic examinations and medical care to court.

Finally, also at political level the developments of ICRH and the Ghent University Hospital were heard. Both for a hearing at the Belgian Senate (January) as at the Belgian Chamber of Representatives (September) the principles of holistic care for victims of sexual violence as the Ghent University Hospital were presented and discussed in the light of the need for ratifying the Istanbul Convention by the Belgian state as well as the development of sexual assault referral centres in Belgium.



Coordinator:

ICRH Belgium



Start date: December 2010

End date: Not applicable



Partner:

Ghent University Hospital



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

This project aimed at building capacity of healthcare workers of Belgian hospitals in the holistic management of patients experiencing sexual and domestic violence. The projects comprised 3 parts. First, we provided a 30-hours accredited in-depth training to healthcare workers of Belgian hospitals who already participated in the enhanced trainings on treatment of victims of violence between 2010-2012. In addition to several types of domestic violence, this training specifically addressed holistic management of sexual violence. It regarded topics as: detecting risks, signals and symptoms of different types of violence, communication skills on violence, adequate medical, psychosocial and legal care of victims, effective referral, profiles of perpetrators, implementation of guidelines, tools and procedures from a holistic approach, intervention for health care workers working with victims and simulation of specific violence protocols.

In addition to this in-depth training, we developed a train-the-trainers manual on introducing holistic treatment of domestic violence, intimate partner violence, sexual violence, child abuse and elderly abuse. The same topics as discussed in-depth during



the training are provided here at an introductory level. This manual is available in Dutch and French and was disseminated to all participating hospitals.

Finally, as an assessment of the current provided care for victims of sexual violence in the participating hospitals revealed that a lot of them did not provide holistic care, nor followed international guidelines; we developed a checklist for optimal care for victims of sexual violence in Belgian hospitals. The Federal Agency of Public Health disseminated this checklist to all hospitals in Belgium asking them to apply it. The checklist is available in Dutch and French at the site of ICRH as well as the Federal Agency of Public Health.



Financed by:
Belgian Federal Agency Public Health



Budget:
56,195 EUR



Coordinator:
ICRH Belgium



Start Date: 3 sept 2014
End Date: 2 Sept 2015



Partners:
Hospital CHU St Pierre, Brussels, Belgium
Ghent University Hospital, Belgium



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2.1.5 Feasibility & Desirability study of Sexual Assault Reference Centres in the Province of Eastern Flanders

This small scale study aimed at assessing the desirability and feasibility of applying 'sexual assault reference centres' among the hospitals in the Province of Eastern Flanders that dispose of an emergency care unit and the possibility to conduct medical forensic activities. All 14 hospitals that match those inclusion criteria were invited to participate in the study.

The study composed of 2 parts. First, by means of a survey, we assessed what the current approach is towards management of victims of sexual violence in each of the hospitals. Second, we conducted phone interviews with key experts from 6 crucial services in the approach of sexual violence, being: emergencies, gynaecology, social services, paediatrics, urology and psychiatry. In those interviews, we evaluated their knowledge and attitude towards violence; we inquired on their evaluation of the current approaches in their hospital, as well as their appreciation of the model of 'sexual assault reference centres', its feasibility and the role of their own hospital if this model would be applied in Belgium.

Based on the analysis of results, a report was written containing several recommendations regarding the application of this model at the level of the Province of Eastern Flanders as well as on Belgian level. The internal report was communicated to and discussed with the authorities at the end of 2014.

In 2015 a public version was written and presented in June at a press conference and a well-attended seminar with policy makers, police, justice and healthcare workers. The report was also presented at the Belgian Senate (January) and Chamber (September) and at the national working group on violence of the Institute for Equality of Women and Men (December).



Financed by:
Province of Eastern Flanders- IGVM



Budget:
9,500 EUR



Coordinator:
ICRH Belgium



Start Date: 1 June 2014
End Date: 10 December 2014/ (30 June 2015)



Partner:
Province of Eastern Flanders



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2.1.6 *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 a review of international guidelines and good practices in providing holistic care to victims of sexual violence was conducted as well as good practices analysed.

A second phase consists of mapping the current approaches and procedures followed in hospitals, police and justice in Flanders, Brussels and Wallonia. This consists of a survey among victims, a survey among health care workers and interviews with police and justice. We subsequently will analyse the current procedures against the international guidelines and good practices and make a SWOT analysis of potential Belgian models, including their cost effectiveness.

Finally, by the end of October 2016 and in collaboration with a vast number of experts from healthcare, psychosocial care, forensics, police, public prosecutors, policy makers and victims, we will develop a Belgian SARC model that can be tested in a Flemish, Brussels and Walloon hospital in the 2 subsequent years.



Financed by:
Federal Government- IGVM



Budget:
99,951 EUR



Coordinator:
ICRH Belgium



Start Date: 1 September 2015
End Date: 31 Augustus 2016



Partner:
IVGM, Belgium



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2.1.7 Access to health care for undocumented migrants in Belgium: SWOT analysis of the procedure of urgent medical aid

This project aimed at providing an in-depth analysis of the current practice of Urgent Medical Aid (UMA) for Undocumented Migrants (UM) in Belgium. The specific objective was to identify strengths, weaknesses, opportunities and threats (SWOT) of the current procedures for granting undocumented migrants access to health care, with three sub-questions as per terms of reference:

- What are the difficulties for UM getting UMA approval (at the levels of health care providers and CPAS/OCMW)?
- Are there difficulties for UM getting access to health care under UMA?
- Does UMA generate major difficulties for health care services or administrative services?

Upon a quick introductory literature review, 33 in-depth interviews were conducted with undocumented migrants, 6 focus groups with health care professionals and managers and 3 brainstorming and evaluating sessions with key informants were held. This latter group also acted as the overall advisory board for the study. The information collected from the three groups of participants were analysed in three separate SWOT

analyses, indicating the 'Strengths', 'Weaknesses', 'Opportunities' and 'Threats' related to the procedure of Urgent Medical Aid for undocumented migrants in Belgium. We subsequently compared the three SWOT matrices for each of the subthemes of the legal and political framework and procedures on the one hand, and of the provision and quality of urgent medical aid for undocumented migrants on the other hand. When analysing the SWOT matrices of our different participants, four key themes emerged which are cutting across the legal and political frameworks as well as across the quality elements of the provided care. We consider them to be the key bottlenecks linking the most important problems and challenges in the current implementation of urgent medical aid for undocumented migrants in Belgium, namely (1) definition of urgent medical aid, (2) information and communication, (3) application of procedures, and (4) decision-making process.

At the end of December 2015, the report was issued by KCE and can be downloaded from their site. The recommendations made are taken further by different political parties in 2016.



Financed by:
Belgian Healthcare Knowledge Centre - KCE



Budget:
61,710 EUR



Coordinator:
Department of Social Work and Social Pedagogy,
Gent University, Belgium



Start Date: 1 Februari 2015
End Date: 30 June 2016



Partner:
ICRH Belgium
IRSS (UCL), Belgium



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2.2 OTHER ACTIVITIES

Round table meetings on treatment of rape victims in hospitals

Victims of rape are often referred to hospitals. Yet the way in which they are cared for differs largely from hospital to hospital, and communication and collaboration with police and justice tends to be suboptimal. In order to map the situation and to identify solutions, ICRH, together with the Women's Clinic, the AIDS reference Centre and the Steering Committee on Violence of the Ghent University Hospital, brought together experts from relevant hospital and university departments, representatives from judicial authorities and NGOs, and concerned politicians of all political parties. These 'round table meetings' have been organised since 2013, with as main agenda items the voluntary and involuntary HIV/STI testing of alleged perpetrators of In 2015, and the holistic approach to care for the victims.

In 2015, meetings were held on 16 March and 9 September.

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Training and advice

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 and/or networks. Several tutorials, training sessions, 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, lay public but also global health players. Ines Keygnaert for example, presented several of her research results to the Belgian Senate, the Belgian Chamber of Representatives and was interviewed by national and regional television, radio and written press at several occasions.

Ines Keygnaert is also member of the expert advisory group for the Belgian National Action Plan on Violence



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 for two years until November 2016.

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.



Financed by:
European Commission Daphne Programme



Budget:
359,511 EUR



Coordinator:
ICRH Belgium



Start Date: 15 November 2014
End Date: 15 November 2016



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



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3.1.2. *REPLACE 2: Researching FGM Intervention Programs Linked to African Communities in the EU*

Replace 2 aims to implement and evaluate the REPLACE community-based behavior change intervention framework to tackle female genital mutilation (FGM) in the EU. This project continues the innovative behavioral change approach to ending FGM that was developed in the one year EU Daphne III funded REPLACE (2010-2011). REPLACE 2 will run for two years until 2015. Using a community participatory approach, REPLACE identified a number of barriers preventing the cessation of FGM in the EU. This insight facilitated the development of the REPLACE Pilot Toolkit that featured the REPLACE Behavioral Change Cyclic Framework. The project consists of two stages, whereby FORWARD and FSAN will evaluate the current Cyclic Framework with Somali and Sudanese communities and conduct and evaluate an intervention targeting behaviour that is aimed at moving the community closer to ending FGM.

CESIE, APF and GABINET will collect qualitative data on FGM among Senegalese, Gambian and Guinea Bissauan communities that will inform further intervention development based on the REPLACE approach. Both stages will further contribute to enhancing the REPLACE Toolkit. ICRH evaluated the implementation of the project, but also provided a keynote lecture at the international conference in London, on the 11th of April 2014, entitled Balancing protection, prosecution and prevention in the EU. Els Leye attended the final conference in the European Parliament in October 2015, which was also the closing event of the project.



Financed by:
European Commission Daphne Program



Budget:
24,363 EUR (ICRH only)



Coordinator:
Coventry University, UK



Start Date: 18 March 2013
End Date: 18 March 2015



Partners:
ICRH Belgium, Belgium
CESIE, Sicily, Italy
APF (Associação para o Planeamento da Família), Portugal
FSAN, the Netherlands
FORWARD, UK
GES (Gabinet d'Estudis Socials), Spain



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3.1.3 MATRIFOR: Approaching forced marriages as a new form of trafficking in human beings in Europe

The project aimed at studying forced marriages as a new form of trafficking in human beings in Europe. The project provided more knowledge on the causes, influencing factors and impact on the life and family of (potential victims) and looked at obstacles and difficulties to address forced marriages in Belgium, Spain and Italy. The methodology consisted of a fieldwork phase, where in-depth interviews were conducted with 25 professionals confronted with forced marriage, and was complemented by a comparative analysis of the legal framework Belgium and a critical analysis of how Belgium complied to the EU Directive 2011/36/UE. We also conducted a series of awareness raising interventions in Belgium for professionals, on the topic of forced marriage. Finally the project provided recommendations to transpose the EU directive 2011/36/UE on Trafficking into national law.

A final publication was produced on the situation of forced marriage in Belgium, in English, as well as a summary in Dutch. Els Leye attended the final conference in Barcelona 8-9 October 2015.



Financed by:
European Commission 'Prevention of and fight against crime' Program



Budget:
41,027 EUR



Coordinator:
Universitat Autònoma de Barcelona, Spain



Start Date: 16 November 2012
End Date: 16 November 2015



Partners:
ICRH Belgium
Le Onde Onlus, Palermo, Italy



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3.2 OTHER ACTIVITIES

In addition to the national and international conferences and workshops that were organized within the context of the projects listed above, the following activities were carried out:

- Els Leye participated in the study 'Forced marriage from a gender perspective', for the European Parliament, DG Internal Policies. Policy Department Citizen's Rights and Constitutional Affairs. The study was coordinated by Milieu Ltd. The study provided an overview of the practice of forced marriage in the EU from a gender equality and women's rights perspective. It analysed the definitions of forced marriage and put forward a definition from a gender perspective. It also provides an overview of the relevant international/EU legislation, policies and deliberations, as well as national policies, civil law and criminal law (in the 12 Member State that criminalise forced marriage). For those Member States that criminalise forced marriage, the study provided an assessment of the effectiveness and possible consequences of the implementation of the criminal legislation, including an analysis of data and case-law. The study included a specific chapter focusing on forced marriage within Roma communities and five case-studies specifically focusing on Denmark, Germany, Spain, Slovakia and the UK. The study also put forward recommendations for improving the response to forced marriage at EU and Member State level.
- 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 GDG gathered twice in 2015 (February and September) at the World Health Organisation in Geneva.
- ICRH is member of the Belgian Platform Honour Related Violence that aims to exchange and discuss actions related to honour related violence, joining stakeholders at policy level, NGOs, academics and others. The Platform met several times during 2015.

REFERENCE CENTRE FOR FEMALE GENITAL MUTILATION

In May 2014, the reference centre for female genital mutilation (FGM) was established within the University Hospital of Ghent. A multidisciplinary team of gynaecologists, surgeons, midwives, nurses, psychologists, sexologists and physiotherapists of UZ-Ghent is providing care for the women who have undergone FGM. Together with researchers of ICRH, UZ-Ghent has developed a multidisciplinary pathway of care for women searching assistance after FGM. The specialized consultation for women takes place every Wednesday morning at the Women's Clinic of Ghent University Hospital.

Monthly meetings with all staff involved in the reference centre and one researcher from ICRH are held to guarantee high quality of care and good communication and collaboration between all health care providers. During these meetings the team discusses potential problems and reflects on best practices of care for women subjected to FGM. In addition experts and stakeholders of other institutions are invited on a regular basis to attend these meetings in order to share expertise and knowledge among all professionals working with victims of FGM.

- Els Leye participated in the study 'Estimation of girls at risk of female genital mutilation in the European Union', that was commissioned by the European Institute for Gender Equality (EIGE) in 2014 and was carried out by Yellow Window in 2015.
- In collaboration with the Institute Equal Opportunities and Plan Belgium, the International Centre for Reproductive Health organized a symposium on forced marriage in Belgium. Els Leye presented the data of the qualitative research that was done in the framework of the MATRIFOR project, i.e. views of professionals in Belgium that are confronted with forced marriages, on gaps and current practices related to the phenomenon. The symposium triggered a lot of media attention for this problem.

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 project aims 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 is implemented in four sub-Saharan

African countries (Burkina Faso, Kenya, Malawi and Mozambique) by a consortium of five African and three European partners.

Following the implementation, monitoring and upgrading of the designed and selected packages of context-specific packages of intervention in 2013, 2014 and the first half of 2015, the final evaluation of the MOMI project started in July 2015. For the end of project evaluation a mixed approach was used including qualitative and quantitative research. Quantitative and qualitative end-evaluation data collection was done between July and September 2015. This was followed by data transcription, cleaning and analysis. A report on the MOMI project finding will be available beginning 2016.



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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MOMI progress was communicated to regional and international audiences throughout the year, thanks to the participation of MOMI team members to a range of conferences and other events. Regular updates on the project are given through the MOMI newsletter, published biyearly, as well as on its website. At local levels, MOMI is continuously discussed with other stakeholders and policy-makers, notably through the Policy Advisory Boards established at the outset of the project in all four sites.

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

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 want 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 is 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 receive feedback on the quality of their supply management on a monthly basis. A second intervention adds 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 are 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 months, a first follow-up survey was implemented to measure the impact of the first 2 interventions on motivation, followed by a motivational training for the health staff of the intervention groups.

Preliminary results revealed that motivation among providers was very high at baseline and initially there was no link between (good or bad) stock management and motivation. During the interventions, quality of stock management has been improving, however, this cannot be linked (yet) with the interventions. More in-depth analysis will have to show if the differences are statistically significant (over time and per group). Regarding the 1st follow-up of the survey on motivation, we found that overall motivation had not changed. Again, further analysis will have to show if there are any differences among the 3 groups, and over time. During focus group discussions, implemented as monitoring activity, participants did mention that they appreciated the extra, monthly supervision and support more than for example the financial incentives.



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 Reducing maternal mortality through maternity waiting homes

In Africa, one out of 210 mothers dies during pregnancy or delivery. One of the causes is the relatively low rate of institutional deliveries, due to transport problems and lack of infrastructure, but also due to cultural prejudices and resistance against giving birth outside the family circle. One of the ways to facilitate and encourage institutional deliveries is the establishment of 'maternity shelters' or 'maternity waiting homes': facilities where future mothers can spend the last few days of their pregnancy close to a maternity hospital, so that they are assured of timely professional care during the delivery. This type of facilities exists in many African countries, but often the functioning is not optimal and the occupancy rate is much lower than it could be. With grants from the National Lottery and from Mothers at Risk, and with participation of ICRH Global and ICRH Belgium, ICRH Kenya is supporting two maternity shelters in Kilifi and Malindi. The project involves improvement of the functioning of the maternity shelters, and it also has a research and a community awareness raising component.

Activities consist in:

- Informing and sensitizing community leaders, future mothers, their partners and families, and the community in general about the purpose and the importance of maternity waiting homes;
- Supporting the functioning of two maternity shelters, one in Kilifi and one in Malindi;
- Looking, together with the staff and management of the selected homes, for ways to improve the service delivery and to provide health education on nutrition, family planning and infections to the women staying in the homes.

The project has ended in June 2015, but ICRH Kenya continued operating the shelters, and funding is sought to set up a new research project aimed at demonstrating the effectivity of the shelters in improving maternal and new-born health.



Financed by:
Mothers at Risk, National Lottery



Budget:
39,122 EUR



Coordinator:
ICRH Kenya



Start Date: 1 July 2014
End Date: 30 June 2015



Partners:
ICRH Global, Belgium
Mothers at Risk, Belgium



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4.1.4 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. By the end of 2013, INPAC had completed phase I and phase II. Since July 2014, the phase III - intervention implementation and monitoring has been performing in 90 hospitals from 30 provinces and will be ended in July 2016.

In 2015, the focus lied on close monitoring of the intervention implementation, ensuring the follow-up rate, the intervention compliance and the



completeness of data collection, as well as data quality control.

Monitoring visits are regularly being conducted by the project leader, national coordinators and provincial coordinators.



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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The second project Ethical Advisory Board and the third Policy Advisor Board meetings jointly held in Beijing in September 2015.

Dissemination of project activities and preliminary findings was performed at both national and international level, and included a presentation on the barriers and approaches of INPAC project policy translation at the 8th Asia-Pacific Conference on Evidence-Based Medicine (Chongqing, China, March 2015), an introduction at the Chinese Annual Conference of Family Planning I (Wuhan, China, May 2015), an oral presentation and two abstracts presented at the 8th European Public Health Conference 2015 (Milan, Italy, October 2015), an oral presentation and a poster presentation at the Lancet-CAMS Health Summit (Beijing, China, October 2015), and two project newsletters.



Linked to the INPAC project meeting in October 2015, Marleen Temmerman was appointed as Honorary Professor and Wei-Hong Zhang was conferred the title of Adjunct Professor by the Research Centre for Social Medicine of NRIFP

4.2 OTHER ACTIVITIES

Collaboration with Hebei Medical University

On 29 April 2015, a cooperation agreement was signed between Ghent University and Hebei Medical University (HMU). The cooperation between Hebei Province and the Belgian Province of East Flanders has a history of more than 20 years, and has led to many fruitful contacts and exchanges in different fields. Within this context, also academic cooperation, and more specifically between Hebei Medical University and ICRH/Faculty of Medicine and Health Sciences of Ghent University has been initiated. Since 2010 there have been regular contacts and exchanges between both institutions. By signing a cooperation agreement, we aim to DSC02495consolidate our relationship and to intensify our collaboration. It opens the possibility to set up exchange programmes for staff and students, and it creates a framework for new research partnerships.

The agreement was signed during a ceremony in Shijiazhuang, China by prof. dr. Cui Huixian, president of Hebei Medical University, and prof. dr. Guy Vanderstraeten, dean of the Faculty of Medicine and Health Sciences of Ghent University. ICRH was represented by prof. dr. Wei-Hong Zhang, who has initiated the collaboration and who is in addition to senior researcher at ICRH also visiting professor at HMU.

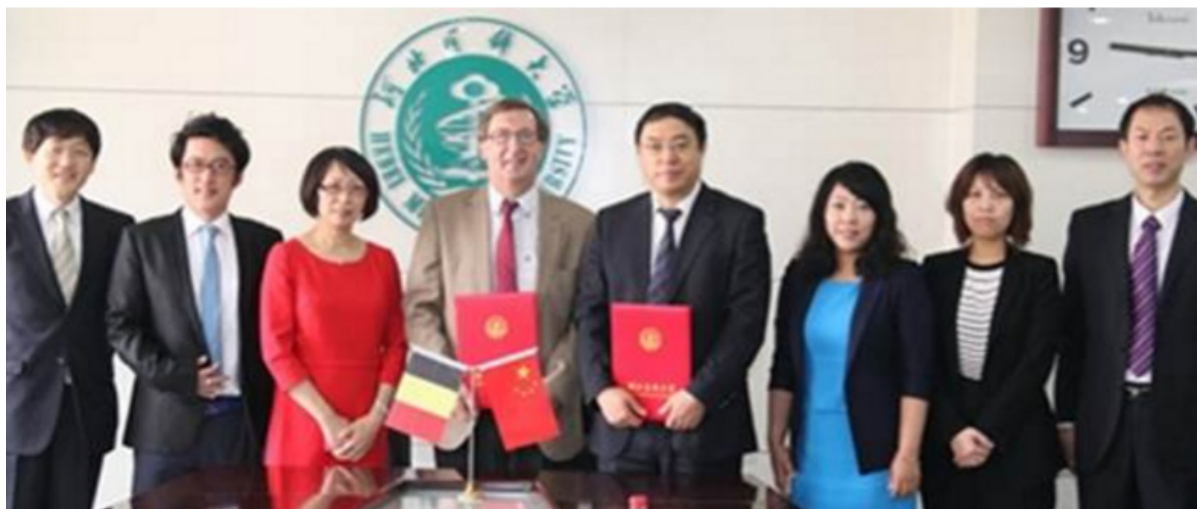
Within the framework of the collaboration agreement, a joint PhD project between HMU and Ghent University was started up and Longmei Tang enrolled as PhD student at both universities. Her research focuses on

induced abortion and family planning in China and is related to the ongoing EC-funded INPAC project. Longmei Tang's supervisors are prof. Marleen Temmerman and prof. Wei-Hong Zhang of ICRH, and prof. Wu Dianwu of Hebei Medical University.



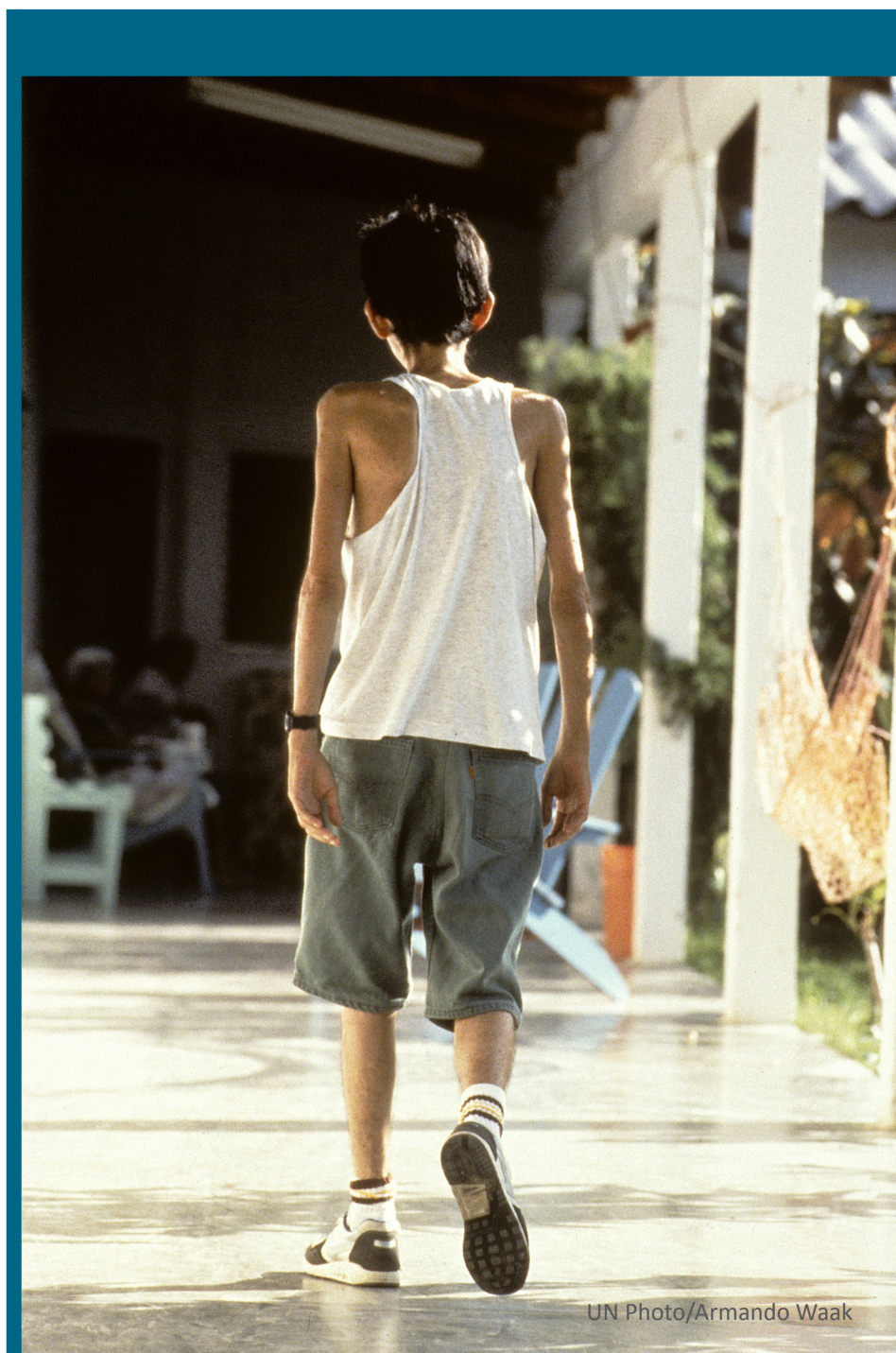
The collaboration with Hebei Medical University is financially supported by the Province East Flanders, that has a long-standing twin province relation with Hebei Province in China.

More information: Weihong.Zhang@ugent.be





5. ADOLESCENT SEXUAL AND REPRODUCTIVE HEALTH



UN Photo/Armando Waak

5.1 RESEARCH PROJECTS

5.1.1 Post-hoc process evaluation CERCA project (CERCA II)

The FP7-funded intervention research project 'Community-Embedded Reproductive Health Care for Adolescents in Latin America' (CERCA) aimed at improving global knowledge about how health systems could be more responsive to the changing sexual and reproductive health (SRH) needs of adolescents. Implemented by Latin American and European research institutes, CERCA tested community-embedded interventions to improve adolescent communication with parents, partners and peers on SRH issues; access to accurate SRH information; use of SRH services in primary health settings; and use of modern contraceptives. During the final conference of the CERCA project in Cuenca, Ecuador, it became clear that although the positive effects of the intervention did not live up to the expectations, many people involved in the intervention had a not to be neglected feeling - amongst others based on the results of qualitative research - that the effectiveness of the interventions is larger than what was measured quantitatively. The importance of a post-hoc process evaluation became clear.

With funding from the department of Reproductive Health and Research of the World Health Organization, the consortium could do this valuable evaluation. In 2015 the data, that was collected in 2014, was analysed and a final report and a scientific paper were written.

	Financed by: Department of Reproductive Health and Research of the World Health Organization		Budget: 38,000 EUR
	Coordinator: ICRH Belgium		Start Date: 15 August 2014 End Date: 31 March 2015
	Partners: South Group, Bolivia University of Cuenca, Ecuador Instituto Centro Americano de la Salud Nicaragua		Contactperson at ICRH: Kristien Michielsens Kristien.Michielsen@ugent.be

5.1.2 The Global Early Adolescent Study (GEAS) - Belgium

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.

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.

In 2014, ICRH implemented the first phase of the GEAS: a qualitative study on gender socialization among early adolescents and their parents in low-income neighbourhoods in Ghent. We did in-depth interviews with 30 young adolescents and 30 parents, and a 3-day workshop with 10 young adolescents. In 2015 we coded and analysed the data. The preliminary results of the qualitative study have been presented during the #NiemandIsCliché conference, organized by various Flemish organizations working in the field of gender, in March 2015. The results of the qualitative research were - among other - used to develop scales to measure adolescents' gender norms and (sexual) health and wellbeing. ICRH collaborated in the development of these scales and tested the Dutch version for face validity among 26 adolescents.



Financed by:
Flemish Ministry of Innovation, Public Investment, Media and Poverty Reduction (Belgium)



Budget:
71,400 EUR
(Belgium and South Africa)



Coordinator:
Johns Hopkins Bloomberg School of Public Health, US



Start Date: 1 May 2014
End Date: 1 March 2015



Partners:
WHO Department of Reproductive Health and Research World Health Organization, Switzerland
ICRH 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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Sara De Meyer,
SaraA.Demeyer@ugent.be

5.1.3 The Global Early Adolescent Study (GEAS) – Belgium / Ecuador

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.

Financial support through bilateral research cooperation between Flanders and Ecuador made it possible to conduct this study in Ecuador. The Faculty of Medical Sciences of Cuenca University and ICRH are responsible for this.

In 2015, the first phase of the GEAS was implemented: a qualitative study on gender socialization among early adolescents and their parents in low-income neighbourhoods in Cuenca. In-depth interviews with 30 young adolescents and 30 parents, and a 3-day workshop with 17 young adolescents were conducted. The developed scales to measure adolescents' gender norms and (sexual) health and wellbeing were tested for face validity among 40 adolescents. Activities related to quantitative data management were organized.



Financed by:
Research Foundation – Flanders,
Bilateral Research Cooperation Ecuador



Budget:
117,940 EUR (Belgium)



Coordinator:
Johns Hopkins Bloomberg School of Public Health,
USA



Start Date: 1 January 2015
End Date: 31 December 2016



Partners:
WHO Department of Reproductive Health and
Research, World Health Organization, Switzerland
ICRH 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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Sara De Meyer,
SaraA.demeyer@ugent.be

5.1.4 ELIMIKA - Adolescents and youth taking control of their HIV treatment issues, the case of Mombasa, Kenya

Non-adherence is the single most significant challenge to successful management of HIV-infected individuals. Especially for adolescents and youth (A-Y) (10-24 years) there is an increasing number of reports that show that adherence to ART is low. For A-Y, who are in a period of significant physical and psychosocial evolution, challenges include: physiologic changes that occur in adolescence result in altered pharmacokinetics; poor adherence to treatment and appointments, low retention rates, reluctance to be seen either in a clinic, disclosure, stigma and discrimination. In particular, those who acquired HIV infection through MTCT have many questions unanswered and have significant psychological trauma. Non-adherence may result in drug resistance. Furthermore, A-Y in a transition period from childhood to adulthood which is associated with experimentation which would increase the risk of HIV transmission. Noting the high incidence of pregnancies among adolescents and youth, a clear evidence of unprotected sex, addressing this group will be critical.

In 2015, we developed a secured website in conjunction with and managed by A-Y. A-Y will be given a personal code by their health care provider that allows them to access the website and create their own profile. The website will combine information (on HIV, treatment, STIs, safe sex, contraceptives) and access to health professionals for consultation and advice (questions can be asked, one weekly live chat will be organized) with interactive tools (discussion forum, chatting, video blogs on life issues that affect adherence such as dating, substance use, mental health issues). Furthermore, the website was tested for usability (survey and focus group discussion) and effect (pre-test post-test study among 80 A-Y). Several articles will be written in 2015.



Financed by:
Bill and Melinda Gates Foundation



Budget:
88,000 EUR



Coordinator:
ICRH Kenya



Start Date: 1 May 2014
End Date: 31 December 2015



Partner:
ICRH Belgium



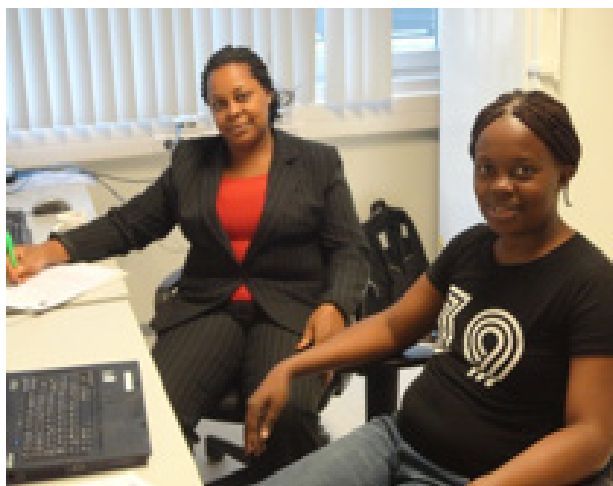
Contactperson at ICRH:
Kristien Michielsens
Kristien.Michielsen@ugent.be

5.1.5 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.

Two Ugandese PhD students – Anna and Elizabeth - were recruited to work on this project. They stayed in Ghent from October to December 2015 to set-up

the project and develop the protocols for their PhDs. Furthermore, during the past year, the data collection tools for the baseline study and a curriculum were drafted.



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



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,



Contactperson at ICRH:
Kristien Michielsen
Kristien.Michielsen@ugent.be

5.2 OTHER ACTIVITIES

5.2.1 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) .

5.2.2 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 2015 special attention was given to gender and homophobia. Numerous activities were set up in the week of 23-27 February. ICRH distributed leaflets and posters in the students cafeteria of the University Hospital campus in Ghent and announced the activities on their website and Facebook page. During the #NiemandIsCliché conference on March 7th, ICRH presented the preliminary results of the Global Early Adolescent (GEAS) study.





6. SEX WORKERS



6.1 RESEARCH PROJECTS

6.1.1 Improved Sexual and Reproductive Health and Rights Services for Most at Risk Populations (MARP) in Tete, Mozambique

In 2011 ICRH initiated a project that aims at expanding and improving sexual and reproductive health and rights (SRHR) among most-at-risk populations in the Tete-Moatize area in central Mozambique. The main target populations are female sex workers (FSW) and their male clients. The project builds on the previous projects supporting a drop-in clinic ('night clinic') for FSW and truck drivers in Moatize. The project was completed at the end of 2015. During the course of the project, the clinic's services were expanded to the city of Tete, through outreach, and to a comprehensive package of all SRHR services. The health facility-based services were complemented by community peer outreach activities, comprising behaviour change communication and structural interventions to create a supportive environment for a sustained behaviour change. Health care providers at key public facilities were sensitized for a FSW-friendly approach and trained in FSW-adapted clinical guidelines. During the last months, the evaluation of the performance of the

project was initiated, and will be continued in 2016 in the context of the DIFFER project. The evaluation will assess feasibility, relevance, effectiveness, sustainability, cost and equity through a pre-post assessment comparison that includes qualitative and quantitative data collection techniques.

	Financed by: Flemish International Cooperation Agency; United States Agency for International Development; Vale do Rio Doce		Budget: 1,162,819 EUR
	Coordinator: ICRH Belgium		Start Date: 1 October 2010 End Date: 31 December 2015
	Partners: ICRH Mozambique Provincial Health Directorate of Tete, Mozambique		Contactperson at ICRH: Yves Lafort Yves.Lafort@ugent.be

6.1.2 Diagonal Interventions to Fast Forward Enhanced Reproductive Health (DIFFER)

The DIFFER project (Diagonal Interventions to Fast-Forward Enhanced Reproductive Health) aims 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 is implemented at four sites in Kenya (Mombasa), Mozambique (Tete), South Africa (Durban) and India (Mysore). The project has a strong south-south component and aims 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 initiated at each of the 4 sites. During 2015, the intervention packages were further rolled out. South-south exchange and capacity strengthening was done through exchange visits between the Indian and the African partners. In October, the DIFFER consortium met in Maputo, Mozambique, to discuss the ongoing interventions as well as the final evaluation of the project and the dissemination



The Ashodaya team from India meets with sex workers in Tete, Mozambique

of the evaluation's results. The final evaluation will assess different aspects of the performance of the intervention, including feasibility, relevance, effectiveness, sustainability, cost and equity. It was initiated at all sites during the last months of the year. Also in 2015, key results of the baseline situational analysis were published in scientific journals.

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

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



The DIFFER Project management Team meeting at ICRH-Mozambique in Maputo, Mozambique



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



Contactperson at ICRH:
Yves Lafort
Yves.Lafort@ugent.be

6.1.3 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 will develop and pilot 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 interviews among 25 male clients, 25 male SWs and 25 female SWs. These interviews were finalised in 2015 and the results are being disseminated at international conferences. Based on the results of the interviews, a venue-based intervention was developed that will be implemented and tested in 2016.

During the second half of 2015, a parallel study was conducted assessing the validity of semen tests for detecting semen or sperm in rectal specimens after unprotected anal sex, and its potential use as an outcome measure in studies aiming at increasing protected anal sex. Rectal specimens were collected from 30 male and 30 female SWs at different time intervals after unprotected and protected anal sex, and will be tested for the presence of semen at a forensic laboratory in the US.

	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 Stat-Gent CRESCENDO of the University Ghent, Belgium ICRH Kenya		Contactperson at ICRH: Yves Lafort Yves.Lafort@ugent.be



7. OTHER ACTIVITIES



7.1 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 2015, ICRH experts participated in several WHO expert panels and collaborated with other WHO collaborating centres on several occasions.

7.2 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



Contactperson at ICRH:
Dirk Van Braeckel
Dirk.VanBraeckel@ugent.be

7.3 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

More information: Olivier Degomme,
Olivier.degomme@ugent.be



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



Contact persons at ICRH:

Olivier Degomme
Olivier.Degomme@ugent.be







7.4 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.

There is also project on sexual health, where we first examine the use of traditional methods of family planning. Particular attention is be given to traditional methods potentially dangerous to the health of women and barriers to using modern methods.

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		Contact person: Steven Callens Steven.Callens@ugent.be

7.5 MILLENIUM DEVELOPMENT GOALS CAMPAIGN: '2015 – TIME IS RUNNING'

ICRH is member of the coalition of Flemish development NGOs '2015 – de tijd loopt' ('2015 – time is running'). This coalition aims at keeping the millennium development goals (MDG) on the public and the political agenda.

In 2015, the activities of the coalition focused on following-up and influencing the decision process on the Millennium development Goals.

7.6 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.

7.7 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.

Contact person at ICRH: Dirk Van Braeckel

Dirk.VanBraeckel@ugent.be.

7.8 PHD DEFENSES

- Xu-Dong Zhang. Vulnerabilities and opportunities for improving sexual and reproductive health and rights for adolescent female sex workers in Kunming, China. Supervisors: Stanley Luchters and Marleen Temmerman
- Charlotte Warren. Exploring the quality and effect of comprehensive postnatal care models in East and Southern Africa. Supervisor: Marleen Temmerman
- Peter Decat. Addressing the unmet contraceptive need of adolescents and unmarried youth: Act or Interact. Supervisors: Olivier Degomme and Kristien Michielsen
- Caroline De Schacht. Factors influencing mother-to-child transmission of HIV during pregnancy and breastfeeding in Mozambique. Supervisors: Marleen Temmerman and Laura Guay
- Howard Sobel. Determinants of infant feeding practices and immunization status: a case study of the Philippines. Supervisor: Marleen Temmerman
- Catherine Ali-Risasi. Cancer of the uterine cervix among women of Kinshasa, the Democratic Republic of the Congo: prevalence, co-factors and the human papillomavirus. Supervisors: Marleen Praet and Davy Vanden Broeck

7.9 MASTER THESES SUPERVISED OR CO-SUPERVISED BY ICRH STAFF, DEFENDED IN 2015

Master of Medicine

Jakob Christiaens: Uptake of the Human Papillomavirus vaccine in Kenya: testing the Theory of Planned Behaviour on cohort data.

Supervisor: Wim Delva

Co-supervisor: Heleen vermandere

Amelie Gistelincx: Impact of climate change on reproductive health

Supervisor Olivier Degomme

Co-supervisor: Dirk Van Braeckel

Leni De Mulder: Sexual violence against men in Europe: types, prevalence and determinants

Supervisor: Ines Keygnaert

Co-supervisor: Piet Hoebeke

Katrien Vanslambrouck: Systematic literature review on the consequences of FGM on sexuality of women and men.

Supervisor: Els Leye

Master of Health Education and Promotion

Nena Janssens: STI testing among Flemish and Brussels youth. Identification of barriers for regular STI test and evaluation of acceptability of self-testing.

Supervisor: Kristien Michiels

Co-supervisor: Heleen Vermandere.

Babette Desmadryl: Acceptability of STI self-testing among youth.

Supervisor: Kristien Michiels

Co-supervisor: Heleen Vermandere.

Eva Van Steijvoort: Prevention of cervical cancer. Knowledge, attitude and practices regarding HPV-vaccination and screening among ethnic minorities in Flanders and Brussels.

Supervisor: Davy Vanden Broeck

Co-supervisor: Heleen vermandere

Jolien Vanguchte: The link between gender norms and sexual wellbeing of youth – a qualitative study.

Supervisor: Kristien Michiels

Co-supervisor Sara De Meyer

Master of Sociology

Liza Vander Stock: What social coping strategies do sex workers adopt to overcome the hardships of prostitution? Evidence from Tanzania

Supervisor: Bart Van De Putte

Co-supervisor: Kristien Michielsens

Master of Health Management and Policy

Kim Decabooter: Explorative research into attitudes of professionals and non-professionals towards antenatal care within primary health care – the perspective of gynaecologists and patients

Supervisor: Kristien Michielsens

Co-supervisor: An-Sofie Van Parys

7.10 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 will be 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 one of ICRH's sister-organizations in Kenya (ICRH-K) and Mozambique (ICRH-M). From September 2014 until August 2015, Olena Ivanova and Anna Galle did an internship at ICRH. They spent the second half-year of the internship in Mozambique.

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. Wu S, Temmerman M, Wang K, Wang S, Li J, and Zhang W-H. 2015. "Induced Abortion in 30 Chinese Provinces in 2013: a Cross-sectional Survey." *In Lancet*, 386:18–18.

Galloping economic growth and reform in China in the past 30 years has led to dramatic social changes. Attitudes towards sex and sexual behaviour have changed, and premarital sex has become more acceptable. The methods of contraception have changed, and the use of highly effective or long-acting contraceptive methods tends to be decreasing, especially in urban areas. Abortion is commonly used to end unintended pregnancy. The aim of this study was to survey the current situation of induced abortions in selected hospitals in 30 provinces in China. Methods: This cross-sectional study was conducted in 295 randomly selected hospitals in 30 Chinese provinces between April and August, 2013. We collected data using a questionnaire filled by the abortion service providers for all women seeking abortion within 12 weeks of pregnancy during a period of two months. The information included self-reported demographic and economic characteristics, history of induced abortion, and use of contraception. The characteristics of women were summarised with counts (percentages) for categorical variables; mean (SD) and range for age of women. All participants signed a written informed consent of which they received a copy. Ethics approvals were obtained from both ethics committees of the National Research Institution for Family Planning (NRIFP), China, and of the Ghent University, Belgium. Findings: 79 174 women participated in the study (mean age 28·9 years (SD 1·7; range 13–58), of whom 27 134 (35%) were undergoing a first induced abortion, 28 637 (37%) a second abortion, and 22 682 (29%) a third or subsequent abortion. About a third of participants (31%) were not married and more than half (61%) were not local residents. The primary reasons for the unintended pregnancy were contraception failure (50%) and non-use of contraception (44%). Interpretation. This is the first nationwide large-scale study in 30 provinces to show that repeated induced abortion is high in China. A family planning programme for young and unmarried people is urgently needed to improve their access to information, advice, and services about contraception and to reduce unintended pregnancies and repeated induced abortion.

2. Venkatraman C-M, Svanemyr J, Amin A, Fogstad H, Say L, Girard F, Temmerman M. 2015. "Twenty Years After International Conference on Population and Development: Where Are We with Adolescent Sexual and Reproductive Health and Rights?" *Journal of Adolescent Health*.

The International Conference on Population and Development in Cairo in 1994 laid out a bold, clear, and comprehensive definition of reproductive health and called for nations to meet the educational and service needs of adolescents to enable them to deal in a positive and responsible way with their sexuality. In the context of the ongoing review of the International Conference on Population and Development Programme of Action and the considerations for a post-2015 development agenda, this article summarizes the findings of the articles presented in this volume and identifies key challenges and critical answers that need to be tackled in addressing adolescent sexual and reproductive health and rights.

The key recommendations are to link the provision of sexuality education and sexual and reproductive health (SRH) services; build awareness, acceptance, and support for youth-friendly SRH education and services; address gender inequality in terms of beliefs, attitudes, and norms; and target the early adolescent period (10–14 years). The many knowledge gaps, however, point to the pressing need for further research on how to best design effective adolescent SRH intervention packages and how best to deliver them.

3. Bellizzi S, Sobel H, Obara H, Temmerman M. 2015. "Underuse of Modern Methods of Contraception: Underlying Causes and Consequent Undesired Pregnancies in 35 Low- and Middle-income Countries." *Human Reproduction* 30 (4): 973–986.

Study question: What is the contribution of the underuse of modern methods (MM) of contraception to the annual undesired pregnancies in 35 low-and middle-income countries? Summary answer: Fifteen million out of 16.7 million undesired pregnancies occurring annually in 35 countries could have been prevented with the optimal use of MM of contraception. What is known already: Every year, 87 million women worldwide become pregnant unintentionally because of the underuse of MM of contraception. Study design, size, duration: Demographic and health surveys (DHS) of 35 countries, conducted between 2005 and 2012, were analysed. Participants/materials, setting, methods: Contraceptive use of 12 874 unintentionally pregnant women was compared with 111 301 sexually active women who were neither pregnant nor desiring pregnancy. Main results and the role of chance: An average of 96% of 15-to 49-year-old eligible women took part in the survey. When adjusted for covariates and compared with the use of MM of contraception, the use of traditional methods was associated with a 2.7 [95% confidence interval (CI): 2.3-3.4] times increase in odds of an undesired pregnancy, while non-use of any method was associated with a 14.3(95% CI: 12.3-16.7) times increase. This corresponded to an estimated 16.7 million undesired pregnancies occurring annually in the 35 countries, of which 15.0 million could have been prevented with the optimal use of MM of contraception (13.5 million women did not use MM whilst 1.5 million women utilized MM incorrectly). Women with the lowest educational attainment and wealth quintile were 8.6 (95% CI: 8.2-9.1) and 2.6 (95% CI: 2.4-2.9) times less likely to use contraceptives compared with those with the highest level of each, respectively. Of the 14 893 women who neither desired pregnancy nor used contraception, 5559 (37.3%) cited fear of side effects and health concerns as the reason for non-use, 3331 (22.4%) cited they or their partner's opposition to contraception or religious prohibition and 2620 (17.6%) underestimated the risk of pregnancy. Limitations, reasons for caution: Despite the fact that DHS are considered high-quality studies, we should not underestimate the role played by recall bias for past pregnancies. Few women report a current pregnancy in the first trimester and undesired pregnancies at that time are probably prone to under-reporting. Some terminated pregnancies may not be included in the current pregnancy group. Furthermore, covariates measured at the time of the survey may not have reflected the same covariates at the time the currently pregnant women became pregnant. Wider implications of the findings: Underuse of MM of contraception burdens especially the poor and the less educated. National strategies should address unfounded health concerns, fear of side effects, opposition and underestimated risk of pregnancy, which are major contributors to undesired pregnancies.

4. Cournil A, Van de Perre P, Cames C, de Vincenzi I, Read JS, Luchters S, Meda N, Naidu K, Newell M-L, Bork K, the Kesho Bora Study group, Temmerman M. 2015. "Early Infant Feeding Patterns and HIV-free Survival: Findings from the Kesho-Bora Trial (Burkina Faso, Kenya, South Africa)." *Pediatric Infectious Disease Journal* 34 (2): 168–174.

To investigate the association between feeding patterns and HIV-free survival in children born to HIV-infected mothers and to clarify whether antiretroviral (ARV) prophylaxis modifies the association. Methods: From June 2005 to August 2008, HIV-infected pregnant women were counseled regarding infant feeding options, and randomly assigned to triple-ARV prophylaxis (triple ARV) until breastfeeding cessation (BFC) before age 6 months or antenatal zidovudine with single-dose nevirapine (short-course ARV). Eighteen-month HIV-free survival of infants HIV-negative at 2 weeks of age was assessed by feeding patterns (replacement feeding from birth, BFC { \triangle } 3 months, BFC { \triangle } = 3 months). Results: Of the 753 infants alive and HIV-negative at 2 weeks, 28 acquired infection and 47 died by 18 months. Overall HIV-free survival at 18 months was 0.91 [95%

confidence interval (CI): 0.88-0.93]. In the short-course ARV arm, HIV-free survival (0.88; CI: 0.84-0.91) did not differ by feeding patterns. In the triple ARV arm, overall HIV-free survival was 0.93 (CI: 0.90-0.95) and BFC (3 months) was associated with lower HIV-free survival than BFC (3 months) (adjusted hazard ratio: 0.36; CI: 0.15-0.83) and replacement feeding (adjusted hazard ratio: 0.20; CI: 0.04-0.94).

In the triple ARV arm, 4 of 9 transmissions occurred after reported BFC (and 5 of 19 in the short-course arm), indicating that some women continued breastfeeding after interruption of ARV prophylaxis. Conclusions: In resource-constrained settings, early weaning has previously been associated with higher infant mortality. We show that, even with maternal triple-ARV prophylaxis during breastfeeding, early weaning remains associated with lower HIV-free survival, driven in particular by increased mortality.

5. *Ochako R, Mbondo M, Aloo S, Kaimenyi S, Thompson R, Temmerman M, Kays M. 2015. "Barriers to Modern Contraceptive Methods Uptake Among Young Women in Kenya: a Qualitative Study." BMC Public Health 15.*

Background: Young women in Kenya experience a higher risk of mistimed and unwanted pregnancy compared to older women. However, contraceptive use among youth remains low. Known barriers to uptake include side effects, access to commodities and partner approval. Methods: To inform a youth focussed behaviour change communication campaign, Population Services Kenya developed a qualitative study to better understand these barriers among young women. The study was carried out in Nyanza, Coast, and Central regions. Within these regions, urban or peri-urban districts were purposively selected based on having contraceptive prevalence rate close to the regional average and having a population with low socioeconomic profiles. In depth interviews were conducted with a sample of sexually active women aged 15-24, both users and non-users, that were drawn from randomly selected households. Results: All the respondents in the study were familiar with modern methods of contraception and most could describe their general mechanisms of action. Condoms were not considered as contraception by many users. Contraception was also associated with promiscuity and straying. Fear of side effects and adverse reactions were a major barrier to use. The biggest fear was that a particular method would cause infertility. Many fears were based on myths and misconceptions. Young women learn about both true side effects and myths from their social networks. Conclusion: Findings from this research confirm that awareness and knowledge of contraception do not necessarily translate to use. The main barriers to modern contraceptive uptake among young women are myths and misconceptions.

The findings stress the influence of social network approval on the use of family planning, beyond the individual's beliefs. In such settings, family planning programming should engage with the wider community through mass and peer campaign strategies. As an outcome from this study, Population Services Kenya developed a mass media campaign to address key myths and misconceptions among youth

6. *De Wilde K, Tency I, Steckel S, Temmerman M, Boudrez H, Maes L. 2015. "Which Role Do Midwives and Gynecologists Have in Smoking Cessation in Pregnant Women?: a Study in Flanders, Belgium." Sexual & Reproductive Healthcare 6 (2): 66–73.*

Objectives: The objectives of our study were (1) to explore knowledge, beliefs and practice among midwives and gynecologists concerning a smoking cessation policy for pregnant women and their partners and (2) to examine if midwives and gynecologists do have a role in smoking cessation in pregnant women. Method: We performed a qualitative study using semi-structured interviews with nine midwives and eight gynecologists. Data were analyzed using deductive content analysis, based on the 5 A's framework (Ask–Advise–Assess–Assist–Arrange). Results: The national smoking cessation policy seemed to be insufficiently known. "Ask" and "Advise" were part

of a standard prenatal consultation, the next three steps were rarely implemented. Participants had a negative image of “the smoking pregnant woman”: a low educated woman with a smoking partner and “bad examples” in their history. Reported barriers were fear of provoking resistance and lack of time and communication skills regarding smoking cessation. Conclusions: These findings suggest that training in communication skills and dealing with resistance should be offered, i.e. by using motivational interviewing. It could be considered that a trained midwife or tobaccologist is part of an obstetrical team or that the AAR-method (Ask–Advise–Refer) is used instead of the 5 A’s framework.

7. Warren C, Abuya T, Kanya L, Obare F, Njuki R, Temmerman M, Bellows B. 2015. “A Cross Sectional Comparison of Postnatal Care Quality in Facilities Participating in a Maternal Health Voucher Program Versus Non-voucher Facilities in Kenya.” *Bmc Pregnancy and Childbirth* 15.

Background: Health service fees constitute substantial barriers for women seeking childbirth and postnatal care. In an effort to reduce health inequities, the government of Kenya in 2006 introduced the output-based approach (OBA), or voucher programme, to increase poor women’s access to quality Safe Motherhood services including postnatal care. To help improve service quality, OBA programmes purchase services on behalf of the poor and marginalised, with provider reimbursements for verified services. Kenya’s programme accredited health facilities in three districts as well as in two informal Nairobi settlements. Methods: Postnatal care quality in voucher health facilities (n = 21) accredited in 2006 and in similar non-voucher health facilities (n = 20) are compared with cross sectional data collected in 2010. Summary scores for quality were calculated as additive sums of specific aspects of each attribute (structure, process, outcome). Measures of effect were assessed in a linear regression model accounting for clustering at facility level. Data were analysed using Stata 11.0. Results: The overall quality of postnatal care is poor in voucher and non-voucher facilities, but many facilities demonstrated ‘readiness’ for postnatal care (structural attributes: infrastructure, equipment, supplies, staffing, training) indicated by high scores (83/111), with public voucher facilities scoring higher than public non-voucher facilities. The two groups of facilities evinced no significant differences in postnatal care mean process scores: 14.2/ 55 in voucher facilities versus 16.4/55 in non-voucher facilities; coefficient: -1.70 (-4.9, 1.5), p = 0.294.

Significantly more newborns were seen within 48 hours (83.5 % versus 72.1 %: p = 0.001) and received Bacillus Calmette-Guerin (BCG) (82.5 % versus 76.5 %: p = 0.001) at voucher facilities than at non-voucher facilities.

Conclusions: Four years after facility accreditation in Kenya, scores for postnatal care quality are low in all facilities, even those with Safe Motherhood vouchers. We recommend the Kenya OBA programme review its Safe Motherhood reimbursement package and draw lessons from supply side results-based financing initiatives, to improve postnatal care quality.

8. Biza A, Jille-Traas I, Colomar M, Belizan M, Requejo Harris J, Crahay B, Merialdi M, Nguyen MH, Althabe F, Aleman A, Berge E, Carbonell A, Chavane L, Delvaux T, Geelhoed D, Gülmezoglu M, Malapende CR, Melo A, Bique Osman N, Widmer M, Temmerman M, Betran AP. 2015. “Challenges and Opportunities for Implementing Evidence-based Antenatal Care in Mozambique: a Qualitative Study.” *Bmc Pregnancy and Childbirth* 15.

Background: Maternal mortality remains a daunting problem in Mozambique and many other low-resource countries. High quality antenatal care (ANC) services can improve maternal and newborn health outcomes and increase the likelihood that women will seek skilled delivery care. This study explores the factors influencing provider uptake of the recommended package of ANC interventions in Mozambique. Methods: This study used

qualitative research methods including key informant interviews with stakeholders from the health sector and a total of five focus group discussions with women with experience with ANC or women from the community. Study participants were selected from three health centers located in Maputo city, Tete, and Cabo Delgado provinces in Mozambique. Staff responsible for the medicines/supply chain at national, provincial and district level were interviewed. A check list was implemented to confirm the availability of the supplies required for ANC. Deductive content analysis was conducted. Results: Three main groups of factors were identified that hinder the implementation of the ANC package in the study setting: a) system or organizational: include chronic supply chain deficiencies, failures in the continuing education system, lack of regular audits and supervision, absence of an efficient patient record system and poor environmental conditions at the health center; b) health care provider factors: such as limited awareness of current clinical guidelines and a resistant attitude to adopting new recommendations; and c) Users: challenges with accessing ANC, poor recognition amongst women about the purpose and importance of the specific interventions provided through ANC, and widespread perception of an unfriendly environment at the health center.

Conclusions: The ANC package in Mozambique is not being fully implemented in the three study facilities, and a major barrier is poor functioning of the supply chain system. Recommendations for improving the implementation of antenatal interventions include ensuring clinical protocols based on the ANC model. Increasing the community understanding of the importance of ANC would improve demand for high quality ANC services. The supply chain functioning could be strengthened through the introduction of a kit system with all the necessary supplies for ANC and a simple monitoring system to track the stock levels is recommended

9. Hofmeyr GJ, Singata M, Lawrie TA, Temmerman M. 2015. "Interpretation, Communication, and Mechanisms of Associations Between Injectable Contraception and HIV Risk." *Lancet Hiv* 2 (9): e365–e365.

Summary: Data from the VOICE study¹ showing greater HIV-1 acquisition among women who use depot medroxyprogesterone acetate (DMPA) than injectable norethisterone (NET-EN) contraception elicited comment suggesting that use of DMPA be limited.² The fundamental uncertainty, which has not been addressed by the VOICE data or recent meta-analyses of other observational data cited in the commentary,^{3,4} is whether DMPA increases susceptibility to HIV, or whether women at increased risk of HIV are more likely to use DMPA.

10. Zhang X, Kelly-Hanku A, Chai J-J, Luo J, Temmerman M, Lüchters S. 2015. "Sexual and Reproductive Health Risks Amongst Female Adolescents Who Use Amphetamine-type Stimulants and Sell Sex: a Qualitative Inquiry in Yunnan, China." *Harm Reduction Journal* 12.

Background: China, as other Southeast Asian countries, has witnessed an increased use in amphetamine-type stimulants (ATS) amongst urban youth. Amongst female adolescents who both sell sex and use ATS, risk behaviours are compounded resulting in even poorer health outcomes. However, limited knowledge exists on ATS use patterns and ATS-related risk behaviours, particularly in this context. This research aimed to improve the understanding of these issues amongst female adolescents who use ATS and sell sex, and to inform future programming. Method: This study utilised monthly focus group discussions (four in total) with the same study participants in Yunnan, China. From within a drug-treatment programme, female adolescents who reported both a history of drug use and selling sex were purposively enrolled in the study. Results: Participating adolescent females were aged 17-19 years and were all internal-migrants with low literacy. All reported polydrug use (mainly methamphetamine and heroin, whereas ecstasy and ketamine have been infrequently employed). Being less informed about risks of drug use and lack of sexual and reproductive health knowledge seemed to contribute

to problematic drug use, rough and prolonged sexual intercourse, inconsistent condom use and ineffective contraceptive practice. For their income, participants largely relied on selling sex, which was frequently coupled with drug sharing services to clients. However, despite the practices, women did not self-identify as sex workers, and therefore did not think that existing intervention services targeting female sex workers were relevant to them. Moreover, criminalization and stigmatisation of drug use and selling sex impeded their access to care services.

Conclusion: Current harm reduction and HIV/sexually transmitted infection (STI) prevention services are unlikely to address the demand of female adolescents engaged in drug use and commercial sex. Our findings highlight that a comprehensive and coordinated harm reduction and sexual and reproductive health response should be conducted involving these most vulnerable adolescents

11. Duysburgh, E, Kerstens B, Kouanda S, Kabore CP, Belemsaga Yugbare D, Gichangi P, Masache G, Crahay B, Gondola Sitefane G, Bique Osman N, Foia S, Barros H, Castro Lopes S, Mann S, Nambiar B, Colbourn T, Temmerman M. 2015. "Opportunities to Improve Postpartum Care for Mothers and Infants: Design of Context-specific Packages of Postpartum Interventions in Rural Districts in Four sub-Saharan African Countries." *Bmc Pregnancy and Childbirth* 15.

Background: Postpartum maternal and infant mortality is high in sub-Saharan Africa and improving postpartum care as a strategy to enhance maternal and infant health has been neglected. We describe the design and selection of suitable, context-specific interventions that have the potential to improve postpartum care. Methods: The study is implemented in rural districts in Burkina Faso, Kenya, Malawi and Mozambique. We used the four steps 'systems thinking' approach to design and select interventions:

1) we conducted a stakeholder analysis to identify and convene stakeholders; 2) we organised stakeholders causal analysis workshops in which the local postpartum situation and challenges and possible interventions were discussed; 3) based on comprehensive needs assessment findings, inputs from the stakeholders and existing knowledge regarding good postpartum care, a list of potential interventions was designed, and; 4) the stakeholders selected and agreed upon final context-specific intervention packages to be implemented to improve postpartum care. Results: Needs assessment findings showed that in all study countries maternal, newborn and child health is a national priority but specific policies for postpartum care are weak and there is very little evidence of effective postpartum care implementation. In the study districts few women received postpartum care during the first week after childbirth (25 % in Burkina Faso, 33 % in Kenya, 41 % in Malawi, 40 % in Mozambique). Based on these findings the interventions selected by stakeholders mainly focused on increasing the availability and provision of postpartum services and improving the quality of postpartum care through strengthening postpartum services and care at facility and community level. This includes the introduction of postpartum home visits, strengthening postpartum outreach services, integration of postpartum services for the mother in child immunisation clinics, distribution of postpartum care guidelines among health workers and upgrading postpartum care knowledge and skills through training.

Conclusion: There are extensive gaps in availability and provision of postpartum care for mothers and infants. Acknowledging these gaps and involving relevant stakeholders are important to design and select sustainable, context-specific packages of interventions to improve postpartum care.

12. Kosgei RJ, Sitienei JK, Kipruto H, Kimenye K, Gathara D, Odawa FX, Gichangi P, Callens S, Temmerman M, Sitienei JC, Kihara A-B, Carter E-J. 2015. "Gender Differences in Treatment Outcomes Among 15-49 Year Olds with Smear-positive Pulmonary Tuberculosis in Kenya." *International Journal of Tuberculosis and Lung Disease* 19 (10): 1176–1181.

Objective: To determine gender differences in treatment outcomes among 15-49 year olds with smear-positive pulmonary tuberculosis (PTB) and factors associated with poor outcomes in Kenya. Design: Retrospective descriptive cohort. Results: Of 16 056 subjects analysed, 38% were female and 62% male. Females had a higher risk of poor treatment outcome than males (12% vs. 10%, $P < 0.001$; adjusted OR 1.29, 95%CI 1.16-1.44, $P < 0.001$). In the first multivariate model, restricting the analysis to human immunodeficiency virus (HIV) positive patients and adjusting for risk factors and clustering, females had a non-significantly lower risk of poor outcome (OR 0.99, 95%CI 0.86-1.13, $P = 0.844$). In the model restricted to HIV-negative patients, a non-significantly lower risk was found (OR 0.89, 95%CI 0.73-1.09, $P = 0.267$). In the second model, restricting analysis to patients on antiretroviral therapy (ART) and adjusting for risk factors and clustering, females had a non-significantly lower risk of poor PTB treatment outcomes (OR 0.98, 95%CI 0.84-1.14, $P = 0.792$). In the model restricted to HIV-positive patients not on ART, a non-significantly higher risk was found (OR 1.15, 95%CI 0.79-1.67, $P = 0.461$). Conclusion: Females of reproductive age are likely to have poorer treatment outcomes than males. Among females, not commencing ART during anti-tuberculosis treatment seemed to be associated with poor outcomes.

13. Tilahun T, Coene G, Temmerman M, Degomme O. 2015. "Couple Based Family Planning Education: Changes in Male Involvement and Contraceptive Use Among Married Couples in Jimma Zone, Ethiopia." *Bmc Public Health* 15.

Family planning contributes substantially in achieving the Millennium Development Goals. Recently, male involvement has gained considerable attention in family planning programs but the implementation thereof remains a challenge. In that context, our study aimed at measuring the effect of a six-month-long family planning education program on male involvement in family planning, as well as on couples' contraceptive practice. Methods: We conducted a quasi-experimental research among 811 married couples in Jimma Zone, southwest Ethiopia. Our study consisted of an intervention and a control group for comparative purpose; and surveyed before and after the implementation of the intervention. The intervention consisted of family planning education, given to both men and women at the household level in the intervention arm, in addition to monthly community gatherings. During the intervention period, households in the control group were not subject to particular activities but had access to routine health care services. Results: We obtained follow-up data from 760 out of 786 (96.7%) couples who were originally enrolled in the survey. At the baseline, contraceptive use in both control and intervention households were similar. After the intervention, we observed among men in the intervention arm a significantly higher level of willingness to be actively involved in family planning compared to the men in the control arm ($p < 0.001$). In addition, the difference between spouses that discussed family planning issues was less reported within the control group, both in the case of men and women ($p = 0.031$ and ($p < 0.001$)) respectively. In general, a significant, positive difference in male involvement was observed. Concerning contraceptive use, there was change observed among the intervention group who were not using contraception at baseline. Conclusions: This study showed that family planning educational intervention, which includes both spouses and promotes spousal communication, might be useful to foster contraceptive practice among couples. The results also offer practical information on the benefits of male involvement in family planning as a best means to increase contraceptive use. Thus, providing opportunities to reinforce family planning education may strengthen the existing family planning service delivery system.

14. Urban MF, Olivier L, Viljoen D, Lombard C, Louw JG, Drotsky L-M, Temmerman M, Chersich M. 2015. "Prevalence of Fetal Alcohol Syndrome in a South African City with a Predominantly Black African Population." *Alcoholism-clinical and Experimental Research* 39 (6): 1016–1026.

Background: Fetal alcohol spectrum disorder (FASD) and fetal alcohol syndrome (FAS) are common in some South African populations, notably those of mixed ancestry descent in rural areas and small towns. Little is known about FAS/FASD prevalence in the majority of South Africans: city dwellers of Black African ethnicity. This study describes the prevalence of FAS in a South African city, comparing 2 suburbs with predominantly mixed ancestry (Roodepan) and Black African (Galeshewe) populations that house over 60% of the city population. Methods: We conducted a tiered, active case ascertainment study for the prevalence of FAS and also detected some less clinically specific FASD cases. All first-grade learners in the 2 suburbs were eligible for anthropometric screening, and screen-positive learners were assessed for dysmorphic features of FAS. Those with suggestive clinical features received neurocognitive assessment, and maternal or collateral interview. Final diagnosis was made following a case conference. Results: Complete ascertainment of FAS status was made in 1,503 (94.7%) of 1,587 eligible learners (435 in Roodepan and 1,152 in Galeshewe).

Overall, FAS was diagnosed in 83 (5.5%, 95% confidence interval [CI]=4.4 to 6.8) learners and FASD in 96 (6.4%, 95% CI=5.2 to 7.7). Levels of FAS were high in both areas: 26 (6.3%, 95% CI=4.2 to 9.2) learners from Roodepan, compared to 57 (5.2%, 95% CI=4.0 to 6.7) from Galeshewe ($p=0.39$). No cases were previously diagnosed. The mortality rate for mothers of FASD children from Galeshewe was 19 of 65 (29%), compared to 3 of 31 (9.7%; $p=0.03$) for Roodepan. Interviewed mothers in Galeshewe were older and had higher body mass index.

Conclusions: Prevalence of FAS is high in both Galeshewe and Roodepan, and the lack of prior diagnoses indicates that awareness remains low. The maternal mortality rate was especially high in Galeshewe. The unexpectedly high burden of FAS in an urban area with predominantly Black African population mandates extension of surveillance and intervention measures in southern Africa.

15. Van Parys A-S, Deschepper E, Michielsens K, Galle A, Roelens K, Temmerman M, Verstraelen H. 2015. "Intimate Partner Violence and Psychosocial Health, a Cross-sectional Study in a Pregnant Population." *Bmc Pregnancy and Childbirth* 15.

Background: The objective of this paper is to explore whether IPV 12 months before and/or during pregnancy is associated with poor psychosocial health. Methods: From June 2010 to October 2012, a cross-sectional study was conducted in 11 antenatal care clinics in Belgium. Consenting pregnant women were asked to complete a questionnaire on socio-demographics, psychosocial health and violence in a separate room. Overall, 2586 women were invited to participate and we were able to use data from 1894 women (73.2 %) for analysis. Ethical clearance was obtained in all participating hospitals. Results: We found a significant correlation between IPV and poor psychosocial health: within the group of women who reported IPV, 53.2 % ($n = 118$) had poor psychosocial health, as compared to 21 % ($n = 286$) in the group of women who did not report IPV ($P \ll 0.001$). Lower psychosocial health scores were associated with increased odds of reporting IPV (aOR 1.55; 95 % CI 1.39-1.72), with adjustments made for the language in which the questionnaire was filled out, civil/marital status, education and age. In other words, a decrease of 10 points on the psychosocial health scale (total of 140) increased the odds of reporting IPV by 55 %. When accounting for the 6 psychosocial health subscales, the analysis revealed that all subscales (depression, anxiety, self-esteem, mastery, worry and stress) are strongly correlated to reporting IPV. However, when accounting for all subscales simultaneously in a logistic regression model, only depression (aOR 0.87; 95 % CI 0.84-0.91) and stress (aOR 0.85; 95 % CI 0.77-0.95) remained significantly associated with IPV. The association between overall psychosocial health and IPV remained significant after adjusting for socio-demographic status.

Conclusion: Our research corroborated that IPV and psychosocial health are strongly associated. Due to the limitations of our study design, we believe that future research is needed to deepen understanding of the multitude of factors involved in the complex interactions between IPV and psychosocial health.

16. De Schacht C, Lucas C, Siteo N, Machekano R, Chongo P, Temmerman M, Tobaiwa O, Guay L, Kassaye S, Jani IV. 2015. "Implementation of Point-of-care Diagnostics Leads to Variable Uptake of Syphilis, Anemia and CD4+T-cell Count Testing in Rural Maternal and Child Health Clinics." *Plos One* 10 (8).

Introduction: Anemia, syphilis and HIV are high burden diseases among pregnant women in sub-Saharan Africa. A quasi-experimental study was conducted in four health facilities in Southern Mozambique to evaluate the effect of point-of-care technologies for hemoglobin quantification, syphilis testing and CD4+ T-cell enumeration performed within maternal and child health services on testing and treatment coverage, and assessing acceptability by health workers. Methods: Demographic and testing data on women attending first antenatal care services were extracted from existing records, before (2011; n = 865) and after (2012; n = 808) introduction of point-of-care testing. Study outcomes per health facility were compared using z-tests (categorical variables) and Wilcoxon rank-sum test (continuous variables), while inverse variance weights were used to adjust for possible cluster effects in the pooled analysis. A structured acceptability-assessment interview was conducted with health workers before (n = 22) and after (n = 19). Results: After implementation of point-of-care testing, there was no significant change in uptake of overall hemoglobin screening (67.9% to 83.0%; p = 0.229), syphilis screening (80.8% to 87.0%; p = 0.282) and CD4+ T-cell testing (84.9% to 83.5%; p = 0.930). Initiation of antiretroviral therapy for treatment eligible women was similar in the weighted analysis before and after, with variability among the sites. Time from HIV diagnosis to treatment initiation decreased (median of 44 days to 17 days; p<0.0001). A generally good acceptability for point-of-care testing was seen among health workers. Conclusions: Point-of-care CD4+ T-cell enumeration resulted in a decreased time to initiation of antiretroviral therapy among treatment eligible women, without significant increase in testing coverage. Overall hemoglobin and syphilis screening increased. Despite the perception that point-of-care technologies increase access to health services, the variability in results indicate the potential for detrimental effects in some settings. Local context needs to be considered and services restructured to accommodate innovative technologies in order to improve service delivery to expectant mothers.

17. Azmat SK, Ali M, Ishaque M, Mustafa G, Hameed W, Farooq Khan O, Abbas G, Temmerman M, Munroe E. 2015. "Assessing Predictors of Contraceptive Use and Demand for Family Planning Services in Underserved Areas of Punjab Province in Pakistan: Results of a Cross-sectional Baseline Survey." *Reproductive Health* 12.

Background: Although Pakistan was one of the first countries in Asia to launch national family planning programs, current modern contraceptive use stands at only 26% with a method mix skewed toward short-acting and permanent methods. As part of a multiyear operational research study, a baseline survey was conducted to understand the predictors of contraceptive use and demand for family planning services in underserved areas of Punjab province in Pakistan. This paper presents the baseline survey results; the outcomes of the intervention will be presented in a separate paper after the study has been completed. Method: A cross-sectional baseline household survey was conducted with randomly selected 3,998 married women of reproductive age (MWRA) in the Chakwal, Mianwali, and Bhakkar districts of Punjab. The data were analyzed on SPSS 17.0 using simple descriptive and logistic regression. Results: Most of the women had low socio-economic status and were younger

than 30 years of age. Four-fifths of the women consulted private sector health facilities for reproductive health services; proximity, availability of services, and good reputation of the provider were the main predictors for choosing the facilities. Husbands were reported as the key decision maker regarding health-seeking and family planning uptake. Overall, the current contraceptive use ranged from 17% to 21% across the districts: condoms and female sterilization were widely used methods. Woman's age, husband's education, wealth quintiles, spousal communication, location of last delivery, and favorable attitude toward contraception have an association with current contraceptive use. Unmet need for contraception was 40.6%, 36.6%, and 31.9% in Chakwal, Mianwali, and Bhakkar, respectively. Notably, more than one fifth of the women across the districts expressed willingness to use quality, affordable long-term family planning services in the future. Conclusion: The baseline results highlight the need for quality, affordable long-term family planning services close to women's homes. Furthermore, targeted community mobilization and behavior change efforts can lead to increased awareness, acceptability, and use of family planning and birth spacing services.

18. Lim MSC, Zhang X, Kennedy E, Li, Yang, Li, Li Y-X, Temmerman M, Luchters S. 2015. "Sexual and Reproductive Health Knowledge, Contraception Uptake, and Factors Associated with Unmet Need for Modern Contraception Among Adolescent Female Sex Workers in China." Plos One 10 (1).

Objective : In China, policy and social taboo prevent unmarried adolescents from accessing sexual and reproductive health (SRH) services. Research is needed to determine the SRH needs of highly disadvantaged groups, such as adolescent female sex workers (FSWs). This study describes SRH knowledge, contraception use, pregnancy, and factors associated with unmet need for modern contraception among adolescent FSWs in Kunming, China. Methods : A cross-sectional study using a one-stage cluster sampling method was employed to recruit adolescents aged 15 to 20 years, and who self-reported having received money or gifts in exchange for sex in the past 6 months. A semi-structured questionnaire was administered by trained peer educators or health workers. Multivariable logistic regression was conducted to determine correlates of low knowledge and unmet need for modern contraception. Results : SRH knowledge was poor among the 310 adolescents surveyed; only 39% had heard of any long-acting reversible contraception (implant, injection or IUD). Despite 98% reporting not wanting to get pregnant, just 43% reported consistent condom use and 28% currently used another form of modern contraception. Unmet need for modern contraception was found in 35% of adolescents, and was associated with having a current non-paying partner, regular alcohol use, and having poorer SRH knowledge. Past abortion was common (136, 44%). In the past year, 76% had reported a contraception consultation but only 27% reported ever receiving SRH information from a health service. Conclusions : This study demonstrated a low level of SRH knowledge, a high unmet need for modern contraception and a high prevalence of unintended pregnancy among adolescent FSWs in Kunming. Most girls relied on condoms, emergency contraception, or traditional methods, putting them at risk of unwanted pregnancy. This study identifies an urgent need for Chinese adolescent FSWs to be able to access quality SRH information and effective modern contraception.

19. Sabbe A, Oulami H, Hamzali S, Oulami N, Zehra Le Hjr F, Abdallaoui M, Temmerman M, Leye E. 2015. "Women's Perspectives on Marriage and Rights in Morocco: Risk Factors for Forced and Early Marriage in the Marrakech Region." *Culture Health & Sexuality* 17 (2): 135–149.

Despite the introduction of the new Family Law, or Moudawana, in Morocco, effectively raising the minimum age for marriage, the number of girls being forced into wedlock is rising. This increase has been a source of concern from a women's rights perspective. The present study explored women's experiences and perspectives in relation to factors that contribute to the occurrence of child and forced marriage in Morocco. Using a participatory approach, focus-group discussions and in-depth interviews were held with women in both urban and rural settings in the greater Marrakech region. Overall, 125 women, between 18 and 69 years of age, participated in the study. Our findings highlight the need for more open dialogue between (grand)parents and children. Overall, the Moudawana is perceived as a considerable step forward for women's rights, yet study findings show that current policy provisions are not effective in abolishing forced marriages. Findings point to the need for a redefinition of the role of organisations, women's associations and other groups, with the recommendation that they focus their future efforts on awareness-raising among older generations and refrain from directly intervening in cases of forced marriage. Sensitisation efforts, including the use of popular media, are crucial to reach members of this older population group, where illiteracy remains widespread.

20. Gao X, Xu L, Lu C, Wu J, Wang Z, Decat P, Zhang W-H, Chen Y, Moyer E, Wu S, Minkauskiene M, Van Braeckel D, Temmerman. 2015 M. "Effect of Improving the Knowledge, Attitude and Practise of Reproductive Health Among Female Migrant Workers: a Worksite-based Intervention in Guangzhou, China." *Sexual Health*.

Background The sexual and reproductive health (SRH) knowledge and attitudes of female migrant workers are far from optimum in China. A worksite-based intervention program on SRH-related knowledge, attitude and practice (SRH KAP) modification may be an effective approach to improve the SRH status among migrant workers. This study aimed to identify better intervention approaches via the implementation and evaluation of two intervention packages. **Methods:** A worksite-based cluster-randomised intervention study was conducted from June to December 2008 in eight factories in Guangzhou, China. There were 1346 female migrant workers who participated in this study. Factories were randomly allocated to the standard package of interventions group (SPIG) or the intensive package of interventions group (IPIG). Questionnaires were administered to evaluate the effect of two interventions. **Results:** SRH knowledge scores were higher at follow up than at baseline for all participants of the SPIG; the knowledge scores increased from 6.50 (standard deviation (s.d.) 3.673) to 8.69 (s.d. 4.085), and from 5.98 (s.d. 3.581) to 11.14 (s.d. 3.855) for IPIG; SRH attitude scores increased among unmarried women: the attitude scores changed from 4.25 (s.d. 1.577) to 4.46 (s.d. 1.455) for SPIG, and from 3.99 (s.d. 1.620) to 4.64 (s.d. 1.690) for IPIG; most SRH-related practice was also modified ($P < 0.05$). **Conclusions:** The interventions had positive influences on improvements in SRH knowledge, attitudes and behaviours. Additionally, IPIs were more effective than SPIs, indicating that a comprehensive intervention may achieve better results.

21. Decat P, De Meyer S, Jaruseviciene L, Orozco M, Ibarra M, Segura Z, Medina J, Vega B, Michielsen K, Temmerman M, Degomme O. 2015. "Sexual Onset and Contraceptive Use Among Adolescents from Poor Neighbourhoods in Managua, Nicaragua." *European Journal of Contraception and Reproductive Health Care* 20 (2): 88–100.

Background and objectives: The prevalence of teenage pregnancies in Nicaragua is the highest in Latin-America. This study aimed to gain insight into factors which determine the sexual behaviours concerned. Methods: From July until August 2011, a door-to-door survey was conducted among adolescents living in randomly selected poor neighbourhoods of Managua. Logistic regression was used to analyse factors related to sexual onset and contraceptive use. Results: Data from 2803 adolescents were analysed. Of the 475 and 299 sexually active boys and girls, 43\% and 54\%, respectively, reported contraceptive use. Sexual onset was positively related to increasing age, male sex, alcohol consumption and not living with the parents. Catholic boys and boys never feeling peer pressure to have sexual intercourse were more likely to report consistent condom use. Having a partner and feeling comfortable talking about sexuality with the partner were associated with hormonal contraception. Conclusions: Our data identified associates of adolescents' sexual behaviour related to personal characteristics (sex and alcohol use), to the interaction with significant others (parents, partners, peers) and to the environment (housing condition, religion). We interpreted those associates within the context of the rapidly changing society and the recently implemented health system reform in Nicaragua.

22. Keygnaert I, Dias SF, Degomme O, Devillé W, Kennedy P, Kováts A, De Meyer S, Vettenburg N, Roelens K, Temmerman M. 2015. "Sexual and Gender-based Violence in the European Asylum and Reception Sector: a Perpetuum Mobile?" *European Journal of Public Health* 25 (1): 90–96.

Background: Refugees, asylum seekers and undocumented migrants are at risk of sexual and gender-based violence (SGBV) and subsequent ill-health in Europe; yet, European minimum reception standards do not address SGBV. Hence, this paper explores the nature of SGBV occurring in this sector and discusses determinants for 'Desirable Prevention'. Methods: Applying community-based participatory research, we conducted an SGBV knowledge, attitude and practice survey with residents and professionals in eight European countries. We conducted logistic regression using mixed models to analyse the data in R. Results: Of the 562 respondents, 58.3\% reported cases of direct (23.3\%) or peer (76.6\%) victimization. Our results indicate that when men were involved, it most likely concerned sexual perpetration (adjusted odds ratio [aOR]: 4.09, confidence interval [CI]: 1.2; 13.89) and physical victimization (aOR: 2.57, CI: 1.65; 4), compared with females, who then rather perpetrated emotional violence (aOR: 1.85, CI: 1.08; 3.13) and underwent sexual victimization (aOR: 7.14, CI: 3.33; 16.67). Compared with others, asylum seekers appeared more likely to perpetrate physical (aOR 7.14, CI: 4; 12.5) and endure socio-economic violence (aOR: 10, CI: 1.37; 100), whereas professionals rather bore emotional (aOR: 2.01, CI: 0.98; 4.12) and perpetrated socio-economic violence (aOR: 25.91, CI: 13.41; 50.07). When group perpetration (aOR: 2.13, CI: 1.27; 3.58) or victimization (aOR: 1.84, CI: 1.1; 3.06) occurred, it most likely concerned socio-economic violence. Conclusion: Within the European asylum reception sector, residents and professionals of both sexes experience SGBV victimization and perpetration. Given the lack of prevention policies, our findings call for urgent Desirable Prevention programmes addressing determinants socio-ecologically.

23. *Cappon S, L'Ecluse C, Clays E, Tency I, Leye E. Female genital mutilation: Knowledge, attitude and practices of Flemish midwives. Midwifery (2015),*

Background: health professionals in Belgium are confronted with female genital mutilation (FGM). To date, no survey to assess knowledge, attitudes and practices on FGM was conducted among midwives in the Northern region of Belgium. Objective: the objective of this study was to assess the knowledge, attitude and practices of Flemish midwives regarding female genital mutilation (FGM). Design: we used a quantitative design, using KAP study (semi-structured questionnaire). Setting: labour wards, maternity wards and maternal intensive care units (MIC) in 56 hospitals in Flemish region of Belgium. Participants: 820 midwives, actively working in labour wards, maternity wards and maternal intensive care units (MIC). Findings: 820 valid questionnaires (40.9%) were returned. More than 15% of the respondents were recently confronted with FGM. They were mostly faced with the psychological and sexual complications caused by FGM. Few respondents were aware of existing guidelines regarding FGM in their hospitals (3.5%). The results also showed that only 20.2% was aware of the exact content of the law. The majority of midwives condemned the harmful traditional practice: FGM was experienced as a form of violence against women or a violation of human rights. Only 25.9% declared that FGM forms a part of their midwifery program. The vast majority of respondents (92.5%) indicated a need for more information on the subject. Key conclusions: this study indicated that midwives in Flanders are confronted with FGM and its complications and highlighted the gaps in the knowledge of Flemish midwives regarding FGM. This may interfere with the provision of adequate care and prevention of FGM for the new-born daughter. Implications for practice: there is an important need for appropriate training of (student)midwives concerning FGM as well as for the development and dissemination of clear guidelines in Flemish hospitals.

24. *Beauclair R, Hens N, Delva W. Concurrent partnerships in Cape Town, South Africa: race and sex differences in prevalence and duration of overlap. J Int AIDS Soc. 2015;18:19372.*

Introduction: Concurrent partnerships (CPs) have been suggested as a risk factor for transmitting HIV, but their impact on the epidemic depends upon how prevalent they are in populations, the average number of CPs an individual has and the length of time they overlap. However, estimates of prevalence of CPs in Southern Africa vary widely, and the duration of overlap in these relationships is poorly documented. We aim to characterize concurrency in a more accurate and complete manner, using data from three disadvantaged communities of Cape Town, South Africa. Methods: We conducted a sexual behaviour survey (n=878) from June 2011 to February 2012 in Cape Town, using Audio Computer-Assisted Self-Interviewing to collect sexual relationship histories on partners in the past year. Using the beginning and end dates for the partnerships, we calculated the point prevalence, the cumulative prevalence and the incidence rate of CPs, as well as the duration of overlap for relationships begun in the previous year. Linear and binomial regression models were used to quantify race (black vs. coloured) and sex differences in the duration of overlap and relative risk of having CPs in the past year. Results: The overall point prevalence of CPs six months before the survey was 8.4%: 13.4% for black men, 1.9% for coloured men, 7.8% black women and 5.6% for coloured women. The median duration of overlap in CPs was 7.5 weeks. Women had less risk of CPs in the previous year than men (RR 0.43; 95% CI: 0.32–0.57) and black participants were more at risk than coloured participants (RR 1.86; 95% CI: 1.17–2.97). Conclusions: Our results indicate that in this population the prevalence of CPs is relatively high and is characterized by overlaps of long duration, implying there may be opportunities for HIV to be transmitted to concurrent partners.

25. *Córdova Pozo K, Chandra-Mouli V, Decat P, Nelson E, De Meyer S, Jaruseviciene L, Vega B, Segura Z, Auquilla N, Hagens A, Van Braeckel D, Michielsen K. Improving adolescent sexual and reproductive health in Latin America: reflections from an International Congress. Reproductive Health 2015, 12:11.*

In February 2014, an international congress on Promoting Adolescent Sexual and Reproductive Health (ASRH) took place in Cuenca, Ecuador. Its objective was to share evidence on effective ASRH intervention projects and programs in Latin America, and to link this evidence to ASRH policy and program development. Over 800 people participated in the three-day event and sixty-six presentations were presented. This paper summarizes the key points of the Congress and of the Community Embedded Reproductive Health Care for Adolescents (CERCA) project. It aims at guiding future ASRH research and policy in Latin America. Context matters. Individual behaviors are strongly influenced by the social context in which they occur, through determinants at the individual, relational, family, community and societal levels. Gender norms/attitudes and ease of communication are two key determinants. Innovative action. There is limited and patchy evidence of effective approaches to reach adolescents with the health interventions they need at scale. Yet, there exist several promising and innovative examples of providing comprehensive sexuality education through conventional approaches and using new media, improving access to health services, and reaching adolescents as well as families and community members using community-based interventions were presented at the Congress. Better measurement. Evaluation designs and indicators chosen to measure the effect and impact of interventions are not always sensitive to subtle and incremental changes. This can create a gap between measured effectiveness and the impact perceived by the targeted populations. Thus, one conclusion is that we need more evidence to better determine the factors impeding progress in ASRH in Latin American, to innovate and respond flexibly to changing social dynamics and cultural practices, and to better measure the impact of existing intervention strategies.

Yet, this Congress offered a starting point from which to build a multi-agency and multi-country effort to generate specific evidence on ASRH with the aim of guiding policy and program decision-making. In a region that contains substantial barriers of access to ASRH education and services, and some of the highest adolescent pregnancy rates in the world, the participants agreed that there is no time to lose. This article is also published in Spanish as an additional file.

26. *Champredon D, Bellan SE, Delva W, Hunt S, Shi C-F, Smieja M, Dushoff J. The Effect of Sexually Transmitted co-Infections on HIV Viral Load amongst Individuals on Antiretroviral Therapy: A Systematic Review and Meta-Analysis. BMC Infect Dis. 2015;15:249.*

Background: Antiretroviral therapy (ART) markedly reduces HIV transmission, and testing and treatment programs have been advocated as a method for decreasing transmission at the population level. Little is known, however, about the extent to which sexually transmitted infections (STIs), which increase the HIV infectiousness of untreated individuals, may decrease the effectiveness of treatment as prevention. Methods: We searched major bibliographic databases to August 12th, 2014 and identified studies reporting differences in HIV transmission rate or in viral load between individuals on ART who either were or were not co-infected with another STI. We used hierarchical Bayesian models to estimate viral load differences between individuals with and without STI co-infections. Results: The search strategy retrieved 1630 unique citations of which 14 studies (reporting on 4607 HIV viral load measurements from 2835 unique individuals) met the inclusion criteria. We did not find any suitable studies that estimated transmission rates directly in both groups. Our meta-analysis of HIV viral load measurements among treated individuals did not find a statistically significant effect of STI co-infection; viral loads were, on average, 0.11 log₁₀ (95 % CI -0.62 to 0.83) higher among co-infected versus non-co-infected individuals. Conclusions: Direct evidence about the effects of STI co-infection on transmission from individuals

on ART is very limited. Available data suggests that the average effect of STI co-infection on HIV viral load in individuals on ART is less than 1 log₁₀ difference, and thus unlikely to decrease the effectiveness of treatment as prevention. However, there is not enough data to rule out the possibility that particular STIs pose a larger threat.

27. Ketting E, Friele M, Michielsen K, on behalf of the European Expert Group on Sexuality Education. *Evaluation of holistic sexuality education: A European expert group consensus agreement. The European Journal of Contraception and Reproductive Health Care, 2015; Early Online: 1–13.*

Objectives: 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.

28. Ivanova O, Dræbel T, Tellier S. *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. 2015;4(x):x–x. doi:10.15171/ijhpm.2015.148.*

Background: Health policies are important instruments for improving population health. However, experience suggests that policies designed for the whole population do not always benefit the most vulnerable. Participation of vulnerable groups in the policy-making process provides an opportunity for them to influence decisions related to their health, and also to exercise their rights. This paper presents the findings from a study that explored how vulnerable groups and principles of human rights are incorporated into national sexual and reproductive health (SRH) policies of 4 selected countries (Spain, Scotland, Republic of Moldova, and Ukraine). It also aimed at discussing the involvement of vulnerable groups in SRH policy development from the perspective of policymakers. **Methods:** Literature review, health policy analysis and 5 semi-structured interviews with policy-makers were carried out in this study. Content analysis of SRH policies was performed using the EquiFrame analytical framework. **Results:** The study revealed that vulnerable groups and core principles of human rights are differently addressed in SRH policies within 4 studied countries. The opinions of policy-makers on the importance of mentioning vulnerable groups in policy documents and the way they ought to be mentioned varied, but they

agreed that a clear definition of vulnerability, practical examples, and evidences on health status of these groups have to be included. In addition, different approaches to vulnerable group's involvement in policy development were identified during the interviews and the range of obstacles to this process was discussed by respondents. Conclusion: Incorporation of vulnerable groups in the SRH policies and their involvement in policy development were found to be important in addressing SRH of these groups and providing an opportunity for them to advocate for equal access to healthcare and exercise their rights. Future research on this topic should include representatives of vulnerable communities which could help to build a dialogue and present the problem from multiple perspectives.

29. *Geelhoed D, Stokx J, Mariano X, Mosse Lázaro C, Roelens K. Risk factors for stillbirths in Tete, Mozambique. International Journal of Gynecology and Obstetrics 130 (2015) 148–152*

Objective: To evaluate known risk factors for stillbirth and identify local priorities for stillbirth prevention among institutional deliveries in Tete, Mozambique. Methods: A case-control study was conducted among 150 women who experienced stillbirths and 300 women who experienced live deliveries at three health facilities between December 1, 2009, and April 30, 2011. Case and control individuals were matched for health facility, age, and parity. Sociodemographic, pregnancy, and delivery characteristics (including HIV and syphilis serology) were assessed. Bivariate associations and a conditional logistic regression model identified variables contributing to fetal outcome. Results: No between-group differences were recorded in the frequency of infection with HIV (25 [16.7%] cases vs 55 [18.3%] controls; $P=0.663$) or syphilis (6 [4.0%] vs 16 [5.3%]; $P=0.536$) at delivery. Multivariate analysis revealed that stillbirth was associated with direct obstetric complications (mutually adjusted odds ratio [OR] 6.7; 95% confidence interval [CI] 3.6-12.1), low socioeconomic status (mutually adjusted OR 1.8; 95% CI 1.1-3.1), and referral during childbirth (mutually adjusted OR 3.2; 95% CI 1.7-6.1). Conclusion: Stillbirths in Tete, Mozambique, were predominantly caused by direct obstetric complications requiring referral among women of low socioeconomic status. Prenatal management of HIV and syphilis limited effects on fetal outcome. Emergency obstetric care and referral systems should be the focus of interventions aimed at stillbirth prevention.

30. *Sukums F, Mensah N, Mpembeni R, Massawe S, Duysburgh E, Williams A, Kaltschmidt J, Loukanova S, Haefeli WE, Blank A. Promising adoption of an electronic clinical decision support system for antenatal and intrapartum care in rural primary healthcare facilities in sub-Saharan Africa: The QUALMAT experience. Int J Med Inform. 2015 Sep;84(9):647-57. doi: 10.1016/j.ijmedinf.2015.05.002. Epub 2015 Jun 3.*

Background: The QUALMAT project has successfully implemented an electronic clinical decision support system (eCDSS) for antenatal and intrapartum care in two sub-Saharan African countries. The system was introduced to facilitate adherence to clinical practice guidelines and to support decision making during client encounter to bridge the know-do gap of health workers. Objectives: This study aimed to describe health workers' acceptance and use of the eCDSS for maternal care in rural primary health care (PHC) facilities of Ghana and Tanzania and to identify factors affecting successful adoption of such a system. Methods: This longitudinal study was conducted in Lindi rural district in Tanzania and Kassena-Nankana district in Ghana between October 2011 and December 2013 employing mixed methods. The study population included healthcare workers who were involved in the provision of maternal care in six rural PHC facilities from one district in each country where the eCDSS was implemented. Results: All eCDSS users participated in the study with 61 and 56 participants at the midterm and final assessment, respectively. After several rounds of user training and support the eCDSS has been successfully adopted and constantly used during patient care in antenatal clinics and maternity wards. The eCDSS was used

in 71% (2703/3798) and 59% (14,189/24,204) of all ANC clients in Tanzania and Ghana respectively, while it was also used in 83% (1185/1427) and 67% (1435/2144) of all deliveries in Tanzania and in Ghana, respectively. Several barriers reported to hinder eCDSS use were related to individual users, tasks, technology, and organization attributes. Conclusion: Implementation of an eCDSS in resource-constrained PHC facilities in sub-Saharan Africa was successful and the health workers accepted and continuously used the system for maternal care. Facilitators for eCDSS use included sufficient training and regular support whereas the challenges to sustained use were unreliable power supply and perceived high workload. However our study also shows that most of the perceived challenges did not substantially hinder adoption and utilization of the eCDSS during patient care.

31. Mannava P, Durrant K, Fisher J, Chersich M, Luchters S. *BMC Globalization and Health*. 2015 Aug 15;11(1):36. Attitudes and behaviours of maternal health care providers in interactions with clients: a systematic review. *Global Health*. 2015 Aug 15;11(1):36. doi: 10.1186/s12992-015-0117-9.

Background: High maternal mortality and morbidity persist, in large part due to inadequate access to timely and quality health care. Attitudes and behaviours of maternal health care providers (MHCPs) influence health care seeking and quality of care.

Methods: Five electronic databases were searched for studies from January 1990 to December 2014.

Included studies report on types or impacts of MHCP attitudes and behaviours towards their clients, or the factors influencing these attitudes and behaviours. Attitudes and behaviours mentioned in relation to HIV infection, and studies of health providers outside the formal health system, such as traditional birth attendants, were excluded. Findings: Of 967 titles and 412 abstracts screened, 125 full-text papers were reviewed and 81 included. Around two-thirds used qualitative methods and over half studied public-sector facilities. Most studies were in Africa (n = 55), followed by Asia and the Pacific (n = 17). Fifty-eight studies covered only negative attitudes or behaviours, with a minority describing positive provider behaviours, such as being caring, respectful, sympathetic and helpful. Negative attitudes and behaviours commonly entailed verbal abuse (n = 45), rudeness such as ignoring or ridiculing patients (n = 35), or neglect (n = 32). Studies also documented physical abuse towards women, absenteeism or unavailability of providers, corruption, lack of regard for privacy, poor communication, unwillingness to accommodate traditional practices, and authoritarian or frightening attitudes. These behaviours were influenced by provider workload, patients' attitudes and behaviours, provider beliefs and prejudices, and feelings of superiority among MHCPs. Overall, negative attitudes and behaviours undermined health care seeking and affected patient well-being. Conclusions: The review documented a broad range of negative MHCP attitudes and behaviours affecting patient well-being, satisfaction with care and care seeking. Reported negative patient interactions far outweigh positive ones. The nature of the factors which influence health worker attitudes and behaviours suggests that strengthening health systems, and workforce development, including in communication and counselling skills, are important. Greater attention is required to the attitudes and behaviours of MHCPs within efforts to improve maternal health, for the sake of both women and health care providers.

32. Ampt F, Mon MM, Than KK, Khin MM, Agius P, Morgan C, Davis J, Luchters S. *Correlates of male involvement in maternal and newborn health: a cross-sectional study of men in a peri-urban region of Myanmar*. *BMC Pregnancy and Childbirth*. 2015 May 27;15(1):122

Background: Evidence suggests that increasing male involvement in maternal and newborn health (MNH) may improve MNH outcomes. However, male involvement is difficult to measure, and further research is necessary to understand the barriers and enablers for men to engage in MNH, and to define target groups for interventions. Using data from a peri-urban township in Myanmar, this study aimed to construct appropriate indicators of

male involvement in MNH, and assess sociodemographic, knowledge and attitude correlates of involvement. Methods: A cross-sectional study of married men with one or more children aged up to one year was conducted in 2012. Structured questionnaires measured participants' involvement in MNH, and their sociodemographic characteristics, knowledge and attitudes. An ordinal measure of male involvement was constructed describing the subject's participation across five areas of MNH, giving a score of 1–4. Proportional-odds regression models were developed to determine correlates of male involvement. Results: A total of 210 men participated in the survey, of which 203 provided complete data. Most men reported involvement level scores of either 2 or 3 (64 %), with 13 % reporting the highest level (score of 4). Involvement in MNH was positively associated with wives' level of education (AOR = 3.4; 95 % CI: 1.9-6.2; $p < 0.001$) and men's level of knowledge of MNH (AOR = 1.2; 95 % CI: 1.1-1.3; $p < 0.001$), and negatively correlated with number of children (AOR = 0.78; 95 % CI: 0.63-0.95; $p = 0.016$). Conclusions: These findings can inform the design of programs aiming to increase male involvement, for example by targeting less educated couples and addressing their knowledge of MNH. The composite index proved a useful summary measure of involvement; however, it may have masked differential determinants of the summed indicators. There is a need for greater understanding of the influence of gender attitudes on male involvement in Myanmar and more robust indicators that capture these gender dynamics for use both in Myanmar and globally.

33. Gautam R, Borgdorff H, Jespers V, Francis SC, Verhelst R, Mwaura M, Delany-Moretlwe S, Ndayisaba G, Kyongo JK, Hardy L, Menten J, Crucitti T, Tshivtsivadze E, Schuren F, van de Wijgert JH; Vaginal Biomarkers Study Group. Correlates of the molecular vaginal microbiota composition of African women. *BMC Infect Dis.* (2015) 15: 86.

Background: Sociodemographic, behavioral and clinical correlates of the vaginal microbiome (VMB) as characterized by molecular methods have not been adequately studied. VMB dominated by bacteria other than lactobacilli may cause inflammation, which may facilitate HIV acquisition and other adverse reproductive health outcomes. Methods: We characterized the VMB of women in Kenya, Rwanda, South Africa and Tanzania (KRST) using a 16S rDNA phylogenetic microarray. Cytokines were quantified in cervicovaginal lavages. Potential sociodemographic, behavioral, and clinical correlates were also evaluated. Results: Three hundred thirteen samples from 230 women were available for analysis. Five VMB clusters were identified: one cluster each dominated by *Lactobacillus crispatus* (KRST-I) and *L. iners* (KRST-II), and three clusters not dominated by a single species but containing multiple (facultative) anaerobes (KRST-III/IV/V). Women in clusters KRST-I and II had lower mean concentrations of interleukin (IL)-1 α ($p < 0.001$) and Granulocyte Colony Stimulating Factor (G-CSF) ($p = 0.01$), but higher concentrations of interferon- γ -induced protein (IP-10) ($p < 0.01$) than women in clusters KRST-III/IV/V. A lower proportion of women in cluster KRST-I tested positive for bacterial sexually transmitted infections (STIs; $p_{trend} = 0.07$) and urinary tract infection (UTI; $p = 0.06$), and a higher proportion of women in clusters KRST-I and II had vaginal candidiasis ($p_{trend} = 0.09$), but these associations did not reach statistical significance. Women who reported unusual vaginal discharge were more likely to belong to clusters KRST-III/IV/V ($p = 0.05$). Conclusion: Vaginal dysbiosis in African women was significantly associated with vaginal inflammation; the associations with increased prevalence of STIs and UTI, and decreased prevalence of vaginal candidiasis, should be confirmed in larger studies.

34. Lukasse M, Schroll AM, Karro H, Schei B, Steingrimsdottir T, Van Parys AS, Ryding EL, Tabor A; Bidens Study Group. Prevalence of experienced abuse in healthcare and associated obstetric characteristics in six European countries. *Acta Obstet Gynecol Scand.* (2015) 94(5): 508-17.

Objectives: To assess the prevalence and current suffering of experienced abuse in healthcare, to present the socio-demographic background for women with a history of abuse in healthcare and to assess the association between abuse in healthcare and selected obstetric characteristics. Design: Cross-sectional study. Setting: Routine antenatal care in six European countries. Population: In total 6923 pregnant women. Methods: Cross-tabulation and Pearson's chi-square was used to study prevalence and characteristics for women reporting abuse in healthcare. Associations with selected obstetric factors were estimated using multiple logistic regression analysis. Main outcome measures: Abuse in healthcare, fear of childbirth and preference for birth by cesarean section. Results: One in five pregnant women attending routine antenatal care reported some lifetime abuse in healthcare. Prevalence varied significantly between the countries. Characteristics for women reporting abuse in healthcare included a significantly higher prevalence of other forms of abuse, economic hardship and negative life events as well as a lack of social support, symptoms of post-traumatic stress and depression. Among nulliparous women, abuse in healthcare was associated with fear of childbirth, adjusted odds ratio 2.25 (95% CI 1.23-4.12) for severe abuse in healthcare. For multiparous women only severe current suffering from abuse in healthcare was significantly associated with fear of childbirth, adjusted odds ratio 4.04 (95% CI 2.08-7.83).

Current severe suffering from abuse in healthcare was significantly associated with the wish for cesarean section, and counselling for fear of childbirth for both nulli- and multiparous women. Conclusion: Abuse in healthcare among women attending routine antenatal care is common and for women with severe current suffering from abuse in healthcare, this is associated with fear of childbirth and a wish for cesarean section.

35. Vermandere H, Naanyu V, Degomme O, Michielsen K. Implementation of an HPV vaccination program in Eldoret, Kenya: results from a qualitative assessment by key stakeholders. *BMC Public Health.* 2015 Sep 10;15(1):875. doi: 10.1186/s12889-015-2219-y.

Background: Cervical cancer strikes hard in low-resource regions yet primary prevention is still rare. Pilot projects have however showed that Human Papillomavirus (HPV) vaccination programs can attain high uptake. Nevertheless, a study accompanying a vaccination demonstration project in Eldoret, Kenya, revealed less encouraging outcomes: uptake during an initial phase targeting ten schools (i.e., 4000 eligible girls), was low and more schools had to be included to reach the proposed number of 3000 vaccinated girls. The previously conducted study also revealed that many mothers had not received promotional information which had to reach them through schools: teachers were sensitized by health staff and asked to invite students and parents for HPV vaccination in the referral hospital. In this qualitative study, we investigate factors that hampered promotion and vaccine uptake. Methods: Focus group discussions (FGD) with teachers (4) and fathers (3) were organized to assess awareness and attitudes towards the vaccination program, cervical cancer and the HPV vaccine, as well as a FGD with the vaccinators (1) to discuss the course of the program and potential improvements. Discussions were recorded, transcribed, translated, and analyzed using thematic analysis. In addition, a meeting with the program coordinator was set up to reflect upon the program and the results of the FGD, and to formulate recommendations for future programs. Results: Cervical cancer was poorly understood by fathers and teachers and mainly linked with nonconforming sexual behavior and modern lifestyle. Few had heard about the vaccination opportunity: feeling uncomfortable to discuss cervical cancer and not considering it as important had hampered information flow. Teachers requested more support from health staff to address unexpected

questions from parents. Non-uptake was also the result of distrust towards new vaccines. Schools entering the program in the second phase reacted faster: they were better organized, e.g., in terms of transport, while the community was already more familiarized with the vaccine. Conclusions: Close collaboration between teachers and health staff is crucial to obtain high HPV vaccine uptake among schoolgirls. Promotional messages should, besides providing correct information, tackle misbeliefs, address stigma and stress the priority to vaccinate all, regardless of lifestyle. Monitoring activities and continuous communication could allow for detection of rumors and unequal uptake in the community.

36. Haghparsat-Bidgoli H, Pulkki-Brännström AM, Lafort Y, Beksinska M, Rambally L, Roy A, Reza-Paul S, Ombidi W, Gichangi P, Skordis-Worrall J. Inequity in costs of seeking sexual and reproductive health services in India and Kenya. *Int J Equity Health*. 2015 Sep 15;14(1):84.

Objective: This study aims to assess inequity in expenditure on sexual and reproductive health (SRH) services in India and Kenya. In addition, this analysis aims to measure the extent to which payments are catastrophic and to explore coping mechanisms used to finance health spending. Methods: Data for this study were collected as a part of the situational analysis for the “Diagonal Interventions to Fast Forward Enhanced Reproductive Health” (DIFFER) project, a multi-country project with fieldwork sites in three African sites; Mombasa (Kenya), Durban (South Africa) and Tete (Mozambique), and Mysore in India. Information on access to SRH services, the direct costs of seeking care and a range of socio-economic variables were obtained through structured exit interviews with female SRH service users in Mysore (India) and Mombasa (Kenya) (n = 250).

The costs of seeking care were analysed by household income quintile (as a measure of socio-economic status). The Kakwani index and quintile ratios are used as measures of inequitable spending. Catastrophic spending on SRH services was calculated using the threshold of 10 % of total household income. Results: The results showed that spending on SRH services was highly regressive in both sites, with lower income households spending a higher percentage of their income on seeking care, compared to households with a higher income. Spending on SRH as a percentage of household income ranged from 0.02 to 6.2 % and 0.03–7.5 % in India and Kenya, respectively. There was a statistically significant difference in the proportion of spending on SRH services across income quintiles in both settings. In India, the poorest households spent two times, and in Kenya ten times, more on seeking care than the least poor households. The most common coping mechanisms in India and Kenya were “receiving [money] from partner or household members” (69 %) and “using own savings or regular income” (44 %), respectively. Conclusion: Highly regressive spending on SRH services highlights the heavier burden borne by the poorest when seeking care in resource-constrained settings such as India and Kenya. The large proportion of service users, particularly in India, relying on money received from family members to finance care seeking suggests that access would be more difficult for those with weak social ties, small social networks or weak bargaining positions within the family - although this requires further study.

37. Duysburgh E, Temmerman M, Yé 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*. 2015 Oct 26. doi: 10.1111/tmi.12627. [Epub ahead of print]

Objective: 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.

38. Sharma V, Sarna A, Lüchters S, Sebastian M, Degomme O, Saraswati LR, Madan I, Thior I, Tun W. 2015. “Women at Risk’: The Health and Social Vulnerabilities of the Regular Female Partners of Men Who Inject Drugs in Delhi, India.” *Culture Health & Sexuality* 17 (5): 623–637.

Needle and syringe sharing is common among people who inject drugs and so is unprotected sex, which consequently puts their sex partners at risk of sexually transmitted infections (STIs) including HIV and other blood-borne infections, like hepatitis. We undertook a nested study with the regular female partners of men who inject drugs participating in a longitudinal HIV incidence study in Delhi, India. In-depth interviews were conducted with female partners of 32 men. The interviews aimed to gather focused and contextual knowledge of determinants of safe sex and reproductive health needs of these women. Information obtained through interviews was triangulated and linked to the baseline behavioural data of their partner (index men who injected drugs). The study findings illustrate that women in monogamous relationships have a low perception of STI- and HIV-related risk. Additionally, lack of awareness about hepatitis B and C is a cause of concern. Findings also suggest impact of male drug use on the fertility of the female partner. It is critical to empower regular female partners to build their self-risk assessment skills and self-efficacy to negotiate condom use. Future work must explore the role of drug abuse among men who inject drugs in predicting fertility and reproductive morbidity among their female partners.

39. Larkins S, Michielsen K, Iputo J, Elsanousi S, Mammen M, Graves L, Willems S, Cristobal FL, Samson R, Ellaway R, Ross S, Johnston K, Derese A, Neusy A-J. 2015. “Impact of Selection Strategies on Representation of Underserved Populations and Intention to Practise: International Findings.” *Medical Education* 49 (1): 60–72.

Context: Socially accountable medical schools aim to reduce health inequalities by training workforces responsive to the priority health needs of underserved communities. One key strategy involves recruiting students from underserved and unequally represented communities on the basis that they may be more likely to return and address local health priorities. This study describes the impacts of different selection strategies of medical schools that aspire to social accountability on the presence of students from underserved communities in their medical education programmes and on student practice intentions. Methods: A cross-sectional questionnaire was administered to students starting medical education in five institutions with a social accountability mandate in five different countries. The questionnaire assessed students’ background characteristics, rurality of background, and practice intentions (location, discipline of practice and population to be served). The results

were compared with the characteristics of students entering medical education in schools with standard selection procedures, and with publicly available socio-economic data. Results: The selection processes of all five schools included strategies that extended beyond the assessment of academic achievement. Four distinct strategies were identified: the quota system; selection based on personal attributes; community involvement, and school marketing strategies. Questionnaire data from 944 students showed that students at the five schools were more likely to be of non-urban origin, of lower socio-economic status and to come from underserved groups. A total of 407 of 810 (50.2%) students indicated an intention to practise in a non-urban area after graduation and the likelihood of this increased with increasing rurality of primary schooling ($p = 0.000$). Those of rural origin were statistically less likely to express an intention to work abroad ($p = 0.003$). Conclusions: Selection strategies to ensure that members of underserved communities can pursue medical careers can be effective in achieving a fair and equitable representation of underserved communities within the student body. Such strategies may contribute to a diverse medical student body with strong intentions to work with underserved populations.

40. Keygnaert I, Guieu A. 2015. "What the Eye Does Not See: a Critical Interpretive Synthesis of European Union Policies Addressing Sexual Violence in Vulnerable Migrants." *Reproductive Health Matters* 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.

41. Galle A, Van Parys A-S, Roelens K, Keygnaert I. 2015. "Expectations and Satisfaction with Antenatal Care Among Pregnant Women with a Focus on Vulnerable Groups: a Descriptive Study in Ghent." *Bmc Womens Health* 15.

Background: Previous studies demonstrate that people's satisfaction with healthcare influences their further use of that healthcare system. Satisfied patients are more likely to take part in the decision making process and to complete treatment. One of the important determinants of satisfaction is the fulfillment of expectations. This study aims to analyse both expectations and satisfaction with antenatal care among pregnant women, with a particular focus on vulnerable groups. Methods: A quantitative descriptive study was conducted in 155 women seeking antenatal care at the University Hospital of Ghent (Belgium), of whom 139 completed the questionnaire. The statistical program SPSS-21 was used for data analysis. Results: Women had high expectations relating to continuity of care and women-centered care, while expectations regarding availability of other services and complete care were low. We observed significantly lower expectations among women without higher education,

with low income, younger than 26 years and women who reported intimate partner violence. General satisfaction with antenatal care was high. Women were satisfied with their relationship with the healthcare worker, however ; they evaluated the information received during the consultation and the organizational aspects of antenatal care as less satisfactory. Conclusions: In order to improve satisfaction with antenatal care, organizational aspects of antenatal care (e.g. reducing waiting times and increasing accessibility) need to be improved. In addition, women would appreciate a better provision of information during consultation. More research is needed for an in-depth understanding of the determinants of satisfaction and the relationship with low socio economic status (SES).

42. Padalko E, Ali-Risasi C, Mesmaekers S, Ryckaert I, Van Renterghem L, Lambein K, Bamelis M, De Mey A, Sturtewagen Y, Vastenavondt H, Vanden Broeck D, Weyers S, Praet M. 2015. "Comparative Analysis of Cervical Cytology and Human Papillomavirus Genotyping by Three Different Methods in a Routine Diagnostic Setting." *European Journal of Cancer Prevention* 24 (5): 447–453.

Application of Bethesda guidelines on cervical cytology involves human papillomavirus (HPV) determinations on all ASC-US and ASC-H results. We compared HPV DNA results in view of the eventual development of a cervical intraepithelial neoplasia lesion determined either on cytology or histology. A total of 214 liquid-based cytology samples were analysed. Three different HPV DNA methods were applied: the Abbott RealTime High Risk HPV test, INNO-Lipa HPV Genotyping Extra and Full Spectrum PCR HPV Amplification and Detection/Genotyping System by Lab2Lab Diagnostic Service. A comparison of these three methods showed full concordance only for 49 samples (23%), and 27 (13%) of the samples were discordant in indicating the presence of the high-risk HPV type. Out of 214 patients, 88 were selected who presented with a cervical intraepithelial neoplasia or a VAIN lesion at follow-up cytology or histology. In this group, full concordance with HPV genotyping was present only in 19 (22%) follow-up samples. Nine (10%) follow-up samples showed discordant results for the presence of a high-risk genotype between the three genotyping methods tested either by negativity for high-risk HPV by one of the methods (n=6) or by failure to genotype HPV (n=2), or by a combination of both (n=1). Moreover, discordance for the detection of HPV16 or HPV18 was observed between the three HPV DNA genotyping methods used in 9 (10%) follow-up samples. In addition, the performance of genotyping methods on 20 external quality samples was assessed, showing discordant results for HPV16 and HPV18. Major differences were found in the genotyping results according to the HPV DNA method.

Our findings highlight the importance of careful interpretation of data from studies using different HPV genotyping methods and underline the need for standardization by method validation in clinical laboratories, especially in the setting of primary HPV screening.

43. Ali-Risasi C, Verdonck K, Padalko E, Vanden Broeck D, Praet M. 2015. "Prevalence and Risk Factors for Cancer of the Uterine Cervix Among Women Living in Kinshasa, the Democratic Republic of the Congo: a Cross-sectional Study." *Infectious Agents and Cancer* 10.

Background: Cancer of the uterine cervix is the leading cause of cancer-related death among women in Sub-Saharan Africa, but information from the Democratic Republic of the Congo (DRC) is scarce. The study objectives were to: 1/ assess prevalence of (pre)cancerous cervical lesions in adult women in Kinshasa, 2/ identify associated socio-demographic and behavioural factors and 3/ describe human papillomavirus (HPV) types in cervical lesions. Methods: A cross-sectional study was conducted in Kinshasa. Between 2006 and 2013, four groups of women were recruited. The first two groups were included at HIV screening centres. Group 1 consisted of HIV-positive and group 2 of HIV-negative women. Group 3 was included in large hospitals and group 4 in

primary health centres. Pap smears were studied by monolayer technique (Bethesda classification). Low- or high-grade squamous intraepithelial lesions or carcinoma were classified as LSIL+. HPV types were determined by INNO-LiPA®. Bivariate and multivariable analyses (logistic regression and generalised estimating equations (GEE)) were used to assess associations between explanatory variables and LSIL+. Results: LSIL+ lesions were found in 76 out of 1018 participants. The prevalence was 31.3 % in group 1 (n = 131 HIV-positive women), 3.9 % in group 2 (n = 128 HIV-negative women), 3.9 % in group 3 (n = 539) and 4.1 % in group 4 (n = 220).

The following variables were included in the GEE model but did not reach statistical significance: history of abortion, ≥3 sexual partners and use of chemical products for vaginal care. In groups 3 and 4 where this information was available, the use of plants for vaginal care was associated with LSIL+ (adjusted OR 2.70 (95 % confidence interval 1.04 - 7.01). The most common HPV types among HIV-positive women with ASCUS+ cytology (ASCUS or worse) were HPV68 (12 out of 50 samples tested), HPV35 (12/50), HPV52 (12/50) and HPV16 (10/50). Among women with negative/unknown HIV status, the most common types were HPV52 (10/40), HPV35, (6/40) and HPV18 (5/40). Conclusion: LSIL+ lesions are frequent among women in Kinshasa. The use of plants for vaginal care deserves attention as a possible risk factor for LSIL+. In this setting, HPV16 is not the most frequent genotype in samples of LSIL+ lesions.

44. Padalko E, Ali-Risasi C, Van Renterghem L, Bamelis M, De Mey A, Sturtewagen Y, Vastenavondt H, Vanden Broeck D, Weyers S, Praet M. 2015. "Evaluation of the Clinical Significance of Human Papillomavirus (HPV) 53." *European Journal of Obstetrics & Gynecology and Reproductive Biology* 191: 7–9.

Objective: Human papillomaviruses (HPV) are classified according to their potential for the development of cervical neoplasia. However, the carcinogenicity of HPV types forms an evolving continuum based on the newly available data especially regarding the role of probable and possible high-risk HPV types (pHR-HPV). The objective of the present work was to evaluate clinical significance of the pHR-HPV53. Study design: An observational cohort study of potential aetiological association between infection with HPV53 and development of high-grade cervical cytology was performed. The study was conducted in two geographically remoted hospitals, in Belgium and Democratic Republic of Congo, as an attempt to collect data from regions with different geographical distribution of HPV genotypes. The samples were taken during routine gynaecological visit in outpatient clinics of both participating hospitals. Results: A total of 2283 liquid-Pap samples were taken from 1465 women at Ghent University Hospital, Belgium, and from 660 women at General Hospital and Ngaliema Hospital of Kinshasa, DRC. "HPV53-only"-pattern as evaluated by full HPV genotyping was found in samples from only 34 (1.6%) samples. The initial cytology represented next to non-dysplastic, undetermined and low-grade lesions also high-grade lesions (12%). For 26 (76.5%) from the 34 women presented with "HPV53-only"-pattern follow-up results were available showing no progression to malignancy. Conclusion: Our findings support very low to lacking carcinogenic potential of HPV53. Recognising extreme rarity in cervical cancer next to high prevalence in general population of HPV53, further studies investigating progression to high-grade lesions are needed to elucidate the oncogenic potential of pHR-HPV53.

45. Merckx M, Vanden Broeck D, Benoy I, Depuydt C, Weyers S, Arbyn M. 2015. "Early Effects of Human Papillomavirus Vaccination in Belgium." *European Journal of Cancer Prevention* 24 (4): 340–342.

Human papillomavirus (HPV) vaccination has been reimbursed in Belgium since 2007 for girls (12-15 years), extended to girls up to 18 years in 2008. This study assesses the trend of HPV 16/18 infections in women less than 25 years of age participating in opportunistic cervical cancer screening. A significant reduction in the prevalence of HPV 16 [relative risk (RR)=0.61, 95% confidence interval=0.39-0.95] and a nonsignificant reduction in HPV 18 (RR=0.65, 95% confidence interval=0.29-1.48) was found in the youngest group (15-19 years). The prevalences in the older age group did not change significantly. These findings show the early effects of HPV vaccination and confirm the effectiveness of immunization in a real-life setting.

46. Comrie-Thomson L, Tokhi M, Ampt F, Portela A, Chersich MF, Khanna R, Luchters S. *Challenging gender inequity through male involvement in maternal and newborn health: critical assessment of an emerging evidence base. Culture Health and Sexuality. 2015;17 Suppl 2:177-89*

Men's involvement in the health of women and children is considered an important avenue for addressing gender influences on maternal and newborn health. The impact of male involvement around the time of childbirth on maternal and newborn health outcomes was examined as one part of a systematic review of maternal health intervention studies published between 2000 and 2012. Of 33,888 articles screened, 13 eligible studies relating to male involvement were identified. The interventions documented in these studies comprise an emerging evidence base for male involvement in maternal and newborn health. We conducted a secondary qualitative analysis of the 13 studies, reviewing content that had been systematically extracted. A critical assessment of this extracted content finds important gaps in the evidence base, which are likely to limit how 'male involvement' is understood and implemented in maternal and newborn health policy, programmes and research. Collectively, the studies point to the need for an evidence base that includes studies that clearly articulate and document the gender-transformative potential of involving men. This broader evidence base could support the use of male involvement as a strategy to improve both health and gender equity outcomes.

47. Brook CE, Beauclair R, Ngwenya O, Worden L, Ndeffo-Mbah M, Lietman TM, Satpathy SK, Galvani AP, Porco TC. "Spatial heterogeneity in projected leprosy trends in India." *Parasites & Vectors* (2015) 8:542

Background: Leprosy is caused by infection with *Mycobacterium leprae* and is characterized by peripheral nerve damage and skin lesions. The disease is classified into paucibacillary (PB) and multibacillary (MB) leprosy. The 2012 London Declaration formulated the following targets for leprosy control: (1) global interruption of transmission or elimination by 2020, and (2) reduction of grade-2 disabilities in newly detected cases to below 1 per million population at a global level by 2020. Leprosy is treatable, but diagnosis, access to treatment and treatment adherence (all necessary to curtail transmission) represent major challenges. Globally, new case detection rates for leprosy have remained fairly stable in the past decade, with India responsible for more than half of cases reported annually.

Methods: We analyzed publicly available data from the Indian Ministry of Health and Family Welfare, and fit linear mixed-effects regression models to leprosy case detection trends reported at the district level. We assessed correlation of the new district-level case detection rate for leprosy with several state-level regressors: TB incidence, BCG coverage, fraction of cases exhibiting grade 2 disability at diagnosis, fraction of cases in

children, and fraction multibacillary.

Results: Our analyses suggest an endemic disease in very slow decline, with substantial spatial heterogeneity at both district and state levels. Enhanced active case finding was associated with a higher case detection rate.

Conclusions: Trend analysis of reported new detection rates from India does not support a thesis of rapid progress in leprosy control.

48. Hughes GD, Aboyade OM, Beauclair R, Mbamalu ON, Puoane TR. "Characterizing Herbal Medicine Use for Noncommunicable Diseases in Urban South Africa". *Evidence-Based Complementary and Alternative Medicine*. Volume 2015, Article ID 73607.

Economic challenges associated with noncommunicable diseases (NCDs) and the sociocultural outlook of many patients especially in Africa have increased dependence on traditional herbal medicines (THMs) for these diseases. A cross-sectional descriptive study designed to determine the prevalence of and reasons for THM use in the management of NCDs among South African adults was conducted in an urban, economically disadvantaged area of Cape Town, South Africa. In a cohort of 1030 participants recruited as part of the existing Prospective Urban and Rural Epidemiological (PURE) study, 456 individuals were identified. The overall prevalence of THM use was 27%, of which 61% was for NCDs. Participants used THM because of a family history (49%) and sociocultural beliefs (33%). Hypertensive medication was most commonly used concurrently with THM. Healthcare professionals need to be aware of the potential dualistic use of THM and conventional drugs by patients, as this could significantly influence health outcomes. Efforts should be made to educate patients on the potential for drug/herb interactions.

49. Manjate CRM, Munguambe K, Bique Osman N, Degomme O, Temmerman M, Sidat MM. "Male partners' involvement in prevention of mother-to-child HIV transmission in sub-Saharan Africa: A systematic review." *SAHARA J*. 2015;12:87-105. doi: 10.1080/17290376.2015.1123643.

In sub-Saharan Africa (SSA), male partners are rarely present during prevention of mother-to-child transmission (PMTCT) services. This systematic review aims to synthesize, from a male perspective, male partners' perceived roles, barriers and enablers of their involvement in PMTCT, and highlights persisting gaps. We carried out a systematic search of papers published between 2002 and 2013 in English on Google Scholar and PubMed using the following terms: men, male partners, husbands, couples, involvement, participation, Antenatal Care (ANC), PMTCT, SSA countries, HIV Voluntary Counseling and Testing and disclosure. A total of 28 qualitative and quantitative original studies from 10 SSA countries were included. Men's perceived role was addressed in 28% (8/28) of the studies. Their role to provide money for ANC/PMTCT fees was stated in 62.5% (5/8) of the studies. For other men, the financial responsibilities seemed to be used as an excuse for not participating. Barriers were cited in 85.7% (24/28) of the studies and included socioeconomic factors, gender role, cultural beliefs, male unfriendly ANC/PMTCT services and providers' abusive attitudes toward men. About 64% (18/28) of the studies reported enablers such as: older age, higher education, being employed, trustful monogamous marriages and providers' politeness. In conclusion, comprehensive PMTCT policies that are socially and culturally sensitive to both women and men need to be developed.

50. Khosla R, Van Belle N, Temmerman M. *“Advancing the sexual and reproductive health and human rights of women living with HIV: a review of UN, regional and national human rights norms and standards.” J Int AIDS Soc. 2015; 18(6Suppl 5): 20280.*

Introduction: The right to sexual and reproductive health (SRH) is an essential part of the right to health and is dependent upon substantive equality, including freedom from multiple and intersecting forms of discrimination that result in exclusion in both law and practice.

Nonetheless, general and specific SRH needs of women living with HIV are often not adequately addressed. For example, services that women living with HIV need may not be available or may have multiple barriers, in particular stigma and discrimination. This study was conducted to review United Nations Human Rights Council, Treaty Monitoring Bodies and Special Rapporteur reports and regional and national mechanisms regarding SRH issues of women living with HIV. The objective is to assess areas of progress, as well as gaps, in relation to health and human rights considerations in the work of these normative bodies on health and human rights.

Methods: The review was done using keywords of international, regional and national jurisprudence on findings covering the 2000 to 2014 period for documents in English; searches for the Inter-American Commission on Human Rights and national judgments were also conducted in Spanish. Jurisprudence of UN Treaty Monitoring Bodies, regional mechanisms and national bodies was considered in this regard.

Results and discussion: In total, 236 findings were identified using the search strategy, and of these 129 were selected for review based on the inclusion criteria. The results highlight that while jurisprudence from international, regional and national bodies reflects consideration of some health and human rights issues related to women living with HIV and SRH, the approach of these bodies has been largely ad hoc and lacks a systematic integration of human rights concerns of women living with HIV in relation to SRH. Most findings relate to non-discrimination, accessibility, informed decision-making and accountability. There are critical gaps on normative standards regarding the human rights of women living with HIV in relation to SRH.

Conclusions: A systematic approach to health and human rights considerations related to women living with HIV and SRH by international, regional and national bodies is needed to advance the agenda and ensure that policies and programmes related to SRH systematically take into account the health and human rights of women living with HIV.

51. 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.” General Hospital Psychiatry. Volume 38, January–February 2016, Pages 109–114*

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.

52. The European Expert Group on Sexuality Education, "Sexuality education: what is it?" Sex Educ.-Sex. Soc. Learn., Published online: 26 Nov 2015

This policy brief developed by the European Expert Group on Sexuality Education provides an overview of key issues in sexuality education. It focuses primarily on sexuality education in Europe and Central Asia but is also relevant to countries outside of these regions.

53. Sobel HL, Huntington D, Temmerman M. "Quality at the centre of universal health coverage." Health Policy Plan. 2016 May;31(4):547-9. doi: 10.1093/heapol/czv095. Epub 2015 Sep 29.

The last decade of the MDG era witnessed substantial focus on reaching the bottom economic quintiles in low and middle income countries. However, the inordinate focus on reducing financial risk burden and increasing coverage without sufficient focus on expanding quality of services may account for slow progress of the MDGs in many countries. Human Resources for Health underlie quality and service delivery improvements, yet remains under-addressed in many national strategies to achieve Universal Health Coverage. Without adequate investments in improving and expanding health professional education, making and sustaining gains will be unlikely. The transition from the Millennium Development Goals (MDG) to the Sustainable Development Goals (SDG), with exciting new financing initiatives such as the Global Financing Facility brings the potential to enact substantial gains in the quality of services delivered and upgrading human health resources. This focus should ensure effective methodologies to improve health worker competencies and change practice are employed and ineffective and harmful ones eliminated (including undue influence of commercial interests)

54. Ryding EL, Lukasse M, Van Parys AS, Wangel AM, Karro H, Kristjansdottir H, Schroll AM and Schei B. "Fear of childbirth and risk of cesarean delivery: a cohort study in six European countries." (2015) BIRTH-ISSUES IN PERINATAL CARE. 42(1). p.48-55. doi: 10.1111/birt.12147

Background: Few studies have examined the mode of birth among women with fear of childbirth, and the results are conflicting. The objective of this study was to assess the association between fear of childbirth and cesarean delivery in North European women. Methods: A longitudinal cohort study was conducted among 6,422 pregnant women from Belgium, Iceland, Denmark, Estonia, Norway, and Sweden. Fear of childbirth was measured by the Wijma Delivery Expectancy Questionnaire during pregnancy and linked to obstetric information from hospital records. Results: Among 3,189 primiparous women, those reporting severe fear of childbirth were more likely to give birth by elective cesarean, (OR, 1.66 [95% CI 1.05-2.61]). Among 3,233 multiparous women, severe fear of childbirth increased the risk of elective cesarean (OR 1.87 [95% CI 1.30-2.69]). Reporting lack of positive anticipation, one of six dimensions of fear of childbirth, was most strongly associated with elective cesarean (OR 2.02 [95% CI 1.52-2.68]). A dose-effect pattern was observed between level of fear and risk of emergency cesarean in both

primiparous and multiparous women. Indications for cesarean were more likely to be reported as nonmedical among those with severe fear of childbirth; 16.7 versus 4.6 percent in primiparous women, and 31.7 versus 17.5 percent in multiparous women. Conclusion: Having severe fear of childbirth increases the risk of elective cesarean, especially among multiparous women. Lack of positive anticipation of the upcoming childbirth seems to be an important dimension of fear associated with cesarean delivery. Counseling for women who do not look forward to vaginal birth should be further evaluated.

55. Lukasse M, Laanpere M, Karro H, Kristjansdottir H, Schroll AM, Van Parys AS, Wangel AM, Schei B; Bidens study group. "Pregnancy intendedness and the association with physical, sexual and emotional abuse - a European multi-country cross-sectional study." *BMC Pregnancy Childbirth*. 2015 May 26;15(1):120. doi: 10.1186/s12884-015-0558-4.

Background: Unintended pregnancies are common and when not resulting in a termination of pregnancy may lead to unintended childbirth. Unintended pregnancies are associated with increased health risks, also for women for whom pregnancy continues to childbirth. Our objective was to present the prevalence of unintended pregnancy in six European countries among pregnant women attending routine antenatal care, and to investigate the association with a history of physical, sexual and emotional abuse. Methods: A prospective cross-sectional study, of 7102 pregnant women who filled out a questionnaire during pregnancy as part of a multi-country cohort study (Bidens) with the participating countries: Belgium, Iceland, Denmark, Estonia, Norway and Sweden. A validated instrument, the Norvold Abuse Questionnaire (NorAq) consisting of 10 descriptive questions measured abuse. Pregnancy intendedness was assessed using a single question asking women if this pregnancy was planned. Cross-tabulation, Chi-square tests and binary logistic regression analysis were used. Results: Approximately one-fifth (19.2%) of all women reported their current pregnancy to be unintended. Women with an unintended pregnancy were significantly younger, had less education, suffered economic hardship, had a different ethnic background from the regional majority and more frequently were not living with their partner. The prevalence of an unintended pregnancy among women reporting any lifetime abuse was 24.5%, and 38.5% among women reporting recent abuse. Women with a history of any lifetime abuse had significantly higher odds of unintended pregnancy, also after adjusting for confounding factors, AOR for any lifetime abuse 1.41 (95% CI 1.23-1.60) and for recent abuse AOR 2.03 (95% CI 1.54-2.68). Conclusion: Women who have experienced any lifetime abuse are significantly more likely to have an unintended pregnancy. This is particularly true for women reporting recent abuse, suggesting that women living in a violent relationship have less control over their fertility.

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. *Belemsaga Danielle Yugbare, Kouanda Seni, Goujon Anne, Kiendrebeogo Joël A, Duysburgh Els, Degomme Olivier, Temmerman Marleen. "A review of factors associated with the utilization of healthcare services and strategies for improving postpartum care in Africa". Afrika Focus — Volume 28, Nr. 2, 2015 — pp. 83-105*

Reducing maternal mortality continues to be a major challenge for African countries. We conducted a literature review to identify the factors associated with the utilization of maternal and child healthcare services during the postpartum period and the strategies for strengthening postpartum healthcare in Africa. We carried out an electronic search in several databases of texts published between 1995 and 2012 related to maternal and child health. Seventy-five publications fitted the eligibility criteria. Our analysis shows that to a large extent the socio-economic context was dominant among the factors associated with the quality and utilization of postpartum services. The best interventions were those on immediate postpartum maternal care combining several intervention packages such as community mobilization and provision of services, community outreach services and health training. The integration within health facilities of mother and child clinics was shown to contribute significantly to improving the frequency of mothers' postpartum visits.

2. *Hameed W, Khurram Azmat S, Ali M, Hussain W, Mustafa G, Ishaque M, Ali S, Ahmed A Temmerman M. "Determinants of method switching among social franchise clients who discontinued the use of intrauterine contraceptive device." International Journal of Reproductive Medicine.*

Introduction: Women who do not switch to alternate methods after contraceptive discontinuation, for reasons other than the desire to get pregnant or not needing it, are at obvious risk for unplanned pregnancies or unwanted births. This paper examines the factors that influence women to switch from Intrauterine Contraceptive Device (IUCD) to other methods instead of terminating contraceptive usage altogether.

Methods: The data used for this study comes from a larger cross-sectional survey conducted in nine (9) randomly selected districts of Sindh and Punjab provinces of Pakistan, during January 2011. Using Stata 11.2, we analyzed data on 333 women, who reported the removal of IUCDs due to reasons other than the desire to get pregnant.

Results: We found that 39.9% of the women do not switch to another method of contraception within one month after IUCD discontinuation. Use of contraception before IUCD insertion increases the odds for method switching by 2.26 times after removal. Similarly, postremoval follow-up by community health worker doubles (OR = 2.0) the chances of method switching. Compared with women who received free IUCD service (via voucher scheme), the method switching is 2.01 times higher among women who had paid for IUCD insertion.

Conclusion: To increase the likelihood of method switching among IUCD discontinuers this study emphasizes the need for postremoval client counseling, follow-up by healthcare provider, improved choices to a wider range of contraceptives for poor clients, and user satisfaction.

3. Leye E. "Midwifery training needs identified when caring for women with female genital mutilation." *Evidence Based Nursing*, doi:10.1136/eb-2015-102080 (2015)

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. Context: FGM is a practice occurring in low and middle income countries (LMIC) and high income countries (HIC) and is associated with adverse obstetric outcomes, as well as a range of immediate and long-term complications for girls and women. Complications might include urinary tract infections, bacterial vaginosis, dyspareunia, prolonged labour, caesarean section and difficulties in delivery.

1 Midwives play a key role in preventing FGM and providing quality care. The paucity of data on knowledge, experiences and needs of midwives, with respect to FGM, is hampering the provision of information to design education programmes or supportive workplace practice in LMIC and HIC settings. This study examined the experiences and needs of midwives in LMIC and HIC with the aim of providing evidence for educators and policymakers. Methods: An integrative review involving a narrative synthesis of literature was undertaken to include peer reviewed primary research literature published from 2004 to 2014.

A PICOS (Population, Interventions, Comparisons, Outcomes, Study Design) question was developed to guide the review process and Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were used to report the review process. Seven electronic databases were searched, as well as the reference lists of relevant papers. Fourteen papers were identified for quality appraisal using the CASP tool for qualitative research and the McMaster University Quality Assessment Tool for Quantitative Studies. Ten papers were included in the review; a thematic analysis was conducted by coding data from the findings sections of the papers. Findings: The review identified three main themes: (1) the influence of knowledge, perceptions and attitudes of midwives; (2) midwifery clinical practices; (3) training experiences and needs of midwives. The findings identified a lack of technical knowledge, limited cultural competency and sociocultural challenges to the abandonment of the practice. Midwives requested professional education and training, a working environment supported by guidelines, responsive policy and community education. The study also indicated a paucity of research on the practice and needs of midwives (in particular for LMIC) and few intervention studies that provide insights into strategies to support midwives in preventing FGM. Finally, no recent research could be identified focusing on FGM in humanitarian crisis settings. Commentary: This study addresses an important gap in current knowledge, notably the views and experiences of midwives when confronted with FGM. Most of the primary research focusing on knowledge, attitudes and practices, deals with gynaecologists or 'health professionals', as pointed out by this study. However, midwives are notably lacking in these Knowledge, Attitudes and Practices (KAP) surveys. KAP surveys among health professionals, including midwives, provide an evidence base to better target policies and enhance care for women with FGM and for girls at risk of FGM.

2 This study has highlighted some important barriers in providing optimal care for women with FGM and adequate prevention of FGM in girls, including the lack of technical and legal knowledge, the limited skills to deal with cultural diversity and the lack of guidelines and protocols that can support midwives when confronted with FGM. These gaps were equally identified by a recent KAP survey among midwives in Belgium.

3 The need for more information on FGM in humanitarian crisis settings that is pointed out by this study is of particular importance. Not only KAP surveys among health professionals in such settings, but also research on the dynamics of change of the practice and the influence of the humanitarian crisis on FGM abandonment efforts is lacking. The study discusses the lack of cultural competencies of midwives to deal with FGM but lacks

discussion regarding how midwives are dealing with requests to perform FGM. This is a particular challenge when midwives come from countries where FGM is commonly practiced and might be under substantial pressure from their communities to perform 'lighter' forms of FGM.

4. *Keygnaert, Ines. 2015. "Sexual Violence on the WHO Agenda: Addressing Multiple Vulnerabilities in Age, Gender and Legal Status." Entre Nous (english Ed.) (83): 24–25.*

III. BOOKS (B1)

1. Roberfroid D., Dauvrin M., Keygnaert I., Desomer A., Kerstens B., Camberlin C., Gysen J., Lorant V., Derluyn I. (2015) What health care for undocumented migrants in Belgium? Health Services Research (HSR) Brussels: Belgian Health Care Knowledge Centre (KCE). 2015. KCE Reports 257. D/2015/10.273/111.
2. Keygnaert I, Gilles C, Roelens K (2015) Checklist voor de optimale opvang van slachtoffers van seksueel geweld in Belgische ziekenhuizen. ICRH-Universiteit Gent, UMC Sint Pieter, UZ Gent & FOD Volksgezondheid, Gent, België. ISBN 9789078128359
3. Keygnaert I, Gilles C, Roelens K (2015) Checklist de la prise en charge optimale des victimes de violence sexuelle au sein des hôpitaux belges. ICRH-Université de Gand, CHU St Pierre, UZ Gent & SPF Santé Publique, Gand, Belgique. ISBN 9789078128366
4. Keygnaert I, Gilles C, Roelens K (2015) Handleiding basisvorming over intrafamiliaal en seksueel geweld voor zorgverleners in Belgische ziekenhuizen. ICRH-Universiteit Gent, UMC Sint Pieter, UZ Gent & FOD Volksgezondheid, Gent, België. ISBN 9789078128373
5. Keygnaert I, Gilles C, Roelens K (2015) Manuel de formation de base sur la violence intrafamiliale et sexuelle destiné au personnel soignant des hôpitaux belges. ICRH-Université de Gand, CHU St Pierre, UZ Gent & SPF Santé Publique, Gand, Belgique. ISBN 9789078128380

IV. BOOK CHAPTERS (B2)

1. Kennedy E, Mark A., Brahm D, Dhont N, Leye E. Sexual and Reproductive Health and Rights. In : Essential Clinical Global Health, Brett D. Nelson (ed.), Wiley-Blackwell Essentials, 2015.
2. Leye E. Middelburg A. Female genital mutilation in Europe from a children's rights perspective. In: Routledge International Handbook Children's Rights Studies, Vandenhoe W, Desmet E, Reynaert D, Lembrechts S (eds.), 2015.
3. Leye E, Ogbe E. Vaginal practices across cultures: expressions of gender inequalities? In: Interrogating Harmful Cultural Practices: Gender, Culture and Coercion, Longman C, Bradlin T (eds.). Ashgate Publisher, 2015.
4. Keygnaert I, Vettenburg N, Temmerman M (2015) Hidden violence is silent rape: sexual and gender-based violence in refugees, asylum seekers and undocumented migrants in Belgium and the Netherlands. "Culture, Health & Sexuality: A reader", Parker, R., Aggleton P. Thomas F(eds) Routledge Press, Chapter 14, pp 189-206.

V. OTHER

1. Keygnaert Ines. 2015. Naar een holistische aanpak van seksueel geweld: zijn referentieziekenhuizen in de Provincie Oost-Vlaanderen een haalbaar en wenselijk model? Inhoudelijk onderzoeksrapport. ICRH, Ghent University, Belgium
2. Van Braeckel, D, Temmerman M. 2015. "Reproductieve Rechten Alleen Zijn Niet Genoeg." *Samenleving En Politiek* (brussel) (2015/8): 32–35.

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 2015

Kimberly Absher *	Volunteer
Ibraheem Adebayo *	Intern
Roxanne Beauclair	Researcher
John-Paul Bogers	Visiting Professor
Marleen Bosmans *	Voluntary post-doctoral collaborator
Steven Callens	Senior Researcher
Matthew Chersich	Visiting Professor
Hilde Cuppens **	Volunteer
Olivier Degomme	Scientific Director, assistant Professor
Wim Delva	Assistant Professor
Sara De Meyer	Researcher
Cindy De Muynck	Administration and support
Lotte De Schrijver	Researcher
Lou Dierick	ICRH Kenya
Els Duysburgh	Researcher & Team Leader Maternal Health
Anna Galle	Intern & Researcher
Peter Gichangi	Visiting Professor
Sally Griffin	ICRH Mozambique
Aurore Guieu **	Researcher
Chao Guo *	Visiting Researcher
Laurence Hendrickx **	Permanent Expert in Mozambique
Olena Ivanova **	Intern
Ines Keygnaert	Senior Researcher & Team Leader GBV
Yves Lafort	Researcher & Team Leader HIV/STI
Els Leye	Assistant Professor
Marusya Lieveld	Researcher
Stanley Luchters	Visiting Professor
Kishen Mandaliya *	Intern
Fei Meng **	PhD Fellow & Researcher
Kristien Michielsen	Assistant Professor and post-doctoral assistant
John Mkandawire **	Volunteer Mozambique
Chris Moreel	Financial Assistant
Katherine Muylaert	Administrative Project Manager

Emilomo Ogbe	PhD Fellow & Researcher
Zhou Shu *	Visiting Researcher
Longmei Tang *	Researcher
Marleen Temmerman	Full Professor
Luk Van Baelen	Senior Researcher
Dirk Van Braeckel	Director of Finance and Administration
Davy Vanden Broeck	Assistant Professor
Katrien Van Impe *	Communication officer
An-Sofie Van Parys	Phd Fellow & Researcher
Heleen Vermandere	Phd Fellow & Researcher
Shuchen Wang **	Researcher
Anny Yu *	Researcher
Wei-Hong Zhang	Senior Researcher

* Joined ICRH in the course of 2015 or in the beginning of 2016. Welcome to the ICRH family!

** Left ICRH in the course of 2015. 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.

ICRH monitors its paper consumption for copying and printing. The evolution is as follows:

	Oct 2008- Sept 2009	Oct 2009 - Sept 2010	Oct 2010- Sept 2011	Oct 2011- Sept 2012	Oct 2012- Sept 2013	Oct 2013- Sept 2014	Oct 2014- Sept 2015
Black and white prints and copies	185,989	140,495	139,992	145,337	104,276	56,854	84,777
Color prints and copies	-	25,543	36,027	44,162	20,093	16,905	13,825
Total	185,989	166,038	176,019	189,499	124,369	73,750	98,602
Difference compared to the previous year		-10.3%	+6.0%	+7.7%	-34.4%	-41.7%	+33.7%

After a spectacular decrease in 2012-13 and 2013-14, the number of copies and prints went up again. This is most probably due to variations in printing requirements for specific project. The volume in 2013-14 was exceptionally low, and therefore the increase in 2014-16 is not surprising. 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. Below we give a brief outline of ICRH Global, ICRH Kenya and ICRH Mozambique.

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



In addition to the coordination and management activities, ICRH Global was involved in some international projects such as the maternity shelter project in Kenya.

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

ICRH Kenya

ICRH Kenya is an independent organization established in the year 2000.

It 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 Kenya performs actual intervention projects and research studies. Our interventions are always coupled with a critical analysis and evidence gathering towards best practices. Even the most basic research ICRH Kenya participates in will always have a social and local component. 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 Mozambique

In 2015 ICRHM continued to work in Tete and Maputo provinces, principally in the areas of family planning, antenatal and post-partum care, and the provision on SRH services for most at risk populations.

In partnership with local government in Tete, ICRHM continued to provide services to female sex workers with funding from the Government of Flanders through the Moatize Night Clinic and the network of peer educators, as well as working to introduce the provision of services to FSW through four public health facilities. Under the DIFFER research project, data collection began for the final evaluation of the package of SRH services for female sex workers.

Also in Tete province, the MOMI project (Missed Opportunities in Maternal and Infant Health) came to a close, with the final evaluation of the interventions to strengthen the provision of post-partum care in Chiúta district, both at health facility level and at community level. The findings of this study pointed towards significant success at community level, through leveraging community health workers and traditional midwives to provide basic post-partum care and



Ashodaya Samithi visit to Tete, October 2015

referrals; while identifying important structural and system-level barriers to successful implementation at health facility level, including weak supervision, low health worker motivation, resistance to task-sharing, and a culture of fear leading to weaknesses in reporting and referral. ICRHM is now working with the provincial health department to design a second phase of the project, refining the intervention and conducting an implementation study assessing scale up to other districts.

In Maputo province ICRH-M continued to focus mainly on strengthening family planning service provision in two districts (Manhiça and Marracuene), with support from the Government of Flanders, including training of health workers, equipping health facilities, and supporting local community-based organisations and community radios to carry out community mobilisation activities, with a focus on long-acting reversible

contraception. The second round of a household cohort study with men and women regarding family planning knowledge and use was carried out. Also in Maputo province, the PATH project continued, a study aiming to assess the impact of different interventions on increasing motivation of family planning providers, and the impact on service provision, funded by the Reproductive Health Supplies Coalition (RHSC).

At national level, together with the Ministry of Health and WHO, ICRHM continued implementation of a cluster randomized control trial that aims to increase the use of evidence-based practices during antenatal care consultations, through an intervention that includes provision of a kit of medicines, tests and supplies needed to provide antenatal care. The study has a stepped wedge design, and in 2015 the intervention was launched in the remaining 6 study sites across the country, bringing the total to 10.

Also at national level, ICRHM continued to work with the Ministry of Health to influence policy and practice, particularly in the areas of family planning, maternal health and SRH services for female sex workers. ICRHM also became an active member of the Network for Reproductive and Sexual Rights, a national civil society network focussing on advocacy on issues such as sexual and gender based violence, safe abortion, and access to quality SRH services for all.

An emerging area of focus for ICRHM is adolescent health, and particularly SRH issues faced by urban young people. ICRHM became part of a consortium led by Oxford Policy Management which will implement

Ligada, a DFID-funded programme focussing on economic empowerment of young women in deprived urban areas of four cities (Maputo, Tete, Nampula and Sofala). ICRHM is responsible for ensuring the programmes research and other activities address issues of sexual and reproductive health.



Integration of family planning into the national health week



Another new area of work is safe abortion. ICRHM was selected by WHO to implement a Multi-Country Survey on Abortion-Related Morbidity in Mozambique, which aims to improve understanding of the burden of abortion-related complications and the quality of care in health facilities globally. Implementation will start in 2016 in partnership with the Ministry of Health and AMOG, the Mozambican Association of Obstetricians and Gynaecologists. In 2015 new legislation was passed that legalises the provision of safe abortion services in many circumstances, and ICRHM is discussing potential research priorities with the Ministry of Health.

At an institutional level, ICRHM welcomed two new senior staff members: Málica de Melo joined the team in Maputo as MCH Programme Manager and MOMI Coordinator; and Alex Lucas took on the role of Provincial Coordinator in Tete. Both teams moved to new offices.

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 the ICRH. By doing this, she wanted to contribute to these aims. And now, 20 years later, the 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 the ICRH worldwide.

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

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WHO collaborating centre
for research on sexual and
reproductive health

