INTERNATIONAL CENTRE FOR REPRODUCTIVE HEALTH

ACTIVITY REPORT 2014

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The International Centre for Reproductive Health

The International Centre for Reproductive Health (ICRH) is a multidisciplinary research institute within Ghent University. The Centre was established in 1994 in response to the International Conference on Population and Development (ICPD, Cairo, 1994).

ICRH conducts research and intervention projects in all areas of reproductive health and is active in Africa, Latin America, Asia and Europe.

ICRH is a WHO Collaborating Centre for Research on Sexual and Reproductive Health and conducts fundamental, epidemiological, social, clinical, health systems as well as policy research. Main topics are contraception, maternal and new-born health, sexual and gender-based violence, and Sexually Transmitted Infections (STI). Special attention is paid to key populations such as adolescents and sex workers.

Besides research, the Centre is also active in:

- Training and capacity building: academic programmes (such as Masters and PhDs), courses and workshops but also on-site training, monitoring, evaluation and supervision to strengthen local capacity
- Reproductive health services: advice, consultancies, technical assistance, policy support, designing, planning, implementing, monitoring and evaluation
- Advocacy: awareness raising at all levels (including the scientific and the political), and keeping sexual and reproductive health and rights on the policy agenda.

Preface

2014 has proved to be another most fruitful year for ICRH. Fruitful because of the exciting research that was done on, for instance, statistical and epidemiological modelling, care and support for victims of sexual violence, prevalence of FGM, quality of family planning services and on sexual and reproductive health of adolescents and sex workers. Also fruitful because of the 54 papers that were published in international peer-reviewed journals, and because of the 12 new projects that were launched. You will find all about these achievements in this report.

However, the event that made 2014 exceptional was undoubtedly the celebration of ICRH's 20th anniversary. On 4 and 5 December we organized a two-day international conference entitled *'Sexual and reproductive health and rights today and tomorrow - ICRH celebrates 20 years of SRHR research, training and advocacy'*. More than 250 participants gathered from all over the world. In six symposia, they discussed the state of the art in some of the key areas of sexual and reproductive health and rights and considered remaining challenges and ways forward. This yielded new ideas and insights that inspire and inform our future work. Bringing together and working together with so many prominent researchers of the sexual and reproductive health and rights world also laid the seeds for new partnerships and helped strengthening the existing ones. Another encouraging aspect was the presence and support of quite some policy makers.

At the celebration event that took place at the end of the conference, the new ICRH strategy was presented. This was the result of more than one year of thinking and discussing, exchanges with our colleagues of ICRH Kenya and ICRH Mozambique, and finally the input of an advisory board, composed of international experts and stakeholders in the field of sexual and reproductive health and rights. The headlines of this strategy are presented further on in this report. In the course of 2015, we will continue the work on the strategy, by striving for an integration of the strategies of ICRH Belgium, ICRH Kenya and ICRH Mozambique into one ICRH Global strategy, and by translating the strategic priorities into action plans.

Throughout our work on the strategy, we have embarked on a continuous process of identifying the evolutions in our fields, evaluating our position and reconsidering our priorities in terms of topics and target audiences. This process must ensure that we keep abreast with the evolutions in science and that our research stays as relevant as possible for the needs of the communities that we serve.

If 2014 was the year of commemorating and celebrating the past 20 years of ICRH, 2015 is the year of looking forward and capitalizing on what we have learned and achieved. This year, the global community will launch a new set of targets, the Sustainable Development Goals, in which - we all hope - sexual and reproductive health and rights will be essential building blocks. ICRH is determined to contribute to these goals through its research, service provision and training.

Olivier Degomme,
Scientific Director

Dirk Van Braeckel,
Director of Finance and Administration

ICRH Strategy 2014 - 2020

Process

In 2013, ICRH developed a research strategy for the period 2014-2020. This dynamic document was further developed and adapted throughout 2014. After internal consultations, the strategy document was presented to and discussed with an external advisory panel. This advisory board included experts in the field of sexual and reproductive health with research, policy and implementation backgrounds: Naeema Abrahams, Marleen Bosmans, Elizabeth Bukusi, Vicky Claeys, Ivan Hermans, Gunta Lazdane, Stanley Luchters, Elizabeth Monard, Jean Damascene Ntawukuliryayo and Eric Van der Linden. The advisory panel was chaired by ICRH's founding mother Marleen Temmerman.

Based on these consultations the ICRH research strategy was adapted and now focusses on four themes and three target populations. The strategy is valid for the ICRH Global Group, including the centres in Belgium, Kenya and Mozambique. Currently, ICRH is in the process of developing action plans to the short-term implementation of the strategy.

Research themes

C*ontraception, maternal and newborn health*: Based on the long-term expertise acquired in maternal and newborn care, infertility and post-abortion care, ICRH will continue to conduct research on unmet needs for family planning; on the availability and organization of and access to good-quality maternal and newborn care and its impact and on the psychosocial health of pregnant women.

Interpersonal violence : This line of research aims at contributing to improving the health and well-being of those who are vulnerable to interpersonal violence, by reducing their vulnerability through prevention, intervention and care.

Harmful cultural practices: We intend to pursue our work on harmful cultural practices, with a focus on female genital mutilation (FGM), child/early and forced marriage (CEFM) and honour-related violence.

Sexually transmitted infections: The main focus will be on prevention, contributing to a reduction in the incidence of STIs. We will pay particular attention to HIV preventive research, including modelling and effective prevention interventions, and to the implementation and follow-up of the *Human Papillomavirus* (HPV) vaccine.

Target populations

For the coming years we have identified three target groups for which a specific programmatic area has been developed: adolescents, sex workers, and refugees, asylum seekers and undocumented migrants.

Adolescents. This age group represents a critical group to address in SRH research. They are vulnerable to HIV/STI infection, and the consequences of reproductive health issues are often bigger for young girls. We plan to develop research programmes around the role of gender norms, sexuality education and teenage pregnancies.

Sex workers. Worldwide this population group is vulnerable to a range of factors that predispose them to poor health outcomes. In particular, they are at high risk of violence, injury, rape, discrimination and a spectrum of human rights abuses. Their vulnerability to unwanted pregnancies, HIV and other STIs is many times larger than for the general population. Health care systems worldwide, and particularly in sub-Saharan Africa, are not adequately responsive to the needs of sex workers. The research priority is to develop and test models and strategies to increase access to and use of sexual and reproductive health and rights services.

Refugees, asylum seekers and undocumented migrants. Migrants constitute an important proportion of the world population, yet relatively little is known about migrants' health, their perceptions of health determinants and their utilization of health care services. Migrants also constitute heterogeneous groups with respect to health practices. We will focus on determinants of migrants' SRH and access to sexual and reproductive health care and the promotion of migrants' SRHR.

Activities 2014

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

Financed by:	Research Foundation Flanders (FWO), Belgium VLIR-UOS, Belgium	
Coordinator:	ICRH Belgium	
Partners:		
SACEMA		South Africa
Hasselt University		Belgium
Budget:	500,000 EUR	
Start date:	1 January 2010	
End date:	31 December 2014	
Contact person at ICRH:	Wim Delva Wim.Delva@ugent.be	

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. In 2014, we conducted a final analysis to characterize concurrency (i.e. time-overlapping relationships) in a more accurate and complete manner, using survey data from three disadvantaged communities of Cape Town, South Africa (n=878). Based on the beginning and end dates of the partnerships, we calculated the point prevalence, cumulative prevalence and incidence rate of concurrent partnerships, as well as the duration of overlap for relationships begun in the previous year. Linear and binomial regression models were used to quantify race and gender differences in the duration of overlap and relative risk of having concurrent partnerships in the past year. The results indicate that in this population the prevalence of concurrent partnerships is relatively high and is characterized by overlaps of long duration, implying there may be opportunities for HIV to be transmitted to concurrent partners.

Reference: http://www.jiasociety.org/index.php/jias/article/view/19372

More information: roxanne.beauclair@gmail.com

1.1.2 Summer school 'Network Statistics in Health Research'

Financed by:	Research Foundation Flanders (FWO), Belgium Ghent University Doctoral Schools, Belgium
Coordinator:	ICRH Belgium, Hasselt University
Partners:	
Hasselt University	Belgium
Budget:	13,000 EUR
Start date:	18 August 2014
End date:	22 August 2014
Contact person at ICRH:	Wim Delva Wim.Delva@ugent.be

Network statistics is a rapidly expanding branch in statistics that concentrates on the description and inference of network properties. 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. Further, social network analyses have been conducted to study how individuals' social networks influence their health behaviours and how the social structure of health systems influence the delivery and quality of health care services.

To address the lack of postgraduate training in network statistics in health research in Flanders (and more generally worldwide), we organized the international summer school 'Network Statistics in Health Research' at the Ghent University Hospital from 18 till 22 August 2014. This summer school was an

initiative of the Scientific Research Community 'Network Statistics for Sexually Transmitted Infections Epidemiology' and Ghent University, and was funded by the Research Foundation - Flanders, the UGhent Doctoral Schools Programme and the National Institutes of Health. Martina Morris, Steve Goodreau and Sam Jenness, the three main lecturers from the University of Washington who taught the brunt of the lectures and computer labs, are world-leading experts in network statistics and HIV/STI epidemiology. Kate Sabot (London School of Hygiene and Tropical Medicine) and Per Block (University of Oxford) gave additional guest lectures on Social Network Analysis to improve maternal and newborn health, and on Stochastic Actor Oriented Models, respectively.

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

Financed by:	Research Foundation Flanders (FWO), Belgium
Coordinator:	ICRH Belgium
Partners:	
SACEMA	South Africa
Hasselt University	Belgium
Johns Hopkins University	USA
Washington University	USA
World Bank	USA
Budget:	259,000 EUR
Start date:	1 January 2014
End date:	31 December 2017
Contact person at ICRH:	Wim Delva Wim.Delva@ugent.be

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.

1.1.4 Modelling sexual mixing patterns among ART patients and their effects on the prevention benefits of HIV treatment

Financed by:	Research Foundation Flanders (FWO), Belgium	
Coordinator:	SACEMA (South Africa	
Partners:		
ICRH Belgium		Belgium
Johns Hopkins University		USA
Hasselt University		Belgium
Budget:	40,000 EUR	
Start date:	1 January 2014	
End date:	31 December 2014	
Contact person at ICRH:	Wim Delva Wim.Delva@ugent.be	

The impact of antiretroviral therapy (ART) on population-level HIV incidence depends on ART coverage, ART adherence and risk compensation among ART users. However preferential mixing among ART users, and the resulting rewiring of the sexual network, may modify this impact, even in the absence of risk compensation.

We conducted a mathematical modelling analysis of the possible emergence of ART clusters, i.e. subsets of the sexual network in which the density of ART patients is much higher than in the rest of the network. We explored how ART clusters modify the impact of ART on population-level HIV incidence, under varying assumptions about HIV prevalence, ART coverage and ART adherence. If HIV prevalence is low to moderate (<=10%), ART clusters consistently enhance the impact of ART on HIV incidence. In hyperendemic settings, ART clusters can reduce the impact of ART on HIV incidence when ART adherence is high and ART coverage is low. The results of this model call for empirical investigations of ART clusters in sexual networks with low and high HIV prevalence, as emergence of ART clusters can modify the impact of HIV treatment as prevention. Furthermore, the clustering of ART patients should be included in mathematical models used to assess the HIV prevention benefits of ART.

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

Financed by:	SPMSD	
Coordinator:	ICRH Belgium	
Partners:		
Belgian University Hospitals		Belgium
Labo Riatol		Belgium
Institute for Public Health		Belgium
Budget:	1,007,555 EUR	
Start date:	December 2009	
End date:	March 2014	
Contact person at ICRH:	Davy Vanden Broeck Davy.vandenbroeck@ugent.be	

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, data have analysed and the findings have been presented for publication.

1.1.6 HPV/BV interaction

Financed by:	FWO
Coordinator:	ICRH Belgium
Partners:	
ICRH Kenya	Kenya
Budget:	234,000 EUR
Start date:	October 2008
End date:	September 2014
Contact person at ICRH:	Davy Vanden Broeck Davy.vandenbroeck@ugent.be

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.

This study has been finalized in 2014 and findings have been presented for publication.

1.1.7 Cervical cancer prevention in Kenya: Introduction of the HPV vaccines

Financed by:	Fund for Scientific Research Flanders, FWO
Coordinator:	ICRH Belgium
Partners:	
Moi University	Kenya
ICRH Kenya	Kenya
Budget:	180,000 EUR
Start date:	1 October 2010
End date:	30 September 2014
Contact person at ICRH:	Heleen Vermandere Heleen.vermandere@ugent.be

In Kenya, HPV vaccination is not part of the national immunization scheme. The 2 types of HPV-vaccines are however approved and allowed to be used in the country. Dr. Hillary Mabeya, National Advisor on Adolescent Vaccination at the Ministry of Health (Kenya), received a grant of 9600 HPV vaccines from the GARDASIL Access Program in order to pilot HPV vaccination. The pilot program started in May 2012 and ended in March 2013. Primary school girls (standard grade 4 to 8, i.e. approximately 9 to 14 years of age) enrolled in 10 randomly selected public schools were the first target group, but in a second phase the program was opened for young girls from the whole community. While vaccination took place at Moi University Hospital, promotion of the HPV-vaccine was school based: health providers informed the teachers who on their turn were asked to inform the girls and parents about upcoming vaccination opportunities.

Through interviewing mothers of eligible girls before and after the vaccination program, we studied and evaluated the introduction of the HPV vaccines in Kenya. The objectives were:

- To measure the acceptability, intention and behaviour towards HPV vaccination in Kenya;
- To define the impact of referents' opinions, and the impact of personal, socio-cultural and structural factors on the decision regarding HPV vaccination of young girls;
- To generate achievable recommendations on how to design, implement and promote HPV vaccination in Kenya.

Baseline and follow-up data were collected in March 2012 and May 2013 respectively. Of the 287 women interviewed in 2012, 256 (89.2%) agreed to be interviewed again the next year. In addition, a qualitative component was implemented in 2013 to obtain perspectives from key stakeholders. Focus group discussions were organized with fathers, teachers and vaccinators.

While acceptance was very high (88%) at baseline, only 31% had eventually vaccinated their daughter, and 51% reported that they had wanted to vaccinate but missed the opportunity. Results show that among this latter group, 55% had not received information regarding the whereabouts of the program. Among those who had actively decided not to vaccinate (18%), 42% mentioned fear of side effects as barrier while 31% said the partner opposed to vaccinating the daughter against cervical cancer.

The qualitative data revealed that participants still had poor knowledge regarding cervical cancer and had felt uncomfortable discussing it, hence the lack of awareness about the vaccination program. Teachers also missed support of health providers to address the questions of the parents as well as their own doubts. Health care promoters of future programs will need to enter more in dialogue with the community, instead of just providing information, in order to increase awareness and actively tackle misbeliefs and rumours.

1.1.8 Vertical transmission of HPV

Financed by:	Ghent University	
Coordinator:	ICRH Belgium	
Partners:		
Free University of Brussels (VUB)		Belgium
Budget:	-	
Start date:	01/10/2010	
End date:	30/09/2015	
Contact person at ICRH:	Davy Vanden Broeck Davy.vandenbroeck@ugent.be	

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.

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

Financed by:	-
Coordinator:	ICRH Belgium
Partners:	
ICRH Kenya	Kenya
Budget:	-
Start date:	01/02/2011
End date:	31/01/2013
Contact person at ICRH:	Davy Vanden Broeck Davy.vandenbroeck@ugent.be

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 manuscript is presented for publication.

1.2 OTHER ACTIVITIES

1.2.1 BREACH

ICRH is member of the Belgian AIDS and HIV Research Consortium (BREACH). This consortium unites al 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 Michielsen.

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 Michielsen

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

1.2.5 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 will Heleen Vermandere do her PhD research within this setting, also a Kenyan PhD student will investigate the impact of cervical cancer at the social level. In 2013, 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)

Financed by:	Research Foundation Flanders (FWO), Belgium	
Coordinator:	ICRH Belgium	
Partners:		
University Hospital Ghent, Dpt. Of Ob/Gyn, AZ Groeninge Kortrijk, AZ Jan Palfijn Gent, AZ St Jan Brugge, OLV ziekenhuis Aalst, OLV van Lourdes ziekenhuis Waregem, UZA, Virga Jesse ziekenhuis Hasselt, ZNA Middelheim Antwerpen, ZOL Genk		Belgium
Budget:	180,000 EUR	
Start date:	1 October 2009	
End date:	30 September 2014	
Contact person at ICRH:	An-Sofie Van Parys ansofie.vanparys@ugent.be	

The aim of this research project is twofold: firstly a large-scale prevalence/incidence study on intimate partner violence during pregnancy and secondly an intervention study to address violence during pregnancy.

By means of a written questionnaire, the prevalence/incidence study measures physical, psychological and sexual partner violence in a pregnant population and explores the correlation with psychosocial health. Moreover, this doctoral study wants to determine if there are effective and safe methods to improve help-seeking behaviour and safety behaviour, and to reduce partner violence and hence some negative consequences for mother and child. Therefore, 223 pregnant women who reported partner violence were selected (based on the questionnaire) and interviewed in the second part of the study. We will test if, when we identify partner violence during pregnancy and refer women to local resources, the prevalence/incidence of partner violence is reduced, women adopt more safety behaviour, seek more help and/or the negative effects of partner violence are reduced.

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 2015.

2.1.2 Coordination of Ghent University Hospital holistic IPV protocol

Financed by:	Internal funding
Coordinator:	ICRH Belgium
Partners: Ghent University Hospital	
Budget:	
Start date:	1 December 2010
End date:	31 December 2014
Contact person at ICRH:	Ines Keygnaert Ines.keygnaert@ugent.be

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. The ones who did, found that the user-friendliness of the document and the coordination of the implementation in the field could be enhanced. Furthermore, the hospital was now more and more confronted with other types of violence too, which were not yet dealt with in the current procedures. A complete revision was thus required.

A multidisciplinary working group was set up in 2011 composing of key staff of the Ghent University Hospital and external experts to assure an evidence-based and inclusive approach to all types of interpersonal violence. The working group firstly evaluated the current procedures on its strengths, weaknesses, opportunities and challenges after which an action plan was developed. Based on this action plan an evidence-based, holistic, inclusive and ethically sound protocol on interpersonal violence has been developed. Sub procedures and implementation challenges were discussed, tested and developed throughout the course of 2012. Between June and October 2013, an IPV screening was done within the context of a master's thesis in Health Promotion. This thesis was successfully defended in June 2014 and is being reworked as an academic paper.

As for the protocol itself, this was to be finalized and formalized in the hospital quality standard operating procedures, but due to lack of resources these activities have been postponed. Once the protocol is integrated in the standard operating procedures, the inclusive protocol will be launched in a test phase and a communication campaign will be set up. Gradually, more and more staff will be trained to implement the IPV protocol until full implementation can be assured and evaluated. It was also discussed during the round tables of treatment of rape victims (see supra).

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

Financed by:	Belgian Federal Agency Public Health	
Coordinator:	ICRH Belgium	
Partners:		
Hospital CHU St Pierre, Brussels		Belgium
Ghent University Hospital		Belgium
Budget:	56.195 EUR (excl BTW)	
Start date:	3 sept 2014	
End date:	2 Sept 2015	
Contact person at ICRH:	Ines Keygnaert Ines.keygnaert@ugent.be	

This project aims at building capacity of healthcare workers of Belgian hospitals in the holistic management of patients experiencing sexual and domestic violence. The projects comprises of 3 aspects. First, we provide 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 addresses the holistic management of sexual violence. It regards 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, intervision for health care workers working with victims and simulation of specific violence protocols.

In addition to this in-depth training, we develop 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 will be provided here at an introductory level. The manual will be tested in a few hospitals before finalisation and translation in Dutch and French in 2015.

Finally, we assessed what the current approach to treatment of victims of sexual violence is in the participating hospitals and we develop a guideline for adequate and holistic care to victims of sexual violence.

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

Financed by:	Province of Eastern Flanders- IGVM
Coordinator:	ICRH Belgium
Partners: Province of Eastern Flanders	
Budget: 9500€	
Start date:	1 June 2014
End date:	10 December 2014
Contact person at ICRH:	Ines Keygnaert Ines.keygnaert@ugent.be

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 report was communicated to the authorities of those different political levels and shortly presented at the Belgian senate. More oral and written dissemination to different stakeholders is foreseen for 2015.

2.1.5 BIDENS-study, a six country study on life-events & fear of mode of delivery, part II

Financed by:	EU DAPHNE program
Coordinator:	NTNU, Norwegian University of Science and Technology Faculty of Medicine
Partners:	
ICRH Belgium	Belgium
University Hospital, Department of Obstetrics and Gynaecology	Iceland
National Hospital, Copenhagen, Juliana Marie Centre, Ultrasound	Denmark
Karolinska University Hospital	Sweden
Tartu University Clinicum Department of Obstetrics and Gynaecology	Estonia
Budget:	205,029 EUR
Start date:	2007
End date:	2012
Contact person at ICRH:	An-Sofie Van Parys ansofie.vanparys@ugent.be

The hypothesis of this multi-country study is that women who experienced violence during their lifetime, will develop more fear of childbirth and therefore have more instrumental (C-sections and/or vacuum and/or forceps) deliveries. This study managed to gather data for more than 7000 women over the six countries. In Belgium, 864 women were included.

In 2009 the study received additional funding for two years to continue the analysis of the collected data and to continue the national and international dissemination of the results. The main results of the study are currently being published in two papers, one on the abuse prevalence and one on the correlation between a history of abuse and operative delivery. Project funding expired in 2012, but publication continues.

2.2 OTHER ACTIVITIES

In addition to the national and international conferences and workshops that were organized within the context of the projects listed above, the violence team members participated in a wide range of advisory committees 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 her PhD results to UN professionals at 'Orange Day', 25 September 2014, in the UN House in Brussels.

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

2.2.1 Migrants' sexual and reproductive health in the EU: a critical review of policy and legal frameworks on SRHR and sexual violence

The objective of this review was to investigate the right of migrants to sexual and reproductive health and whether this right is ensured throughout the European Union in both national and EU legal and policy frameworks. It concentrates on three main issues: right and access to general health, to sexual and reproductive health, and prevention of and response to sexual violence. Particular attention was paid to the legal status of migrant populations and the impact this might have on their possibilities to exert their right to sexual and reproductive health. To this purpose, we included a wide range of academic and other literature. This allowed us to formulate recommendations for policy-making, notably at EU level, as well as for future research in the field. The method used was a Critical Interpretive Synthesis.

The preliminary results of this study were already presented at the 2nd International Conference of the International Network for Sexual Ethics and Politics in 2012. A first article on migrants' sexual and reproductive health and rights was published in Health Policy in January 2014. A second article, focusing on the issue of prevention of and response to sexual violence in migrants, has been submitted to a peer reviewed journal mid-2014. Results were also orally presented and applauded upon at the 5th 'EUPHA European Conference on Migrant and Ethnic Minority Health' in Granada in April 2014 and on the 'Metropolis Conference' in Milan in November 2014.

Contact persons: ***Ines.keygnaert@ugent.be***

2.2.2 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. The 'Sexual Aggression Sets' (SAS), a forensic tool for gathering traces of the perpetrator on and in the body of the victim, is not always administered in the right way. Furthermore, even when the (supposed) perpetrator is known, victims often have to take Post-exposure prophylaxis (PEP) for several weeks to reduce the likelihood of HIV infection because the suspect refuses to be tested for HIV or wasn't even asked to be tested. Intake of PEP may cause considerable side effects. In many hospitals, PEP is not administered at all, thereby exposing the victim to potential HIV infection.

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. In two round table meetings in 2013 and one in 2014, crucial aspects of the complex and delicate topic of treatment of rape victims were explored, and joint initiatives were taken into the direction of developing better communication and collaboration between hospitals, police and justice; of facilitating both mandatory and voluntary HIV testing for supposed rape perpetrators, and of streamlining protocols, trainings and task division within and across hospitals.

In 2014 these round tables resulted in the implementation of voluntary HIV-testing of supposed rape perpetrators in Ghent; a better collaboration between justice, police and the Ghent University Hospital regarding treatment of rape victims; a small scale research on feasibility and desirability of a Sexual Assault Reference Centre in the Province of Eastern Flanders, a law proposal on mandatory HIV-testing of supposed rape perpetrators; input in the revision of the national action plan on violence regarding Sexual Assault Reference Centres; advise to the new Belgian Federal government on the subject of treatment of victims and to an invitation for hearing in the Senate in 2015. The round table meetings will be continued in 2015.

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3. Harmful cultural practices

3.1 RESEARCH PROJECTS

3.1.1 Training of hospital-based health professionals in caring for women with FGM – Phase II

Financed by:	Belgian Federal Agency Public Health
Coordinator:	Groupement pour l'Abolition des Mutilations Sexuelles
Partners:	
ICRH Belgium	
Budget	7,050 EUR
Start date:	10 October 2013
End date:	30 June 2014
Contact person at ICRH:	Els Leye els.leye@ugent.be

The training aims at limiting the psychological and social impact of FGM on the health of women through an adequate care for women and girls with FGM. More specifically, this project aims at enhancing the theoretical knowledge of care providers on FGM and at building their capacities in caring for women with FGM. The training program is specifically targeted at midwifes and gynaecologists at maternities in 9 hospitals in the provinces of West-Vlaanderen (AZ Groeninghe Kortrijk, Yperman Hospital Ieper), Oost-Vlaanderen (AZ Sint Lucas, AZ Sint Nikolaas Sint Niklaas), Limburg (Sint Trudo Sint Truiden, Sint Franciskus Heusden Zolder, Maria Ziekenhuis Overpelt), and Vlaams-Brabant (UZ Leuven, Heilig Hart Tienen). In 3 hospitals, the training was provided twice, notably in AZ Sint Lucas, Sint Franciskus Heusen Zolder and Maria Ziekenhuis Overpelt. Another 11 hospitals took part in Wallonia, where GAMS provided the training sessions. Leye and Vercoutere also provided extra training for students midwifery at the Katholieke Hogeschool Limburg (28 May 2014) and the midwives of the University Hospital in Ghent (13 May 2014), as well as for the medical doctors of child protection centres (September 22 2014). In total, 243 midwifes, 32 gynaecologists and 6 nurses were trained.

Prof. Leye and Dr. Vercoutere started the trainings late 2013 but provided the bulk of the training sessions in 2014, with a two hours session in each of the above mentioned hospitals. There was equally a two-day training for reference midwifes, at the GAMS premises where Prof. Leye and Dr. Vercoutere assisted, on April 3 and 4 2014, in which 21 midwifes participated.

3.1.2. FGM-PREV, Estimating the prevalence of FGM in the EU

Financed by:	European Commission Daphne Programme
Coordinator:	ICRH Belgium
Partners:	
INED	France
Universita degli Studi di Milano	Italy
Budget	359,511 EUR
Start date:	November 15 2014
End date:	November 15 2016
Contact person at ICRH:	Els Leye els.leye@ugent.be

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 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.

More information: Els Leye, els.leye@ugent.be

3.1.3 REPLACE 2: Researching FGM Intervention Programs Linked to African Communities in the EU

Financed by:	European Commission Daphne Program
Coordinator:	Coventry University, UK
Partners:	
ICRH Belgium	Belgium
CESIE, Sicily	Italy
APF (Associaçao para o Planeamento da Familia)	Portugal
FSAN	The Netherlands
FORWARD	UK
GES (Gabinet d'Estudis Socials)	Spain
Budget:	24,363 EUR
Start date:	18 March 2013
End date:	18 March 2015
Contact person at ICRH:	Els Leye Els.leye@ugent.be

Replace 2 aims at implementing and evaluating the REPLACE community-based behaviour change intervention framework to tackle female genital mutilation (FGM) in the EU. This project continues the innovative behavioural change approach to ending FGM that was developed in the EU Daphne III funded project, 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 Behavioural 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 is evaluating 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.

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

Financed by:	European Commission 'Prevention of and fight against crime' Program	
Coordinator:	Universitat Autonoma de Barcelona, Spain	
Partners:		
ICRH Belgium		Belgium
Le Onde Onlus, Palermo		Italy
Budget:	41.027 €	
Start date:	November 16, 2012	
End date:	November 16 2015	
Contact person at ICRH:	Els Leye Els.leye@ugent.be	

The project aims at studying forced marriages as a new form of trafficking in human beings in Europe. The project will provide more knowledge on the causes, influencing factors and impact on the life and family of (potential victims) and looks at obstacles and difficulties to address forced marriages in Belgium, Spain and Italy. The methodology consist of a fieldwork phase, where in-depth interviews are conducted with 20 professionals and 10 interviews with (potential) victims, a comparative analysis of the legal framework in each country and a critical analysis how countries comply to the EU Directive 2011/36/UE, followed by an awareness raising intervention. Finally the project will provide recommendations to transpose the EU directive 2011/36/UE on Trafficking into national law. In 2014, the fieldwork as well as the legal analysis were finalized.

3.2 OTHER ACTIVITIES

3.2.1 Working Group FGM of the Flemish Forum for Child Abuse

The Flemish Forum Child Abuse is operational since March 2011. It is based on a cooperation agreement between the Ministry of Justice and the Ministry of Welfare, Public Health and Family. It aims at discussing structural problems in dealing with child abuse at policy level; at actively seeking solutions and providing recommendations to relevant Flemish and federal authorities and to follow up and monitor the Protocol Child Abuse through training and sensitization.

Based on the need to prevent FGM, the Flemish Forum Child Abuse decided to create a working group FGM, whose mandate is to further follow up and steer the recommendations regarding this issue, that were provided to the Flemish Forum. Based on 3 focus groups that were organized by ICRH, GAMS and INTACT for Health sector, Welfare and Police/Justice, recommendations were provided with regard to:

- detection, risk assessment and follow up of FGM;
- tackling risk situations;
- exchange of information between several stakeholders.

ICRH is part of the working group, and collaborated in organizing the focus groups, formulating the recommendations and advice to the Flemish Forum regarding FGM, and in developing a protocol for 'Child and Family' (K&G/ONE) and the 'Centres for Student Monitoring' in schools (CLB). In 2014, the protocol was finalized and presented to the Flemish authorities.

3.2.2 Opening of a Reference Centre for Female Genital Mutilation (FGM) at UZ-Ghent.

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.

For the moment two hospitals in Belgium have a specialized unit where women who have undergone FGM can receive medical and psychological counselling and treatment. These reference centres (at UZ-Ghent and Saint Pierre Hospital in Brussels) are recognized by the Belgian government, which provides an annual budget of up to 500,000 euro for both centers.

3.2.3 Focal Point on Harmful Cultural Practices (F♀HCUS)

F♀HCUS wishes to promote the health, well-being and human rights of vulnerable groups by contributing to a critical reflection, by increasing knowledge and by delivering better services for those living with the consequences of, or who are at risk of undergoing, harmful cultural practices.

In addition to the projects mentioned above, the following activities were carried out in 2014:

Research:

KAP-study among Flemish midwives on female genital mutilation;

Qualitative study among Flemish midwives and gynaecologists on communication for preventing female genital mutilation;

Service delivery:

UZ F♀HCUS consultations for vulnerable women: every Wednesday morning in the University Hospital, specialized consultations are foreseen for women with female genital mutilation, women requesting hymen reconstructions and victims of sexual violence. Two research protocols were developed to collect socio-demographic data on women attending the consultations.

Expertise delivery:

- Advisory member of the END FGM –European Campaign, led by Amnesty International;
- Member of the FGM Steering Committee of the World Health Organization, Geneva;
- 'Training for hospitals in Flanders on female genital mutilation', in collaboration with NGO GAMS, for the Federal Department of Public Health,
- Participation in Girl Summit. A world free from FGM and child and early marriage, July 2014, which was hosted by the UK Government in collaboration with UNICEF.
- Evaluation of the REPLACE II Toolkit on community behaviour change towards female genital mutilation, Consultancy for Coventry University, UK, March 2013 – March 2015.

4. Contraception, maternal and newborn health

In 2013, globally 292,982 women died from pregnancy or childbirth related causes. Furthermore, in the same year, 2.6 million babies died during the first four weeks of life. Although the international community agreed at the International Conference on Population and Development (ICPD) in Cairo (1994) to make reproductive health care universally available no later than 2015, many ICPD agenda items on sexual and reproductive health remain unachieved after 20 years.

Though lots of efforts to reduce global maternal and neonatal mortality and morbidity took place during the last decade, among others the Millennium Development Goals (MDG) initiative, neonatal and maternal mortality remains unacceptably high. The MDGs on maternal and child health, which aim at reducing the maternal mortality ratio by three quarters between 1990 and 2015 and the under-five mortality rate by two thirds, are far from reaching their targets. Even though data show progress on reducing maternal and neonatal mortality, this progress is below the annual decline needed to meet the maternal and child health MDG targets and most developing countries will take many years after 2015 to achieve these targets.

The overall objective of the ICRH 'maternal health team' is conducting research to contribute to improve maternal and neonatal health and well-being. This research aims at providing access to good quality maternal, neonatal, sexual and reproductive health care for all, with a focus on equity and integration and continuum of care. Working with and involving all levels of the society from community level to policy makers and all levels of the health system from community health workers to specialized hospitals are also considered crucial by the maternal health team in order to accomplish its objectives.

4.1 RESEARCH PROJECTS

4.1.1 Missed Opportunities in Maternal and Infant Health: reducing maternal and newborn mortality and morbidity in the year after childbirth through combined facility- and community-based interventions (MOMI)

Financed by:	European Commission – FP7
Coordinator:	ICRH Belgium
Partners:	
Institut de Recherche en Sciences de la Santé	Burkina Faso
ICRH Kenya	Kenya
Parent and Child Health Initiative	Malawi
ICRH Mozambique	Mozambique
Eduardo Mondlane University – Faculdade de Medicina	Mozambique
Institute for Global Health, University	United Kingdom

College of London	
Budget:	2,997,647 EUR
Start date:	1 February 2011
End date:	31 January 2016
Contact person at ICRH:	Els Duysburgh Els.duysburgh@ugent.be Emilomo Ogbe Emilomo.Ogbe@ugent.be

In the past decade, maternal health services have largely focused on rationalizing the package of antenatal services and on the management of intrapartum complications including the provision of emergency obstetric care by skilled birth attendants. These interventions aimed at targeting what are widely considered to be the most common and immediate causes of maternal death. Yet this approach fails to address many underlying morbidities that are instrumental in generating high rates of maternal mortality, such as anemia 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 intends to develop and implement context-specific packages of interventions targeting women and newborn health in the early postpartum period and throughout the first year after childbirth. These packages are delivered through a combined facility- and community-based approach designed to integrate services and strengthen health systems. MOMI is implemented in four African countries (Burkina Faso, Kenya, Malawi and Mozambique) by a consortium of five African and three European partners.

Following the implementation of the designed and selected packages of context-specific packages of intervention in 2013, in 2014 MOMI activities mainly focused on monitoring and upgrading the implementation on these interventions. As part of this, MOMI technical European partners visited the project research sites in spring and autumn 2014. The fourth consortium meeting organized in Lilongwe, Malawi, in September 2014 was mainly used to discuss the monitoring and process evaluation results of the first intervention implementation year and to discuss and brainstorm on possible activities and actions needed to upgrade the interventions implementation.

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/

MOMI project management meeting, Lilongwe, Malawi, September 2014

A community health worker explains danger signs during postpartum to mothers, Kaya district, Burkina Faso

4.1.2 Quality of Maternal and Prenatal Care: Bridging the Know-Do Gap (QUALMAT)

Financed by:	European Commission – FP7
Coordinator:	University of Heidelberg, Germany
Partners:	
ICRH Belgium	Belgium
Centre de Recheche en Santé de Nouna	Burkina Faso
Navrongo Health Research Centre	Ghana
Karolinska Institute	Sweden
Muhimbili University of health and Allied Sciences	Tanzania
Budget:	2,915,228 EUR
Start date:	1 May 2009
End date:	30 April 2014
Contact person at ICRH:	Els Duysburgh Els.duysburgh@ugent.be

Maternal and neonatal mortality and morbidity remain unacceptably high in sub-Saharan Africa. Though sub-Saharan Africa is home to only 12% of the total female world population and 22% of the global under-5 population, in 2013, 49% of all maternal deaths and 51% of all under-5 deaths occurred in this region.

The QUALMAT project is an intervention research project aiming at improving maternal and newborn health by improving the quality of maternal and neonatal care through addressing the existing gap between 'knowing what to do' and 'doing what you know'. To address this, two kinds of interventions have been implemented: (1) performance-based incentives to increase health workers' motivation and (2) a computer-assisted clinical decision support, which will help providers to comply with established standards of care.

QUALMAT is implemented by a consortium of six European and African partners in three resource-poor countries highly burdened by maternal and neonatal mortality: Burkina Faso, Ghana and Tanzania. In each country, an intervention and a control district were selected, and in each of these districts six health facilities were selected to be included in the research project.

In the QUALMAT project ICRH Belgium is responsible for documenting changes in the quality of maternal and newborn care caused by the QUALMAT interventions.

The QUALMAT project ended in April 2014. The last months of the project were mainly used to finalize post-intervention quality assessment data collection and analysis. For the post-intervention quality assessment the same tools were used as those of the baseline quality assessment. Results of both assessments (pre- and post-intervention and intervention against non-intervention health facilities) were compared and assessed for statistically significant changes in quality of maternal and neonatal care.

Study results showed that there was no change in quality of maternal and/or newborn care between intervention and non-intervention research sites and between pre-and post-intervention quality. However the study also found that it is possible to use computers as support tool in health care at primary health care facilities in remote, rural settings in sub-Saharan Africa. Computers were well accepted by most primary health care workers and remained functioning well and staidly throughout the two years implementation period.

Project website: http://www.qualmat.net/

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

Financed by:	Path on behalf of the Reproductive Health supplies Coalition
Coordinator:	ICRH Belgium
Partners:	
ICRH Mozambique	Maputo, Mozambique
Budget	196,400 USD
Start date:	1 September 2014
End date:	29 February 2016
Contact person at ICRH:	Heleen Vermandere heleen.vermandere@ugent.be Dirk Van Braeckel dirk.vanbraeckel@ugent.be

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 will be 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 we will award material incentives to health centres conditional on achieving good performance indicators, while a second intervention will create awareness among health centres regarding their performance compared with other health centres as to boost their motivation and working proud. Finally, motivational trainings will also be conducted.

The project will be carried out in 15 health centres in Manhiça and Marracuene districts in Maputo Province, Mozambique. Three groups of each 5 health centres will be randomly composed. Group 1 will receive intervention 1 & 3, group 2 will receive intervention 2 & 3, while group 3 will be the control group and will not receive any of the interventions.

In 2014, a protocol and study documents were developed and submitted to the national ethics board of Mozambique. Baseline data regarding GSM was gathered among all 15 facilities, i.e. stock cards and patient files were copied as to gain insight in current FP services and supply management.

4.1.4 Reducing maternal mortality trough maternity waiting homes

Financed by:	Collibri Foundation for Education
Coordinator:	ICRH Global
Partners:	
ICRH Kenya	Mombasa, Kenya
Budget	60,000 EUR
Start date:	1 October 2011
End date:	30 April 2014
Contact person at ICRH:	Dirk Van Braeckel dirk.vanbraeckel@ugent.be

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. ICRH launched a project in Kenya, aimed at promoting the use of maternity waiting homes and improving their functioning.

Activities consist in:

- Informing and sensitizing community leaders, future mothers, their partners and facilities, 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.

Towards the end of the project, the occupancy rate of the maternity shelters increased gradually to more than 30 admissions per shelter per month, which is close to the maximum capacity. Satisfaction is high among the users, the cooperation with the hospitals is excellent and the collected data are currently analysed and will result in a publication, aimed at making the concept better known and demonstrating its benefits. After the expiry of the Collibri Foundation funding in April 2014, a search for resources to continue the project led to a new project, supported and managed by Mothers at Risks and co-financed by the Belgian National Lottery. ICRH Global is still involved in a facilitating role.

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

Financed by:	European Commission – FP7	
Coordinator:	ICRH Belgium	
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
Budget:	2,928,384 EUR	
Start date:	1 August 2012	
End date:	31 July 2016	
Contact person at ICRH:	Wei-Hong Zhang WeiHong.Zhang@UGent.be Shuchen Wang Shuchen.Wang@ugent.be	

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. In 2014, the phase III- intervention implementation and monitoring was launched.

Ethical approval from national and international ethic committees on the INPAC intervention design was obtained in the beginning of 2014. 90 hospitals in 30 provinces have been selected and allocated randomly into three arms. Two national training workshops have been conducted with participants from the selected hospitals. Intervention materials (guidelines, leaflets, posters, free contraceptives…) have been developed and distributed to the participating hospitals. The first hospital enrolled in July 2014 and by the end of 2014 all hospitals had started recruiting women. The first project Ethical Advisory Board meeting was held in Beijing in July 2014, and the first Scientific Advisory Board meeting was held in Ghent in December 2014. Furthermore, a collaboration with key stakeholders was set up for translating the research findings into policy, and a joint action platform was developed with the WHO Beijing office. The preliminary findings of INPAC have been presented at the 13th ESC Congress in May in Lisbon, Portugal and at the Third Global Symposium on Health Systems Research in October in Cape Town, South Africa. Finally, a scientific paper with the results of a critical review of China's policy and practice of family planning has been submitted for publication in a Chinese national journal. Four other scientific papers are being prepared for submitting to international journals.

In 2015, the focus lies 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 as well as the provincial coordinators.

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

5. Adolescent sexual and reproductive health

5.1 RESEARCH PROJECTS

5.1.1 Community Embedded Reproductive Care for Adolescents in Latin America (CERCA)

Financed by:	European Commission – FP 7	
Coordinator:	ICRH Belgium	
Partners:		
South Group, Bolivia		Bolivia
University of Cuenca, Ecuador		Ecuador
Lithuanian University of Health Sciences		Lithuania
University of Amsterdam		The Netherlands
National Autonomous University of Nicaragua		Nicaragua
Instituto Centro Americano de la Salud		Nicaragua
Budget:	2,893,700 EUR	
Start date:	1 March 2010	
End date:	28 February 2014	
Contact person at ICRH:	Sara De Meyer SaraA.demeyer@ugent.be	

In Latin America, adolescent sexual activity starts early, with little effort made to prevent sexually transmitted infections or pregnancy, resulting in high incidence of teenage pregnancies, unsafe abortions and sexually transmitted infections. Latin American governments and health policy implementers demand sound proof of effective strategies to improve adolescent sexual and reproductive health (SRH). CERCA (Community-Embedded Reproductive health Care for Adolescents in Latin-America) has aimed at improving global knowledge about how health systems could be more responsive to the changing SRH needs of adolescents. Implemented by Latin American and European research institutes in Bolivia, Ecuador, and Nicaragua, CERCA tested community-embedded interventions to improve adolescent communication on SRH issues; access to accurate SRH information; use of SRH services in primary health settings and use of modern contraceptives. One randomized and two non-randomized controlled studies demonstrated the interventions' usefulness. In 2014 the CERCA project finalized the analysis of the collected data and disseminated the findings.

CERCA generated new quantitative and qualitative evidence on determinants of adolescent SRH; demonstrated multi-level intervention strategy impact; identified feasible, promising new interventions; and generated expertise in development of adolescent SRH research. Monitoring and quantitative survey data demonstrated feasibility, acceptability and statistically significant impact and outcomes for: use of mobile phone messages for outreach; service provision by trained young adults and health providers in community and provision of adolescent friendly services in primary health care centres and schools.

The CERCA research had a policy impact at local level (establishment of local adolescent SRH networks with city government funding, adolescent-friendly services installed in health centres, use of CERCA approach for sexual education in schools), at national level (CERCA researchers contributed to the development of national strategies for adolescent pregnancy prevention) and at international level (CERCA researchers invited as experts to WHO meetings in Geneva (2013) and Ankara (2014) for development of research protocols related to adolescent sexual health).

The research findings were disseminated through scientific articles published in A1 open access scientific journals (8), country reports on the main study results (3), freely downloadable documentary videos (3) and an online course on provider-patient communication. The CERCA consortium also organized 2 international conferences: 1 in Managua, Nicaragua (September 2013) and 1 in Cuenca, Ecuador (February 2014). This final conference targeted health-care professionals, researchers, students, educators, adolescents, parents and members of the communities interested in the subject. The conference included lectures, forums and round tables.

In plenary sessions, 45 speakers (26 Ecuadorian and 19 international experts) presented diverse aspects of adolescent sexual and reproductive health (ASRH): determinants of ASRH, sexual health promoting strategies, health policies, and adolescents' access to SRH services, adolescent sexuality, sexuality education, and adolescents' SRH rights. Results and outputs from the CERCA research in the 3 countries were presented and discussed. Over the 3 days, more than 800 people attended the conference.
The event gathered experts from different countries, including representatives of ALAPE (Latin American Association of Paediatrics, Adolescence Unit), CODAJIC (Confederation of Adolescence and Youth of Latin America and The Caribbean), UNFPA, WHO and Ministries of Health of Ecuador and Nicaragua.

Following the final CERCA conference in Ecuador, the declaration of Cuenca and an online petition 'Improve Sexual and Reproductive Health of Adolescents in Latin America' (http://chn.ge/1fobtSN) have been launched the 14th of March 2014. Over 500 supporters from all over the world, including scientists, field workers, medical staff and authorities signed the petition. Thanks to funding from the department of Reproductive Health and Research of the World Health Organization, the consortium could also start a post-hoc process evaluation of the CERCA project: CERCA II project.

5.1.2 Introducing provider-patient communication as a new topic for training and research at health institutes in Cochabamba (Bolivia) and Cuenca (Ecuador).

Financed by:	VLIR-UOS
Coordinator:	ICRH Belgium
Partners:	
Centro de investigación y estudios de la salud- Universidad Nacional Autónoma de Managua (CIES-UNAN)	Nicaragua
The Faculty of Medicine of the University of Cuenca (UC).	Ecuador
South Group	Bolivia
Budget:	70,560 EUR
Start date:	1 June 2012
End date:	31 May 2014
Contact person at ICRH:	SaraA.demeyer@ugent.be

The topic provider-patient communication is relatively underrepresented in training and research of academic institutions in Latin-America. The project aims at promoting communication skills of health professionals in Cuenca and Cochabamba. The project takes advantage of the experiences in Nicaragua to introduce the topic in Ecuador and Bolivia by initiating training and research activities in 'provider-patient communication' in Cuenca and Cochabamba. The project ran from June 2012 until May 2014.

An online course on doctor patient communication has been set up and is available on the platform of CIES – UNAN Managua (partner in Nicaragua). The course is available at http://www.master.cies.edu.ni/. The course is addressed to family doctors, general practitioners and specialists working in primary care settings and teaching staff in Cuenca, Ecuador; as well as to students participating in the Public Health Master's program offered by CIES in Managua, Nicaragua. In 2014, 24 and 45 health care providers from respectively Ecuador and Nicaragua successfully completed the online course.

Following the example of the skills lab at the faculty of medicine of Ghent University, a similar skills lab has been installed at the faculty of Medicine in Cuenca. The lab will be used for the practical training of students in provider patient communication. The lab consists of two separate rooms with one-directional mirrors that can be used to follow the consultation without being seen by patient or medical student. Every room has a video recording system that will be used for recording the consultation for teaching purposes.

In Cuenca, a workshop on 'patient centred care' has been organized from 7 until 9 May 2014 for university lecturers and health providers who finalized the online course. The trainers were Philippa Moore and Marie Inés Leigton from the university of Santiago in Chile. In total 40 persons attended the workshop.

Within the context of this project, several research activities on provider patient communication have been realized by medicine students for their master thesis.

The project succeeded in establishing an intercountry exchange between the different academic institutes namely: UGhent (department of family medicine and the International Centre for Reproductive Health), Hogeschool West-Vlaanderen (Howest), Nursery department, University of Cuenca – Ecuador, CIES University of Nicaragua, University of Santiago – Chili. The different parties have the intention to continue working together and to submit new proposals for projects.

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

Financed by:	Department of Reproductive Health and Research of the World Health Organization
Coordinator:	ICRH Belgium
Partners:	
South Group, Bolivia	Bolivia
University of Cuenca, Ecuador	Ecuador
Instituto Centro Americano de la Salud	Nicaragua
Budget:	38.000 EUR
Start date:	15 August 2014
End date:	15 December 2014
Contact person at ICRH:	Kristien Michielsen Kristien.Michielsen@ugent.be

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 start this valuable evaluation. During a consortium meeting in Ghent 8-10 December 2014, the participants reflected upon the data collected, performed joint analyses and drew common conclusions on the strengths and weaknesses in the CERCA project development, implementation and evaluation. The final report of the meeting will be published in May 2015.

5.1.4 Qualitative study on attitudes towards holebisexuality among adolescents in the city of Ghent

Financed by:	The Agency for Socio-Cultural Work for Young People and Adults	
Coordinator:	Intercultural Network Ghent and Department of Diversity and Equal opportunities Ghent	
Partners:		
ICRH Belgium		Belgium
Vzw Jong		Belgium
çavaria		Belgium
Department Diversity and Equal opportunities Ghent		Belgium
Intercultural Network Ghent		Belgium
Budget:	17.000 EUR	
Start date:	1 April 2014	
End date:	30 June 2014	
Contact person at ICRH:	SaraA.demeyer@UGent.be	

Although many legal measures have already been undertaken to achieve equal opportunities for LGBT's and heterosexuals and although there is a growing tolerance towards LGBT's, research indicates that heterosexuality is still considered as a norm in Flanders. An implicit negative climate towards LBT's has an impact on their mental and physical health. Recognizing a need for change, the Agency for Socio-Cultural Work for Young People and Adults, launched a call for projects to improve tolerance towards LGBT's in Flanders. Together with many organizations active on the topic in Ghent, and under the coordination of the Department of Diversity and Equal opportunities of Ghent and Intercultural Network Ghent, ICRH participated in a project to improve communication on sexual diversity among adolescents in Ghent. ICRH coordinated the qualitative research and elaborated a final report on the results. In a second phase, this report was used as a baseline to develop a multimedia tool which will allow adolescents - living or going to school in Ghent - to talk more easily about sexual diversity. The final report and tool will be presented during the #NiemandIsCliché conference, organized by various Flemish organizations working in the field of gender, in March 2015.

4.1.5 The Global Early Adolescent Study (GEAS)

Financed by:	Flemish Ministry of Innovation, Public Investment, Media and Poverty Reduction (Belgium)
Coordinator:	Johns Hopkins Bloomberg School of Public Health
Partners:	
Johns Hopkins Bloomberg School of Public Health	USA
WHO Department of Reproductive Health and Research World Health Organization	Switzerland
ICRH Belgium	Belgium
African Population and Health Research Center (APHRC)	Kenya
Assiut University	Egypt
Obafemi Awolowo University (OAU)	Nigeria
Population Council	India
Shanghai Institute of Planned Parenthood Research (SIPPR)	China
University of Malawi	Malawi
University of St. Andrews, Child and Adolescent Health Research Unit	Scotland
University of the Western Cape	South Africa
Academy of Social Sciences Institute for Sociology	Vietnam
Institute for Human Development	Bolivia
Institut Supérieur des Sciences de la Population (ISSP) at the University of Ouagadougou	Burkina Faso
Kinshasa School of Public Health, University of Kinshasa	Democratic Republic of Congo
Faculty of Medical Sciences, University of Cuenca	Ecuador
Budget:	71.400 EUR (Belgium and South Africa)
Start date:	1 May 2014
End date:	1 March 2015
Contact person at ICRH:	Kristien Michielsen, Kristien.Michiesen@Ugent.be Sara De Meyer, SaraA.demeyer@ugent.be

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 December 2014, the GEAS collaborators from all study sites met in Ghent to discuss progress and to plan future activities.

The preliminary results of the study have been presented during the #NiemandIsCliché conference, organized by various Flemish organizations working in the field of gender, in March 2015.

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

Financed by:	Bill and Melinda Gates Foundation
Coordinator:	ICRH Kenya
Partners:	
ICRH Belgium	Belgium
Budget:	88.000 EUR
Start date:	1 May 2014
End date:	31 December 2015
Contact person at ICRH:	Kristien.Michielsen@UGent.be

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.

We will develop 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). There will be a personal, secured page on the website where A-Y can check his/her personal treatment information, track changes in their CD4 count and viral load.

In 2014, we did a study on actual adherence levels of A-Y by extracting information from clinical files. Furthermore, a web developer was recruited who is currently developing the online platform. In 2015, the website will be tested for usability (survey and focus group discussion) and effect (pre-test post-test study among 80 A-Y).

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. This topic was discussed in a sub-group meeting in Cologne (April 2014) after which a position paper was written and submitted to a scientific journal. Furthermore, the Expert Group started a new initiative on capacity building related to holistic sexuality education (Sept 2014) and is developing policy briefs to promote holistic sexuality education.

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 2014 special attention was given to different types of contraceptives. The key message was: 'There are different types of contraception. Inform yourself and then choose together with your doctor a method that suits you'. Numerous activities were set up in the week of 10-14 February. ICRH contributed by distributing condoms and leaflets in the students cafeteria of the University Hospital campus in Ghent.

6. Sex workers

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

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

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. During the course of the project, the clinic's services are expanded to the city of Tete and the services are expanded to a comprehensive package of all SRHR services. The health facility-based services are complemented by community outreach activities, comprising behaviour change communication and structural interventions to create a supportive environment for a sustained behaviour change. FSW's clients are reached through male peer educators operating in entertainment venues and at the workplace. The impact of the project will be carefully assessed through a pre-post assessment comparison that includes qualitative and quantitative data collection techniques. In 2014, the support for the night clinic was continued, a mobile outreach to Tete city was initiated, health care providers at key public facilities were sensitized for a FSW-friendly approach, the number of peer educators was increased and the FSW community was mobilized by the creation of a FSW support group and resource centre and by exchange visits with a Malawian FSW association. The baseline cross-sectional survey and focus group discussions among FSW were finalized and its results disseminated.

Mobile outreach services in Tete City

Sex workers confirming their desire to organize an association

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

Financed by:	European Commission – FP7
Coordinator:	ICRH Belgium
Partners:	
Ashodaya Samithi	India
ICRH Kenya	Kenya
ICRH Mozambique	Mozambique
University of The Witwatersrand - MatCH & Centre for Health Policy	South Africa
University College London, Centre for International Health & Development	United Kingdom
Budget:	2,997,443 EUR
Start date:	1 October 2011
End date:	30 September 2016
Contact person at ICRH:	Yves Lafort yves.lafort@ugent.be

The DIFFER project was officially launched in October 2011. DIFFER stands for 'Diagonal Interventions to Fast-Forward Enhanced Reproductive Health' and 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 2014, all 4 sites initiated the package of interventions that had been developed based on the results of the broad situational analysis, conducted in 2012-2013, and after consultation of key stakeholders. Key results of the situational analysis were presented at international conferences and published in scientific journals. In October, the DIFFER consortium met in London, UK, to discuss the ongoing interventions as well as the upcoming final evaluation of the project. At the end of 2015 - beginning 2016 the packages will be evaluated for their feasibility, acceptability, effectiveness, cost-effectiveness and sustainability.

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 UCL in London

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

Financed by:	National Institute for Health (NIH) of the United States of America	
Coordinator:	HIV Center for Clinical and Behavioral Studies at the New York State Psychiatric Institute and Columbia University	
Partners:		
ICRH Belgium		Belgium
Stat-Gent CRESCENDO of the University Ghent		Belgium
ICRH Kenya		Kenya
Budget:	900,000 USD	
Start date:	1 April 2014	
End date:	31 March 2017	
Contact person at ICRH:	Yves Lafort yves.lafort@ugent.be	

The BORESHA (Kiswahili for 'to improve') project is a 3-years study testing the feasibility of implementing venue-based HIV prevention interventions, targeting 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 2014, the project started its first phase in which 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 are assessed through in-depth depth interviews among 25 male clients, 25 male SWs and 25 female SWs. A training was conducted in Nairobi in November 2014 and the interviews initiated in December.

In phase 2, the multi-level risk-reduction intervention will be developed and in phase 3, the intervention package will be tested for feasibility, acceptability as well as for participant level of exposure and intervention contamination at control sites. The feasibility of an intervention evaluation design to be used in a future study will be tested as well. The study is financed by a R01 grant of the National Institute for Health (NIH) of the United States and is led by the HIV Centre for Clinical and Behavioural Studies at the New York State Psychiatric Institute and Columbia University. ICRH-Kenya coordinates and implements the study on site, and ICRH-Belgium, together with Stat-Gent CRESCENDO of the University Ghent, takes the lead in the design and coordination of phase 3.

In-depth interviewer training

7. Other activities

7.1 ICRH's 20th ANNIVERSARY

Back in 1994, in the aftermath of the ICPD conference in Cairo, prof. Marleen Temmerman established the International Centre for Reproductive Health (ICRH). In the 20 years that have passed since then, our research centre has grown steadily and has been involved in research programs all over the world. We didn't want this anniversary to go by unnoticed, and therefore we organised an international conference and a celebration event on 4 and 5 December 2014.

The conference consisted of six distinct symposia on topics that are important to ICRH:

- Adolescent sexual and reproductive health and well-being (co-funded by VLIR-UOS);
- HPV, related diseases and vaccination (in collaboration with Ghent University Hospital);
- Female genital mutilation (in collaboration with the Reference Centre Genital Mutilation of Ghent University Hospital);
- Forced marriages (in collaboration with RHEA, Centre for Gender and Diversity, Free University Brussels);
- Maternal health, with focus on family planning and quality of maternal and newborn care;
- Behavioural change interventions.

Some 250 scholars, experts and colleagues discussed the state of the art in these fields and considered the remaining challenges and the ways forward. This yielded new ideas and insights that will inspire and inform our future work and will undoubtedly also lead to new partnerships.

At the end of the conference, a celebration event took place in the presence of the Belgian minister of development cooperation (see picture), the Belgian secretary of state for science policy and numerous colleagues and friends of ICRH. At this event, the new ICRH research strategy for the coming years was presented.

Pictures and presentations are available at http://icrhb.org/icrh-conference-2014

7.2 WHO COLLABORATING CENTRE

ICRH has been designated as a WHO Collaborating Centre for Research on Sexual and Reproductive Health since 2004. On the occasion of the re-designation in 2013, new terms of reference were agreed upon:

- 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 2014, ICRH experts participated in several WHO expert panels on HPV, FGM, family planning and maternal health, and options to pursue joint projects were explored during face to face meetings and phone conferences.

7.3 FWO INTERNATIONAL COORDINATION

Financed by:	Research Foundation Flanders
Coordinator:	ICRH Belgium
Budget:	208,800 EUR
Start date:	1 January 2012
End date:	31 December 2014
Contact person at ICRH:	Dirk Van Braeckel dirk.vanbraeckel@ugent.be

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.

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

Financed by:	Belgian Development Cooperation through the Flemish Interuniversity Council - University Cooperation for Development (VLIR-UOS)
Coordinator:	ICRH Belgium
Partners:	
University Eduardo Mondlane	Mozambique
Ghent University	Belgium
University of Antwerp	Belgium
Vrije Universiteit Brussel	Belgium
Katholieke Universiteit Leuven	Belgium
Hasselt University	Belgium
Budget (phase 2):	2,680,000 EUR
Start date (phase 2):	1 April 2013
End date (phase 2)):	31 March 2018
Contact persons at ICRH:	Olivier Degomme (olivier.degomme@ugent.be)

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 eight 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.

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

Financed by:	Flemish Interuniversity Council	
Coordinator:	ICRH Belgium	
Partners:		
Université Catholique de Bukavu		Democratic Republic of Congo
Budget:	252,871 EUR	
Start date:	April 2011	
End date:	April 2023	
Contact person at ICRH:	Steven Callens steven.callens@ugent.be	

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.
In the first year this project focused on the integration within the faculty of medicine of the Catholic University of Bukavu. Particular attention will be paid to building strategic relationships between sub-disciplines of medical school and the newly established school of public health. A document with a strategic vision and mandate of the Research Office will be prepared after consultation between the sub-disciplines of medicine, the rector and the university authorities.

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.
Finally, there is a project on sexual health, where we first examine the use of traditional methods of family planning. Particular attention will be given to traditional methods potentially dangerous to the health of women and barriers to using modern methods. It will also examine which of the modern methods of family planning are acceptable and economically viable in the long term.

Three PhD students are currently working on the projects.

7.6 MILLENNIUM 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 2014, the activities of the coalition focused on following-up and influencing the decision process on the Millennium development Goals.

7.7 GHENT AFRICA PLATFORM

ICRH is a member of the Ghent Africa Platform (GAP). GAP is an umbrella organisation of several, sometimes very diverse, actors belonging to the Ghent University Association, that focus on the African continent. It offers a forum where they can intensify mutual contacts, get to know and discuss their collective, interdisciplinary interests and possibly turn this into joint research, publications and/or the implementation of these within the scope of development aid. On 27 November 2014 GAP organized its eight annual symposium: **'**Colonial memories at present - decolonizing Belgium?'.

7.8 BE-CAUSE HEALTH

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

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

ICRH had an active participation in the 2014 annual Be-Cause Health seminar on 'Putting People at the Heart of Development. Sexual and Reproductive Health and Rights in the post-2015 era.' Dirk Van Braeckel chaired a panel on 'SRHR, population dynamics and sustainable development' and Kristien Michielsen gave a presentation on 'SRHS needs of adolescents: lessons from research'.

More information on the seminar can be found at http://www.be-causehealth.be/en/news/report-annual-seminar-2014.aspx.

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7.9 PhD DEFENSES

- Jessika DEBLONDE: 'HIV testing in Europe: mapping policies and exploring practices in the era of increased treatment availability', 3 October 2014. Supervisor: Prof. dr. Marleen Temmerman. Co-supervisor: Prof. dr. Herman Meulemans (UA).
- Ines KEYGNAERT: 'Sexual Violence and Sexual Health in Refugees, Asylum Seekers and Undocumented Migrants in Europe and the European Neighborhood: Determinants and Desirable Prevention', 20 June 2014. Supervisor: Prof. dr. Marleen Temmerman (UGent). Co-supervisor: Prof. dr. Nicole Vettenburg (UGent).
- Tizta Tilahun Degfie: 'Marital dynamics in family planning: the role of couple interaction in Jimma zone, Southwest Ethiopia'. 7 November 2014. Supervisor: Prof. dr. Olivier Degomme (UGent). Co-supervisor: Prof. dr. Gily Coene (VUB).
- Mireille Merckx: Human papillomavirus and related disease in underage children: Implications for prevention. 7 November 2014. Supervisor: Prof. dr. Steven Weyers (UGent). Co-supervisor: Prof. dr. Davy Vanden Broeck (UGent).

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).

The first intern in this program was Emilomo Ogbe. She ended her internship in June 2014. From September 2014 on, there were two new interns: Olena Ivanova and Anna Galle.

More information: Olivier.degomme@ugent.be

7.11 DECLARATION AGAINST DISCRIMINATION OF LGBTs

On January 17th 2014 ICRH signed the Rainbow Declaration, which was elaborated by the City of Ghent and partner organizations. The statement will serve as baseline for an integrated approach against discrimination of Lesbian, Gay and Transsexuals (LGBT´s) in the city of Ghent. The declaration consists of 6 key points and a diverse list of actions such as making sexual diversity discussable among adolescents living in Ghent, a challenge to which ICRH will actively contribute in an upcoming research project. The declaration is available at http://www.gelijkekansen.be/Portals/GelijkeKansen/met%20logo%27s%20Regenboogverklaring%20%20A3.pdf.

More information: SaraA.demeyer@ugent.be

7.12 BELMUNDO FESTIVAL

Within the context of the annual development cooperation festival of the city of Ghent, that took place in March, ICRH organized a picture exhibition and two film evenings. The exhibition 'Beyond figures – Vanuit de onderbuik' shows the people and the human interest behind international research projects in the field of sexual and reproductive health and rights, and is a tribute to all who fight for sexual and reproductive health and rights. It was presented in the Shopping Centre Gent-Zuid from 7 to 17 March.

Within the same festival, two films were shown in March: 'Mother – caring for 7 billion', a film about population, development and sexual and reproductive rights, and 'La source des femmes', a drama/comedy on women in North-Africa who go on sex strike.

7.13 YOUNG SCIENTIST AWARD AT 13TH CONGRESS OF THE EUROPEAN SOCIETY OF CONTRACEPTION AND REPRODUCTIVE HEALTH

On May 31st, Sara De Meyer, researcher at ICRH, won the Young Scientist Award at the 13th congress of the European Society of Contraception and Reproductive Health. With the presentation of the research 'Positive attitudes towards gender equality go hand in hand with a safe and happy sex life among adolescents: results from a cross-sectional study in Bolivia and Ecuador', Sara was one of the two winning young scientists. The research that Sara presented is based on data from the CERCA-project, an intervention study on community-embedded reproductive health care for adolescents in Latin America. This European funded project ran from 2010 until 2014 and was coordinated by ICRH.

More information: http://www.escrh.eu/about-esc/news/award-winners-honoured, SaraA.demeyer@ugent.be

Publications

I. Articles in journals included in the Science Citation Index, Social Sciences Citation Index and Humanities Index. (A1)

1. Van Parys A-S, Verhamme A, Temmerman M, Verstraelen H (2014) Intimate Partner Violence and Pregnancy: A Systematic Review of Interventions. . PLoS ONE 9(1): e85084. doi:10.1371/journal.pone.0085084. Published January 17, 2014.

Abstract:
Intimate partner violence (IPV) around the time of pregnancy is a widespread global health problem with many negative consequences. Nevertheless, a lot remains unclear about which interventions are effective and might be adopted in the perinatal care context. The objective of this review was to provide a clear overview of the existing evidence on effectiveness of interventions for IPV around the time of pregnancy. Following databases PubMed, Web of Science, CINAHL and the Cochrane Library were systematically searched and expanded by hand search. The search was limited to English peer-reviewed randomized controlled trials published from 2000 to 2013. This review includes all types of interventions aiming to reduce IPV around the time of pregnancy as a primary outcome, and as secondary outcomes to enhance physical and/or mental health, quality of life, safety behaviour, help seeking behaviour, and/or social support. The authors found few randomized controlled trials evaluating interventions for IPV around the time of pregnancy. Moreover, the nine studies identified did not produce strong evidence that certain interventions are effective. Nonetheless, home visitation programs and some multifaceted counseling interventions did produce promising results. Five studies reported a statistically significant decrease in physical, sexual and/or psychological partner violence (odds ratios from 0.47 to 0.92). Limited evidence was found for improved mental health, less postnatal depression, improved quality of life, fewer subsequent miscarriages, and less low birth weight/prematurity. None of the studies reported any evidence of a negative or harmful effect of the interventions. The authors conclude that strong evidence of effective interventions for IPV during the perinatal period is lacking, but some interventions show promising results. Additional large-scale, high-quality research is essential to provide further evidence about the effect of certain interventions and clarify which interventions should be adopted in the perinatal care context.

2. Jaruseviciene L, De Meyer S, Decat P, Zaborskis A, Degomme O, Rojas, Hagens SA, Auquilla N, Vega B, Gorter AC, Orozco M, Lazarus JV. Factorial validation of the Attitudes toward Women Scale for Adolescents (AWSA) in assessing sexual behaviour patterns in Bolivian and Ecuadorian adolescents. Glob Health Action 2014, 7: 23126.

Abstract:
Background: Adolescents' health is greatly influenced by social determinants, including gender norms. Although research has shown that there is an association between gender attitudes and adolescents' sexual behaviour, few studies have assessed this relationship carefully. The Attitudes toward Women Scale for Adolescents (AWSA) is widely used to assess gender attitudes among adolescents; however, it has not been applied in Latin America. The objectives of this study were to apply AWSA in Latin America for the first time, to perform a factorial validation of this scale and to assess the relationship of gender attitudes and sexual behaviour in Bolivian and Ecuadorian adolescents. This cross-sectional study was carried out in 2011 among 14–18 year olds in 20 high schools in

Cochabamba (Bolivia) and six in Cuenca (Ecuador) as a part of a larger project. Schools were purposively selected. A Spanish version of the 12-item AWSA was employed for this study. The assessed aspects of adolescent sexual behaviour were: reported sexual intercourse, reported positive experience during last sexual intercourse and reported current use of contraception. The psychometric properties of AWSA were investigated, and both explanatory and confirmatory factorial analyses were performed.
The number of questionnaires included in the analysis was 3,518 in Bolivia and 2,401 in Ecuador. A factorial analysis of AWSA resulted in three factors: power dimension (PD), equality dimension (ED) and behavioural dimension (BD). ED showed the highest correlates with adolescent sexual behaviour. Higher scores of this dimension were associated with a more positive experience of sexual relationships, a higher current use of modern contraception and greater sexual activity among girls.
The authors conclude that this study revealed a three-factorial structure of AWSA and demonstrated that by employing factors, the sensitivity of AWSA increases as compared to using the scale as a whole to assess sexual behaviour. This could have important implications for future research on gender and the sexual experiences of adolescents.

3. Schei B, Lukasse M, Ryding EL, Campbell J, Karro H, Kristjansdottir, Laanpere M, Schroll A-M, Tabor A, Temmerman M, Van Parys A-S, Wangel A-M, Steingrimsdottir T. A History of Abuse and Operative Delivery – Results from a European Multi-Country Cohort Study. PLOS ONE, January 2014 , Volume 9, Issue 1, e87579.

Abstract:
The main aim of this study was to assess whether a history of abuse, reported during pregnancy, was associated with an operative delivery.
The Bidens study, a cohort study in six European countries (Belgium, Iceland, Denmark, Estonia, Norway, and Sweden) recruited 6724 pregnant women attending routine antenatal care. History of abuse was assessed through questionnaire and linked to obstetric information from hospital records. Among 3308 primiparous women, sexual abuse as an adult increased the risk of an elective Cesarean Section (CS), and the likelihood for a non-obstetrically indicated CS. Women expressing current suffering from the reported adult sexual abuse had the highest risk for an elective CS. Neither physical abuse (in adulthood or childhood ,18 years), nor sexual abuse in childhood increased the risk of any operative delivery among primiparous women. Among 3416 multiparous women, neither sexual, nor emotional abuse was significantly associated with any kind of operative delivery, while physical abuse had an increased AOR for emergency CS of 1.51.
The authors conclude that sexual abuse as an adult increases the risk of an elective CS among women with no prior birth experience, in particular for non-obstetrical reasons. Among multiparous women, a history of physical abuse increases the risk of an emergency CS.

4. Duysburgh E, Kerstens B, Diaz M, Fardhdiani V, Reyes KAV,
Phommachanh K, Temmerman M, Rodriques B and Zaka N. Newborn care in Indonesia, Lao People's Democratic Republic and the Philippines: a comprehensive needs assessment. BMC Pediatrics 2014, 14:46.
http://www.biomedcentral.com/1471-2431/14/46.

Abstract:
A comprehensive needs assessment for newborn care in Indonesia, Lao People's Democratic Republic and the Philippines.
Between 1990 and 2011, global neonatal mortality decline was slower than that of under-five mortality. As a result, the proportion of under-five deaths due to neonatal mortality increased. This increase is primarily a consequence of decreasing post-neonatal and child under-five mortality as a result of the typical focus of child

survival programmes of the past two decades on diseases affecting children over four weeks of age. Newborns are lagging behind in improved child health outcomes. The aim of this study was to conduct a comprehensive, equity-focussed newborn care assessment and to explore options to improve newborn survival in Indonesia, Lao People's Democratic Republic (PDR) and the Philippines. Newborn health policies, services and care in the three countries were assessed through document review, interviews and health facility visits. Findings were triangulated to describe newborns' health status, the health policy and the health system context for newborn care and the equity situation regarding newborn survival.
Main findings: (1) In the three countries, decline of neonatalmortality is lagging behind compared to that of under-five mortality. (2) Comprehensive newborn policies in line with international standards exist, although implementation remains poor. An important factor hampering implementation is decentralisation of the health sector, which created confusion regarding roles and responsibilities. Management capacity and skills at decentralised level were often found to be limited. (3) Quality of newborn care provided at primary healthcare and referral level is generally substandard. Limited knowledge and skills among providers of newborn care are contributing to poor quality of care. (4) Socio-economic and geographic inequities in newborn care are considerable. The authors conclude that there is an urgent need to address weak leadership and governance regarding newborn care, quality of newborn care provided and inequities in newborn care. Child survival programmes focussed on children over four weeks of age have shown to have positive outcomes. Similar efforts as those used in these programmes should be considered in newborn care.

5. Keygnaert I, Guieu A, Ooms G, Vettenburg N, Temmerman M, Roelens K. Sexual and reproductive health of migrants: Does the EU care? Health Policy. 2014 Feb;114(2-3):215-25. doi: 10.1016/j.healthpol.2013.10.007. Epub 2013 Nov 6.

Abstract:
The European Union (EU) refers to health as a human right in many internal and external communications, policies and agreements, defending its universality. In parallel, specific health needs of migrants originating from outside the EU have been acknowledged. Yet, their right to health and in particular sexual and reproductive health (SRH) is currently not ensured throughout the EU. This paper reflects on the results of a comprehensive literature review on migrants' SRH in the EU applying the Critical Interpretive Synthesis review method. The authors highlight the discrepancy between a proclaimed rights-based approach to health and actual obstacles to migrants' attainment of good SRH. Uncertainties on entitlements of diverse migrant groups are fuelled by unclear legal provisions, creating significant barriers to access health systems in general and SRH services in particular. Furthermore, the rare strategies addressing migrants' health fail to address sexual health and are generally limited to perinatal care and HIV screening. Thus, future European public health policy-making should not only strongly encourage its Member States to ensure equal access to health care for migrants as for EU citizens, but also promote migrants' SRH effectively through a holistic and inclusive approach in SRH policies, prevention and care.

6. Borgdorff H, Tsivtsivadze E, Verhelst R, Marzorati M, Jurriaans S, Ndayisaba GF, Schuren FH, van de Wijgert JH. Lactobacillus-dominated cervicovaginal microbiota associated with reduced HIV/STI prevalence and genital HIV viral load in African women. The ISME Journal advance online publication, 6 March 2014.

Abstract:
Cervicovaginal microbiota not dominated by lactobacilli may facilitate transmission of HIV and other sexually transmitted infections (STIs), miscarriages, preterm births and sepsis in pregnant women.
However, little is known about the exact nature of the microbiological changes that cause these adverse outcomes. In this study, cervical samples of 174 Rwandan female sex workers were analysed cross-sectionally using a phylogenetic microarray. Furthermore, HIV-1 RNA concentrations were measured in cervicovaginal lavages

of 58 HIV-positive women among them. We identified six microbiome clusters, representing a gradient from low semi-quantitative abundance and diversity dominated by Lactobacillus crispatus (cluster R-I, with R denoting 'Rwanda') and L. iners (R-II) to intermediate (R-V) and high abundance and diversity (R-III, R-IV and R-VI) dominated by a mixture of anaerobes, including Gardnerella, Atopobium and Prevotella species. Women in cluster R-I were less likely to have HIV (P=0.03), herpes simplex virus type 2 (HSV-2; P<0.01), and high-risk human papillomavirus (HPV; P<0.01) and had no bacterial STIs (P=0.15). Statistically significant trends in prevalence of viral STIs were found from low prevalence in cluster R-I, to higher prevalence in clusters R-II and R-V, and highest prevalence in clusters R-III/R-IV/R-VI. Furthermore, only 10% of HIV-positive women in clusters R-I/R-II, compared with 40% in cluster R-V, and 42% in clusters R-III/R-IV/R-VI had detectable cervicovaginal HIV-1 RNA (Ptrend=0.03). The authors conclude that L. crispatus-dominated, and to a lesser extent L. iners-dominated, cervicovaginal microbiota are associated with a lower prevalence of HIV/STIs and a lower likelihood of genital HIV-1 RNA shedding.

7. Tilahun T, Coene G, Temmerman M and Degomme O. Spousal discordance on fertility preference and its effect on contraceptive practice among married couples in Jimma zone, Ethiopia. Reproductive Health 2014, 11:27.

Abstract:
This study assesses the effect of spousal agreement levels regarding fertility preference and spousal communication on contraceptive practice among married couples in Jimma zone, Ethiopia.
Quantitative data were collected in a cross-sectional study from March to May 2010 in Jimma zone, Ethiopia, using a multistage sampling design covering six districts. In each of the 811 couples included in the survey, both spouses were interviewed. Concordance between the husband and wife was assessed using different statistics and tests including concordance rates, ANOVA, Cohen's K and McNemar's test for paired samples. Multivariate analysis was computed to ascertain factors associated with contraceptive use.
Over half of the couples wanted more children and 27.8% of the spouses differed about the desire for more children. In terms of sex preference, there was a 48.7% discord in couples who wanted to have more children. At large, spousal concordance on the importance of family planning was positive. However, it was the husband's favourable attitude towards family planning that determined a couple's use of contraception. Overall, contraceptive prevalence was 42.9%. Among the groups with the highest level of contraceptive users, were couples where the husband does not want any more children. Spousal communication about the decision to use contraception showed a positive association with a couple's contraceptive prevalence.
The authors conclude that family planning programs aiming to increase contraceptive uptake could benefit from findings on spousal agreement regarding fertility desire, because the characteristics of each spouse influences the couple's fertility level. Disparities between husband and wife about the desire for more children sustain the need for male consideration while analysing the unmet need for contraception. Moreover, men play a significant role in the decision making concerning contraceptive use. Accordingly, involving men in family planning programs could increase a couple's contraceptive practice in the future.

8. Keygnaert I, Vettenburg N, Roelens K, Temmerman M. Sexual health is dead in my body: participatory assessment of sexual health determinants by refugees, asylum seekers and undocumented migrants in Belgium and the Netherlands. BMC Public Health 2014, 14:416.

Abstract:
This paper explores how refugees, asylum seekers and undocumented migrants in Belgium and the Netherlands define sexual health, search for sexual health information and perceive sexual health determinants. Although migrants constitute an important proportion of the European population, little is known about migrant sexual

health. Existing research mainly focuses on migrants' sexual health risks and accessibility issues while recommendations on adequate sexual health promotion are rarely provided. Applying Community-based Participatory Research as the overarching research approach, the authors conducted 223 in-depth interviews with refugees, asylum seekers and undocumented migrants in Belgium and the Netherlands. The results indicate that gender and age do not appear to be decisive determinants. However, incorporated cultural norms and education attainment are important to consider in desirable sexual health promotion in refugees, asylum seekers and undocumented migrants in Belgium and the Netherlands. Furthermore, results demonstrate that these migrants have a predominant internal health locus of control. Yet, most of them feel that this personal attitude is hugely challenged by the Belgian and Dutch asylum system and migration laws which force them into a structural dependent situation inducing sexual ill-health. Conclusion: Refugees, asylum seekers and undocumented migrants in Belgium and the Netherlands are at risk of sexual ill-health. Incorporated cultural norms and attained education are important determinants to address in desirable sexual health promotion. Yet, as their legal status demonstrates to be the key determinant, the prime concern is to alter organizational and societal factors linked to the Belgian and Dutch asylum system. Refugees, asylum seekers and undocumented migrants in Belgium and the Netherlands should be granted the same opportunity as Belgian and Dutch citizens have, to become equally in control of their sexual health and sexuality.

9. Saronga HP, Duysburgh E, Massawe S, Dalaba MA, Savadogo G, Tonchev P, Dong H, Sauerborn R, Loukanova S. Efficiency of antenatal care and childbirth services in selected primary health care facilities in rural Tanzania: a cross-sectional study. BMC health services research 2014, 14(1):96.

Abstract:
A cross-sectional study aimed at assessing the costs of providing antenatal care (ANC) and child-birth services in selected rural primary health care facilities in Tanzania.
In addition, the study analysed determining factors of service provision efficiency in order to inform health policy and planning. This retrospective quantitative cross-sectional study was conducted in 11 health centers and dispensaries in Lindi and Mtwara rural districts. Cost analysis was carried out using step down cost accounting technique. Unit costs reflected efficiency of service provision. Multivariate regression analysis on the drivers of observed relative efficiency in service provision between the study facilities was conducted. Reported personnel workload was also described.
The health facilities spent on average 7 USD per capita in 2009. As expected, fewer resources were spent for service provision at dispensaries than at health centers. Personnel costs contributed a high approximate 44% to total costs. ANC and childbirth consumed approximately 11% and 12% of total costs; and 8% and 10% of reported service provision time respectively. On average, unit costs were rather high, 16 USD per ANC visit and 79.4 USD per childbirth. The unit costs showed variation in relative efficiency in providing the services between the health facilities. The results showed that efficiency in ANC depended on the number of staff, structural quality of care, process quality of care and perceived quality of care. Population-staff ratio and structural quality of basic emergency obstetric care services highly influenced childbirth efficiency.
The authors conclude that differences in the efficiency of service provision present an opportunity for efficiency improvement. Taking into consideration client heterogeneity, quality improvements are possible and necessary. This will stimulate utilization of ANC and childbirth services in resource-constrained health facilities. Efficiency analyses through simple techniques such as measurement of unit costs should be made standard in health care provision, health managers can then use the performance results to gauge progress and reward efficiency through performance based incentives.

10. Delva W & Karim QA. The HIV Epidemic in Southern Africa – Is an AIDS-Free Generation Possible? Curr HIV/AIDS Rep (2014) 11:99–108.

Abstract:
Southern Africa, home to about 20 % of the global burden of infection continues to experience high rates of new HIV infection despite substantial programmatic scale-up of treatment and prevention interventions. While several countries in the region have had substantial reductions in HIV infection, almost half a million new infections occurred in this region in 2012. Sexual transmission remains the dominant mode of transmission. A recent national household survey in Swaziland revealed an HIV prevalence of 14.3 % among 18–19 year old girls, compared to 0.8 % among their male peers. Expanded ART programmes in Southern Africa have resulted in dramatically decreased HIV incidence and HIV mortality rates. In South Africa alone, it is estimated that more than 2.1 million of the 6.1 million HIV-positive people were receiving ART by the end of 2012, and that this resulted in more than 2.7 mil-lion life-years saved, and hundreds of thousands of HIV infections averted. Biological, behavioural and structural factors all contribute to the ongoing high rates of new HIV infection; however, as the epidemic matures and mortality is reduced from increased ART coverage, epidemiological trends become hard to quantify. What is clear is that a key driver of the Southern African epidemic is the high incidence rate of infection in young women, a vulnerable population with limited prevention options. Moreover, whilst ongoing trials of combination prevention, microbicides and behavioural economics hold promise for further epidemic control, an AIDS-free generation will not be realised unless incident infections in key populations are reduced.

11. Keygnaert I, Dialmy A, Manço A, Keygnaert J, Vettenburg N, Roelens K and Temmerman M. Sexual violence and sub-Saharan migrants in Morocco: a com-munity-based participatory assessment using respondent driven sampling. Globalization and Health 2014, 10:32.

Abstract:
A study aimed at investigating the nature of violence that sub-Saharan migrants experience around and in Morocco, assessing which determinants they perceive as decisive, and formulating prevention recommendations. The European Union contracted Morocco to regulate migration from so-called “transit migrants” from Morocco to Europe via the European Neighbourhood Policy. Yet, international organisations signal that human, asylum and refugee rights are not upheld in Morocco and that many sub-Saharan migrants suffer from ill-health and violence. Applying Community-Based Participatory Research, the researchers trained twelve sub-Saharan migrants as Community Researchers to conduct in-depth interviews with peers, using Respondent Driven Sampling. They interpreted results with Community Researchers and the Community Advisory Board and commonly formulated prevention recommendations. Among the 154 (60 F-94 M) sub-Saharan migrants interviewed, 90% reported cases of multiple victimizations, 45% of which was sexual, predominantly gang rape. Seventy-nine respondents were personally victimized, 41 were forced to witness how relatives or co-migrants were victimized and 18 others knew of peer victimisation. Severe long lasting ill-health consequences were reported while sub-Saharan victims are not granted access to the official health care system. Perpetrators were mostly Moroccan or Algerian officials and sub-Saharan gang leaders who function as unofficial yet rigorous migration professionals at migration ‘hubs’. They seem to proceed in impunity. Respondents link risk factors mainly to their undocumented and unprotected status and suggest that migrant communities set-up awareness raising campaigns on risks while legal and policy changes enforcing human rights, legal protection and human treatment of migrants along with severe punishment of perpetrators are politically lobbied for. The authors conclude that Sub-Saharan migrants are at high risk of sexual victimization and subsequent ill-health in and around Morocco. Comprehensive cross-border and multi-level prevention actions are urgently called for. Given the European Neighbourhood Policy, it is deemed paramount that the European Union politically cares for these migrants’ lives and health, takes up its responsibility, drastically changes migration regulation into one that upholds human rights beyond survival and enforces all authorities involved to restore migrants’ lives worthy to be lived again.

12. Arbyn M, Fabri V, Temmerman M, Simoens C (2014) Attendance at Cervical Cancer Screening and Use of Diagnostic and Therapeutic Procedures on the Uterine Cervix Assessed from Individual Health Insurance Data (Belgium, 2002-2006). PLoS ONE 9(4): e92615.

Abstract:
This study aimed to assess the coverage for cervical cancer screening as well as the use of cervical cytology, colposcopy and other diagnostic and therapeutic interventions on the uterine cervix in Belgium, using individual health insurance data. The Intermutualistic Agency compiled a database containing 14 million records from reimbursement claims for Pap smears, colposcopies, cervical biopsies and surgery, performed between 2002 and 2006. Cervical cancer screening coverage was defined as the proportion of women aged 25–64 that had a Pap smear within the last 3 years.
Cervical cancer screening coverage was 61% at national level, for the target population of women between 25 and 64 years old, in the period 2004–2006. Differences between the 3 regions were small, but varied more substantially between provinces. Coverage was 70% for 25–34 year old women, 67% for those aged 35–39 years, and decreased to 44% in the age group of 60–64 years. The median screening interval was 13 months. The screening coverage varied substantially by social category: 40% and 64%, in women categorised as beneficiary or not-beneficiary of increased reimbursement from social insurance, respectively. In the 3-year period 2004–2006, 3.2 million screen tests were done in the target group consisting of 2.8 million women. However, only 1.7 million women got one or more smears and 1.1 million women had no smears, corresponding to an average of 1.88 smears per woman in three years of time. Colposcopy was excessively used (number of Pap smears over colposcopies = 3.2). The proportion of women with a history of conisation or hysterectomy, before the age of 65, was 7% and 19%, respectively.
The screening coverage increased slightly from 59% in 2000 to 61% in 2006. The screening intensity remained at a high level, and the number of cytological examinations was theoretically sufficient to cover more than the whole target population.

13. Dochez C, Bogers JJ, Verhelst R, Rees H. HPV vaccines to prevent cervical cancer and genital warts: an update. Vaccine, Volume 32, Issue 14, 20 March 2014, Pages 1595-1601.

Abstract:
This review describes the immunology of natural HPV infections and the immune response evoked through vaccination. Cervical cancer is an important public health problem worldwide, and especially in developing countries. The link between cervical cancer and oncogenic human papillomavirus (HPV) infection has been clearly established. Furthermore, non-oncogenic HPV are responsible for the majority of genital warts. Two prophylactic HPV vaccines are available, which have the potential of considerably reducing HPV-related morbidity and mortality. Both vaccines are based on virus-like particles of the L1 capsid protein, and are highly efficacious and immunogenic if given before exposure to HPV, i.e. to adolescent girls between 9 and 13 years of age in a three-dose schedule. The current duration of protection is 8.4 years with the bivalent vaccine (HPV16/18) and 5 years with the quadrivalent vac-cine (HPV6/11/16/18). Research is on-going to evaluate the efficacy of the current vaccines in a two-dose schedule, as compared to the recommended three-dose schedule. To increase the protection, the development and testing of a nine-valent prophylactic HPV vaccine (HPV6/11/16/18/31/33/45/52/58) is being undertaken. Research is also directed towards therapeutic vaccines and the development of a prophylactic L2 vaccine.

14. Keygnaert I, Dias SF, Degomme O, Deville W, Kennedy P, Kovats A, De Meyer S, Vettenburg N, Roelens K, Temmerman M. Sexual and gender-based violence in the European asylum and reception sector: a perpetuum mobile? The European Journal of Public Health 2014.

Abstract:
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.

15. Chersich M, Bosire W, King'ola N, Temmerman M, Luchters S. Effects of hazardous and harmful alcohol use on HIV incidence and sexual behaviour: a cohort study of Kenyan female sex workers. BMC Globalization and Health. 2014 Apr 3;10:22.

Abstract:
The aim of this cohort study of Kenyan female sex workers was to investigate putative links be-tween alcohol use, and unsafe sex and incident HIV infection in sub-Saharan Africa.
A cohort of 400 HIV-negative female sex workers was established in Mombasa, Kenya. Associations between categories of the Alcohol Use Disorders Identification Test (AUDIT) and the incidence at one year of unsafe sex, HIV and pregnancy were assessed using Cox proportional hazards models. Violence or STIs other than HIV measured at one year was compared across AUDIT categories using multivariate logistic regression. Participants had high levels of hazardous (17.3%, 69/399) and harmful drinking (9.5%, 38/399), while 36.1% abstained from alcohol. Hazardous and harmful drinkers had more unprotected sex and higher partner numbers than abstainers. Sex while feeling drunk was frequent and associated with lower condom use. Occurrence of condom accidents rose step-wise with each increase in AUDIT category. Compared with non-drinkers, women with harmful drinking had 4.1-fold higher sexual and 8.4 higher odds of physical violence, while hazardous drinkers had 3.1-fold higher physical violence. No association was detected between AUDIT category and pregnancy, or infection with Syphilis or Trichomonas vaginalis. The adjusted hazard ratio of HIV incidence was 9.6 comparing women with hazardous drinking to non-drinkers.
This prospective study, using validated alcohol measures, indicates that harmful or hazardous alcohol can influence sexual behaviour. Possible mechanisms include increased unprotected sex, condom accidents and exposure to sexual violence. Experimental evidence is required demonstrating that interventions to reduce alcohol use can avert unsafe sex.

16. Bodalal Z, Agnaeber K, Nagelkerke N, Stirling B, Temmerman M, Degomme O. Pregnancy outcomes in Benghazi, Libya, before and during the armed conflict in 2011. East Mediterr Health J. 2014 Apr 3;20(3):175-80.

Abstract:
A comparison of pregnancy outcomes in Benghazi, Libya, before and during the armed conflict in 2011. Issues des grossesses à Benghazi (Libye) avant et pendant le conflit armé de 2011.
Les femmes enceintes qui vivent des événements stressants peuvent être plus à risque d'une issue obstétricale défavorable. L'étude menée à Benghazi a comparé les taux de prématurité, de faible poids de naissance et de césarienne à l'hôpital Al-Jamhouria dans les mois précédant et pendant le conflit armé en Libye en 2011. Les données recueillies auprès de toutes les femmes admises en salle d'accouchement entre février et mai 2011 (au plus fort des combats dans la ville) (n = 7096), et entre octobre et décembre 2010 (les mois précédant la guerre) (n = 5935). Par rapport aux mois précédents, une augmentation importante du taux d'accouchements impliquant une prématurité (3,6 % contre 2,5 %) et un faible poids de naissance (10,1 % contre 8,5 %) ainsi que des césariennes (26,9 % contre 25,3 %) a été observée pendant le conflit. Le stress psychosocial peut avoir été un facteur (entre autres) dans l'augmentation des issues négatives de la grossesse, et les établissements obstétricaux devraient être informés de ces problèmes en temps de guerre.

Stressful life events experienced by pregnant women may lead to adverse obstetric outcomes. This study in Benghazi compared the rates of preterm, low-birth-weight and caesarean-section births at Al-Jamhouria hospital in the months before and during the armed conflict in Libya in 2011. Data were collected on all women admitted to the delivery ward during February to May 2011 (the months of the most active fighting in the city) (n = 7096), and October to December 2010 (the months immediately before the war) (n = 5935). Compared with the preceding months there was a significant rise during the conflict in the rate of deliveries involving preterm (3.6% versus 2.5%) and low-birth-weight (10.1% versus 8.5%) infants and caesarean sections (26.9% versus 25.3%). Psychosocial stress may have been a factor (among others) in an increase in negative pregnancy outcomes, and obstetric hospitals should be aware of these issues in times of war.

17. Chavane L, Merialdi M, Betrán AP, Requejo-Harris J, Bergel E, Aleman A, Colomar M, Cafferata ML, Carbonell A, Crahay B, Delvaux T, Geelhoed D, Gülmezoglu M, Malapende CR, Melo A, Nguyen MH, Osman NB, Widmer M, Temmerman M, Althabe F. Implementation of evidence-based antenatal care in Mozambique: a cluster randomized controlled trial: study protocol. BMC Health Serv Res. 2014 May 21;14:228.

Abstract:
Background: Antenatal care (ANC) reduces maternal and perinatal morbidity and mortality directly through the detection and treatment of pregnancy-related illnesses, and indirectly through the detection of women at increased risk of delivery complications. The potential benefits of quality antenatal care services are most significant in low-resource countries where morbidity and mortality levels among women of reproductive age and neonates are higher. WHO developed an ANC model that recommended the delivery of services scientifically proven to improve maternal, perinatal and neonatal outcomes. The aim of this study is to determine the effect of an intervention designed to increase the use of the package of evidence-based services included in the WHO ANC model in Mozambique. The primary hypothesis is that the intervention will increase the use of evidence-based practices during ANC visits in comparison to the standard dissemination channels currently used in the country.
Methods: This is a demonstration project to be developed through a facility-based cluster randomized controlled trial with a stepped wedge design. The intervention was tailored, based on formative research findings, to be readily applicable to local prenatal care services and acceptable to local pregnant women and health providers. The intervention includes four components: the provision of kits with all necessary medicines and laboratory supplies for ANC (medical and non-medical equipment), a storage system, a tracking system, and training sessions

for health care providers. Ten clinics were selected and will start receiving the intervention in a random order. Outcomes will be computed at each time point when a new clinic starts the intervention. The primary outcomes are the delivery of selected health care practices to women attending the first ANC visit, and secondary outcomes are the delivery of selected health care practices to women attending second and higher ANC visits as well as the attitude of midwives in relation to adopting the practices. This demonstration project is pragmatic in orientation and will be conducted under routine conditions.
Discussion: There is an urgent need for effective and sustainable scaling-up approaches of health interventions in low-resource countries. This can only be accomplished by the engagement of the country's health stakeholders at all levels. This project aims to achieve improvement in the quality of antenatal care in Mozambique through the implementation of a multifaceted intervention on three levels: policy, organizational and health care delivery levels. The implementation of the trial will probably require a change in accountability and behavior of health care providers and we expect this change in 'habits' will contribute to obtaining reliable health indicators, not only related to research issues, but also to health care outcomes derived from the new health care model. At policy level, the results of this study may suggest a need for revision of the supply chain management system. Given that supply chain management is a major challenge for many low-resource countries, we envisage that important lessons on how to improve the supply chain in Mozambique and other similar settings, will be drawn from this study.

18. Steukers L, Weyers S, Yang X, Vandekerckhove A, Glorieux S, Cornelissen M, Van Den Broeck W, Temmerman M, Nauwynck H. Mimicking herpes simplex virus 1 and herpes simplex virus 2 mucosal behaviour in a well characterized human genital organ culture. Journal of infectious diseases. 210(2). p.209-213.

Abstract:
We developed and morphologically characterized a human genital mucosa explant model (endocervix and ectocervix/vagina) to mimic genital herpes infections caused by herpes simplex virus 1 (HSV-1) and 2 (HSV-2). Subsequent analysis of HSV entry receptor expression throughout the menstrual cycle in genital tissues was performed and the evolution of HSV-1/-2 mucosal spread over time was assessed. Nectin-1 and -2 were found to be expressed in all tissues during the entire menstrual cycle. HVEM expression was limited mainly to some connective tissue cells. Both HSV-1 and HSV-2 exhibited a plaquewise mucosal spread across the basement membrane and induced prominent epithelial syncytia.

19. Forgus S, Delva W, Hauptfleisch C, Govender S, Blitz J. The incidence and severity of community assault in Khayelitsha, South Africa. South Africa. S Afr Med J 2014;104(4):299-301.

Abstract:
Anecdotal evidence suggests that victims of community assault (CA) are worse off than other assault cases, but scientific data on the rate and severity of CA cases are lacking for SA.
Therefore a case count study was conducted to estimate the rate of CA among adults in Khayelitsha and comparing the injury severity and survival probability between cases of CA and other assault (non-CA) cases. A consecutive case series was conducted in four healthcare centres in Khayelitsha during July - December 2012 to capture all CA cases during this period. A retrospective folder review was performed on all cases of CA and on a control group of non-CA cases to compare injury severity and estimate survival probability. A total of 148 adult cases of CA occurred over the study period. Based on an estimate population of 275,300 adults in Khayelitsha of ≥18 years, the rate of adult cases of CA that received healthcare in Khayelitsha was 1.1/1,000 person-years. For non-CA, the estimated rate was 19/1,000 person-years. The Injury Severity Scores in the CA group were significantly higher than in the non-CA group ($p<0.001$), with a median Injury Severity Score of 3 in CA cases versus 1 in non-CA cases. Comparison between the CA and non-CA groups showed that a Glasgow Coma Scale <15 (20.1% versus 5.4%, respectively), referral to the tertiary hospital (33.8% versus 22.6%, respectively), and crush syndrome

(25.7% versus 0.0%, respectively) were all more common in CA cases. Survival probabilities were similar in both groups. This study confirms that the rate of CA among adults in Khayelitsha is high, and the severity of injuries sustained by CA victims is substantially higher than in other assault cases. The findings beg for multi-sectoral action to curb the medical and social consequences of assault in SA. Furthermore, social science research is needed to improve our understanding of the psychology and sociology behind CAs and to develop evidence-led prevention strategies, the feasibility and effectiveness of which also require further investigation.

20. Dhana A, Luchters S, Moore L, Lafort Y, Roy A, Scorgie F, Chersich M. Systematic review of facility-based sexual and reproductive health services for female sex workers in Africa. Global Health. 2014 Jun 10;10:46.

Abstract:
Female sex workers (FSW) projects in many settings have demonstrated effective ways of reducing the heightened risk of HIV, sexually transmitted infections (STIs), and other adverse sexual and reproductive health (SRH) outcomes, improving the health and wellbeing of these women. Yet the optimum delivery model of FSW projects in Africa is unclear. This systematic review describes intervention packages, service-delivery models, and extent of government involvement in these services in Africa. 149 articles describing 54 projects were located through searches in Web of Science, MEDLINE, non-indexed publications and websites of international organizations. Most projects were localized and small-scale; focused on research activities (rather than on large-scale service delivery); operated with little coordination, either nationally or regionally; and had scanty government support (instead a range of international donors generally funded services). Almost all sites only addressed HIV prevention and STIs. Most services distributed male condoms, but only 10% provided female condoms. HIV services mainly encompassed HIV counselling and testing; few offered HIV care and treatment such as CD4 testing or antiretroviral therapy (ART). While STI services were more comprehensive, periodic presumptive treatment was only provided in 11 instances. Services often ignored broader SRH needs such as family planning, cervical cancer screening, and gender-based violence services.
The authors conclude that sex work programs in Africa have limited coverage and a narrow scope of services and are poorly coordinated with broader HIV and SRH services. To improve FSWs' health and reduce onward HIV transmission, access to ART needs to be addressed urgently. Nevertheless, HIV prevention should remain the mainstay of services. Service delivery models that integrate broader SRH services and address structural risk factors are much needed. Government-led FSW services of high quality and scale would markedly reduce SRH vulnerabilities of FSWs in Africa.

21. Richter ML, Scorgie F, Chersich MF, Luchters S. 'There are a lot of new people in town: but they are here for soccer, not for business' a qualitative inquiry into the impact of the 2010 soccer world cup on sex work in South Africa. Global Health. 2014 Jun 10;10(1):45.

Abstract:
Sports mega-events have expanded in size, popularity and cost. Fuelled by media speculation and moral panics, myths proliferate about the increase in trafficking into forced prostitution as well as sex work in the run-up to such events. This qualitative enquiry explored the perceptions of male, female and transgender sex workers of the 2010 Soccer World Cup held in South Africa, and the impact it had on their work and private lives. A multi-method study design was employed. Data consisted of 14 Focus Group Discussions, 53 sex worker diaries, and responses to two questions in surveys with 1059 male, female and transgender sex workers in three cities. Overall, a minority of participants noted changes to the sex sector due to the World Cup and nothing emerged on the feared increases in trafficking into forced prostitution. Participants who observed changes in their work mainly described differences, both positive and negative, in working conditions, income and client relations, as well as police harassment. The accounts of changes were heterogeneous - often conflicting in the same research site and across sites. The authors

conclude that no major shifts occurred in sex work during the World Cup, and only a few inconsequential changes were noted. Sports mega-events provide strategic opportunities to expand health and human rights programs to sex workers. The 2010 World Cup missed that opportunity.

22. Michielsen K, Remes P, Rugabo J, Van Rossem R and Temmerman M. Rwandan young people's perceptions on sexuality and relationships: Results from a qualitative study using the 'mailbox technique'. SAHARA-J: Journal of Social Aspects of HIV/AIDS. Published online: 20 Jun 2014.

Abstract:
Using a 'mailbox technique', this paper studies the spontaneous thoughts of Rwandan young people on sexuality. Mailboxes were installed in five secondary schools in the Bugesera district and students were invited to write about their ideas, secrets, wishes, desires and fears on sexuality and relationships. Of the 186 letters collected, 154 addressed sexual and reproductive health (SRH) topics. The letters were analysed in NVivo 9 using a theoretical model on vulnerability. Two stereotypical sexual interactions co-exist: experimental sex, taking place unprepared, driven by desire among young people of the same age, and transactional sex, occurring after negotiation between older men/women and younger girls/boys in exchange for money or goods. Both types expose young people to poor, though different, SRH outcomes. Young people have little capacity to manage their vulnerability in these relationships: they have limited knowledge on SRH topics, lack adult guidance or support and have difficult access to condoms. They apply seemingly contradictory norms and behaviours concerning sexuality. In conclusion, the authors formulate several recommendations for SRH interventions.

23. Moore L, Chersich MF, Steen R, Reza-Paul S, Dhana A, Vuylsteke B, Lafort Y, Scorgie F. Community empowerment and involvement of female sex workers in targeted sexual and reproductive health interventions in Africa: a systematic review.
Global Health. 2014 Jun 10;10:47.

Abstract:
Female sex workers (FSWs) experience high levels of sexual and reproductive health (SRH) morbidity, violence and discrimination. Successful SRH interventions for FSWs in India and elsewhere have long prioritized community mobilization and structural interventions, yet little is known about similar approaches in African settings. Medline and Web of Science for studies of FSW health services in Africa were searched in November 2012, and experts and websites of international organizations were consulted. Titles and abstracts were screened to identify studies describing relevant services, using a broad definition of empowerment. Data were extracted on service-delivery models and degree of FSW involvement, and analysed with reference to a four-stage framework developed by Ashodaya. This conceptualizes community empowerment as progressing from (1) initial engagement with the sex worker community, to (2) community involvement in targeted activities, to (3) ownership, and finally, (4) sustainability of action beyond the community. Of 5413 articles screened, 129 were included, describing 42 projects. Targeted services in FSW 'hotspots' were generally isolated and limited in coverage and scope, mostly offering only free condoms and STI treatment. Many services were provided as part of research activities and offered via a clinic with associated community outreach. Empowerment processes were usually limited to peer-education (stage 2 of framework). Community mobilization as an activity in its own right was rarely documented and while most projects successfully engaged communities, few progressed to involvement, community ownership or sustainability. Only a few interventions had evolved to facilitate collective action through formal democratic structures (stage 3). These reported improved sexual negotiating power and community solidarity, and positive behavioral and clinical outcomes. Sustainability of many projects was weakened by disunity within transient communities, variable commitment of programmers, low human resource capacity and general resource limitations. The article concludes that most FSW SRH projects in Africa implemented participatory processes

consistent with only the earliest stages of community empowerment, although isolated projects demonstrate proof of concept for successful empowerment interventions in African settings.

24. De Meyer S, Jaruseviciene L, Zaborskis A, Decat P, Vega B, Cordova K, Temmerman M, Degomme O, Michielsen K. A cross-sectional study on attitudes toward gender equality, sexual behavior, positive sexual experiences, and communication about sex among sexually active and non-sexually active adolescents in Bolivia and Ecuador. Glob Health Action 2014, 7: 24089.

Abstract:
It is widely agreed upon that gender is a key aspect of sexuality however, questions remain on how gender exactly influences adolescents' sexual health. The aim of this research was to study correlations between gender equality attitudes and sexual behaviour, sexual experiences and communication about sex among sexually active and non-sexually active adolescents in 2 Latin American countries. In 2011, a cross-sectional study was carried out among 5,913 adolescents aged 14–18 in 20 secondary schools in Cochabamba (Bolivia) and 6 secondary schools in Cuenca (Ecuador). Models were built using logistic regressions to assess the predictive value of attitudes toward gender equality on adolescents' sexual behaviour, on experiences and on communication.
The analysis shows that sexually active adolescents who consider gender equality as important report higher current use of contraceptives within the couple. They are more likely to describe their last sexual intercourse as a positive experience and consider it easier to talk with their partner about sexuality than sexually experienced adolescents who are less positively inclined toward gender equality. These correlations remained consistent whether the respondent was a boy or a girl. Non-sexually active adolescents, who consider gender equality to be important, are more likely to think that sexual intercourse is a positive experience. They consider it less necessary to have sexual intercourse to maintain a relationship and find it easier to communicate with their girlfriend or boyfriend than sexually non-active adolescents who consider gender equality to be less important. Comparable results were found for boys and girls. The results suggest that gender equality attitudes have a positive impact on adolescents' sexual and reproductive health (SRH) and wellbeing. Further research is necessary to better understand the relationship between gender attitudes and specific SRH outcomes such as unwanted teenage pregnancies and sexual pleasure among adolescents worldwide.

25. Loukanova S, Prytherch H, Blank A, Duysburgh E, Tomson G, Gustafsson LL, Sié A, Williams J, Leshabari M, Haefeli WE, Sauerborn R, Fonn S. Nesting doctoral students in collaborative North-South partnerships for health systems research. Glob Health Action. 2014 Jul 15;7:24070.

Abstract:
The European Union (EU) supports North-South Partnerships and collaborative research projects through its Framework Programs and Horizon 2020. There is limited research on how such projects can be harnessed to provide a structured platform for doctoral level studies as a way of strengthening health system research capacity in sub-Saharan Africa (SSA).
The aim of this study was to explore the challenges of, and facilitating factors for, 'nesting' doctoral students in North-South collaborative research projects. The term nesting refers to the embedding of the processes of recruiting, supervising, and coordinating doctoral students in the overall research plan and processes. This cross-sectional qualitative study was undertaken by the EU-funded QUALMAT Project. A questionnaire was implemented with doctoral students, supervisors, and country principal investigators (PIs), and content analysis was undertaken. Completed questionnaires were received from nine doctoral students, six supervisors, and three country PIs (86% responses rate). The doctoral students from SSA described high expectations about the input they would receive (administrative support, equipment, training, supervision). This contrasted with the expectations of the supervisors for proactivity and self-management on the part of the students. The rationale for candidate selection, and

understandings of the purpose of the doctoral students in the project were areas of considerable divergence. There were some challenges associated with the use of the country PIs as co-supervisors. Doctoral student progress was at times impeded by delays in the release of funding instalments from the EU. The paper provides a checklist of essential requirements and a set of recommendations for effective nesting of doctoral students in joint North-South projects. There are considerable challenges to the effective nesting of doctoral students within major collaborative research projects. However, ways can be found to overcome them. The nesting process ultimately helped the institutions involved in this example to take better advantage of the opportunities that collaborative projects offer to foster North-South partnerships as a contribution to the strengthening of local research capacity.

26. Zhang X-D, Kennedy E, Temmerman M, Li Y, Zhang W-H, Luchters S. High rates of abortion and low levels of contraceptive use among adolescent female sex workers in Kunming, China: A cross-sectional analysis. Eur J Contracept Reprod Health Care. 2014 Jul 1:1-11.

Abstract:
This cross-sectional study was conducted between July 2010 and February 2011. Adolescent FSWs were recruited using snowball and convenience sampling. The researchers present descriptive statistics, comparative analyses of socio-demographic and reproductive characteristics of respondents who had or had not used modern contraceptives, and assessed factors associated with prior abortion using simple odds ratios and multivariate logistic regression adjustments.
Twenty-seven percent of adolescent FSWs had never used any modern contraceptive. Condoms (69%) and oral contraceptives (38%) were most commonly reported, and less than 3% had ever relied on an intrauterine device. Low rates of dual protection (34%) were found. About half of the respondents reported one or more lifetime abortions. Inconsistent condom use, frequent alcohol use and longer-term cohabitation were associated with prior abortion.
The authors conclude that low consistent utilization of modern contraceptives and of dual protection, and high rates of abortion, highlight the urgent need for early contact and continuous provision of comprehensive reproductive health services for adolescent FSWs.

27. Sabbe A, Temmerman M, Brems E, Leye E. Forced marriage: an analysis of legislation and political measures in Europe. Crime Law Soc Change, Volume 62 No. 1 2014.

Abstract:
Forced marriage is of current international concern in Europe. As many cases involve a transnational component linked to migration, it is increasingly receiving attention at the government level. The serious consequences for women, including sexual violence, and the physical and psychological health risks associated with it, seem to receive little consideration. Recent years have seen a rise in initiatives and measures taken by policy makers throughout Europe. As the focus is placed on criminalization and stringent immigration policies, ethnic minority population groups bear the greatest burden. It is argued that specific criminal laws make it more difficult for victims to come forward, while offering very little or no protection in return. The widespread 21-year age rule in immigration law has been denounced by scholars, institutes and magistrates alike for infringing on the fundamental human right to family life guaranteed by article 8 ECHR. The discourse on forced marriage appears to have reached a crossroads. European governments are faced with the challenge to create policies that protect and support victims, while simultaneously cracking down on perpetrators and safeguarding their borders from abuses in obtaining visas. There is a very pressing need to work more closely with those at risk, involving service provisions to directly support them, instead of a one-side top-down policy framework through which minority communities feel targeted and stigmatized.

28. Van de Wijgert JH, Borgdorff H, Verhelst R, Crucitti T, Francis S, Verstraelen H, Jespers V. The vaginal microbiota: what have we learned after a decade of molecular characterization? PLoS One. 2014 Aug 22;9(8):e105998.

Abstract:
A systematic review of the Medline database to determine if consistent molecular vaginal microbiota (VMB) composition patterns can be discerned after a decade of molecular testing, and to evaluate demographic, behavioural and clinical determinants of VMB compositions.
Studies were eligible when published between 1 January 2008 and 15 November 2013, and if at least one molecular technique (sequencing, PCR, DNA fingerprinting, or DNA hybridization) was used to characterize the VMB. Sixty three eligible studies were identified. These studies have now conclusively shown that lactobacilli-dominated VMB are associated with a healthy vaginal micro-environment and that bacterial vaginosis (BV) is best described as a polybacterial dysbiosis. The extent of dysbiosis correlates well with Nugent score and vaginal pH but not with the other Amsel criteria. Lactobacillus crispatus is more beneficial than L. iners. Longitudinal studies have shown that a L. crispatus-dominated VMB is more likely to shift to a L. iners-dominated or mixed lactobacilli VMB than to full dysbiosis. Data on VMB determinants are scarce and inconsistent, but dysbiosis is consistently associated with HIV, human papillomavirus (HPV), and Trichomonas vaginalis infection. In contrast, vaginal colonization with Candida spp. is more common in women with a lactobacilli-dominated VMB than in women with dysbiosis. Cervicovaginal mucosal immune responses to molecular VMB compositions have not yet been properly characterized. Molecular techniques have now become more affordable, and the authors make a case for incorporating them into larger epidemiological studies to address knowledge gaps in etiology and pathogenesis of dysbiosis, associations of different dysbiotic states with clinical outcomes, and to evaluate interventions aimed at restoring and maintaining a lactobacilli-dominated VMB.

29. Van Parys A-S, Deschepper E, Michielsen K, Temmerman M and Verstraelen H. Prevalence and evolution of intimate partner violence before and during pregnancy:
a cross-sectional study. BMC Pregnancy and Childbirth 2014, 14:294.

Abstract:
Intimate partner violence (IPV) before and during pregnancy is associated with a broad range of adverse health outcomes. Describing the extent and the evolution of IPV is a crucial step in developing interventions to reduce the health impact of IPV. Between June 2010 and October 2012, a cross-sectional study was conducted in 11 antenatal care clinics in Belgium. Consenting pregnant women were asked to complete a questionnaire (available in Dutch, French and English) in a separate room. Ethical clearance was obtained in all participating hospitals. The overall percentage of IPV was 14.3% 12 months before pregnancy and 10.6% during pregnancy. Physical partner violence before as well as during pregnancy was reported by 2.5% of the respondents (n = 1894), sexual violence by 0.9%, and psychological abuse by 14.9%. Risk factors identified for IPV were being single or divorced, having a low level of education, and choosing another language than Dutch to fill out the questionnaire. The adjusted analysis showed that physical partner violence and psychological partner abuse were significantly lower during pregnancy compared to the period of 12 months before pregnancy. The difference between both time periods is greater for physical partner violence (65%) compared to psychological partner abuse (30%). The analysis of the frequency data showed a similarly significant evolution for physical partner violence and psychological partner abuse, but not for sexual violence. The IPV prevalence rates in this study are slightly lower than what can be found in other Western studies, but even so IPV is to be considered a prevalent problem before and during pregnancy. The study found evidence, however, that physical partner violence and psychological partner abuse are significantly lower during pregnancy.

30. Merckx M, Vanden Broeck D, Benoy I, Depuydt C, Weyers S and Arbyn M. Early effects of human papillomavirus vaccination in Belgium. Eur J Cancer Prev. 2014 Aug 11. [Epub ahead of print].

Abstract:
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 and a non-significant reduction in HPV 18 was found in the youngest group (15–19 years). The prevalence 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.

31. Jespers V, Crucitti T, Menten J, Verhelst R, Mwaura M, Mandaliya K, Ndayisaba GF, Delany-Moretlwe S, Verstraelen H, Hardy L, Buve A, van de Wijgert J. For the Vaginal Biomarkers Study Group. Prevalence and Correlates of Bacterial Vaginosis in Different Sub-Populations of Women in Sub-Saharan Africa: A Cross-Sectional Study. PLoS ONE 9(10): e109670.

Abstract:
A longitudinal study was conducted in Kenya, Rwanda and South-Africa. Women were recruited into pre-defined study groups including adult, non-pregnant, HIV-negative women; pregnant women; adolescent girls; HIV-negative women engaging in vaginal practices; female sex workers; and HIV-positive women. Consenting women were interviewed and underwent a pelvic exam. Samples of vaginal fluid and a blood sample were taken and tested for bacterial vaginosis (BV), HIV and other reproductive tract infections (RTIs). This paper presents the cross-sectional analyses of BV Nugent scores and RTI prevalence and correlates at the screening and the enrolment visit.
At the screening visit 38% of women had BV defined as a Nugent score of 7–10, and 64% had more than one RTI (N. gonorrhoea, C. trachomatis, T. vaginalis, syphilis) and/or Candida. At screening the likelihood of BV was lower in women using progestin-only contraception and higher in women with more than one RTI. At enrolment, BV scores were significantly associated with the presence of prostate specific antigen (PSA) in the vaginal fluid and with being a self-acknowledged sex worker. Further, sex workers were more likely to have incident BV by Nugent score at enrolment.
The authors conclude that their study confirmed some of the correlates of BV that have been previously reported but that the most salient finding was the association between BV and the presence of PSA in the vaginal fluid which is suggestive of recent unprotected sexual intercourse.

32. Duysburgh E, Williams A, Williams J, Loukanova S, Temmerman M. Quality of antenatal and childbirth care in northern Ghana. BJOG. 2014 Sep;121 Suppl 4:117-26.

Abstract:
The QUALMAT research project aims to improve maternal and new-born health by improving the quality of antenatal and childbirth care provided in primary healthcare facilities. Within the frame of this project, a comprehensive quality assessment took place in selected health centres in northern Ghana. The results of this assessment showed that overall quality of routine antenatal and childbirth care was satisfactory, although some critical gaps were identified. Counselling and health education practices need to be improved; laboratory investigations are often not performed; examination and monitoring of mother and new-born during childbirth are inadequate; partographs are often not used and poorly completed; and equipment to provide assisted vaginal deliveries was absent.

33. Lukasse M, Schroll A-M, Ryding EL, Campbell J, Karro H, Kristjansdottir H, Laanpere M, Steingrimsdottir T,Tabor A, Temmerman M, Van Parys A-S, Anne-Marie Wangel A-M, Schei B. Prevalence of Emotional, Physical and Sexual Abuse Among Pregnant Women in Six European Countries. ACTA OBSTETRICIA ET GYNECOLOGICA SCANDINAVICA 93.7 (2014): 669–677.

Abstract:
Objectives. The primary objective was to investigate the prevalence of a history of abuse among women attending routine antenatal care in six northern European countries. Second, we explored current suffering from reported abuse. Design. A prospective cohort study. Setting. Routine antenatal care in Belgium, Iceland, Denmark, Estonia, Norway, and Sweden between March 2008 and August 2010. Population. A total of 7174 pregnant women. Methods. A questionnaire including a validated instrument measuring emotional, physical and sexual abuse. Main outcome measure. Proportion of women reporting emotional, physical and sexual abuse. Severe current suffering defined as a Visual Analogue Scale score of ≥6. Results. An overall lifetime prevalence of any abuse was reported by 34.8% of the pregnant women. The ranges across the six countries of lifetime prevalence were 9.7–30.8% for physical abuse, 16.2–27.7% for emotional abuse, and 8.3–21.1% for sexual abuse. Few women reported current sexual abuse, 0.4% compared with 2.2% current physical abuse and 2.7% current emotional abuse. Current severe suffering was reported by 6.8% of the women who reported physical abuse, 9.8% of those who reported sexual abuse and 13.5% for emotional abuse. Conclusion. A high proportion of pregnant women attending routine antenatal care report a history of abuse. About one in ten of them experiences severe current suffering from the reported abuse. In particular, these women might benefit from being identified in the antenatal care setting and being offered specialized care.

34. Van Stam M-A, Michielsen K, Stroeken K, Bonne JH. The Impact of Education and Globalization on Sexual and Reproductive Health: Retrospective Evidence from Eastern and Southern Africa. Aids Care-psychological and Socio-medical Aspects of Aids/hiv 26 (3): 379–386.

Abstract:
The objective of this study is to qualify the relationship between sexual and reproductive health (SRH) and educational attainment in eastern and southern Africa (ESA). We hypothesize that the regional level of globalization is a moderating factor in the relationship between SRH and educational attainment. Using retrospective data from Kenya, Malawi, Tanzania, and Zambia, the associations between SRH (eight indicators), educational attainment, and globalization were examined using multilevel logistic regression analysis. It was found that the model fit for every SRH outcome indicator increased significantly after including the interaction between globalization and educational attainment, supporting the hypothesis. Depending on the level of globalization, three types of relationships between education and SRH were found: (1) for the indicators “more than four children,” “intercourse before 17 years,” “first child before 20 years,” and “one or more child died” education is risk-decreasing, and the reduction is stronger in more globalized regions; (2) for the indicators “condom use at last intercourse” and “current contraceptive use” education is risk-decreasing, and the reduction is stronger in less globalized regions; (3) for the indicators “HIV positive” and “more than four lifetime sexual partners” education is risk increasing, but only in less globalized regions. In conclusion, these effects are related to three types of access: (1) access to services, (2) access to information, and (3) access to sexual networks. The findings highlight the relevance of globalization when analysing the association between SRH and education, and the importance of structural factors in the development of effective SRH promotion interventions.

35. Vermandere H, Naanyu V, Mabeya H, Vanden Broeck D, Michielsen K, Degomme O. Determinants of acceptance and subsequent uptake of the HPV vaccine in a cohort in Eldoret, Kenya. PLoS One. 2014 Oct 9;9(10):e109353

Abstract:
The development of Human Papillomavirus (HPV) vaccines provides new opportunities in the fight against cervical cancer. Many factors, at personal, community and provider level, may inhibit the translation of willingness to vaccinate into actual uptake. Through a longitudinal study in Eldoret, Kenya, HPV vaccine acceptability was measured before a vaccination program (n = 287) and vaccine uptake, as reported by mothers, once the program was finished (n = 256). In between baseline and follow-up, a pilot HPV vaccination program was implemented via the GARDASIL Access Program, in which parents could have their daughter vaccinated for free at the referral hospital. Even though baseline acceptance was very high (88.1%), only 31.1% of the women reported at follow-up that their daughter had been vaccinated. The vaccine was declined by 17.7%, while another 51.2% had wanted the vaccination but were obstructed by practical barriers. Being well-informed about the program and baseline awareness of cervical cancer were independently associated with vaccine uptake, while baseline acceptance was correlated in bivariate analysis. Side effects were of great concern, even among those whose daughter was vaccinated. Possible partner disapproval lowered acceptance at baseline, and women indeed reported at follow-up that they had encountered his opposition. In this study, uptake was more determined by program awareness than by HPV vaccine acceptance. School-based vaccination might improve coverage since it reduces operational problems for parents. In addition, future HPV vaccination campaigns should address concerns about side effects, targeting men and women, given both their involvement in HPV vaccination decision-making.

36. Hameed W, Azmat SK, Ali M, Sheikh MI, Abbas G, Temmerman M, Avan BI. Women's empowerment and contraceptive use: the role of independent versus couples' decision-making, from a lower middle income country perspective. PLoS One. 2014 Aug 13;9(8):e104633.

Abstract:
There is little available evidence of associations between the various dimensions of women's empowerment and contraceptive use having been examined--and of how these associations are mediated by women's socio-economic and demographic statuses. The authors assessed these phenomena in Pakistan using a structured-framework approach. They analysed data on 2,133 women who were either using any form of contraceptive or living with unmet need for contraception. The survey was conducted during May - June 2012, with married women of reproductive age (15-49 years) in three districts of Punjab. The dimensions of empowerment were categorized broadly into: economic decision-making, household decision-making, and women's mobility. Two measures were created for each dimension, and for the overall empowerment: women's independent decisions, and those taken jointly by couples. Contraceptive use was categorized as either female-only or couple methods on the basis of whether a method requires the awareness of, or some support and cooperation from, the husband. Multinomial regression was used, by means of Odds Ratios (OR), to assess associations between empowerment dimensions and female-only and couple contraceptive methods. Overall, women tend to get higher decision-making power with increased age, higher literacy, a greater number of children, or being in a household that has superior socio-economic status. The measures for couples' decision-making for overall empowerment and for each dimension of it showed positive associations with couple methods as well as with female-only methods. The only exception was the measure of economic empowerment, which was associated only with the couple method. The authors conclude that couples' joint decision-making is a stronger determinant of the use of contraceptive methods than women-only decision-making. This is the case over and above the contribution of women's socio-demographic and economic statuses. Effort needs to be made to educate women and their husbands equally, with particular focus on highly effective contraceptive methods.

37. Cappon S, L'Ecluse C, Clays E, Tency I, Leye E. Female genital mutilation: Knowledge, attitude and practices of Flemish midwives. Midwifery, Volume 31, Issue 3, March 2015, Pages e29–e35.

Abstract:
Results of the first female genital mutilation (FGM) knowledge, attitude and practices study among of Flemish midwives. 820 midwives, actively working in labour wards, maternity wards and maternal intensive care units were surveyed with semi-structured questionnaires. 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. The authors conclude that 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.

38. Decat P, De Meyer S, Jaruseviciene L, Orozco M, Ibarra M, Segura Z, Medina J, Vega B, Michielsen K, Temmerman M and Degomme O. Sexual onset and contraceptive use among adolescents from poor neighbourhoods in Managua, Nicaragua. The European Journal of Contraception and Reproductive Health Care, 2014; Early Online: 1–13.

Abstract:
A study aimed at gaining insight into factors that determine sexual onset and contraceptive use among adolescents from poor neighbourhoods in Managua.
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. 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. The 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). The authors interpreted those associates within the context of the rapidly changing society and the recently implemented health system reform in Nicaragua.

39. Lieveld M, Padalko E, Praet M, Vanden Broeck D. A case of HPV-53-related cervical cancer in an elderly patient. CLINICAL INTERVENTIONS IN AGING 9 (2014): 1933–1934.

Abstract:
Zappacosta et al1 recently published a case report concerning a human papillomavirus (HPV)-positive invasive cervical cancer in a 79-year-old women who had a history of normal Pap smears. In this article, Anyplex II HPV28 (Seegene) is used for HPV genotyping of formalin-fixed paraffin embedded (FFPE) tissue, liquid based cytology (LBC) specimens and urine samples. It is suggested that HPV53 is present exclusively in the cervical cancer cells, lymph node metastases, and atypical urinary cells of one single case while the surrounding CIN2+ tissue revealed ten different HPV strains. Unfortunately, the HPV genotype results for lymph nodes and urinary cells are not presented

while these results underline the potential role of HPV53 in oncogenesis. Moreover, it is generally accepted that one lesion is caused by one HPV infection, detection of multiple HPV types thus indicates the presence of multiple infections,2 suggesting that this patient may have several lesions.

40. Merckx M, Benoy I, Meys J, Depuydt C, Temmerman M, Weyers S, Vanden Broeck D. High frequency of genital human papillomavirus infections and related cervical dysplasia in adolescent girls in Belgium. EUROPEAN JOURNAL OF CANCER PREVENTION 23.4 (2014): 288–293.

Abstract:
Human papillomavirus (HPV) infections are causally related to cervical cancer and a range of other diseases, both in adults and in minors. Information on the frequency of genital HPV infections in adolescents is sparse. The aim of this study was to gain insight into the genotype-specific distribution of HPV genotypes in patients younger than 18 years of age. This observational retrospective study included 4807 samples of patients presenting for opportunistic screening in Belgium between June 2006 and January 2012. For statistical analysis, only the first visits of patients were withheld, reducing the sample to 4180. Samples were collected in liquid-based cytology medium and analysed using a series of genotype-specific real-time PCR reactions. Cytology was read with previous knowledge of HPV infection and scored using the Bethesda classification. The mean age was 16.9 years. Most youngsters had no complaints (88.4%), were using hormonal contraception (79.5%), and clinical examination did not show any abnormalities (96.0%). The overall HPV frequency was 15.7%, with the most frequently found types being HPV16 (16.7%), HPV51 (14.6%), HPV66 (10.4%), HPV31 (9.9%), and HPV39 (9.1%). More than one-third (39.0%) of the infected girls harbored an infection with at least two HPV genotypes. Cytological abnormalities were found in 8.2% of samples. L-SIL (4.2%) was most frequently observed, followed by ASC-US (3.6%), HSIL (0.3%), and ASC-H (0.1%). The severity of lesions worsened with increasing age. Our findings indicate that an aberrant HPV genotype profile can be found in adolescent girls; moreover, this group shows a high rate of cervical abnormalities.

41. Ali-Risasi C, Mulumba P, Verdonck K, Vanden Broeck D, Praet M. Knowledge, attitude and practice about cancer of the uterine cervix among women living in Kinshasa, the Democratic Republic of Congo. BMC WOMENS HEALTH 14.

Abstract:
Background: Cervical cancer is the most frequent cancer of women in the Democratic Republic of Congo (DRC). Nevertheless, the level of women's awareness about cervical cancer is unknown. Knowledge, attitude and practice (KAP) are important elements for designing and monitoring screening programs. The study purpose was to estimate KAP on cervical cancer and to identify associated factors. Methods: A cross-sectional study was conducted in Kinshasa, DRC, including 524 women aged 16-78 years (median age 28; interquartile range 22-35). The women were interviewed at home by trained field workers using a standardized questionnaire. The women's score on knowledge, attitude and practice were dichotomized as sufficient or insufficient. We used binary and multiple logistic regression to assess associations between obtaining sufficient scores and a series of socio-demographic factors: age, residence, marital status, education, occupation, religion, and parity. Results: The women's score on knowledge was not significantly correlated with their score on practice (Spearman's rho = 0.08; P > 0.05). Obtaining a sufficient score on knowledge was positively associated with higher education (adjusted odds ratio (OR) 7.65; 95% confidence interval (95% CI) 3.31-17.66) and formal employment (adjusted OR 3.35; 95% CI 1.85-6.09); it was negatively associated with being single (adjusted OR 0.44; 95% CI 0.24-0.81) and living in the eastern, western and northern zone of Kinshasa compared to the city centre. The attitude score was associated with place of residence (adjusted OR for east Kinshasa: 0.49; 95% CI 0.27-0.86 and for south Kinshasa: 0.48; 95% CI 0.27-0.85) and with religion (adjusted OR 0.55; 95% CI 0.35-0.86 for women with a religion other than Catholicism or Protestantism compared to Catholics). Regarding practice, there were negative associations between a sufficient score on practice

and being single (adjusted OR 0.24; 95% CI 0.13-0.41) and living in the eastern zone of the city (adjusted OR 0.39; 95% CI 0.22-0.70). Although 84% of women had heard about cervical cancer, only 9% had ever had a Papanicolaou (Pap) smear test. Conclusions: This study shows a low level of knowledge, attitude and practice on cervical cancer among women in Kinshasa. Increasing women's awareness would be a first step in the long chain of conditions to attain a lower incidence and mortality.

42. Beauclair, R, Petro G, Myer L. The association between timing of initiation of antenatal care and stillbirths: A retrospective cohort study of pregnant women in Cape Town, South Africa. BMC Pregnancy and Childbirth 14:204.

Abstract:
Background: There is renewed interest in stillbirth prevention for lower-middle income countries. Early initiation of and properly timed antenatal care (ANC) is thought to reduce the risk of many adverse birth outcomes. To this end we examined if timing of the first ANC visit influences the risk of stillbirth.
Methods: We conducted an analysis of a retrospective cohort of women (n = 34,671) with singleton births in a public perinatal service in Cape Town, South Africa. The main exposure was the gestational age at the first ANC visit. Bivariable analyses examining maternal characteristics by stillbirth status and gestational age at the first ANC visit, were conducted. Logistic regression, adjusting for maternal characteristics, was conducted to determine the risk of stillbirth.
Results: Of the 34,671 women who initiated ANC, 27,713 women (80%) were retained until delivery. The population stillbirth rate was 4.3 per 1000 births. The adjusted models indicated there was no effect of gestational age at first ANC visit on stillbirth outcomes when analysed as a continuous variable (aOR 1.01; 95% CI: 0.99-1.04) or in trimesters (2nd Trimester aOR 0.78, 95% CI: 0.39-1.59; 3rd Trimester OR 1.03, 95% CI: 0.50-2.13, both with 1st Trimester as reference category). The findings were unchanged in sensitivity analyses of unobserved outcomes in non-retained women. Conclusion: The timing of a woman's first ANC visit may not be an important determinant of stillbirths in isolation. Further research is required to examine how quality of care, incorporating established, effective biomedical interventions, influences outcomes in this setting.

43. Lukasse M, Schei B, Ryding EL; Bidens Study Group. Prevalence and associated factors of fear of childbirth in six European countries. Sex Reprod Healthc. 2014 Oct;5(3):99-106. . Sex Reprod Healthc. 2014 Oct;5(3):99-106.

Abstract:
Objectives: This study set out to compare the prevalence, content and associated factors of fear of childbirth in six European countries.
Method: A cross-sectional study of 6870 pregnant women attending routine antenatal care in Belgium, Iceland, Denmark, Estonia, Norway and Sweden (Bidens).
Main outcome measure:Severe fear of childbirth, defined as a Wijma Delivery Expectancy Questionnaire score of ≥85.
Results: Eleven percent of all women reported severe fear of childbirth, 11.4% among primiparous and 11.0% among multiparous women. There were significant differences between the countries for prevalence of severe fear of childbirth, varying from 4.5% in Belgium to 15.6% in Estonia for primiparous women and from 7.6% in Iceland to 15.2% in Sweden for multiparous women. After adjusting for age, education and gestational age, only primiparous women from Belgium had significantly less fear of childbirth, AOR 0.35 (0.19-0.52) compared to Norway (largest participating group). Exploratory factor analyses revealed significant differences between the countries for the six factors extracted.
Conclusion: FOC appears to be an international phenomenon, existing with similar proportions in the participating European countries, except for primiparous women in Belgium who in our study reported significantly less severe fear of childbirth. Our study suggests that the content of fear of childbirth may differ between countries.

44. Bork KA, Cournil A, Read JS, Newell ML, Cames C, Meda N, Luchters S, Mbatia G, Naidu K, Gaillard P, de Vincenzi I. Morbidity in relation to feeding mode in African HIV-exposed, uninfected infants during the first 6 months of life: the Kesho Bora study. Am J Clin Nutr. 2014 Dec;100(6):1559-68.

Abstract:
HIV-infected pregnant women from 5 sites in Burkina Faso, Kenya, and South Africa were enrolled in the prevention of mother-to-child transmission Kesho Bora trial and counselled to either breastfeed exclusively and cease by 6 months postpartum or formula feed exclusively. Maternal-reported morbidity (fever, diarrhoea, and vomiting) and serious infectious events (SIEs) (gastroenteritis and lower respiratory tract infections) were investigated for 751 infants for 2 age periods (0-2.9 and 3-6 months) by using generalized linear mixed models with breastfeeding as a time-dependent variable and adjustment for study site, maternal education, economic level, and cotrimoxazole prophylaxis. Reported morbidity was not significantly higher in non-breastfed compared with breastfed infants. Between 0 and 2.9 months of age, never-breastfed infants had increased risks of morbidity compared with those of infants who were exclusively breastfed. The adjusted excess risk of SIEs in non-breastfed infants was large between 0 and 2.9 months. Of 52 SIEs, 3 mothers reported changes in feeding mode during the SIE although none of the mothers ceased breastfeeding completely.

45. Cames C, Cournil A, de Vincenzi I, Gaillard Ph, Meda N, Luchters S, Nduati R, Naidu K, Newell M-L, Read JS, Borka K, for the Kesho Bora Study Group. Infant feeding and HIV-infected women: A study about postpartum weight change among HIV-infected mothers by antiretroviral prophylaxis and infant feeding modality. AIDS 2014, 28:85–94.

Abstract:
This study aimed to assess the relationship between infant feeding, triple-antiretroviral prophylaxis and weight from 2 weeks (baseline) to 6 months postpartum among HIV-infected mothers in a mother-to-child transmission (MTCT) of HIV-prevention trial in five sub-Saharan African sites. HIV-infected pregnant women with CD4þ cell counts of 200–500 cells/ml were counselled to choose breastfeeding to 6 months or replacement feeding from delivery. They were randomized to receive perinatal zidovudine and single-dose nevirapine or triple-antiretroviral MTCT prophylaxis until breastfeeding cessation. Mixed-effect linear models were used to compare maternal weight trajectories over time by infant feeding mode. Antiretroviral prophylaxis and BMI at baseline were examined as potential effect modifiers. Among 797 mothers, 620 (78%) initiated breastfeeding. Wasting (BMI <18.5) was rare at baseline (2%), whereas overweight/obesity (BMI_25) was common (40%). In the model including all women, breastfeeding was not associated with weight loss up to 6 months, irrespective of baseline BMI and antiretroviral prophylaxis. Triple-antiretroviral prophylaxis was associated with weight gain among replacement-feeding mothers with baseline BMI at least 25 (þ0.54 kg/month; P<0.0001). In the model including breastfeeding mothers only, triple-antiretroviral prophylaxis was associated
with weight gain among mothers with baseline BMI at least 25 who ceased breastfeeding before 3 months postpartum (þ0.33 kg/month; P¼0.03). Conclusion: The results suggest that breastfeeding up to 6 months postpartum is not detrimental for postpartum weight among well nourished HIV-infected mothers at intermediate-disease stage. In the absence of breastfeeding or after weaning, tripleantiretroviral prophylaxis is associated with weight gain among women with high BMI, even after cessation of prophylaxis.

46. Shamu S, Zarowsky C, Shefer T, Temmerman M, Abraham N. Intimate Partner Violence After Disclosure of HIV Test Results Among Pregnant Women in Harare, Zimbabwe. PLOS ONE 9.10

Abstract:
Background: HIV status disclosure is a central strategy in HIV prevention and treatment but in high prevalence

settings women test disproportionately and most often during pregnancy. This study reports intimate partner violence (IPV) following disclosure of HIV test results by pregnant women. Methods: In this cross sectional study we interviewed 1951 postnatal women who tested positive and negative for HIV about IPV experiences following HIV test disclosure, using an adapted WHO questionnaire. Multivariate regression models assessed factors associated with IPV after disclosure and controlled for factors such as previous IPV and other known behavioural factors associated with IPV. Results: Over 93% (1817) disclosed the HIV results to their partners (96.5% HIV- vs. 89.3% HIV+, p<0.0001). Overall HIV prevalence was 15.3%, (95% CI: 13.7-16.9), 35.2% among non-disclosers and 14.3% among disclosers. Overall 32.8% reported IPV (40.5% HIV+; 31.5% HIV- women, p = 0.004). HIV status was associated with IPV (partially adjusted 1.43: (95%CI: 1.00-2.05 as well as reporting negative reactions by male partners immediately after disclosure (adjusted OR 5.83, 95%CI: 4.31-7.80). Factors associated with IPV were gender inequity, past IPV, risky sexual behaviours and living with relatives. IPV after HIV disclosure in pregnancy is high but lower than and is strongly related with IPV before pregnancy (adjusted OR 6.18, 95%CI: 3.84-9.93). Conclusion: The study demonstrates the interconnectedness of IPV, HIV status and its disclosure with IPV which was a common experience post disclosure of both an HIV positive and HIV negative result. Health services must give attention to the gendered nature and consequences of HIV disclosure such as enskilling women on how to determine and respond to the risks associated with disclosure. Efforts to involve men in antenatal care must also be strengthened.

47. Azmat SK, Moazzam A, Waqas H, Ghulam M, Ghazanfer A, Muhammad I, Mohsina B Temmerman M. A Study Protocol: Using Demand-side Financing to Meet the Birth Spacing Needs of the Underserved in Punjab Province in Pakistan. REPRODUCTIVE HEALTH 11.

Abstract:
Background: High fertility rates, unwanted pregnancies, low modern contraceptive prevalence and a huge unmet need for contraception adversely affect women's health in Pakistan and this problem is compounded by limited access to reliable information and quality services regarding birth spacing especially in rural and underserved areas. This paper presents a study protocol that describes an evaluation of a demand-side financing (DSF) voucher approach which aims to increase the uptake of modern contraception among women of the lowest two wealth quintiles in Punjab Province, Pakistan. Methods/Design: This study will use quasi-experimental design with control arm and be implemented in: six government clinics from the Population Welfare Department; 24 social franchise facilities branded as 'Suraj' (Sun), led by Marie Stopes Society (a local non-governmental organization); and 12 private sector clinics in Chakwal, Mianwali and Bhakkar districts. The study respondents will be interviewed at baseline and endline subject to voluntary acceptance and medical eligibility. In addition, health service data will record each client visit during the study period. Discussion: The study will examine the impact of vouchers in terms of increasing the uptake of modern contraception by engaging private and public sector service providers (mid-level and medical doctors). If found effective, this approach can be a viable solution to satisfying the current demand and meeting the unmet need for contraception, particularly among the poorest socio-economic group.

48. Lerebo W, Callens S, Jackson D, Zarowsky C, Temmerman M. Identifying Factors Associated with the Uptake of Prevention of Mother to Child HIV Transmission Programme in Tigray Region, Ethiopia: a Multilevel Modelling Approach. BMC HEALTH SERVICES RESEARCH 1

Abstract:
Background: Prevention of mother to child HIV transmission (PMTCT) remains a challenge in low and middle-income countries. Determinants of utilization occur - and often interact - at both individual and community levels, but most studies do not address how determinants interact across levels. Multilevel models allow for the importance of both groups and individuals in understanding health outcomes and provide one way to link the traditionally distinct ecological-and individual-level studies. This study examined individual and community level

determinants of mother and child receiving PMTCT services in Tigray region, Ethiopia. Methods: A multistage probability sampling method was used for this 2011 cross-sectional study of 220 HIV positive post-partum women attending child immunization services at 50 health facilities in 46 districts. In view of the nested nature of the data, we used multilevel modelling methods and assessed macro level random effects. Results: Seventy nine percent of mothers and 55.7% of their children had received PMTCT services. Multivariate multilevel modelling found that mothers who delivered at a health facility were 18 times (AOR = 18.21; 95% CI 4.37,75.91) and children born at a health facility were 5 times (AOR = 4.77; 95% CI 1.21,18.83) more likely to receive PMTCT services, compared to mothers delivering at home. For every addition of one nurse per 1500 people, the likelihood of getting PMTCT services for a mother increases by 7.22 fold (AOR = 7.22; 95% CI 1.02,51.26), when other individual and community level factors were controlled simultaneously. In addition, district-level variation was low for mothers receiving PMTCT services (0.6% between districts) but higher for children (27.2% variation between districts). Conclusions: This study, using a multilevel modelling approach, was able to identify factors operating at both individual and community levels that affect mothers and children getting PMTCT services. This may allow differentiating and accentuating approaches for different settings in Ethiopia. Increasing health facility delivery and HCT coverage could increase mother-child pairs who are getting PMTCT. Reducing the distance to health facility and increasing the number of nurses and laboratory technicians are also important variables to be considered by the government.

49. Richter M, Chersich M, Vearey J, Sartorius B, Temmerman M, Lüchters S . Migration Status, Work Conditions and Health Utilization of Female Sex Workers in Three South African Cities. JOURNAL OF IMMIGRANT AND MINORITY HEALTH 16.1 (2014): 7–17

Abstract:
Intersections between migration and sex work are underexplored in southern Africa, a region with high internal and cross-border population mobility, and HIV prevalence. Sex work often constitutes an important livelihood activity for migrant women. In 2010, sex workers trained as interviewers conducted cross-sectional surveys with 1,653 female sex workers in Johannesburg (Hillbrow and Sandton), Rustenburg and Cape Town. Most (85.3 %) sex workers were migrants (1396/1636): 39.0 % (638/1636) internal and 46.3 % (758/1636) cross-border. Cross-border migrants had higher education levels, predominately worked part-time, mainly at indoor venues, and earned more per client than other groups. They, however, had 41 % lower health service contact (adjusted odds ratio = 0.59; 95 % confidence interval = 0.40-0.86) and less frequent condom use than non-migrants. Police interaction was similar. Cross-border migrants appear more tenacious in certain aspects of sex work, but require increased health service contact. Migrant-sensitive, sex work-specific health care and health education are needed.

50. Deblonde J, Hamers F, Callens S, Lucas R, Barros H, Rüütel K, Hemminki E, Marleen Temmerman M. HIV Testing Practices as Reported by HIV-infected Patients in Four European Countries. AIDS CARE-PSYCHOLOGICAL AND SOCIO-MEDICAL ASPECTS OF AIDS/HIV 26.4 (2014): 487–496.

Abstract:
HIV testing constitutes an important strategy to control the HIV epidemic, which therefore merits an observation of HIV testing practices to help improve testing effectiveness. In 2008, a cross-sectional survey among recently diagnosed (3 years) HIV-infected patients was conducted in Belgium, Estonia, Finland and Portugal. Participants were questioned about reasons for HIV testing, testing place and testing conditions. Univariate and multivariate analyses were performed. Out of 1460 eligible participants, 629 (43%) were included. Forty-one per cent were diagnosed late and 55% had never undergone a previous HIV test with perceived low risk being the primary reason for not having been tested earlier. Heterogeneity in HIV testing practices was observed across countries. Overall, tests were most frequently conducted in primary care (38%) and specialised clinics (21%), primarily on the initiative of the health care provider (65%). Sixty-one per cent were tested with informed consent, 31% received pretest counselling, 78% received post-test counselling, 71% were involved in partner notification and 92% were in care

three months after diagnosis. The results showed that HIV testing is done in a variety of settings suggesting that multiple pathways to HIV testing are provided. HIV testing practice is being normalised, with less focus on pretest counselling, yet with emphasis on post-test follow-up. Major barriers to testing are centred on the denial of risk. Efforts are needed to concurrently promote public awareness about HIV risk and benefits of HIV testing and train clinicians to be more proactive in offering HIV testing.

51. Sharma V, Sarna A, Luchters S, Sebastian M, Degomme O, Saraswati LR, Madan I, Thior I, Tun W. 'Women at risk': the health and social vulnerabilities of the regular female partners of men who inject drugs in Delhi, India. Cult Health Sex. 2014 Dec 2:1-15. [Epub ahead of print]

Abstract:
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.

52. Gao X, Xu L, Lu C, Wu J, Wang Z, Decat P, Zhang WH, Chen Y, Moyer E, Wu S, Minkauskiene M, Van Braeckel D, Temmerman M. Effect of improving the knowledge, attitude and practice of reproductive health among female migrant workers: a worksite-based intervention in Guangzhou, China. Sex Health. 2014 Dec 4.

Abstract:
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.
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.

53. Sabbe A, Oulami H, Hamzali S, Oulami N, Le Hjir FZ, Abdallaoui M, Temmerman M, Leye E. 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). p.135-149. Article first published online: 9 Oct. 2014

Abstract:
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.

54. 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 AJ. Impact of selection strategies on underserved populations in medical education. Medical Education. 2014. In press. Article first published online: 29 Dec. 2014

Abstract:
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 programs and on student practice intentions. METHODS: A cross-sectional questionnaire was administered to students starting medical education in 5 institutions with a social accountability mandate in 5 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 5 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 5 schools were more likely to be of non-urban origin, of lower socioeconomic status and to come from underserved groups. A total of 407 of 810 (50.2%) students indicated an intention to practice 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.

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. Els Leye, Lut Mergaert, Catarina Arnaut, siobán O'Brien Green. Female genital mutilation in the European Union. Towards a better estimation of prevalence of female genital mutilation in the European Union: interpreting existing evidence in all EU Member States. GENUS, LXX (No. 1), 99-121.

Abstract:
A study on the assessment of Female Genital Mutilation (FGM) in the EU.
Due to migration, FGM became an issue in countries where it was formerly inexistent, including in European countries. The prevalence of FGM in Europe is however unknown. This paper reports on the results of the assessment of FGM prevalence in the EU, which was undertaken as part of a broader study to map FGM in the EU. The overall study was entitled "Study to map the current situation and trends of female genital mutilation in 27 EU Member States and Croatia", and was carried out by the authors from December 2011 to December 2012 for the European Institute for Gender Equality.
A pool of native speaking researchers performed a desk research in the 28 EU countries.
The desk study consisted of a systematic web-based and documents search along with enquiries of key institutions and individuals in order to collect and confirm all the information and data available on prevalence, among others. No ongoing, systematic, representative surveys were identified that use a harmonized approach to gather comparable data on FGM prevalence similar to the DHS or MICS surveys in the EU Member States. However, a number of countries have undertaken prevalence or other studies, aiming at understanding the extent of FGM. None of these studies and assessments generated comparable data between the Member States due to the variations in methodologies and approaches utilized.
The authors conclude that absence of information on FGM prevalence appears to be a conspicuous gap, particularly the impossibility to capture and analyse the trends and changes in relation to national FGM prevalence figures over time. The main reasons for this gap are the lack of studies on the subject, the non-use of administrative datasets and the complexity of calculating accurate up-to-date FGM prevalence figures. The lack of funding, agreed working definitions, expertise and common methodologies may also be factors. National statistical institutes could play an important role in contributing to the knowledge on FGM in Member States by utilizing and sharing the data they collect, in particular population censuses data. The willingness of countries to learn from each other and share data collection tools, methodologies and expertise should be harnessed.

2. Tency I, Temmerman M, Vaneechoutte M. Inflammatory response in maternal serum during preterm labour. Facts Views Vis Obgyn. 2014;6(1):19-30.

Abstract:
Preterm birth (PTB), defined as a delivery before 37 weeks of gestation, is the leading cause of perinatal morbidity and mortality worldwide. Diagnosis of preterm labour as well as accurate prediction of PTB is notoriously difficult. Preterm birth is initiated by multiple mechanisms including infection or inflammation which is the only pathological process for which a firm causal link with PTB has been established. Intrauterine infection evokes an immune response that involves the release of cytokines and chemokines, prostaglandins and matrix-degrading enzymes. These substances trigger uterine contractions, membrane rupture and cervical ripening. Most intra-uterine infections are chronic and subclinical in nature and consequently hard to diagnose before labour or rupture of the membranes. The best studied site of infection is amniotic fluid, but this requires an invasive procedure. A non-invasive approach seems to be more relevant to clinical practice. However, few studies have investigated the

maternal inflammatory response during preterm labour. Therefore, the overall objective of this study was to determine several inflammatory markers in maternal serum from pregnant women in labour (either term or preterm) vs. non-labouring controls. A nested case control study was conducted in which singleton pregnancies were recruited at Ghent University Hospital and divided into groups according to gestational age and labour status. Multiple proteins were evaluated in maternal serum using enzyme-linked or multiplex bead immunoassays including soluble triggering receptor expressed on myeloid cells-1 (sTREM-1), matrix metalloproteinases (MMP)-9 and MMP-3, tissue inhibitor of metalloproteinases (TIMP)-1, TIMP-2, TIMP-3 and TIMP-4 and a panel of 30 cytokines, chemokines and growth factors.

III. Presentations and posters (C3)

1.De Meyer S, Jaruseviciene L, Zaborskis A, Decat P, Vega B, Cordova K, Temmerman M, Degomme O, Michielsen K. Positive Attitudes Towards Gender Equality Go Hand in Hand with a Safe and Happy Sex Life Among Adolescents: Results from a Cross-sectional Study in Bolivia and Ecuador. EUROPEAN JOURNAL OF CONTRACEPTION AND REPRODUCTIVE HEALTH CARE. 19(suppl. 1). p.S86-S86
Sara De Meyer won the Young Scientist Award at the 13th congress of the European Society of Contraception and Reproductive Health.

2. P. Decat, S. De Meyer, L. Jaruseviciene. Community-based interventions promoting adolescents' sexual health in three Latin American cities; impact and impact modifying factors. The European Journal of Contraception and Reproductive Health Care, vol. 19, supplement 1, 2014, S76.

IV. PhD ICRH Monographs (D1)

1. Keygnaert I. Sexual Violence and Sexual Health in Refugees, Asylum Seekers and Undocumented Migrants in Europe and the European Neighbourhood: Determinants and Desirable Prevention. ICRH Monographs, ISBN 9789078128304.

2. Deblonde J. HIV testing in Europe: mapping policies and exploring practices in the era of increased treatment availability. ICRH Monographs, ISBN 9789078128311.

3. Tilahun T. Marital dynamics in family planning: the role of couple interaction in Jimma zone, Southwest Ethiopia. ICRH Mongraphs, ISBN 9789078128328.

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 2014

Roxanne **Beauclair** *	Researcher
John-Paul **Bogers**	Visiting Professor
Karel **Blondeel** **	Researcher
Steven **Callens**	Senior Researcher
Matthew **Chersich**	Visiting Professor
Beatrice **Crahay** **	Volunteer Mozambique (and Country Director of ICRH Mozambique)
Peter **Decat** **	Researcher & Team Leader Health Systems
Olivier **Degomme**	Scientific Director
Wim **Delva**	Visiting Professor
Sara **De Meyer**	Researcher
Cindy **De Muynck**	Administration and support
Lotte **De Schrijver** *	Researcher
Lou **Dierick**	Volunteer Kenya
Els **Duysburgh**	Researcher & Team Leader Maternal Health
Anna **Galle** *	Internship
Peter **Gichangi**	Visiting Professor
Dominique **Godfroid**	Secretariat Ghent Africa Platform (GAP)
Aurore **Guieu**	Researcher
Laurence **Hendrickx**	Permanent Expert in Mozambique
Karen **Hoehn** **	Hélène De Beir Research Fellow
Olena **Ivanova** *	Internship
Ines **Keygnaert**	Researcher
Yves **Lafort**	Researcher & Team Leader HIV/STI
Els **Leye**	Senior Researcher & Team Leader GBV
Marusya **Lieveld***	Researcher
Stanley **Luchters**	Visiting Professor
Fei **Meng**	PhD Fellow & Researcher

Kristien **Michielsen**	Researcher
Chris **Moreel**	Financial Assistant
Katherine **Muylaert**	Administrative Project Manager
Emilomo **Ogbe**	Internship
Marlise **Richter** **	PhD Fellow & Researcher
Luk **Van Baelen** *	Researcher
Bart **Vanbrabandt** *	Volunteer
Dirk **Van Braeckel**	Director of Finance and Administration
Davy **Vanden Broeck**	Senior Researcher
Yrrah **van der Kruit** **	Researcher
An-Sofie **Van Parys**	Phd Fellow & Researcher
Rita **Verhelst** **	Senior Researcher
Heleen **Vermandere**	Phd Fellow & Researcher
Shuchen **Wang**	Researcher
Wei-Hong **Zhang**	Senior Researcher

* Joined ICRH in the course of 2014 or in the beginning of 2015. Welcome to the ICRH family!
** Left ICRH in the course of 2014. Thanks a lot for the work you have done with us, and good luck in your career!

ICRH team members on stage during the celebration of 20 years ICRH.

ICRH and the environment

The impact of research activities on the environment is rather limited compared to other sectors such as industry or transportation. However, our environmental impacts are not negligible, and as adherents of sustainable development, 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 is monitoring 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
Black and white prints and copies	185,989	140,495	139,992	145,337	104,276	56,854
Color prints and copies	-	25,543	36,027	44,162	20,093	16,905
Total	185,989	166,038	176,019	189,499	124,369	73,750
Difference compared to the previous year		-10.3%	+6.0%	+7.7%	-34.4%	-41.7%

Compared to 2013, the number of photocopies and prints has decreased by more than 40%. This may partially be linked to the printing requirements of specific activities and projects, but in addition also the following continuously applied measures will have played a role:

- renewed insisting on compliance with printing and copying guidelines;
- gradual shifting to electronic document storage for administration
- outsourcing large quantities of photocopies to a print shop

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. In 2014, all work stations were 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.

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.
Organizations as well as individuals can become member of ICRH Global.
In addition to the coordination and management activities, ICRH Global organized in 2014 two film screenings within the framework of the City of Ghent Belmundo Festival, and 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

In 2014 the ICRH-K team continued to provide services to key populations, survivors of sexual and gender based violence, and research in sexual and reproductive health (SRH). ICRH-K also participated in local and national technical working groups related to the NGO's services and research.

New Projects

Boresha Study is a three year phased study aimed at enhancing understanding of the sociocultural context of HIV risk behavior via formative research and to test the feasibility of a multi-level intervention targeting sex workers and clients in bars/nightclubs in Mombasa to reduce high-risk sexual behavior.

Transition Study aims to characterize factors influencing HIV risk during time between first sex and self-identification as a sex worker (transition period), and the time after entry to sex work but prior to HIV prevention program engagement (access gap). The cross-sectional biological and behavioural survey is conducted in Kenya, Ukraine and India.

Elimika Study aims to improve first line adherence to HIV treatment by setting up a digital peer support system where adolescents and youths may access to information, anonymously have concerns addressed, share experiences and find a forum to vent issues considered social taboos.

The Learning Site (LS) is a model program implementing evidence-based interventions to address the sexual and reproductive health needs and promoting behaviour change among female sex workers and male sex workers in Mombasa.

Ongoing Projects

Promoting Alternative Means of Livelihood to Reduce STI/HIV among Vulnerable Groups in Kilifi County focuses on scaling up provision of SRH, and Sexual and Gender Based Violence (SGBV) prevention interventions and services.

Performance Monitoring and Accountability 2020 (PMA2020) project is designed to generate DHS-like indicators contributing to a global monitoring and evaluation (M&E) system for FP using innovative mobile technology to support low-cost, rapid turnaround, nationally -representative surveys.

The Sexual and Gender Based Violence program ran by MoH in partnership with ICRHK continued to provide medical, psychosocial and legal support to survivors of Sexual and Gender Based Violence.

The Maternity Shelters (MS) program works in Kilifi and Malindi hospitals and aims to enable women at high risk of poor birth outcomes access safe delivery services targeting women from remote geographic locations or those who need to be near delivery facilities.

In addition, ICRH-K is partner in two EU-funded projects that are coordinated by ICRH Belgium: Missed Opportunities in Maternal and Infant Health (MOMI) and The Diagonal Interventions to Fast Forward Enhanced Reproductive Health (DIFFER)

ICRH Mozambique

In 2014 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, ICRH continued to provide services to female sex workers with funding from FICA and USAID through the Moatize Night Clinic and the network of peer educators, as well as introducing a mobile service providing HIV testing, SRHR advice and information, and referrals. Under the DIFFER research project, the situation analysis of SRH services for female sex workers was completed, and results used to inform refinement of services.

Also in Tete province, ICRHM continued to strengthen the provision of post-partum care in Chiúta district, both at health facility level and at community level through community health workers and traditional midwives. This initiative has been particularly well received by the provincial health department which is now keen to replicate the interventions in 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 FICA, and carried out a situation analysis of family planning provision and uptake with a focus on long-acting reversible contraceptives. This included a policy review, qualitative research with health workers and community members, and the first round of a household cohort study with both women and men. Towards the end of 2014, a new project started in the same geographical area, which aims at assessing 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) and PATH.

Presentation of a sketch about sex work to the US Ambassador to Mozambique during a visit to the Moatize Night Clinic

In Maputo province ICRH-M continued to focus mainly on strengthening family planning service provision in two districts (Manhiça and Marracuene), with support from FICA, and carried out a situation analysis of family planning provision and uptake with a focus on long-acting reversible contraceptives. This included a policy review, qualitative research with health workers and community members, and the first round of a household cohort study with both women and men. Towards the end of 2014, a new project started in the same geographical area, which aims at assessing 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) and PATH.

At national level, ICRHM began implementation together with WHO and the Ministry of Health of a 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 2014 the intervention was launched in 4 of 10 study sites across the country. 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.

On an institutional level, the board of ICRH-M approved the 2014-2018 strategic plan, which has started to be implemented, and which focusses on four key areas:

- Research (mainly applied biomedical and social research), in the areas of: Family planning; STIs/HIV; Antenatal and postpartum care; Cancers of the reproductive system; and Gender-based violence.
- Communication and Advocacy, including promoting visibility of the organization and its work, resource mobilization, and disseminating and using research findings to strengthen policy and practice.
- Service provision, for example through the night clinic and community mobilization activities;
- Institutional development of ICRH-M, including strengthening governance mechanisms, institutional capacity, and monitoring and evaluation of the organization's work.

Preparation of introduction of ANC kits at the health centre in Songo, Tete province

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.

Contact

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Website www.icrhb.org