Abstract book
Livre des résumés

57th ITM Colloquium – 57ème Colloque IMT

MATERNAL & NEONATAL HEALTH BEYOND 2015
Colloquium 2015
Rabat, 24-27 November 2015
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Foreword

This annual Institute of Tropical Medicine (ITM) Colloquium, with maternal and neonatal health as its theme, is organized in partnership with the National School of Public Health, Rabat. Every other year the ITM organizes a colloquium in a country in which it has an institutional collaboration. In Morocco, the Colloquium crowns a partnership with the Ministry of Health, which began with the creation of the National School of Public Health (ENSP- formerly INAS) more than 25 years ago. The collaboration was born in 1989 through the ITM’s support to ENSP in the development of its Masters courses in public health, and soon grew to include collaborative research on Morocco’s health care system. Throughout this quarter century of collaborative work, maternal health has represented our core concern. Together, we have completed almost ten research projects during this period, some of which have contributed to changes in the country’s health policies. In parallel with these efforts, Morocco has progressively placed the reduction of maternal mortality on the agenda by developing a complex strategy, shown to be successful in the 2014 Lancet Midwifery series. This success is the result of cumulative efforts over the past two decades.

Unfortunately, the targets for global reduction of maternal and neonatal mortality set in terms of the Millennium Development Goals 4 & 5 have not been achieved. This relative failure can be explained in part by the fact that not all pregnant women delivered with a skilled attendant – in turn partly because of inadequate access to and quality of emergency obstetric and neonatal care. Physical access to health facilities remains a problem in many low and middle income countries and this problem is often aggravated by women’s fear that they will be disrespected and abused in existing facilities. Women’s motivation to deliver in a health facility depends not only on physical access but on their trust in health care services and providers of care. It is therefore necessary to identify innovative strategies for promoting respectful, good quality care during delivery by committed health personnel, as well as for involving communities so as to encourage more pregnant women to give birth in health facilities.

In addition to reducing mortality, maternal health programs aim to ensure a healthy life for all throughout the life cycle. This requires that complications during pregnancy and childbirth are identified and managed in good time. However, even when a woman is discharged ‘fully recovered’
from hospital, we know that this does not always imply a clean bill of health for her and her baby. Exploring the consequences for the physical, mental and social health of women who have suffered severe maternal complications is essential for the development of adequate management strategies, including sensitization of health professionals and communities.

Finally, when a maternal death does occur, it is rare that health professionals identify and analyze the circumstances of death. Lessons can be learned from such analyses and countries are encouraged to implement a maternal death surveillance system. However, many questions remain as to how best to implement the various maternal death surveillance systems. For example, is it necessary to have national coverage or is a sample sufficient? What is the cost-utility of verbal autopsies in addition to the investigations into deaths at a hospital? What is the recommended frequency for releasing reports? And how should the findings of these reports be used for action and policy change?

The aim of this Colloquium is to take stock of these three themes - respectful childbirth; consequences of maternal morbidity; and maternal death surveillance systems - in order to produce knowledge, provide a platform for networking and professional exchange between global researchers in MNCH, disseminate innovative implementation experience and identify research priorities that will contribute to the achievement of the 2030 Sustainable Development Goals.

Vincent De Brouwere
on behalf of the organizers
Avant-propos

Ce colloque annuel de l’Institut de Médecine Tropicale d’Anvers (IMT) est organisé en partenariat avec l’Ecole Nationale de Santé Publique de Rabat sur la thématique de la santé maternelle et néonatale. Une année sur deux l’IMT organise cet événement dans un pays avec lequel une collaboration institutionnelle existe. Au Maroc, il couronne une collaboration avec le Ministère de la santé qui a commencé avec la création de l’Ecole Nationale (anciennement INAS) il y a plus de 25 ans. La collaboration a débuté en 1989 par un appui au développement du cours de maîtrise en santé publique et s’est rapidement étendue à la recherche sur le système de santé. Un axe de recherche particulier a été prédominant au cours de ces années : la santé maternelle. Près de 10 projets de recherche ont été réalisés ensemble durant cette période, certains ayant contribué au changement des politiques de santé. En parallèle, le Maroc a progressivement mis la réduction de la mortalité maternelle à l’agenda en développant une stratégie complexe – décrite comme un succès dans la série ‘Midwifery’ du Lancet en 2014. Ce succès est le résultat d’efforts cumulés les deux dernières décennies.

Malheureusement, dans le monde, la diminution de la mortalité maternelle n’a pas été à la hauteur des objectifs du millénaire fixés en 2000. Cet échec relatif peut être expliqué en partie parce que les femmes enceintes n’ont pas toutes accouché avec du personnel qualifié, en partie parce que l’accès et la qualité des soins obstétricaux d’urgence ne sont pas suffisants. L’accès physique aux formations sanitaires reste un problème dans beaucoup de pays pauvres mais ce problème est souvent aggravé par la crainte qu’ont les femmes de ne pas être respectées. La motivation des familles à faire l’effort de se rendre dans une structure de santé au moment de l’accouchement dépend de la confiance qu’elles ont vis-à-vis des services de santé en général et des personnels de santé. Il est donc nécessaire d’identifier des stratégies novatrices pour promouvoir et assurer un accouchement respectueux et de qualité par un personnel de santé engagé. Il sera aussi nécessaire d’impliquer les communautés de manière à ce que davantage de parturientes donnent naissance dans les établissements de santé.

Au-delà de la réduction de la mortalité, les programmes de santé maternelle visent une vie en bonne santé pour toutes/tous tout au long du cycle de la vie. Cela implique que les complications au cours de la grossesse
et de l’accouchement soient identifiées et prises en charge à temps. Cependant, même lorsque la femme sort apparemment guérie de ses complications, on se rend compte que ce n’est pas sans conséquences pour son bébé et pour elle-même. Explorer ces conséquences qui affectent la santé physique, mentale et sociale des femmes ayant subi des complications maternelles sévères est indispensable pour améliorer les stratégies de prise en charge et sensibiliser les professionnels de santé et les communautés.

Enfin, lorsqu’un décès maternel survient, il reste rare que les professionnels de santé l’identifient et analysent les circonstances de ce décès. On peut apprendre beaucoup de ces analyses et les pays sont encouragés à implanter un système de surveillance des décès maternels. Cependant, beaucoup de questions restent posées sur les modalités de mise en œuvre des différents systèmes de surveillance des décès maternels. Par exemple, faut-il une couverture nationale du système de surveillance ou un échantillon suffit-il ? Quel est le coût-utile des enquêtes sur les décès à domicile en plus des enquêtes sur les décès à l’hôpital ? Quelle est la fréquence de diffusion des rapports la plus pertinente ? Comment l’information issue de ces rapports est utilisée pour l’action et le changement politique ?

Le but du colloque est de faire le point sur ces trois thèmes – humanisation de l’accouchement, conséquences de la morbidité maternelle et systèmes de surveillance des décès maternels - en termes de connaissances et d’expérience d’implantation innovantes, d’offrir une plateforme d’échange entre professionnels de santé et chercheurs internationaux dans le domaine de la santé maternelle et néonatale, et d’identifier les priorités de recherche pour contribuer aux Objectifs de Développement Durable de 2030.

Vincent De Brouwere
au nom des organisateurs
Conference Program

Tuesday 24th November 2015

12:00-14:00  Registration

14:00-15:00  Academic opening session

  Pr. EL Houssaine Louardi (Minister of Health)
  Dr. Belghiti Alaoui (General Secretary, MoH)
  Mina Abaacrouche (ENSP)
  Vincent De Brouwere (ITM),
  Bruno Gryseels (ITM)

15.00-15.15  Screening of movie “Mothers talking”

15:15-16:00  Wrap up Vancouver and Mexico conferences

  Charlotte Warren (Population Council, Washington DC, USA)

  Maternal & neonatal health beyond 2015: issues and challenges
  Marge Berer (Coordinator, International Campaign for Women’s Right to Safe Abortion, UK)

16:00-16:30  Coffee break

16:30-18:30  Theme 1-Session 1: Respectful Childbirth:

  Taking stock
  Amphitheater

16:30-17:00  Keynote presentations:

  Charlotte Warren (Population Council, USA)
  Sundari Ravindran (Sree Chitra Tirunal Institute for Medical Sciences and Technology, India)
**Chairs:**
Yassir Ait Benkaddour (University Cadi Ayyad, Marrakech, Morocco) & Fabienne Richard (ITM/GAMS, Belgium)

**17:00-18:00 Presentations:**
1. Disrespectful maternal care in health facilities in four sub-Saharan African countries: recognized as a problem but not prioritized - E Duysburgh (Belgium)
2. “After all, if I don’t tell, I will not be humiliated”:
   Misinformation as strategy against domination and humiliation in maternal care decision-making interactions - L Yevoo (The Netherlands)
3. Experience of disrespect and abuse among women seeking reproductive health in four health centers in Dakar (Senegal) - B Mané (Senegal)
4. Practices of women reacting to disrespect and abuse during childbirth: Results from a body of 10 years of qualitative data in Benin - JP Dossou (Benin)

**18:00-18:30 Synthesis Morocco:**
Rachid Bezad (University M^ed^ V Souissi, Rabat, Morocco)

**18:30 Closure day 1**

**19:00 Colloquium opening reception at ENSP**
Wednesday 25th November 2015

08:00-09:00  Registration

09:00-11:30  Theme 1-Session 2: Respectful Childbirth: Changing for the better
Amphitheater

09:00-09:30  Keynote presentations:

Michel Boulvain (Geneva University Hospital, Switzerland),

Rima Jolivet (Harvard T. H. Chan School of Public Health, USA)

Chairs:
Khalid Lahlou (Ministry of Health, Morocco)
& Thérèse Delvaux (ITM, Belgium)

9:30-10:30  Presentations:

1. "I am never coming back to the hospital." On promoting understanding between Yanomami women and childbirth caretakers " - J Gonçalves Martín (UK)

2. Respectful and disrespectful midwifery care practice within an urban Tanzanian labor ward - K Shimoda (Japan)

3. Where is the baby in the respectful childbirth agenda? A preliminary study on disrespectful care of newborns - E Sacks (USA)

4. How to achieve women-centered quality improvement in a maternity department? - G Esegbona (UK)

5. Midwives empower midwives through twin2twin - F Cadée (The Netherlands) & M Tibhiri (Morocco)

10:30-11:00  Coffee break
11:00-11:30  Synthesis Morocco
Aicha Kharbach (University M^ed V, Rabat, Morocco)

11:30-12:30  Parallel Sessions

**Poster Session Theme I – Room 11**

*Moderators:*
Bettina Utz (ITM) & Asmae Khattabi (ENSP)

1- Assessment of informed consent process for caesarean section delivery in Mulago hospital, Uganda - B Mukasa (Uganda)
2- Quelle est la place de la dimension humaine dans la qualité des services de santé maternelles? - S Derouiche (Tunisia)
3- Promoting accountability for respectful birth through report card- Experiences from two blocks of Dahod district, Gujarat, India - R Khanna (India)
4- Supportive/facilitative supervision model to address disrespectful childbirth in low developing countries - L Wampande (Uganda)
5- “She is my neighbour”: traditional birth attendants in poor urban areas of Cairo - R Hammonds (Belgium)
6- Décentralisation de l’accouchement humanisé dans les départements de l’Atlantique et du Littoral, Bénin - C Aguessy (Benin)
7- Skilled birth attendants focus on ‘physical care’ vs the ‘special touch’ of traditional birth attendants (TBAs): perceived implications for respectful birthing of Malawi’s TBA ban - I Uny (UK)
8- Respectful maternity care from the perspectives of users and providers in southern Tanzania - T Tancred (UK)
9- Itinéraire psychique de la césarienne de six primipares camerounaises - M Ndjé (Cameroon)
Session S1: M-health in MNH - Amphitheatre

Keynote presentation:
Hani Farouk (EMRO, Egypt)

Chairs:
Albrecht Jahn (University of Heidelberg, Germany)
& Samia Chakri (Division of e-government, Ministry of ITIDE, Morocco)

1- Les facteurs de succès de l’implantation et de l’utilisation de la télésanté pour l’accès aux soins de santé maternelle en Afrique subsaharienne - M Ag Ahmed (Canada)
2- Mobile for Mothers: Results from the baseline study of a quasi-experimental intervention in Jharkhand, rural India - O Ilozumba (The Netherlands)
3- Effect of home visits and mobile phone consultations on maternal and newborn care practices in Masindi and Kiryandongo, Uganda: a community-intervention trial - R Mangwi Ayiasi (Uganda)

12:30-14:00  Lunch break

14:00-17:30  Theme 2-Session 1: Maternal morbidity: A global perspective
Amphitheater

14:00-14:30  Keynote presentations:

Veronique Filippi (LSHTM, UK)
Katerini Storeng (University of Oslo)

Chairs:
Mina Abaacrouche (ENSP, Morocco)
& Bettina Utz (ITM, Belgium)
14:30-16:00 Presentations:

2. Effects of maternal morbidity on women’s well-being and functioning: a systematic review - **K Machiyama** *(UK)*
3. Abortion-related near miss morbidity in Zambia - **O Owolabi** *(UK)*
4. Santé mentale maternelle : morbidité dépressive périmatatale chez les mères adolescentes au Cameroun - **J Djatché** *(Cameroon)*
5. Prevalence of postpartum depression among recently delivering mothers in Nablus district and its associated factors - **A Shaheen** *(Palestine)*
6. Applicability of the WHO Maternal Near Miss Approach in low and middle income countries - **T Firoz** *(Canada)*

16:00-17:00 Parallel Sessions during coffee break

**Poster session II A - Room 11**

**Moderator: Thérèse Delvaux** *(ITM)*

1. Facteurs pronostiques de la mortalité maternelle chez les éclamptiques en réanimation, Maternité Lalla Meriem CHU Ibn Rochd, Casablanca, Maroc - **K Zine** *(Morocco)*
2. Unregulated usage of labor-inducing medication in a region of Pakistan with poor drug regulatory control: characteristics and risk patterns - **S Caluwaerts** *(Belgium)*
3. The Mothers’ status: two years after undergoing caesarean section in a rural emergency obstetrics care center in Burundi - **W van den Boogaard** *(Belgium)*
4. Maternal and perinatal outcomes of pregnant/postpartum women with eclampsia in a large referral hospital in Bo, Sierra Leone - **S Caluwaerts** *(Belgium)*
5. Learning from the 1st obstetric fistula patients conference – how to improve the quality of care - **G Esegbona** *(UK)*
6. Physical, emotional and economic burden of caregivers for women with obstetric fistula - A El Ayadi (USA)  
7. Maternal factors associated with breast milk quality indicators in Iquitos, Peru - L Mofid (Canada)  
8. Exploring postnatal maternal morbidity through home-visits: A prospective community-based study in a Palestinian rural village, West Bank - S Hassan (Palestine)  

Poster session II B - Room 13

Moderator: Radouane Belouali (independent consultant)  
1- What profile of neonatal mortality in the Wilaya of Oran, Algeria to the 2015 deadline? - N Heroual (Algeria)  
2- Bacteriological profile of neonatal infection in Mohammed VI Hospital, University of Marrakesh, Morocco - N El Idrissi (Morocco)  
3- Risk factors for congenital malformations: Prospective study at the Souissi Maternity Hospital, Rabat, Morocco - A Barkat (Morocco)  
4- Dépistage néonatal de l’hypothyroïdie congénitale - Implantation de la phase pilote au Maroc - L Acharai (Morocco)  
5- Community managed nutrition centers for improving maternal nutrition and reducing IUGR in an indigenous tribal population – Experience from the Fulwari Initiative in India - S Garg (India)  
6- Évaluation de la qualité de la consultation prénatale et postnatale : cas du dépistage et prise en charge de la pré-eclampsie / éclampsie - A Kharbach (Morocco)  
7- Prevalence of congenital heart disease in newborns of diabetic mothers and in macrosomic newborns in Morocco - N El Idrissi (Morocco)  
8- Vitamin D status in pregnant women and newborns : reports of 102 cases - A Barkat (Morocco)  
9- Les infections du postpartum à la Maternité du Centre Hospitalier Prince-Régent Charles (Bujumbura, Burundi) – JM Chaplain (France)
Moderator: Hafid Hachri (WHO Morocco)

1- Les audits des décès maternels et infantiles dans les départements de l’Atlantique et du Littoral, Bénin, 2 ans après avoir été rendu obligatoire par arrêté ministériel - T Okayasu (Benin)

2- Barriers and bottleneck analysis (BBA) of maternal mortality in Algeria: Enhancing the maternal death audit system - L Oubraham (Algeria)

3- La mortalité maternelle et néonatale au Cameroun : les défis de la mise en place d’un système de surveillance des décès maternels et riposte (SDMR) fiable. - N Vogue (Cameroon)

4- Apport des audits obstétricaux dans la réduction de la mortalité maternelle et périnatale dans la zone sanitaire d’Aplahoue-Dogbo-Djakotomey de 2005 à 2013. - J Saizonou (Benin)

5- Maternal death reviews – a review of facility based maternal deaths reviews from Nigeria - O Kuti (Nigeria)

6- Measuring maternal mortality using a reproductive age mortality study (RAMOS) - F Mgawadere (Malawi/UK)

7- Analyse du système tunisien de surveillance de la mortalité maternelle - JE Hamdi (Tunisia)

17:00- 17:30 Synthesis Morocco: Yassir Ait Benkaddour (University Cadi Ayyad, Marrakech, Morocco)

17:30 Closure day 2
Thursday 26th November 2015

09:00-11:00 Theme 2-Session 2: Maternal morbidity: 
*Consequences on women’s and newborn health – life-course perspective*  
Amphitheater

09:00-09:30 Keynote presentations:

Julia Hussein (University of Aberdeen, UK)  
Hannah Blencowe (LSHTM, UK)

*Chair:*  
Amina Barkat (University Mohammed V, Rabat, Morocco) 
& Michel Boulvain (Geneva University Hospital, Switzerland)

09:30-11:00 Presentations:

1. Grossesse et accouchement chez la femme obèse – A Kharbach (Morocco)  
2. Maternal carriage of group B streptococcus and Escherichia coli in a rural Mozambican hospital – L Madrid (Spain)  
3. Impact of HIV on maternal morbidity, birth outcomes and infant health in Mozambique - R González (Spain)  
4. How do low birthweight neonates fare two years after discharge from a low technology neonatal care unit in a rural district hospital in Burundi - W van den Boogaard (Belgium)  
5. Conséquences des épisodes de near miss sur la santé des femmes au Maroc - B Assarag (Morocco)  
6. Rebuilding life after obstetric fistula – a look into the lives of women in rural Tanzania - J Irani (Belgium)

11:00-11:30 Coffee break

11:30-15:00 Theme 2-Session 3: Maternal morbidity: 
*Current strategies and novel approaches*  
Amphitheater
11:30-12:00  Keynote presentations:

Özge Tunçalp (WHO, Geneva)
Albrecht Jahn (University of Heidelberg, Germany)

Chairs:
Ahmed Boudak (Ministry of Health, Morocco) &
Véronique Filippi (LSHTM, UK)

12:00-13:00  Presentations:

1. Themes and trends in qualitative research on women’s experiences of maternal morbidities in low and lower-middle income countries - I Lange (UK)
2. Community-based prevention and management of severe pre-eclampsia and eclampsia in a low-resource setting of Bangladesh - J Ferdous (Bangladesh)
3. Measurement of maternal postpartum fatigue in Peru using standardized scales - L Mofid (Canada)
4. Development and preliminary validation of the post-fistula repair reintegration tool among Ugandan women - A El Ayadi (USA)

13:00-13:30  Synthesis Morocco: Mina Abaacrouche (ENSP, Morocco)

13:30-15:00  Lunch break

15:00-17:30  Theme 3: Maternal death surveillance systems (MDSS):
Modalities of implementation
Amphitheatre

15:00-15:30  Keynote presentations:

Luc de Bernis (ex-UNFPA, Geneva, Switzerland)
Charlemagne Ouédraogo (University of Ouagadougou, Burkina Faso)
Chairs:
Chakib Nejjari (UM 6, Casablanca, Morocco) & Vincent De Brouwere (ITM, Belgium)

15:30-17:00 Presentations:

1. Underreporting of maternal deaths in the current surveillance system in Morocco - S Abouchadi (Morocco)
2. Le système d’audit des décès maternels en Tunisie: performances et limites - M Chaouch (Tunisia)
3. La surveillance des décès maternels au Cameroun : les défis de l’intégration dans la Surveillance Intégrée des Maladies et Riposte - M Kouo Ngamby (Cameroon)
4. Contraintes et obstacles à l’intégration de la surveillance de la mortalité maternelle dans les structures de santé de la ville de Lubumbashi, RDC – A Ntambue (DRC)
5. Building a cost-effective system of maternal death surveillance in resource-poor settings by involving communities and innovative implementation structures - S Garg (India)
6. Dead Women Talking - An alternative approach to knowledge creation on maternal deaths in India – R Khanna (India)

17:00-17:30 Synthesis Morocco: Katra-Ennada Darkaoui (Independent Consultant, Morocco)

17:30 Coffee break and closure day 3

20:30 Gala dinner at Ksar el Kabbaj
Friday 27th November 2015

8:45-10:15 Parallel Sessions

Publish or perish: tips for publishing - Room 6
Editors from various journals provide insights what is important for publishing
Marge Berer (Founding Editor of RHM)
Julia Hussein (Editorial Board BJOG)

Session S2: Quality of care - Amphitheatre
Özge Tunçalp (WHO): Quality of care for pregnant women and newborns: the WHO vision
Vincent Fauveau (Women and Health Alliance International): QUIP care: indicator and tool for ensuring better quality of intra-partum care
Haile Gebreselassie (IPAS): Quality post-abortion care

10:15-10.30 Coffee break

10:30-13:00 Maternal health beyond 2015
Amphitheater

10:30-12:00 Maternal Health beyond 2015: where do we go from here?

Forum Discussion
Plenary session with all keynote speakers

Invited guest: Mulu Muleta (Women & Health Alliance International, Ethiopia)

Synthesis: Haifa Madi (EMRO) & Vincent De Brouwere (ITM)

12:00-13:00 Official Closing of 57th Colloquium

Dr.Belghiti Alaoui (General Secretary, MoH)
Mina Abaacrouche (ENSP)
Vincent De Brouwere (ITM)
Bruno Gryseels (ITM)
Programme de la Conférence

Mardi 24 Novembre 2015

12:00-14:00  Inscription

14:00-15:15  Ouverture de la session académique
             Pr.EL Houssaine Louardi (Ministre de la Santé)
             Dr.Belghiti Alaoui (Secrétaire général),
             Mina Abaacrouche (ENSP),
             Vincent De Brouwere (IMT),
             Bruno Gryseels (IMT)

15.00-15.15  Screening du film “Mères parlent”

15:15-16:00  Synthèse des conférences de Vancouver et Mexico
             Charlotte Warren (Population Council, Washington DC, USA)

             Santé maternelle et néonatale après 2015 : enjeux et défis
             Marge Berer (Coordinatrice, Campagne internationale pour le droit des femmes à l’avortement médicalisé, UK)

16:00-16:30  Pause-café

16:30-18:30  Thème 1-Session 1: L’humanisation de l’accouchement:
             Etat de la situation
             Amphithéâtre

16:30-17:00  Présentations introductives :
             Charlotte Warren (Population Council, USA)
             Sundari Ravindran (Institut SreeChitra Tirunal pour les sciences médicales et de la technologie, Inde)
Présidents :
Yassir Ait Benkaddour (Université Cadi Ayyad, Marrakech, Maroc)
& Fabienne Richard (IMT/GAMS, Belgique)

17:00-18:00 Présentations :
1. Disrespectful maternal care in health facilities in four sub-Saharan African countries: recognized as a problem but not prioritized - E Duysburgh (Belgique)
2. “After all, if I don’t tell, I will not be humiliated”:
   Misinformation as strategy against domination and humiliation in maternal care decision-making interactions - L Yevoo (Pays-Bas)
3. Experience of disrespect and abuse among women seeking reproductive health in four health centers in Dakar (Sénégal) - B Mané (Sénégal)
4. Practices of women reacting to disrespect and abuse during childbirth: Results from a body of 10 years of qualitative data in Benin - JP Dossou (Bénin)

18:00-18:30 Synthèse Maroc :
Rachid Bezad (Université M°ed el Souissi, Rabat, Maroc)

18:30 Clôture de la première journée

19:00 Cocktail de bienvenue à l’ENSP
Mercredi 25 Novembre 2015

08:00-09:00  Inscription

09:00-11:30  Thème 1-Session 2: L’humanisation de l’accouchement: 
*Changer pour le meilleur*
Amphithéâtre

09:00-09:30  Présentations introductives :

Michel Boulvain (Hôpitaux Universitaires de Genève, Suisse)
Rima Jolivet (Ecole de Santé Publique de Harvard T. H. Chan, USA)

Présidents :
Khalid Lahlou (Ministère de la Santé, Maroc) &
Thérèse Delvaux (IMT, Belgique)

9:30-10:30  Présentations :

1. "I am never coming back to the hospital." On promoting understanding between Yanomami women and childbirth caretakers - J Gonçalves Martín (UK)
2. Respectful and disrespectful midwifery care practice within an urban Tanzanian labor ward - K Shimoda (Japan)
3. Where is the baby in the respectful childbirth agenda? A preliminary study on disrespectful care of newborns - E Sacks (USA)
4. How to achieve women-centered quality improvement in a maternity department? - G Esegbona (UK)
5. Midwives empower midwives through twin2twin - F Cadée (Pays-Bas) & M Tibhiri (Maroc)

10:30-11:00  Pause-café

11:00-11:30  Synthèse Maroc : Aicha Kharbach (Université Mâed V, Rabat, Maroc)
# Sessions Parallèles

## Session Posters: Thème I – Salle 11

Modératrices: Bettina Utz (ITM) & Asmae Khatibi (ENSP)

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<td>Quelle est la place de la dimension humaine dans la qualité des services de santé maternelles?</td>
<td>S Derouiche (Tunisie)</td>
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<td>Promoting accountability for respectful birth through report card</td>
<td>R Khanna (Inde)</td>
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<td>Supportive/facilitative supervision model to address disrespectful childbirth in low developing countries</td>
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<td>5</td>
<td>“She is my neighbour”: traditional birth attendants in poor urban areas of Cairo</td>
<td>R Hammonds (Belgique)</td>
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<td>6</td>
<td>Décentralisation de l’accouchement humanisé dans les départements de l’Atlantique et du Littoral, Bénin</td>
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<td>Skilled birth attendants focus on ‘physical care’ vs the ‘special touch’ of traditional birth attendants (TBAs): perceived implications for respectful birthing of Malawi’s TBA ban</td>
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<td>Respectful maternity care from the perspectives of users and providers in southern Tanzania</td>
<td>T Tancred (UK)</td>
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<td>9</td>
<td>Itinéraire psychique de la césarienne de six primipares camerounaises</td>
<td>M Ndjé (Cameroun)</td>
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## Session S1: m-Santé en SMI - Amphithéâtre

Présentation introductive: Hani Farouk (EMRO, Egypte)

Présidents:

- Albrecht Jahn (Université d’Heidelberg, Allemagne) &
- Samia Chakri (Division du e-government, Ministère du ICIEN, Maroc)
1- Les facteurs de succès de l’implantation et de l’utilisation de la télésanté pour l’accès aux soins de santé maternelle en Afrique subsaharienne - **M Ag Ahmed** *(Canada)*

2- Mobile for Mothers: Results from the baseline study of a quasi-experimental intervention in Jharkhand, rural India - **O Ilozumba** *(Pays-Bas)*

3- Effect of home visits and mobile phone consultations on maternal and newborn care practices in Masindi and Kiryandongo, Ouganda: a community-intervention trial - **R Mangwi Ayiasi** *(Ouganda)*

12:30-14:00  Pause déjeuner

14:00-17:30  Thème 2-Session 1: Morbidité Maternelle – *Perspective globale*

Amphithéâtre

14:00-14:30  Présentations introductives:

**Veronique Filippi** (LSHTM, UK)
**Katerini Storeng** (Université d’Oslo, Norvège)

*Présidentes:*  
**Mina Abaacrouche** (ENSP, Rabat, Maroc)
& **Bettina Utz** (ITM, Belgique)

14:30-16:00  Présentations :


2. Effects of maternal morbidity on women’s well-being and functioning: a systematic review - **K Machiyama** (UK)

3. Abortion-related near miss morbidity in Zambia - **O Owolabi** (UK)

4. Santé mentale maternelle : morbidité dépressive périnatale chez les mères adolescentes au Cameroun - **J Djatché** (Cameroun)
5. Prevalence of postpartum depression among recently delivering mothers in Nablus District and its associated factors - **A Shaheen** (Palestine)
6. Applicability of the WHO Maternal Near Miss Approach in low and middle income countries - **T Firoz** (Canada)

**16:00-17:00**  
Sessiions parallèles pendant la pause-café

**Session Poster II A - Salle 11**

**Modératrice: Thérèse Delvaux** (IMT)

1- Facteurs pronostiques de la mortalité maternelle chez les éclamptiques en réanimation, Maternité Lalla Meriem CHU Ibn Rochd, Casablanca, Maroc - **K Zine** (Maroc)
2- L’avortement provoqué en Algérie, des victimes et un tabou - **B Ouzriat** (Algéérie)
3- Unregulated usage of labor-inducing medication in a region of Pakistan with poor drug regulatory control: characteristics and risk patterns - **S Caluwaerts** (Belgique)
4- The Mothers’ status: two years after undergoing caesarean section in a rural emergency obstetrics care center in Burundi - **W van den Boogaard** (Belgique)
5- Maternal and perinatal outcomes of pregnant/postpartum women with eclampsia in a large referral hospital in Bo, Sierra Leone - **S Caluwaerts** (Belgique)
6- Learning from the 1st obstetric fistula patients conference – how to improve the quality of care - **G Esegbona** (UK)
7- Physical, emotional and economic burden of caregivers for women with obstetric fistula - **A El Ayadi** (USA)
8- Maternal factors associated with breast milk quality indicators in Iquitos, Peru - **L Mofid** (Canada)
9- Exploring postnatal maternal morbidity through home-visits: A prospective community-based study in a Palestinian rural village, West Bank - **S Hassan** (Palestine)
### Session Poster II B – Salle 13

**Modérateur: Radouane Belouali** (consultant indépendant)

1. What profile of neonatal mortality in the Wilaya of Oran, Algeria to the 2015 deadline? - **N Heroual** (Algérie)
2. Bacteriological profile of neonatal infection in Mohammed VI Hospital University of Marrakesh, Morocco - **N El Idrissi** (Maroc)
3. Risk factors for congenital malformations: Prospective study at the Souissi Maternity Hospital, Rabat, Morocco - **A Barkat** (Maroc)
4. Dépistage néonatal de l’hypothyroïdie congénitale - Implantation de la phase pilote au Maroc - **L Acharai** (Maroc)
5. Community managed nutrition centers for improving maternal nutrition and reducing IUGR in an indigenous tribal population – Experience from theFulwari Initiative in India - **S Garg** (Inde)
6. Évaluation de la qualité de la consultation prénatale et postnatale : cas du dépistage et prise en charge de la pré-eclampsie / eclampsie - **A Kharbach** (Maroc)
7. Prevalence of congenital heart disease in newborns of diabetic mothers and in macrosomic newborns in Morocco. - **N El Idrissi** (Maroc)
8. Vitamin D status in pregnant women and newborns : reports of 102 cases - **A Barkat** (Maroc)
9. Les infections du postpartum à la Maternité du Centre Hospitalier Prince-Régent Charles (Bujumbura, Burundi) – **JM Chapplain** (France)

### Session Poster III – Salle 9

**Modérateur: Hafid Hachri** (WHO, Maroc)

1. Les audits des décès maternels et infantiles dans les départements de l’Atlantique et du Littoral, Bénin, 2 ans après avoir été rendu obligatoire par arrêté ministériel - **T Okayasu** (Benin)
2. Barriers and bottleneck analysis (BBA) of maternal mortality in
3. La mortalité maternelle et néonatale au Cameroun : les défis de la mise en place d’un système de surveillance des décès maternels et riposte (SDMR) fiable. - N Vogue (Cameroun)


5. Maternal death reviews – a review of facility based maternal deaths reviews from Nigeria - O Kuti (Nigéria)

6. Measuring maternal mortality using a reproductive age mortality study (RAMOS) - F Mgawadere (Malawi/UK)

7. Analyse du système tunisien de surveillance de la mortalité maternelle - J Elhamdi (Tunisie)

17:00-17:30 Synthèse Maroc: Yassir Ait Benkaddour (Université Cadi Ayyad, Marrakech, Maroc)

17:30 Clôture de la deuxième journée
Jeudi 26 Novembre 2015

09:00-11:00  Thème 2-Session 2: Morbidité Maternelle  
**Conséquences sur la santé des femmes et du nouveau-né au long du cycle de la vie**  
Amphithéâtre

09:00-09:30  Présentations introductives:  

Julia Hussein (Université d’Aberdeen, UK)  
Hannah Blencowe (LSHTM, UK)

*Présidents*:
Amina Barkat (Université M4, Rabat, Maroc)  
& Michel Boulvain (Hôpitaux Universitaires de Genève, Suisse)

09:30-11:00  Présentations :

1. Grossesse et accouchement chez la femme obèse -  
   A Kharbach (Maroc)
2. Maternal carriage of group B streptococcus and  
   Escherichia coli in a rural Mozambican hospital - L  
   Madrid (Espagne)
3. Impact of HIV on maternal morbidity, birth  
   outcomes and infant health in Mozambique - R  
   González (Espagne)
4. How do low birthweight neonates fare two years  
   after discharge from a low technology neonatal  
   care unit in a rural district hospital in Burundi - W  
   van den Boogaard (Belgique)
5. Conséquences des épisodes de near miss sur la  
   santé des femmes au Maroc - B Assarag (Maroc)
6. Rebuilding life after obstetric fistula – a look into  
   the lives of women in rural Tanzania - J Irani  
   (Belgique)

11:00-11:30  Pause-café

11:30-15:00  Thème 2-Session 3: Morbidité Maternelle –
Stratégies actuelles et nouvelles approches
Amphithéâtre

11:30-12:00 Présentations introductives:

Özge Tunçalp (WHO, Geneva)
Albrecht Jahn (Université d’Heidelberg, Allemagne)

Présidents:
Ahmed Boudak (Ministère de la Santé, Maroc) &
Véronique Filippi (LSHTM, UK)

12:00-13:00 Présentations :

1. Themes and trends in qualitative research on
women’s experiences of maternal morbidities in
low and lower-middle income countries - I Lange
(UK)

2. Community-based prevention and management of
severe pre-eclampsia and eclampsia in a low-
resource setting of Bangladesh - J Ferdous
(Bangladesh)

3. Measurement of maternal postpartum fatigue in
Peru using standardized scales - L Mofid (Canada)

4. Development and preliminary validation of the
post-fistula repair reintegration tool among
Ugandan women - A El Ayadi (USA)

13:00-13:30 Synthèse Maroc: Mina Abaacrouche (ENSP, Maroc)

13:30-15:00 Pause déjeuner

15:00-17:30 Thème 3: Système de surveillance des décès maternels
(SSDM): Modalités d’implantation
Amphithéâtre

15:00-15:30 Présentations introductives:

Luc de Bernis (ex-UNFPA, Genève, Suisse)
Charlemagne Ouédraogo (Université de Ouagadougou,
Burkina Faso)
Présidents:  
Chakib Nejjari (UM-edVI, Casablanca, Maroc) & Vincent De Brouwere (IMT, Belgique)

15:30-17:00  
Présentations:

1. Underreporting of maternal deaths in the current surveillance system in Morocco - S Abouchadi (Maroc)
2. Le système d’audit des décès maternels en Tunisie: performances et limites - M Chaouch (Tunisie)
3. La surveillance des décès maternels au Cameroun : les défis de l’intégration dans la Surveillance Intégrée des Maladies et Riposte - M Kouo Ngamby (Cameroun)
4. Contraintes et obstacles à l’intégration de la surveillance de la mortalité maternelle dans les structures de santé de la ville de Lubumbashi, RDC - A Ntambue (RDC)
5. Building a cost-effective system of maternal death surveillance in resource-poor settings by involving communities and innovative implementation structures - S Garg (Inde)
6. Dead Women Talking - An alternative approach to knowledge creation on maternal deaths in India - R Khanna (Inde)

17:00-17:30  
Synthèse Maroc: Katra-Ennada Darkaoui (consultante indépendante, Maroc)

17:30  
Pause-café et clôture de la troisième journée

20:30  
Dîner de gala à Ksar el Kabbaj
Vendredi 27 Novembre 2015

**8:45-10:15 Sessions Parallèles**

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<td><strong>Vincent Fauveau</strong> (Women and Health Alliance International): QUIP care: indicator and tool for ensuring better quality of intra-partum care</td>
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<td><strong>Haile Gebreselassie</strong> (IPAS): Quality post-abortion care</td>
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**10:15-10:30** Pause-café

**10:30-13:00 Santé maternelle et néonatale après 2015**  
Amphithéâtre

**10:30-12:00 Santé maternelle et néonatale après 2015: Où allons-nous?**

*Discussion plénière*: Séance plénière avec tous les conférenciers

**Les experts invités: Mulu Muleta** (Women & Health Alliance International, WAHA Éthiopie)

**Synthèse: Haïfa Madi** (EMRO) & **Vincent De Brouwere** (IMT)

**12:00-13:00 Clôture officielle du 57ème Colloque**

**Dr.Belghiti Alaoui** (Secrétaire général du MS)  
**Mina Abaacrouche** (ENSP),  
**Vincent De Brouwere** (IMT),  
**Bruno Gryseels** (IMT)
Theme 1

Respectful Childbirth

Taking stock

Thème 1

L’humanisation de l’accouchement

Etat de la situation

Session 1
Keynote Presentation by Charlotte Warren

Geographic and financial barriers (formal and informal) continue to deter pregnant women from seeking care but disrespect and abuse (D&A) during labor and delivery influences women’s decisions to seek obstetric care at health facilities leading to low uptake of maternal and newborn health services. Despite nearly two decades of growing concern about poor provider attitudes and women experiencing disrespectful treatment in health facilities, there are few agreed definitions or prevalence studies. In addition there are few maternal health service interventions that have a central objective focusing on these issues. Instead they are embedded in interventions that focus on improving perceptions of quality of care with limited effect. This session will take stock of the current issues, describe an approach to defining disrespect and abuse, including challenges to measuring the prevalence. Finally promising practices to mitigate D&A will be described.
Spurred on by the Millennium Development Goal of reducing maternal mortality ratios globally, the first two decades of the 21st century saw major policy and programmatic thrusts towards skilled birth attendance for all women. In many LMICs, skilled birth attendance was interpreted as synonymous with institutional deliveries and several interventions were initiated to persuade women to deliver in health facilities. Studies were conducted to unravel the puzzle of why women stayed away from facility-based deliveries. Disrespect and abuse in health facilities emerged as one significant factor across diverse settings [1-5].

The movement for “Respectful Maternity Care” has emerged in response to these findings, with the active participation of a cross-section of US-based initiatives that were already active in the area of maternal health in LMICs. During the 2000s, they conducted research studies to document disrespect and abuse experienced by women during childbirth in institutions and implemented interventions to promote respectful maternity care were piloted. A detailed landscape analysis carried out by Bowser and Hill (2010) helped standardize definitions of categories of disrespect and abuse. This and subsequent efforts to develop indicators and measurement tools have contributed to improving the evidence-base in this area [1, 7]. The issue has been further center-staged following a World Health Organization statement affirming that ‘every woman has the right to the highest attainable standard of health, which includes the right to dignified, respectful health care throughout pregnancy and childbirth [6].

In this session we will provide an overview of evidence on the extent and nature of disrespect and abuse experienced by women delivering in health facilities from health care providers, and on the consequences to the health of the mother and infant and future health-seeking behavior of women. We will also describe approaches to promoting respectful maternity care adopted by interventions that are a part of the Respectful Maternity Care (RMC) Movement.

This overview will juxtapose the conceptual approaches and interventions of the RMC movement of the 21st century against those of the World
Health Organization’s recommendations for appropriate technology in childbirth produced as early as in 1985, and that of the “Humanizing Childbirth Movement” mainly in the Latin American Region and Europe. While the RMC Movement has made significant contributions to raising awareness on and persuading action to mitigate the extent of disrespect and abuse that women experience during institutional delivery, it fails to question the medicalization of childbirth that is a key underlying factor. We therefore recommend commitment to and advocacy for the true humanization of childbirth where women are in primary control of their birthing.

References
Background:
The ‘Missed Opportunities in Maternal and Infant Health’ (MOMI) project aims to improve maternal, newborn and infant health through upgrading postpartum care and services by designing, implementing and assessing interventions in selected rural health districts in Burkina Faso, Kenya, Malawi and Mozambique.

Methods:
At the project start, at each research site a comprehensive needs assessment including; a stakeholders causal analysis workshop, semi-structured in-depth interviews with stakeholders, and focus group discussions with health workers and women and men from local communities was conducted. This sought to identify current provision of postpartum care. Based on the needs assessment findings and existing evidence-based knowledge regarding good postpartum care, a list of potential interventions was designed by the MOMI teams and final context-specific intervention packages to be implemented were selected and agreed by local stakeholders.

Results:
At each site stakeholders identified poor health workers attitude, including lack of patient centered care and little respect for cultural beliefs and practices as a problem. In focus group discussions community members mentioned roughness and poor attitude of some health workers and expressed their fear of health workers. Based on these findings, at all sites, training of facility health workers on patient centered care and cultural adapted approaches was suggested as an intervention to be implemented to upgrade care. However this was not selected by the stakeholders for inclusion in the final intervention packages in any of the site.
Conclusion:
Although local stakeholders, health workers and clients identified poor health workers attitude as a problem, stakeholders didn’t prioritize this as an issue for action.

1 International Centre for Reproductive Health, Department of Uro-Gynaecology, Ghent University, Belgium
2 Parent and Child Health Initiative Trust, Malawi
3 Institut de Recherche en Sciences et de la Santé, Ouagadougou, Burkina Faso
4 Institute for Global Health, University College London, United Kingdom

Theme 1 - Oral Presentation – Session 1 – 2

“After all if I don’t tell, I will not be humiliated”: Misinformation as strategy against domination and humiliation in maternal care decision-making interactions

Lucy Linda Levoo¹

Introduction & Objectives:
It is important that clients provide accurate medial and other relevant information during care decision-making and interaction with their healthcare providers. What clients reveal or withhold plays a critical role in care decision making. This study explored and analyzed how and why pregnant women control obstetric, medical and other information about themselves when they interact with their healthcare provider at the first antenatal visit, and how this influences caregiver’s decision-making then and subsequently.

Methods:
This study was a case study of two public hospitals in Southern Ghana using the ethnographic methods of participant observation, conversations, interviews and focus group discussions with antenatal, delivery and postnatal clients over a nineteen-month period. Ethical approval was obtained from the Ghana Health Service Ethical Review Board. Data analysis was manual and involved sorting, coding and analyzing transcripts based on emerging themes.
**Findings:**
Many of the women in this study controlled obstetric and other medical information they shared with the caregiver. Behaviors involved hiding, providing partial or even completely withholding information, they felt might cause them to be regarded in a negative light by caregivers or anyone who overheard the information they exchanged with caregivers. Examples included concealing their total number of children, self-induced abortions, indicating a lower gestational age when attending the first antenatal care visit in the second or third trimester or hiding an HIV positive status. Women adopted this behavior as a resistance strategy to mitigate healthcare provider’s power/domination over them; often depicted through disrespectful attitudes and behaviors such as verbal abuse, humiliation, judgmental comments and behaviors; questioning women’s reproductive choices and practices that did not conform to biomedical ideologies and practices. Secondly, women utilized this strategy to evade possible humiliation and indignity because of inadequate privacy and confidentiality in the health facility. The withheld information led to near misses since care providers were then sometimes unaware that a particular woman was a high risk case and did not take the required precautions.

**Conclusions:**
Care decision-making and related outcomes can be affected by the qualitative nature of the client-provider interaction. More attention needs to be paid by caregivers to provide respectful, non-judgmental patient-centered relationships, with adequate and visible assurances of privacy and confidentiality to empower pregnant women to interact freely and provide full essential medical, obstetric and social histories. Despite the resource constraints of settings such as that of this study, much more effort needs to be put into ensuring privacy and confidentiality of the client-provider interaction.

1 University of Wageningen, The Netherlands
Experience of disrespect and abuse among women seeking reproductive health in four health centers in Dakar (Senegal)

Babacar Mané¹, Nafissatou Diop¹, Fatou Bintou Mbow¹

Background:
A literature review demonstrated that Disrespect and Abuse (D&A) are factors potentially contributing to women’s decisions to not attend a health facility for childbirth or other reproductive health (RH) services. Although the phenomenon is recognized worldwide, little is known about the extent and types of D&A in Senegal. To contribute to a better understanding of this phenomenon, an exploratory study was conducted in four urban health centers in the Dakar region.

Objectives:
To examine the prevalence and types of D&A occurring in health facilities; to document perceptions of female clients, providers and community members on D&A and to formulate recommendations for addressing this phenomenon.

Methods:
We screened 339 clients through exit interviews. Among the 120 women who reported D&A (35.4%), 80 were invited to an in-depth interview and five women were enrolled for a life story. We interviewed twenty six service providers, in the majority midwives. Within the community, eight Focus Group Discussions (FGD) including men, women and community leaders were performed to better understand their knowledge and perspectives about D&A.

Findings:
35% of women reported D&A. The most common complaints reported by women were verbal abuse. Women also reported non-assistance during care (40%), non-consented care (39%) and lack of confidentiality (26%). Although less mentioned, physical violence (18%) and detention (14%) remains a form of D&A that has been reported by women. Other forms of D&A emerging from the study include discrimination based on economic power, which favors access by the richest to health services, to the
detriment of the poorest. Other forms of discrimination based on personal relationships with staff who favor their relatives or others with relatives or acquaintances in the health system or facility, included the “recommended” or “protected,” who benefit from special favors or privileges that a person who does not know anyone at the facility cannot request. On the other side, 35% of providers reported that D&A is a common practice in their facility. Overall, six in 10 women reported a negative appreciation of providers’ attitudes and three in 10 indicated that they would not recommend the facility to a parent or other women.

**Conclusion:**
Results from this exploratory study reveal a mixed situation. If in policy and programmatic documents D&A is mentioned, response interventions are not explicit. They are only mentioned in the general policy framework of the Policies, Norms and Procedures (PNP) to improve service quality. During basic education as well as continued training, service provision is barely mentioned, and oversight structures for preventing and handling cases of D&A are absent. Findings demonstrated that D&A are a real issue in health facilities and need to be addressed in training curricula and services guidelines and standards.

1 Population Council, Dakar, Senegal

**Theme 1 - Oral Presentation – Session 1 – 4**

**Practices of women reacting to disrespect and abuse during childbirth: Results from a body of 10 years of qualitative data in Benin.**

Jean-Paul Dossou¹, Lydie Kanhonou¹, Sourou Goufodji¹, Isabelle Lange²

**Background:**
In the current literature on Disrespect and Abuse (D&A) during childbirth, women and providers are usually considered as “passive” victims of a systemic problem. Using the Bourdieu’s theory of practice as theoretical framework, we consider that women have a degree of agency and react to D&A.
**Objectives:**
This study aims to explore the typology of practices of D&A during childbirth in Benin and how women react to D&A.

**Methods:**
We did a qualitative analysis of 232 reports and transcripts of observations of the maternity ward and in-depth interviews with women and their families, providers and facility managers. Those data were collected from 2005 to 2015 in the course of different research projects conducted in 10 district and regional hospitals in Benin. NVIVO10 was used as a data management tool and the analysis was both deductive and inductive.

**Results:**
The maternity ward can be considered as a social field, where the volume of capital usually defines providers as dominant and pregnant women as dominated. Practices of D&A are physical, verbal or psychological violence, stigma and discrimination, shakedown, lack of consent and confidentiality, poor communication and unworthy living conditions. Women react along a spectrum of practices by submission, begging attitude, negotiation, vulnerability compensation, avoidance and violence. Those reactions can be passive or active, immediate or delayed, isolated or conducted collectively at the level of the family or at the level of the community. By converting at different degrees economic, social or cultural capital, women try to improve their social position in the short run, hoping to influence the quality of care for themselves and for their newborn but also to negotiate accountability.

**Conclusion:**
Practices of women reacting to D&A during childbirth should be taken into account while developing definitions, measurement tools, effects and interventions to address this complex socially grounded phenomenon.

1 Centre de Recherche et Reproduction Humaine et en Démographie, CERRHUD, Cotonou, Benin
2 London School of Hygiene & Tropical Medicine, United Kingdom
Santé de la reproduction : Quels connaissances et comportements chez l’homme marocain ?
Enquête en population dans la région du Haut Atlas

Sebbani Majda¹, Adarmouch Latifa¹, Cherkaoui Mohammed², Amine Mohamed¹

Objectifs:
L’objectif était de décrire les connaissances, attitudes et pratiques (CAP) des hommes à l’égard de la santé reproductive.

Méthodes:
Il s’agissait d’une enquête descriptive transversale de type CAP menée à Zrekten (région montagneuse située à 78km de Marrakech) dans le cadre d’un projet portant sur la promotion de la santé maternelle dans la région. L’échantillonnage par deux méthodes (à partir de la visite du souk hebdomadaire et les accompagnateurs à la consultation prénatale) a permis de recruter 74 hommes. La collecte des données s’est déroulée en mars et avril 2014 à l’aide d’un questionnaire traduit en arabe dialectal et administré en face à face par des enquêteurs formés parlant Amazigh. L’analyse des données était de type descriptif et bivariée (seuil de signification statistique à 5%).

Résultats:
La médiane de l’âge était de 38 ans [19 à 80 ans]. La majorité des enquêtés étaient mariés (86,5%). Près de 40% avaient un niveau d’instruction. Un cinquième (21,6%) des enquêtés avaient une couverture sociale médicale. Concernant la planification familiale; 28,4% de l’échantillon ont déclaré méconnaître la possibilité de contrôler les naissances. 77% des cas estimaient connaître au moins un moyen de contraception. La pilule était celui le plus cité. Quant au préservatif il ne l’était que dans une proportion plus faible (21,8%). L’entourage était la principale source d’information des répondants. Parmi 64 hommes vivant en couple, uniquement la moitié (55,4%) utilisait une contraception (pilule). Les deux tiers ont reconnu la nécessité de la surveillance de la grossesse par un professionnel de santé. Chez les mariés (N = 64), 36,9% ont répondu méconnaître la fréquence et le rythme du suivi. Parmi 23 interviewés ayant assisté à une complication
au cours de la grossesse dans leur entourage, la conduite jugée adaptée dans quatre situations était celle de garder la femme à domicile. Le non recours à la consultation prénatale était rapporté dans 56,9% des cas (N = 58), dont 42,4% sans aucune raison. Concernant les facteurs associés aux attitudes et comportements des enquêtés, le niveau d'instruction des hommes était significativement associé au suivi de la grossesse par la conjointe (p = 0,015) et à l’attitude positive à l’égard de l’intérêt de surveiller la grossesse par un professionnel de santé (p = 0,011). Quant au postpartum, la méconnaissance de la possibilité de complications (35,1% des répondants) était significativement associée au non recours à la consultation du post-natale par la conjointe (p = 0,021).

Conclusions:
Des actions d’information, d’éducation et de communication devraient viser d’avantage l’implication des hommes dans des contextes similaires.

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Theme 1

Respectful Childbirth

Changing for the better

Thème 1

L’humanisation de l’accouchement

Changer pour le meilleur

Session 2
Keynote Presentation by Michel Boulvain

Childbirth is an important event in every woman’s life. Globally, the majority of women deliver at home, in a familiar environment. This environment is, however, less safe compared to hospital, where trained personnel can manage complications. Efforts to decrease maternal and perinatal mortality and morbidity include the presence of skilled health personnel attending at each delivery. This is having the drawback that the person does not usually know the pregnant woman, the ambient is unfamiliar and some mistrust may be present.

Little is known about the subject and instruments to measure “satisfaction” with childbirth are far from perfect. When delivery was uneventful, and this is the case in the vast majority of cases, couples are happy whatever happened.

We health care providers should aim at being kind, respectful and, at the same time, alert to manage the complications that may happen. There are, in my opinion, two layers of respect. First, the basic one: be kind, committed to deliver the best care you can to every woman you attend, do as if the person was a relative. Second, a more elaborate one: be aware of the woman’s birth plan, try to understand her wishes beyond having a delivery safe for both mother and child. This cannot be always met, as sometimes it is safer to contradict birth plans, including having to perform unplanned interventions to benefit both mother and her child.

Another aspect to be brought forward is the situation of mistrust towards health care providers prevalent in the US and in many countries. Because of that, there is tendency to perform unnecessary exams (e.g. ultrasound scans) and interventions (e.g. cesarean section), and the reluctance to attempt at difficult vaginal deliveries. The pressure by the medico-legal bias is favoring an increase in interventions and is detrimental to the mother and her child. A good partnership with the patient-clients is important to keep the balance right in obstetrics.
Keynote Presentation by Rima Jolivet

This presentation will focus on the multi-level, multi-sector, multi-partner approaches to tackling disrespect and abuse of childbearing women in maternity care facilities (D&A) and promoting Respectful Maternity Care (RMC) that have raised the salience of this issue to global prominence in the last 5 years. Examples of successful approaches at various levels of the health system, undertaken by actors in various sectors, and targeting various drivers of the problem will be briefly discussed in this overview of collective efforts to promote change for the better.
"I am never coming back to the hospital."

On how to promote understanding between Yanomami women and childbirth caretakers

Johanna Gonçalves Martín

Introduction:
The intersections of care between Yanomami people in Venezuela and the doctors who provide care for pregnant women are often fraught with misunderstandings. This results from the convergence in practice of several different understandings of what life is and the risks of pregnancy and childbirth. For the Yanomami, an indigenous people from Venezuela, diseases and other afflictions are caused by spiritual beings. Pregnancy is not considered as a disease, but it may be a state of increased vulnerability to the attack of these spiritual malevolent beings. Hence, shamanism is part of the network of therapies acknowledged for pregnancy. Childbirth itself is not dangerous, and with a few exceptions, women give birth on their own. For doctors instead, although pregnancy is not defined as a pathology, it is conceived by most health professionals as a time of physiological vulnerability. The practices associated with biomedical pregnancy and childbirth care aim at reducing or controlling an often uncertain risk. Pregnancy, as all matters of the body, is considered first and foremost a biological issue. The misunderstandings between Yanomami people and health professionals result in an increasing number of cases in which the Yanomami perceive they are the victims of disrespectful and violent care, when seeking medical care in the hospital.

Methods:
Drawing upon ethnographical fieldwork among the Yanomami in Venezuela between 2009 and 2011, as well as from medical work with the Yanomami between 2003 and 2006, I analyze diverse situations of care between Yanomami pregnant women and health professionals at the main referral hospital serving the Yanomami. With each case, I try to dissect the grounds of mutual misunderstanding. First, I focus on a case of a birth inside the hospital that was violently co-opted by the doctor, and how this doctor's actions contravened a legal framework in Venezuela against obstetrical violence. Second, I analyze the story of a Yanomami woman
who an incomplete spontaneous abortion and was seriously traumatized by the treatment she received in the hospital.

Discussion of the cases:
Based on the analysis of these cases and my experience as a doctor and anthropologist in this area for several years, I suggest in this paper that even though intercultural misunderstandings are unavoidable, we may be able to learn from them and to engage in a process of ‘controlled equivocation’. That is, some misunderstandings may have deleterious effects, but if we keep an openness to states of disconcertment and learn to be aware of peoples' most important concerns, there might be ways of making obstetrical care practices and technologies work for both the people and the health professionals.

Working towards more compassionate and respectful forms of pregnancy and childbirth care is not a task that can be systematized easily. It requires a deep appreciation of the contexts in which care happens. This involves paying serious attention to the cultural conditions and conceptual systems that shape people's practices and decisions around conception, pregnancy, childbirth and early child care. And symmetrically, it involves a reflexive realization of the cultural conditions and conceptual systems which also shape our own biomedical practices of pregnancy and childbirth care.

Concluding remarks:
I suggest other models of care in pregnancy and childbirth are possible, and present comparative cases in the anthropology of medicine. Finally, I reflect upon how to train caretakers to develop an awareness of these intercultural translations in the process of care. I argue that thinking interculturally is essential for improving the experience and outcomes of women and children during and after birth.

1 University of Cambridge, United Kingdom
Respectful and disrespectful midwifery care practice within an urban Tanzanian labor ward

Kana Shimoda¹

Objectives:
Facility-based childbirth with skilled birth attendants is considered to reduce maternal and neonatal mortality. The institutional delivery rate, however, accounts for only 50.2% of all births in Tanzania. Women’s experience of disrespect and abuse during childbirth is one of the barriers to utilize facilities and it has been growing as a global concern. Yet, there has been little research offering a clear definition of disrespect and abuse during childbirth. This study aimed to describe midwives’ respectful and disrespectful care during childbirth in urban Tanzanian labor wards.

Methods:
Design: This study was qualitative and descriptive, with data from observations of purposively selected midwives.
Setting and participants: The study was conducted at two hospital’s labor wards in Dar es Salaam, Tanzania, which were primary level hospitals that refer patients to the referral hospital. The length of experience of conducting deliveries as midwives were at least more than one year.
Analysis: To observe and describe midwives’ care, observational field notes were used. The content of the field notes were re-described as a verbatim recording to conduct content analysis. Ethics review boards approved the study in both Japan and Tanzania.

Results:
Observations of action, attitudes and behavior of 14 midwives, data of 16 deliveries and eight admissions of pregnant women were analyzed. Derived from the data were three main categories: 1) respectful care, 2) disrespectful care, and 3) un-prioritized and disorganized nursing management. Respectful care; some midwives dignified women by respectfully taking care of them, and not neglecting the progress of their labor. They attempted to assess the progress of labor and took timely and appropriate procedures for delivery. However, midwives also gave women disrespectful and abusive care including harm and abandonment.
Disrespectful care included non-confidential care, non-consented care, physical and verbal abuse, lack of empathy and compassion, abandonment of care and inflicting physical harm. Un-prioritized and disorganized nursing management; at times the care was haphazard and nursing management disorganized. The midwives had little accountability for their practice because they performed their task impromptu without duty assignment and they mostly conducted the deliveries randomly.

Conclusion:
Exploring and understanding more details of respectful and disrespectful care by midwives are an essential first step to improve facility based childbirth care. To improve midwifery care regarding respect and dignity for women, not only pre- and in-service training for changing midwives’ consciousness is crucial, but also improved nursing management is an essential contributor to care at the clinical level.

Emma Sacks

Where is the baby in the respectful childbirth agenda? A preliminary study on disrespectful care of newborns

Objectives:
In September 2014, the WHO released a statement on the prevention and elimination of disrespectful and abusive care during childbirth. This is a necessary step to ensuring respectful maternity care; yet most of this focus has been on mothers. This paper is a preliminary investigation into the burden of disrespectful care of newborn infants.

Methods:
This paper utilized two methods: (1) A literature review was conducted to explore the extant documentation on disrespectful care for newborns; 2) Secondary data analyses were conducted on data from Uganda, Zambia and Mexico, where previous evaluations of maternal health care projects included interviews (N=74) and focus groups (N=48) with recently-
delivered women about their childbirth and neonatal care experiences. Themes around newborn care, including disrespectful and abusive care, were coded and analyzed by thematic content.

**Results:**
From the literature review, we find that respectful care for newborns has been lacking across the continuum of care: for mothers, stillborn infants, and all newborns, including those born preterm and those who die in infancy. Health systems are often not prepared to handle critically-ill newborns and few hospitals have sensitive policies with a range of options for palliation, burials or grieving. In the studies examined in Uganda and Zambia, there were predominantly cases of threats from facilities to deny or delay postnatal care for newborns due to delivery location. In Uganda some women reported outright refusal of care; in Zambia, some women were given lower priority for postnatal care or asked to pay extra due to having a home delivery. In Mexico, there were more cases of maternal-infant separation without consent reported, but fewer accounts of denial of postnatal care. Across countries, women and their newborns experienced discrimination if they were of a lower economic class or were a member of an ethnic or linguistic minority group.

**Conclusions:**
Respectful care for newborns is a neglected, but necessary, issue to address in global health. We need to document cases of neglect and abuse across the globe, and to include newborns and stillborn infants in the respectful maternity care agenda and post-2015 global reproductive care frameworks.

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1 JHU / USAID Maternal and Child Survival Program
How to achieve women-centered quality improvement in a maternity department

Gloria Esegbona

Objectives: To explore maternity workers understanding of women-centered care, and to show them how to identify problems and come up with simple sustainable solutions within healthcare.

Setting: Gogo Chatinkha Women’s Health Department, Queen Elizabeth Central Hospital, Blantyre, Malawi.

Methods: 15 midwives were introduced to quality improvement using a novel model called the art of thinking inside the box over four days in November 2014. In interactive sessions midwives explored the pathophysiology of a women’s box in healthcare that has to be thought about strategically if one is to design simple solutions to complex problems. And then by speaking with mothers and exploring their expectations of the maternity service staff analyzed 3 dimensions – think, in and box; 6 sides (the roof or top down thinking, sides of linear thinking, the floor (flaw) in the bottom); and 12 angles to come up with the space at the center for improving the service. This was all framed on a quality improvement ward round to identify good points and areas for improvement. Then they were encouraged to create a women-centered experience along with women centered quality improvement metrics.

Results: The key concerns of the 20 mothers interviewed was better communication (18), being treated with respect (19) and having a good birth outcome (20). Using driver diagrams and PDSA cycles several women decentered approaches were noted in the department—such as lack of privacy in consultation, failure to listen to mothers concerns and explain to mothers their care and unnecessary intervention. Placed within the box...
model this revealed a complex service with many actors and interfaces often not communicating, and driven from the top rather than being simply grounded in the lives of grassroots stakeholders such as the mothers and frontline staff. Staff acknowledged this but cited challenges in staff shortage, incentives and lack of respect for their role. Their understanding of women centered care was one driven by and focused on the women’s experience. Within days of the workshop staff initiated reorganization of the labor ward and a triage system of care. They also improved documentation to capture key metrics by instituting a multidisciplinary monthly maternity forum and dashboard to analyze and act on statistics and key cases. Surveys of staff revealed increased satisfaction with work and feeling empowered to effect change. Treatment outcome measures and patient feedback reflected this experience. Ongoing challenges remain lack of empowerment of midwives to effect change and poor incentives.

**Conclusion:**
Respectful care for mothers comes from an appreciation of women-centered care by empowered respected frontline staff.

1 Institute for African Women's Health, London, United Kingdom

**Theme 1 - Oral Presentation – Session 2 - 5**

**Midwives empower midwives through twin2twin**

Malika Tibhiri¹, Franka Cadée²

**Objectives:**
The twin2twin method is an innovative & sustainable method for empowering midwives. Improving and protecting the health of mothers and babies in low- and middle-income countries (LMICs) requires well-educated and well-organized midwives. New evidence from the Lancet series on Midwifery and the State of the World Midwifery Report shows that quality maternal and new-born care is impossible without midwives. In order to realize the value of midwifery, midwives—and their
organizations—must be empowered in a way that is sustainable, that allows them to speak in a unified voice, and that makes it possible for them to become change agents for their communities. The twin2twin (t2t) project is designed to provide a support network that empowers and strengthens midwives, individually and organizationally. It is a program that builds the foundation necessary for strong and effective midwife organizations, and hence for accessible and quality midwifery care. Furthermore, the sisterly or ‘twin’ relationship created by t2t generates leaders that will sustain the profession.

Methods:
The twinning concept was developed by the International Confederation of Midwives (ICM) as a way of promoting cooperation on the organizational level. The ICM defined twinning as a two-way mutually beneficial exchange between two member Midwives Associations”. Our project expands this definition by promoting cooperation on a personal level, between midwives. The AMSF t2t program spans four years and includes twelve workshops and two cross-cultural exchanges. Forty midwives from two cultures (20 pairs) are involved in the program and they are supported by a bi-cultural team. The workshops use specific interventions that develop reciprocity, cultural tolerance and group cohesion. The focus on the individual, rather than organizational, level makes the project sustainable: twins have a personal responsibility to make their ‘twin relationship’ work and form a bond that is lifelong, extending beyond the terms of office in organizations.

Results:
The value of the t2t concept in the areas of empowerment, sustainability, and cost effectiveness was already visible in our first, developmental version of the program – between Dutch and Sierra Leone midwives. The twin2twin project between the Dutch and Moroccan midwives is now in its 3rd year with one final year to go. At this phase of the project, twinned midwives are working on nine joint small projects that improve the care for mothers and babies in Morocco and the Netherlands. The aim of these projects is to teach midwives how to manage a small project together, across cultures. These nine projects, plus their upscaling potential, will be presented at the congress.

Conclusions:
Research into twin2twin looks at the features that promote or hinder success and will identify what must be done to scale up the concept for use
in other settings. This work will result in an evidence based “tool kit”. This tool kit will be useful as a stand-alone method, or as an ‘add on’ to existing projects in order to enhance empowerment and sustainability.

1 Ministry of Health, Morocco
2 Royal Dutch Organisation of Midwives, Maastricht University, the Netherlands
Poster

Theme 1

Respectful Childbirth

Thème 1

L’humanisation de l’accouchement
Assessment of informed consent process for caesarean section delivery in Mulago Hospital, Uganda

Emmanuel Nzabandora ¹, Twaha Mutyaba ², Annettee Nakimuli ², Nakitto Barbara Mukasa ¹

Objective: To assess the informed consent process for caesarean section and explore reasons for possible gaps therein at Mulago hospital.

Methodology: This was a cross sectional descriptive study with quantitative and qualitative methods carried out on the postnatal ward at Mulago National Referral hospital from January to March 2013. We interviewed 424 mothers who had caesarean section just before discharge and we held in-depth interviews with midwives, doctors, and anesthetists.

Results: Over 92% mothers were not informed about complications of caesarean section, the risks of anesthesia nor the possibility and risks of blood transfusion. In 97% of cases the right to decline surgery and the options to caesarean section was not disclosed. Respondents who were not given chance to ask questions were 82.3%. The mothers who signed consent forms before surgery were 92.9%. It was observed that the consent form was signed at admission. In fact such participants had not consented for the surgery but for admission. Reasons for gaps existing in informed consent for caesarean section included staff seeking blanket consent from mothers for any treatment before admission to the labor ward, and staff lack of adequate knowledge for informed consent. Other barriers to appropriate informed consent process included limited human resources, low awareness about consent process for patients and consent forms specific to caesarean section.
Conclusion:
The study suggests that the consent process for caesarean section at Mulago hospital is below ethical acceptability and does not uphold the women’s right to make their own delivery decisions.

1 Mulago National Referral Hospital, Kampala, Uganda
2 Makerere University College of Health Sciences, Kampala, Uganda

Poster Session I – 2

Quelle est la place de la dimension humaine dans la qualité des services de santé maternelle?

Sondes Derouiche1, Mohamed Chaouch1, Leila Joudane2, Rafla Tej3

Contexte:

Résultats:
Ce projet comprend un axe de renforcement des prestations de services par une plus grande humanisation des soins dans un système de santé centré sur la personne et acquis à travers une mobilisation sociale autour des droits de la femme et du nouveau-né. Un ensemble d’actions a démarré telles que l’élaboration de guides à l’usage des sages-femmes et des médecins de la santé, les supervisions des maternités, l’expérience de la mise au sein précoce, la santé maternelle en milieu de travail, l’approche participative à la recherche des déterminants du recours aux soins.
D’autres perspectives sont prévues telle qu’une stratégie pour renforcer la motivation des professionnels afin d’établir la confiance citoyens/prestataires.

**Conclusion:**
L’humanisation de la prise en charge de la femme enceinte permettra l’amélioration des indicateurs de la santé maternelle et contribuera à la réduction de la mortalité maternelle.

1 Programme National de Péristinalité, Direction des Soins de Santé de Base du Ministère de la Santé, Tunis, Tunisie.

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**Poster Session I – 3**

**Promoting accountability for respectful birth through report card-Experiences from two blocks of Dahod district, Gujarat, India**

Renu Khanna¹, Sunanda Ganju¹, Mahima Taparia¹, Pallavi Saha¹, Neeta Hardikar²

**Background:**
This paper describes a collaborative project initiated in 2012 in four Primary Health Centers of two backward and inaccessible blocks in Dahod and Panchmahals districts, covering 25 villages each. One objective of the project was to enable communities to monitor quality of maternal healthcare through the use of ‘safe delivery’ indicators.

**Methods:**
Women’s perceptions of ‘safe delivery’ were captured through participatory exercises. A monitoring tool combining both women’s concepts and the technical standards of antenatal and postnatal care stated by the Government of India, was developed. Inputs from members of the local women’s organization (Sangathan) were incorporated. The tool was filled twice for each pregnant woman by trained local volunteers, once in the eighth month of pregnancy and then within 20 days post-delivery. Quality checks were done on 10 per cent of the filled forms. Report cards
were compiled from the data gathered through the monitoring tool. Findings were shared with respondents and the Sangathan women to corroborate the information. Report cards were the basis for dialogues with the health system representatives and local elected representatives and other leaders.

**Results:**
Four report cards have been produced. They show visible changes: improved responsiveness of the health system, improvement in the quality of maternal healthcare and increased community recognition for maternal health.

**Conclusion:**
The project demonstrates that it is possible to activate local communities to monitor maternal health care using pictorial tools. Report cards are an effective instrument to engage health systems in dialogues for improvements in health care delivery.

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1 SAHAJ, Society for Health Alternatives, Vadodara, Gujarat, India
2 ANANDI, Area Networking and Development Initiatives, Gujarat, India

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**Poster Session I – 4**

**Supportive/facilitative supervision model to address disrespectful child birth in low developing countries**

Lilian Nantume Wampande¹, Simon Peter Katongole¹

**Background:**
The purpose of this study was to explore practical issues pertinent to supervisory relationships at rural health care facilities in Uganda. A facilitative participatory supervision model was implemented to identify its strengths and challenges, in order to determine its effects on enhancing respect for women and attracting more of them to health facilities.
**Methods:**
A Heron’s model of supportive supervision was implemented in two island based health facilities in Bussi sub-county over a five month period. The model was designed to allow for the participation of both the supervisors from the district level with full participation of health workers at sub-county level and the community in the supervision process. Actual implementation started with training a core set of supervisors to heighten their supervisory knowledge and skills. Semi-structured interviews and qualitative observations were used to explore health workers’ involvement with the community, and to determine the strengths and challenges of the participatory facilitative model.

**Results:**
This study shows positive outcomes for participatory supportive supervision in a rural setting. The findings suggested that the involvement of health workers in the supervision process promotes change and person valuing ethos. Also the community was able to identify their own problems and suggested options to meet their own needs.

**Conclusion:**
There appears to be added positive outcomes when the community is involved in the supervision process. This could also be an avenue for establishing networks for support and improved service delivery.

1 Faculty of Health Sciences, Uganda Martyrs University, Kampala, Uganda

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**Poster Session I – 5**

**“She is my Neighbour” - The persistence of traditional birth attendants in poor urban areas of Cairo**

Diana Perez-Buck1
Rachel Hammonds1,2

**Introduction:**
As cities become more populated and also more inequitable, ensuring access to quality health services is becoming a critical urban health
challenge; in particular addressing the underutilization of facility-based deliveries by urban poor women due to a range of supply-side and demand-side barriers. In Cairo, Egypt, home to one of the largest slum populations in the world, urban poor women continue to rely on traditional birth attendants (TBAs) despite the proximity of health centers. To better understand this phenomenon, the Brussels-based organization Mothers at Risk (MAR) and the Association for the Development and Enhancement of Women (ADEW) in Cairo partnered to gather qualitative data from two of Cairo’s largest informal settlements.

**Methods:**
The survey consisted of 22 focus-group discussions with 388 urban poor women and semi-structured interviews with 26 TBAs.

**Results:**
The foremost barrier to delivering in a facility, according to the women surveyed, is disrespectful provider-patient interactions and overall poor quality of care, including abuse, neglect and humiliation. In contrast, the TBAs are largely perceived as competent, accessible, caring and culturally-and socially sensitive. However, the survey makes evident that TBAs are untrained and unequipped to deal with obstetric emergencies, and most lack the necessary formal links with health facilities to guarantee timely and effective referrals and transfers of the mothers. This creates a dangerous gap in the continuum of care of mother and baby.

**Conclusion:**
Targeted interventions to improve patient care at facility-based deliveries could promote the uptake of these services by poor urban women in Cairo. In parallel, TBAs could be given new roles in community health promotion and as a bridge between expectant mothers and the health system. Such efforts could contribute to consolidating Egypt’s undisputed progress to reducing maternal mortality and morbidity.

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1 Mothers at Risk, Brussels, Belgium.
2 Institute of Tropical Medicine, Antwerp, Belgium
Décentralisation de l’accouchement humanisé dans les départements de l’Atlantique et du Littoral, Bénin

Carole Aguessy¹, Toshiharu Okayasu², Eulalie Tossou Dossou³, Pius Cossi Gounardon¹

**Contexte:**
Pour améliorer la fréquentation des établissements publics de santé et augmenter le taux d’accouchements assistés par le personnel médical, l’accouchement humanisé a été introduit dans le CHU Mère Enfant en 2007. Le Ministère de la Santé a décentralisé cette approche dans 27 établissements sanitaires publics (ESP) dans les départements de l’Atlantique et du Littoral avec l’appui de la JICA. 96 personnels médicaux ont été formés et équipés avec du matériel d’accouchement à style libre depuis Novembre 2013.

**Méthodes:**

**Résultats:**
Les femmes accouchent en présence de leur parent, boivent durant l’accouchement, marchent sous surveillance, choisissent aussi un style d’accouchement dans les ESP pilotes. Parmi 27 ESP, 24 ESP ont réalisé 1721 accouchements à style libre de novembre 2013 à mai 2015. En juin 2015, deux ESP à Cotonou avaient encore de la difficulté à démarrer l’accouchement à style libre. Seulement 4% des accouchements à style libre ont été réalisés dans les 11 ESP de Cotonou. Pour le choix de la position (N=1494), la position couchée sur le Tatami était de 60%, la position latérale de 16% et la position à genoux de 10%.
Conclusion:
Les premiers résultats montrent que l’approche du style libre est possible. Une étude pour vérifier la satisfaction des clientes complétera cette première évaluation.

1 Direction Départementale de la Santé de l’Atlantique et du Littoral, Ministère de la Santé, Cotonou, Bénin
2 JICA, Cotonou, Bénin

Poster Session I – 7

Skilled attendants’ focus on ‘physical care’ vs the ‘special touch’ of traditional birth attendants (TBAs): perceived implications for respectful birthing of Malawi’s TBA ban

Isabelle Uny1

Introduction:
In Malawi, where the maternal mortality ratio with 510 maternal deaths per 100,000 live births (WHO 2014) is still high, the Government has prioritized skilled birth attendance and institutional deliveries, in line with global policies on safe motherhood. As a result, in 2007, it issued Community Guidelines preventing deliveries by Traditional Birth Attendants (TBA)- non-formally trained, community providers of maternal care who were described as insufficiently skilled, and blamed for complications arising in childbirth in rural areas.

Methods:
This poster draws on findings from a larger qualitative study of the perceived effects by multiple actors of this new policy. It uses a grounded theory methodology to draw on interviews and focus groups conducted in three rural areas of South and Central Malawi in 2013, with TBAs, men, women, and skilled birth attendants.
Results:
This poster focuses on accounts of the perceived loss of continuous support and interpersonal care in childbirth aggravated by the new TBA policy, with regards to women’s experience of birthing at facilities, and the impact on their maternal health-care seeking behaviors.

Conclusion:
Using the frameworks of women-centered care, rights-based approaches to maternal health care and drawing upon recent literature on disrespectful and abusive care, what women perceive as ‘good’ maternal health care goes beyond technical care and perceived issues of safety, and may be better served in Malawi by interventions which do not entirely exclude TBAs.

1 IIHD-Institute for International Health and Development, Queen Margaret University, Edinburgh, United Kingdom

Poster Session I – 8

Respectful maternity care from the perspectives of users and providers in southern Tanzania

Tara Tancred1, Joanna Schellenberg1, Claudia Hanson1,2, Tanya Marchant1

Background:
There is a paucity of data around respectful maternity care in southern Tanzania. We used a framework based on the Charter of Universal Rights of Childbearing Women to explore: freedom from harm and ill treatment; right to information and informed consent; confidentiality and privacy; dignity and respect; freedom from discrimination and equitable care; and user autonomy.

Methods:
Our aim was to gain insights about these rights from both users and providers of maternity health services. Using 10 key informant interviews with health facility staff and 12 in-depth interviews and 23 birth
narratives with recently delivered mothers, we determined the extent to which these rights were upheld.

Results:
Providers made efforts to protect informed consent, confidentiality, freedom from discrimination, and equitable care. Providers acknowledged that rights like privacy were constrained by the infrastructure of health facilities, which was echoed by users. Gaps in other rights—such as freedom from harm and ill treatment—seemed to stem from provider attitudes, with users reporting instances of abuse. Further, users often did not know that they could report disrespectful or abusive care, and providers reiterated that processes for reporting these were often not clear to users.

Conclusion:
Users want respectful maternity care, and providers acknowledged that there were improvements to be made. Creating more transparent means of holding providers accountable and establishing a rights-based environment through which maternity care is provided should be an ongoing goal—supportive supervision and training around human rights may be a useful first step in achieving it.

1 London School of Hygiene and Tropical Medicine, United Kingdom
2 Karolinska Institutet, Stockholm, Sweden

Poster Session I – 9

Itinéraire psychique de la césarienne de six primipares camerounaises

Mireille Ndje

Contexte:
La naissance d’un enfant ne crée pas une scission avec la grossesse et les désirs de conception des parents mais confirme plutôt la continuité des fantasmes, des représentations qui animent ces derniers et plus encore la mère depuis le désir d’enfant. Ces fantasmes et rêveries inhérents à la
grossesse et décrits par Bydlowsky sont relégués au second plan, et parfois même ignorés des familles, mais surtout des professionnels des soins obstétricaux au cours de la naissance.

**Méthode:**
Cet article est une intrusion à l’aide d’entretiens semi-directifs dans la dynamique psychique de six femmes primipares camerounaises qui ont donné naissance par césarienne dans un hôpital spécialisé, du préopératoire au post-opératoire en passant par le peropératoire.

**Résultats:**
Il ressort de cette étude que lorsque le processus normal de la naissance est modifié, la mère peut subir cet événement jugé naturel dans son univers culturel. La césarienne est certes un accouchement, mais elle est anti physiologique, hyper médicalisée. Cette chirurgie liée à la naissance ne laisse pas à la femme une marge de manœuvre pour s’impliquer dans cette naissance. Le physique subit des gestes invasifs qui ne sont pas ressentis dans un présent mais qui sont imaginés avec un décalage de temps, de réalité et qui retentissent sur le psychisme.

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Theme 2

Maternal Morbidity and Its Consequences on Newborn and Women’s Health

A global perspective

Thème 2

La morbidité maternelle et ses conséquences sur la santé du nouveau-né et des femmes

Perspective globale

Session 1
Keynote Presentation by Veronique Filippi

This presentation will be a brief overview of research advances in the conceptualization, measurement and utilization of data on maternal morbidity and will be divided into several overlying parts. Maternal morbidity is common, but its prevalence vary depending on the approach and instrument used to capture it. While there has been strong interest in measuring the levels of maternal morbidity at the community level in order to supplement mortality data, in practice it has been very difficult to achieve this, although they have been a few notable successes, which I will explain. Systematic reviews and meta-analysis of maternal morbidity studies have demonstrated repeatedly that there is a lack of good population based data in low and middle income countries, and that there has been a lack of interest in some morbidity. The past two decades have been dominated by research into the near-miss events and how they can be used to inform maternal health program, although the debate on their operational definitions is still very much present. Lastly recent evidence demonstrates the need to expand our focus, from acute complications to the negative effects of maternal morbidity on women’s health, wellbeing and functioning, and on her family. I will finish the presentation with recommendations on the future research agenda.
Keynote presentation by Katerini Storeng

Living after nearly dying: the lived experience of pregnancy-related near-misses

“Near-miss” events are obstetric complications that are so severe that they probably would have killed the woman had she not received timely medical care. Epidemiological studies have shown that women who experience near-misses are at greater risk of dying and of experiencing a range of other adverse outcomes in the years following the complication. But what does a near-miss event mean in the context of a woman’s life?

This presentation draws on anthropological perspectives on ‘reproductive disruptions’ to highlight the importance of considering the social and cultural significance of illness and reproduction in studies of maternal morbidity. Using examples from longitudinal ethnographic research in Burkina Faso, I argue that analysis of ‘lived experience’ can provide concrete insights into the qualitative meanings of near-misses in women’s lives that are of relevance to public health researchers and practitioners.

First, a near-miss is a ‘success’ in that death has been averted, but it is also a traumatic health crisis that is painful and frightening, that often entails the loss of a baby, and whose management requires mobilization of all available social and financial resources. Second, a near-miss event often upends lives and may ultimately compromise the productive and reproductive capacities upon which women’s social worth and positioning is based. It can disrupt women’s bodily integrity through injury, ongoing illness and loss of strength and fertility; weaken their household economy though debts and loss of productive capacity; and threaten their social identity and social stability. Men, children and broader social networks are also affected. Finally, while many women recover from near-misses, they do not simply ‘bounce back.’ Instead, resilience to health shocks like a near-miss is a process of adaptation and depends on social capital - the material and non-material resources individuals can mobilize by virtue of different kinds of social relationships. Even with supportive social arrangements, however, extreme poverty and fragmented and poor quality follow-up care limit some women’s recovery and long-term survival.
In end the presentation by considering how anthropology and epidemiology can converge around their shared interest in the study of the social relations of poor health rather than narrowly defined disease outcomes.
Maternal Morbidity Measurement Project: Definition, Matrix, Tool & Pilot

Atf Gherissi$^{1,2}$, Maria Barreix$^2$, Doris Chou$^2$, Özge Tunçalp$^2$, Michelle Hindin$^2$, and Lale Say$^2$

**Background:**
While it is estimated that for each maternal death, 20-30 women suffer severe morbidity, these estimates are not based on standardized methods and measures. Lack of an agreed-upon definition, identification criteria, standardized assessment tools, and indicators have limited valid, routine, and comparable measurements of maternal morbidity. The WHO convened the Maternal Morbidity Working Group (MMWG) to develop standardized methods to improve estimates of maternal morbidity. The MMWG aims to address the lack of standardized maternal morbidity measurement tools by piloting a questionnaire incorporating the Group’s previous work developing identification criteria. The criteria, constituting the maternal morbidity matrix, have three dimensions:
- International Classification of Diseases (ICD) concepts, symptoms, signs, investigations and management strategies;
- Functional impact and disability using WHO Disability Assessment Schedule (WHODAS 2.0);
- Maternal History and current health status.

The pilot tool is being prepared for implementation from July to September 2015 at community and primary care levels in Jamaica, Kenya and Malawi.

**Methods:**
The MMWG defines maternal morbidity and associated disability as “*any health condition attributed to and/or complicating pregnancy and childbirth that has a negative impact on the woman’s wellbeing and/or functioning.*” Based on this operational definition, the MMWG generated an evidence-based multi-dimensional matrix of conditions and identification criteria for maternal morbidity. The matrix incorporates 121 conditions and identification criteria including 58 symptoms, 29 signs, 44 investigations and 35 management strategies which were transformed into a data collection tool to measure maternal morbidity and disability.
A cross-sectional study will compare the measurement tool’s components and determine the feasibility, acceptability and utility of its administration. The tool, comprised of two modules: antenatal care (ANC) and postpartum care (PPC), is administered by health care workers. Each module consists of three sections:

1. Personal history – socio-economic information, and risk-factors (such as violence and substance abuse);
2. Patient symptoms – WHODAS and mental health questionnaires;
3. Signs/physical exam – laboratory tests and results.

**Results:**
The tool is currently being piloted in Jamaica, Kenya, and Malawi. In each country, 500 women presenting for antenatal or postpartum care will be asked to participate. This pilot will allow for comparing maternal morbidity estimates between and across settings, and determining the feasibility, acceptability and utility of the tool.

On behalf of the MMWG, the speaker will present the top ten causes of morbidity for the ANC and PPC patient tools, and compare results across the three sites.

**Conclusion:**
The data generated by the pilot study will be used to inform service provision. Further iterations of the tool will make it simpler for routine data collection. The ultimate goal is to produce valid, comparable, and routine measurements and summary estimates of maternal morbidity, incorporating the project’s work into the 11th ICD revision. The ultimate goal of the MMWG is to produce valid and comparable measurements of maternal morbidity, allowing for routine monitoring of non-severe maternal morbidity. As part of the post-2015 Sustainable Development Goals (SDGs), planning, estimating and measuring maternal morbidity is essential to assessing its extent and impact.

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1. Tunis El Manar University, Tunisia
Effects of maternal morbidity on women’s well-being and functioning: a systematic review

Kazuyo Machiyama\textsuperscript{1}, Atsumi Hirose\textsuperscript{2}, Jenny Cresswell\textsuperscript{1}, Doris Chou\textsuperscript{3}, Lale Say\textsuperscript{3} and Veronique Filippi\textsuperscript{1}

\textit{Background:}
In 2013, the WHO Maternal Morbidity Working Group proposed a new definition of maternal morbidity which highlighted the need to take into consideration the impact of morbidity on women’s wellbeing and functioning. Although increasing attention is paid to maternal morbidity, there is dearth of evidence on to what extent maternal morbidity has an impact on woman’s daily life.

\textit{Objectives:}
This study was conducted to document what is known on the levels and patterns of health-related functioning deterioration as a consequence of a morbidity attributed to or complicating pregnancy, childbirth or the period following pregnancy and reflect on the suitability of available tools. Health-related functioning refers to the appropriate performance of all body functions, activities and participation, and disability (its negative correlate) includes impairments and dysfunction, activity limitations and participation restriction.

\textit{Methods:}
We searched articles published between 2005 and 2014 using seven electronic databases (Medline, Embase, Popline, CINAHL Plus, LILACS, African Index Medicus and the West Pacific Index Medicus) between January and October 2015. The review focused on studies with relevant quantitative data and had no language restriction.

\textit{Results:}
Our initial search identified over 17,000 potentially relevant studies. After screening of titles and abstracts, 490 papers were retained. Initial findings suggest that health-related functioning has been researched in a fairly unsystematic manner and with references to a restricted number of specific conditions. Forty-four percent focused on mental disorders, among
which the vast majority assessed postpartum depression. Over a quarter was concerned about the genitourinary system including fistula, prolapse, and urinary and faecal incontinence. Indirect causes of maternal morbidity were studied in about 15 percent of the retained studies. The overwhelming majority of the studies were derived from high income countries and only 25 percent of the retained studies were carried out in low- or middle-income countries. The impact of maternal morbidity on activity limitations or participation were rarely studied. While the incidence of negative consequences appears high, comparing across health conditions to quantify the extent of the problem is difficult. We will expand on these findings at the colloquium by reporting on the most frequently used tools (such as WHODAS, WHOQOL, SF-36) and the main consequences of key complications.

Conclusions:
The consequences of complications are frequent. While existing assessment tools for measuring health-related functioning have been applied in some studies, new tools should be developed or existing tools should have specific modules adapted to the pregnancy and postpartum circumstances.

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2 Independent Consultant
Abortion-related near miss morbidity in Zambia

Onikepe Owolabi\textsuperscript{1}, Jenny A. Cresswell\textsuperscript{1}, Bellington Vwalika\textsuperscript{2}, Veronique Filippi\textsuperscript{1}

\textbf{Background:} Unsafe abortion is a leading cause of maternal morbidity and mortality. The highest estimate of abortion-related mortality globally (90 per 100,000 live births) comes from Sub-Saharan Africa. Obtaining accurate and population-representative data on unsafe abortion is challenging in high-burden contexts within the region where laws are typically restrictive, societal stigma is great, and health information systems are poor. This challenge could be addressed through the use of near miss. Maternal near-miss as defined by the WHO defines a level of morbidity so severe that women require hospital treatment to survive. Furthermore in women with abortion-related complications it is likely to be due to an unsafe abortion. Hence abortion-related near-miss documented at health facilities can be assumed to represent all the cases in the population, and may thus provide an indicator of unsafe abortions that can be tracked over time.

\textbf{Objectives:} The objectives of this study were to describe the magnitude and severity of complications in women hospitalized for abortion-related complications, and the incidence of unsafe abortion (defined as abortion-related near miss morbidity) in Central, Copperbelt and Lusaka provinces in Zambia—a country with liberal laws but difficult access to abortion care.

\textbf{Methods:} Data were extracted from hospital records of all women admitted with abortion-related complications in 35 facilities between December 2013 and April 2014 if they were hospitalized for \( \geq 24 \) hours, or met clinical criteria indicating moderate or near miss morbidity. Morbidity categories were defined based on adaptations of the WHO prospective morbidity methodology and near-miss criteria used in previous studies.
Results:
Of the 2406 cases identified, 59% were low severity, 25% moderate severity, 16% near miss cases, and there were 14 deaths. Many near-miss cases presented with severe anemia (44%), 24% had massive blood transfusion, 27% had hypovolemic shock, and 10% had septic shock. Septic shock was recorded in a greater proportion of deaths (50%) than near-miss cases (10%). The annual incidence of abortion-related near miss morbidity in the three provinces is 72 per 100,000 women of reproductive age, ranging between 55 per 100,000 in Central to 88 per 100,000 in Lusaka.

Conclusions:
There is a high burden of unsafe abortion in Zambia. Abortion-related near miss can be reasonably used as a representative measure of abortion morbidity. While most clinical and management indicators in the WHO criteria could be collected from routine hospital records, modification is required to reflect the realities of a developing country’s health system.

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Theme 2 - Oral Presentation – Session 1 - 4

Santé mentale maternelle: morbidité dépressive périnatale chez les mères adolescentes au Cameroun

Joël Djatché Miafo¹, Amir Moayedoddin², Béat Stoll²,³

Contexte:
La morbidité maternelle selon l’UNICEF inclut la dépression, toutes les conditions qui peuvent engendrer des tensions, la maltraitance physique ou psychologique et l’exclusion sociale. L’objectif de notre projet est d’évaluer et prendre en charge les troubles mentaux chez les mères adolescentes en période périnatale, au niveau communautaire et ressortir des indicateurs de santé sur la morbidité dépressive maternelle au Cameroun.
Méthode:
Il s'agit d'un programme pour l'intégration et l'autonomisation des services en soins de santé mentale, dont la phase pilote s'étale jusqu'à 2017. Une approche participative est adoptée pour mettre en œuvre le projet, et les cibles bénéficiaires sont engagées depuis la phase de planification qui succède à l'évaluation des besoins, l'adaptation du matériel de formation, la phase d'évaluation et de prise en charge, jusqu'à la diffusion des résultats de l'évaluation du projet. Le matériel d'évaluation et de gestion des pathologies mentales utilisé par les soignants formés, est GI-mhGAP (Guide d'Intervention - mental health Global Action Plan) adapté, sous la supervision des professionnels locaux et internationaux externes de l’Université de Genève.

Résultats:
La phase clinique a commencé en mai 2014, et 12 mois après, les premiers résultats sont les suivant : 226 mères adolescentes sur 344 ont été diagnostiquées souffrant de dépression périnatale, dont 203 mères adolescentes à risque majeur. La proportion de morbidité dépressive était de 65%, ce qui est un pourcentage très élevé et une incidence instantanée (I.I) de 1,11. Les conséquences de la dépression périnatale ont été documentées : désintérêt pour tout, manque d’énergie, baisse de la productivité et suicide chez la mère; et chez l’enfant, troubles alimentaires et digestifs, troubles de l’attention et du langage, déficits cognitifs, difficultés scolaires, maltraitance et négligence.

Conclusion:
Au regard de ce qui précède, sommes-nous face à une problématique endémique et de santé publique au Cameroun ? Sommes-nous face à une urgence humanitaire dans les pays à revenu faible et intermédiaire ?

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Prevalence of postpartum depression among recently delivering mothers in Nablus district and its associated factors

Amira Shaheen¹, Khubaib Ayoub², Shakoor Hajat³

Background:
The American Psychiatric Association defines postpartum depression (PPD) as “occurrence of a major depressive episode (MDE) within four weeks after delivery.” Postpartum depression is one of the major underestimated public health problems in maternal and mental health. It affects 13% of mothers worldwide within the first year after birth representing a relatively high prevalence especially in critical times in the life of both babies and their mothers. This study aims at investigating the prevalence and associated potential risk factors of postpartum depression among mothers aged 18-45 years in Nablus district at two months after birth.

Methods:
A convenient sample of 245 mothers attending mother and child health clinics in Nablus district in 2013 to vaccinate their children at 7 to 12 weeks after birth was chosen. Screening for PPD was made using the Arabic version of the Edinburgh Postnatal Depression Scale. The cut off score 9/10 (≥ 10) was used to define depressed mothers and 12/13 (≥13) to define severe depression. Other questions related to risk factors were asked. Ethical approval was obtained and informed consent was gained from participants.

Results:
Forty mothers (17%) were depressed and scored ≥ 10 on the EPDS. Further classification of the depressed mothers showed that 19 mothers (8.1%) were moderately depressed and scored 10-12 on the EPDS; whilst 21 mothers (8.9%) were severely depressed and scored ≥ 13.
No significant associations were indicated between socio-demographic variables, age, residence, education, occupation, total family income and income to family member ratio with the occurrence of PPD.
None of the pregnancy complications; gestational hypertension or preeclampsia, gestational bleeding, threatened abortion, vomiting and dizziness and anemia were found to be significantly associated with the
occurrence of PPD regardless of its frequencies. Similar results were obtained for pregnancy and birth related variables.

Of the newborn related variables, only prematurity was found to be significantly associated with the occurrence of PPD (OR 0.23, [95%CI:0.05-1:00]; p=0.035). Personal mental history and depression during pregnancy were found to be significantly associated with the occurrence of PPD (OR 15.72, [95%CI:1.59-155]; p=0.016 and OR 20.54, [95%CI:8.84-47.74]; p<0.0001). Of the other factors that were found to be significantly associated with the occurrence of PPD, exposure to two or more stressful events during pregnancy (OR 7.8, [95%CI:2.21-27.53]; p<0.0001), poor satisfaction with the marital relationship (OR 11.9; [95%CI: 3.39-41.97]; p <0.0001), husband’s help and support (OR 6.3, [95% CI: 3.03-13.2]; p<0.0001), bad relationship with mother in law (OR 2.6, [95%CI: 1.03-6.57]; p=0.037), and perceived low social support (OR 13.7, [95% CI: 3.50-53.96]; p <0.0001).

**Conclusion:**
Prevalence of PPD is high among Palestinian mothers and is mainly associated with psychosocial stressors during pregnancy. Although further research is needed in this area due to small sample size and non-random approach, we highly recommend the integration of PPD screening into the antenatal and postnatal healthcare services and to give more time to mothers counselling in addition to the medical services offered.

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**Applicability of the WHO Maternal Near Miss Approach in low and middle income countries**

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**Objectives:**
Studying cases of women who nearly died but survived a complication during pregnancy, childbirth or postpartum (maternal near miss) has been recognized as a useful mean to improve the quality of obstetric care, particularly in low and middle income countries (LMICs). Through evidence synthesis, consultation and validation studies, the World Health Organization (WHO) has developed a maternal near-miss definition, and has established an approach for identifying and managing maternal near miss (NM). The WHO NM approach includes a set of criteria characterizing organ dysfunction (which includes clinical criteria, laboratory markers, and management-based proxies) for case identification, as well as a set of process indicators for assessing quality of care as part of criterion-based clinical audit and feedback mechanism.

We sought to examine the applicability of the NM criteria in LMICs by focusing on the reported strengths and challenges.

**Methods:**
We systematically searched electronic databases for peer-reviewed articles and grey literature. Articles between 2009 to July 2015 were included if they used the WHO Maternal Near Miss Approach in LMICs (as defined by the World Bank) and discussed implications of applying the NM criteria.

**Results:**
Twenty-eight papers met the inclusion criteria. One study used the WHO multi-country survey data while one was a re-analysis of data from a previously conducted study. Eighteen studies were prospective while ten studies were retrospective. Most papers were from Brazil (46%). All studies took place at referral or tertiary care facilities; one study was carried out in both community and facility settings.

The WHO NM approach performed well in the systematic identification of NM and was able to identify the most severe cases when compared to
other identification criteria. It highlighted deficiencies in care and resource needs. Most studies found that the criteria were feasible and easy to use and that the organ dysfunction criteria were the most useful in identifying NM.

However, systematic application of each of the four criteria for organ dysfunction was not possible in some of the studies due to the availability and timeliness of laboratory investigations, lack of therapeutic resources and the loss of information due to incomplete medical records. Other challenges identified include difficulty in recognizing clinical criteria, different interpretations of clinical criteria and the need to separate between near miss cases upon arrival to hospital from those that develop in hospital.

**Conclusions:**
Application of the WHO Maternal Near Miss Approach identifies opportunities to improve care but consideration should be given to local context and availability of resources.

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Theme 2
Maternal Morbidity and Its Consequences on Newborn and Women’s Health

Consequences on women’s and newborn health – life-course perspective

Thème 2
La morbidité maternelle et ses conséquences sur la santé du nouveau-né et des femmes

Conséquences sur la santé des femmes et du nouveau-né au long du cycle de la vie

Session 2
Keynote Presentation by Julia Hussein

A life course perspective to maternal morbidity: Non-communicable diseases and related conditions in pregnancy

Maternal morbidity is defined as “any health condition attributed to and/or aggravated by pregnancy and childbirth that has a negative impact on the woman’s wellbeing” (1). A life course perspective to maternal morbidity allows an exploration of social, behavioral and biological factors during gestation, childhood and young adulthood and how they affect health in later life and across generations (2,3). This presentation will look at the problems of non-communicable diseases (NCDs) causing maternal morbidity in low and middle income countries and investigate immediate, mid-term and long-term consequences in women and their offspring.

Efforts to reduce global maternal mortality have focused on obstetric interventions and maternity services. Less attention has been paid to the general health of women during pregnancy and the broad range of conditions which can result in maternal morbidity. Yet the physiological demands of pregnancy act as a ‘stress test’ which can reveal underlying or undiagnosed disease, as well as risk of future chronic conditions (4). Some non-communicable diseases are of special relevance in pregnancy. They include metabolic conditions such as diabetes and thyroid dysfunction, hematological conditions including anemia, thalassemias and sickle cell disease, cardiac conditions such as rheumatic fever and mental health conditions. The findings of systematic reviews will be presented to summarize the reported prevalence and outcomes of NCDs in pregnancy in low and middle income settings. In addition, the conditions of diabetes and obesity in pregnancy are investigated using data from secondary analyses of national lifestyle and health surveys data in two countries, Jamaica and Nigeria. Finally, the role of maternal morbidity and other adverse pregnancy outcomes in predicting health in later life is explored.

A life course approach highlights the potential for early intervention to reduce disease risk or severity, and triggers healthcare needs in a more predictable fashion (3). In looking to the future for maternal health and the sustainable development goals, two key questions are raised for debate and discussion. Have the implications of the major demographic transition related to NCDs in low and middle income countries been sufficiently considered in relation to maternal health? Can we accelerate the reduction
in maternal mortality and improve wellbeing if we put more effort into the management of NCDs in pregnancy? The complexity of the task should not be underestimated, yet in maternal health, we hold the key which could unlock the door, not only for the wellbeing of women today, but for the generations that will come.

References
3. Why should we consider a life course approach to women’s health care? RCOG 2011; Scientific Impact paper no.27.
Keynote Presentation by Hanna Blencowe

Beyond Newborn Survival: A life course perspective

The Millennium Development Goals (MDGs) demonstrated the value of health outcome targets to drive change. Maternal (MDG5) and under-five mortality (MDG4) have been halved, and the world’s 2.7 million neonatal deaths (first 28 days after birth) have increased prominence on national and global agendas, primarily since they account for 45% of under-five deaths globally.\(^1\) However these deaths are just the tip of the iceberg, with at least a further 1.5 million surviving a severe neonatal morbidity experiencing long term neurodevelopmental sequelae and many more being at risk of long term physical and mental health complications.\(^2\)

The underlying causes of maternal and neonatal mortality and morbidity are intrinsically linked. In 2014 the Every Newborn Action Plan, a global multi-partner movement to end preventable maternal and newborn deaths and stillbirths and improve child development and human capital, set a target for national neonatal and stillbirth rates of 12 or fewer per 1,000 births in all countries by 2030, accompanied by action in countries to address disparities.\(^3\)

Reaching this target will require integrated and innovative action across the continuum of care for the mother-baby dyad, whilst monitoring all adverse outcomes for both mother and baby. Ensuring the highest level of health and well-being for a woman prior to and throughout pregnancy including in terms of nutrition; equitable access to high quality childbirth care; prevention, detection and management of communicable and non-communicable conditions; and environmental factors is required to improve maternal and newborn outcomes. In addition, accessible, affordable, high-quality, family-centered inpatient care services for newborns with complications are needed to prevent further ongoing morbidity.\(^4\) Education and empowerment of women, coupled with effective country leadership, clear financing structures and health systems to support educated and empowered health professionals will be critical in achieving this.\(^5\)

References


4. Lawn JE, Blencowe H, Oza S, et al. Every Newborn: progress, priorities, and potential beyond survival. Lancet 2014; 384(9938): 189-205.
Grossesse et accouchement chez la femme obèse

Aicha Kharbach¹, Fedoua Er-Rbii¹, Amina Lakhdar¹

**Objectif**
Déterminer le retentissement de l’obésité sur la grossesse, l’accouchement, le postpartum et les issues néonatales.

**Matériel et méthodes**
Étude rétrospective comparant 100 femmes obèses à 100 femmes de poids normal, colligées à la Maternité Universitaire Souissi de Rabat en 2012. Recrutement des cas parmi les parturientes admises au début du travail. Le critère d’inclusion était l’IMC calculé à la première consultation prénatale.

**Résultats**
Caractéristiques des patientes: Les 100 femmes obèses étaient réparties en classe I (70,0%), classe II (21,0%) et classe III (9,0%) avec un âge moyen de 28 ans. 64% des obèses étaient des primipares vs 84% ; 18% 2ème pares vs 7%, 12% 3ème pares vs 8%, 4% 4ème pares versus 1%. Les antécédents médicaux étaient plus fréquents chez les femmes obèses (9% contre 2%). 25% des femmes obèses ont eu des antécédents d’avortement spontané et 9% un utérus cicatriciel. 32% des obèses ont eu des complications au cours de leur grossesse par rapport à 5% des femmes de poids normal. La différence statistique était significative pour l’hypertension artérielle gravidique (28% vs 1%; p< 0,0001), la pré-éclampsie (10% vs 0% ; p: 0,0003) et le diabète gestationnel (7% vs 0% ; p: 0,003). La différence statistique n’était pas significative pour les infections maternelles (3% versus 1%) et les grossesses prolongées (19% versus 11%). L’évolution de l’accouchement a été marquée par l’allongement du travail (11% vs 7%), le recours au déclenchemement (13% vs 10% ; avec échec dans 7% vs 3%), la rupture prématurée des membranes (24% vs 19%), la souffrance foetale (15% vs 6 %), l’accouchement par césarienne (55% vs 15% ; p : <0,0001), la délivrance artificielle (41% vs 14% ; p<0,0001) et la révision utérine (45% vs 16%, p<0,0001). La mortalité périnatale était de 2% versus 0%. 5% des nouveau-nés avaient un Apgar inférieur à 5 versus 2% et 16% étaient macrosomes versus 4%. (p: 0,004)
Discussion
Les études montrent une augmentation de la fréquence du diabète gestationnel chez les obèses (OR : 2,33 à 5,55); de la pré-éclampsie (OR : 3,3 à 7,2), de thrombose (RRx2), et de la durée de la première phase du travail.
L'obésité augmente le risque de césarienne à la fois à cause et indépendamment du diabète gestationnel et des risques hypertensifs (OR : 2,5 à 3,1). Elle est justifiée surtout par la fréquence de la souffrance foetale aigue, la rupture prématurité des membranes et le dépassement de terme. Le risque de l'hémorragie du postpartum est plus important chez les femmes obèses. Le risque de macrosomie est plus élevé chez les femmes obèses indépendamment du diabète gestationnel (16,7% versus 4,2%).

Conclusion
La grossesse chez les femmes marocaines obèses est une grossesse à risque materno-périnatal. Elle nécessite une prise en charge pré-conceptionnelle, prénatale et per-natale de qualité dans une maternité de référence bien équipée.

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Theme 2 - Oral Presentation – Session 2 – 2

Maternal carriage of group B streptococcus and Escherichia coli in a rural Mozambican hospital.

Lola Madrid1,2, Sónia Amós Maculuve1, Alba Vilajeliu1,3, Emma Sáez2, Sergio Massora1, Anelsio Cossa1, Sara Soto2, Betuel Sigaúque1,3, Clara Menéndez1,2, Quique Bassat1,2

Introduction:
The potential for certain microorganisms to colonize women during pregnancy, be vertically transmitted to their offspring and ultimately cause perinatal disease, has been particularly well characterized in the developed world. For instance, in such settings, Group B streptococcus (GBS) carriage among pregnant women is frequent, but GBS disease secondary to vertical transmission of the infection, which used to be common and therefore an
important source of neonatal infections, has been significantly reduced as a consequence of screening programs and the establishment of prophylactic antibiotic schemes in those mothers found to be carriers. In developing settings, data on maternal carriage of GBS and on GBS prevalence among sick newborns remain scarce. Similarly, *Escherichia coli* (*E. coli*) invasive infections are the first cause of neonatal sepsis in preterm newborns, and may be detected in the urinary tract of pregnant women throughout pregnancy. We aimed to assess the GBS and E.coli prevalence among near term pregnant mothers and the antimicrobial susceptibility pattern of the isolates in a rural Mozambican hospital.

**Methods and materials:**
A cross sectional descriptive study was conducted on pregnant mothers attending the Manhiça District Hospital at two different time-points during their pregnancy (Group 1: during routine antenatal clinics (AC) at gestational age up to 35 weeks; Group 2: at delivery, regardless of gestational age). Samples from lower genital tract and rectum for GBS and a vaginal sample and urine for E.coli determination were collected and cultured.

**Results:**
320 women were recruited, mean age was 25.5 (±7.1) years and mean age of first pregnancy was 17.3 (±6.4) years. Only 17 (5.3%) had an employment at time of the recruitment. Global prevalence of HIV among the patients was 35.9% (115/320). Thirty-seven of the 200 pregnant mothers recruited at the AC (18.5%) studied were GBS carriers. Twenty-five of them (12.5%) had positive E.coli culture in their vaginal samples and 5/200 (2.5%) had positive urine cultures for E.coli. One hundred and twenty mothers were recruited at delivery. Prevalence of GBS colonization among this group was 27.5% (33/120) and 20.8% (25/120) had positive E.coli culture in vaginal samples and 5% (6/120) in urine. Global vaginal prevalence of E.coli was 11.3% (36/320). 9.6% of the GBS isolates were resistant to penicillin (5.8% intermediate resistance and 3.8% fully resistant), the usual antibiotic utilized in the developed world for GBS vertical transmission prophylaxis, whereas the remaining 89.4% were fully sensitive. All GBS isolates except three (2.9%) were sensitive to ampicillin, two of which were highly resistant to both ampicillin and penicillin. Significant differences among the groups regarding to prevalence of HIV, syphilis and gestational hypertension were not found. Anemia and vaginal discharge were more common in the group recruited at antenatal clinics.
**Conclusion:**
The study showed recto-vaginal GBS colonization among near term pregnant mothers is reasonably high in our community calling for the need to screen mothers near term and provide appropriate antimicrobial prophylaxis to prevent potential adverse maternal and neonatal outcomes.

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**Theme 2 - Oral Presentation – Session 2 – 3**

**Impact of HIV on maternal morbidity, birth outcomes and infant health in Mozambique**

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**Background:**
The impact of HIV infection on maternal and infant’s health has mainly been studied in industrialized countries. Nevertheless, data on the effects of maternal HIV infection in sub-Saharan populations where the disease burden is particularly high, health systems often weak and coverage of antiretrovirals (ARVs) limited are scarce.

**Methods:**
The effect of HIV infection on maternal health, birth outcomes and infant health and survival was analyzed in two contemporary cohorts of HIV-uninfected and HIV-infected pregnant women from southern Mozambique. Pregnant women attending the first antenatal clinic (ANC) visit were recruited and followed until one month after delivery. HIV-positive women received antiretroviral therapy (ART) based on their CD4 counts and their clinical stage. Maternal morbidity, pregnancy outcomes
and malaria peripheral infection at delivery were assessed. Infants were followed-up until they were one month old.

**Results:**
A total of 1183 HIV-negative and 561 HIV-positive pregnant women contributed to this analysis. Women positive for HIV were more likely to have anemia both at the first ANC visit and at delivery than HIV negative women (71.5% versus 54.8% and 49.4% versus 40.6%, respectively, p<0.001). The incidence of all-cause hospital admissions was higher among HIV-positive women compared to HIV-negative women (RR, 2.1, [95%CI, 1.5 - 2.9]; p<0.001). At delivery, 21% of the HIV-positive women reported being on ARV therapy, and 70% reported having received ARVs for prevention of mother to child transmission (MTCT) of HIV. No differences were found in the proportion of peripheral *P. falciparum* parasitemia, placental malaria, mean birth weight and preterm births between HIV-negative and positive women. However, HIV-positive women had an increased risk of stillbirths (RR, 2.16 [95%CI 1.17 – 3.96], p=0.013). Moreover, the proportion of infants with severe acute malnutrition at one month of age was significantly higher in those born to HIV-positive mothers than in infants born to HIV-negative women (2.2% versus 0.9%, p=0.023). Maternal and neonatal deaths did not differ by HIV status.

**Conclusions:**
Despite the scale up of ARVs for pregnant women in the last decade in Mozambique, maternal HIV infection is associated with poor pregnancy outcomes such as stillbirths, as well as with maternal anemia and hospital admissions and infant malnutrition. Public health efforts should be made to improve deployment and coverage of ARVs during pregnancy and infancy. Monitoring the effects of HIV infection on both maternal and infant’s health should continue in order to evaluate the impact and guide control strategies.

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How do low birthweight neonates fare two years after discharge from a low technology neonatal care unit in a rural district hospital in Burundi.

van den Boogaard Wilma¹, Zuniga Isabel², Manzi Marcel¹, Van den Bergh Rafael², Lefevre Annabel², Nanan-N'zeth Kassi³, Duchenne Bruno³, Alders Petra³, Etienne William³, Juma Ndereye ⁴, Manirampa Juvenal⁴, Ndelema Brigitte⁴ and Zachariah Rony¹

**Background:**
Neonatal mortality accounts for 40% of under-five mortality, and is associated amongst others with low birthweight (LBW;< 2500g). In 2008, MSF introduced a model of emergency obstetric and neonatal care using low-technology only. In a rural MSF-hospital in Burundi, this model reduced overall neonatal mortality to 5% and special neonatal care unit (SNCU) mortality to 15%. However, little is known on how these LBW babies fare in the mid- or long-term. We thus assessed the two-year outcomes of LBW babies admitted to the SNCU.

**Methods:**
A structured questionnaire survey was conducted among LBW neonates who were admitted in the SNCU, were discharged alive between January and December 2012, and resided in Bujumbura Rural province.

**Results:**
Of 146 LBW neonates who were admitted in SNCU, 16 (11%) were neither known by the village chiefs nor the community (false addresses?), while 12 (8%) patient files could not be found and 5 (3%) had migrated out of the catchment area. Six (4%) had died within a median of 183 days (ranges: 10–191) after discharge from infectious or respiratory causes according to their mothers. The remaining 107(7 %) others could be traced. Their median age was 27 months (Inter Quartile Range [IQR]: 23-29). Sequelae were found in motoric/learning development (13; 13%) and in comprehension/intellectual development (11;10%). 10% (10/92) had difficulties with speech, whilst 2 (2%) had visual and hearing impairments. Eight (8%) needed constant assistance during the day. Associations were observed between very LBW (<1500g) and sequelae in motoric development (p=0.0147 [Fisher exact]), learning development (p=0.0373),
comprehension (p=0.0229), intellectual development (p=0.0019), speech comprehension (p=0.0262), and needing constant assistance (p=0.0085). No associations were seen between the impairments and undergoing a reanimation during hospitalization. Various alarming forms of malnutrition were found: severe acute malnutrition (4%; 4/104) whilst the global acute malnutrition was 18.3% (19/104), severe underweight (29%; 31/107) with a global underweight of 59% (63/107) and whilst 56% (59/105) were severely stunted, eight out of ten (81%; 85/105) were globally stunted. Only the acute form of malnutrition was associated with VLBW (adjusted for age p=0.0140).

**Conclusions:**
The model of low-technology neonatal care not only averted death for many LBW neonates, but also resulted in relatively low rates of sequelae. There is however an urgent need for extended services for LBW, and in particular VLBW, neonates post-discharge through a holistic community approach.

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**Theme 2 - Oral Presentation – Session 2 – 5**

Conséquences des épisodes de near miss sur la santé des femmes au Maroc

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**Contexte:**
Dans les programmes de santé maternelle, peu d’attention est accordée au suivi des conséquences des complications obstétricales. Au moins 1,4 millions de femmes souffrent de complications obstétricales qui pourraient mettre en danger leur vie, et 10 à 20 millions de femmes pourraient
souffrir de problèmes physiques et mentaux, conséquences de ces complications ou de traitements médicaux ou chirurgicaux inadéquats. Au Maroc, les conséquences à moyen terme des complications obstétricales graves connues comme «near miss » n’ont jamais été explorées. L’objectif de cette étude est de documenter les complications physiques et psychosociales pouvant apparaître huit mois après l’accouchement chez les femmes marocaines et de comparer la fréquence de ces complications chez les cas de near miss et chez les femmes ayant accouché sans complication.

Méthodes:
Il s’agit d’une étude de cohorte prospective mixte de femmes near miss et avec accouchement normal recrutées dans 2 hôpitaux de référence à Marrakech et à Al Haouz. Parmi les 76 cas de near miss recrutées entre février et juillet 2012, 50 ont eu une naissance vivante et 26 un décès périnatal. Pour chaque femme exposée à une complication near miss, au moins deux femmes non exposées ont été échantillonnées dans les mêmes hôpitaux (n=169). Toutes les femmes ont été suivies pendant 8 mois. Un échantillon de 20 femmes near miss et 20 femmes non exposées ont été interviewées.

Résultats:
Les femmes near miss étaient pauvres et moins instruites comparées aux femmes ayant eu un accouchement sans complication. Aucune femme n’est morte dans les huit mois du postpartum. La proportion des effets physiques (complications sérieuses) était très importante chez les femmes near miss (22%) par rapport aux femmes ayant un accouchement sans complication (6%) (p = 0,001). Le risque d’avoir une dépression était significativement plus élevé pour les femmes near miss avec un décès périnatal par rapport aux femmes avec accouchement sans complication (OR = 7,16; IC à [95%: 2,85 à 17,98]). Ce risque est également élevé chez les femmes near miss avec un bébé vivant [OR = 5,12; IC à [95%: 2,39 à 10,96]). Les femmes near miss avec décès périnatal ont significativement les scores les plus élevés de dépression après ajustement et en contrôlant les effets de confusion potentiels de la détresse psychologique à huit mois. Les interviews approfondis ont révélé que le fardeau économique des soins obstétricaux d'urgence a contribué à des problèmes sociaux et relationnels graves et durables pour les femmes et leurs ménages.
Conclusion:
Les femmes near miss représentent une catégorie à haut risque de complication physique, mentale et sociale à moyen terme. L'élaboration de stratégies spécifiques pour le suivi des femmes near miss apparaît importante pour réduire la morbidité postpartum. Ce suivi devrait impliquer les maris et les membres de la famille les plus proches, car ils jouent un rôle important en fournissant un soutien affectif et financier. Ces interventions sont nécessaires pour améliorer la qualité des soins maternels et néonatals.

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Theme 2 - Oral Presentation – Session 2 – 6

Rebuilding life after obstetric fistula – a look into the lives of women in rural Tanzania

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Objectives:
Obstetric fistula (OF) is a debilitating birthing injury that disproportionately affects poor women in rural areas. The injury leaves women uncontrollably leaking urine and/or feces through the vagina, which causes physical, psychosocial and economic difficulties. The leaking leads to skin rashes and physical discomfort, the resulting smell subjects them to social discrimination and feelings of shame and both combined limits them from engaging in petty trade or cultivation, which is the common income generator. The condition can be prevented with a timely caesarean section or it can be repaired, most commonly through surgery. This study aimed at exploring the experiences of fistula patients after repair to assess their degree of reintegration into their communities.
Methods:
This study was conducted in collaboration with a local NGO, Women’s Dignity in Tanzania. Participants were purposively selected from hospital records and known contacts of Women’s Dignity. All participants had been treated at least six months before our visit and were followed up at their homes in Dodoma, Mbeya, Mwanza and Singida regions of Tanzania. In-depth interviews and observations were conducted at their homes. One focus group discussion was conducted at the local district hospital in Singida with fistula patients who had previously worked with Women’s Dignity’s rehabilitation program and were ambassadors in their communities working on community sensitization and advocacy.

Results:
Out of 30 women with whom we conducted in-depth interviews, 10 remained with some incontinence and the problems attached to leakage continued. These included smell and physical discomfort, inability to work at the same capacity as before the injury, and rejection from husbands and partners or being the subject of negative gossip within their communities.

The duration spent with fistula before repair and the success of repair greatly influenced their experiences after repair. Those who had remained untreated for a long time were still deeply scarred and continued to struggle psycho-socially and economically. Their experiences before treatment involved struggles with their personal identities as women, their roles as wives and their acceptance as daughters-in-law, which affected their experiences after repair. Many felt they had lost their womanhood, sexuality, family life and self-esteem. As more time passed without treatment, they fell deeper in debt while being unable to engage in income generating activities like petty trade or cultivation and many returned to economic dependency on family or community members. Almost all who received treatment quickly and were completely dry regained their social lives, however most were financially strained.

Conclusion:
The time spent with fistula before repair and the success of repair greatly influenced the experiences after repair. Early, good quality treatment is the key to rehabilitation success. More efforts need to be put into enabling early treatment through awareness, better referral between hospitals and training of fistula surgeons and nurses for quality care. Treatment of fistula must also go beyond the physical closing of a hole, and address physical, psycho-social and economic challenges to completely rehabilitate the woman after surgery.
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4 Muhimbili University of Health and Allied Sciences, Tanzania
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Theme 2
Maternal Morbidity and Its Consequences on Newborn and Women’s Health

Current strategies and novel approaches

Thème 2
La morbidité maternelle et ses conséquences sur la santé du nouveau-né et des femmes

Stratégies actuelles et nouvelles approches

Session 3
Maternal Morbidity – Current Strategies and Novel Approaches

Maternal morbidity is a complex entity and its presentation and severity are on a spectrum. This presentation will provide an overview of the developments in the field for conceptualization and development of a definition for maternal morbidity, including maternal near miss, and the framework for its measurement.
Keynote Presentation by Albrecht Jahn

Will the research on maternal health that is needed also get funded?

This presentation will start with a brief overview on previous priorities in European Union funded research on maternal health and its change over time in terms of topics and funding, including the latest Horizon 2020 work program for 2016/17.

This will be put in perspective against an analysis of the main obstacles towards achieving Safe Motherhood and related research needs. It will be argued that the current focus of most funders on research on new products is not based on an assessment of research needs and ignores the lessons that could be learned from examples of care systems that have successfully reduced maternal and perinatal mortality in low resource settings.
Themes and trends in qualitative research on women’s experiences of maternal morbidities in low and lower-middle income countries

Isabelle Lange¹, Atf Gherissi², Doris Chou³, Lale Say³, Veronique Filippi¹

**Background:**
Qualitative research can take into account broader societal and cultural influences that may influence the way illnesses are manifested or experienced. Maternal morbidities have been identified as “the neglected dimension of safe motherhood”, and examining a woman's perception of her pregnancy, its complications, and potential long-term impact on her life can inform public health approaches as well as complement and inform biomedical classifications of maternal morbidity. This involves viewing the woman beyond her pregnancy and considering her life circumstances, including cultural and socio-economic factors, and documenting changes over time.

**Methods:**
As part of the WHO’s Maternal Morbidity Working Group’s work on defining and measuring maternal morbidity, a systematic review of qualitative literature of how women experience maternal morbidity in lower and lower-middle income countries has been undertaken.

**Results:**
Papers included were published between 1998 and 2015. In the over 100 studies in this review, the majority focus on women’s experiences of their pregnancy-related health, but also considered was research that illuminates family members’ and health workers’ perspectives. Explored are the economic, psychological and social repercussions pregnancy can produce for women, and the tendencies of resource disadvantage (systemic, financial and contextual) that can exacerbate these problems.

**Conclusions:**
Analysis shows that a biomedical diagnosis of maternal morbidity does not always reveal the depth of impact that morbidity has on a woman’s life, whether it be short-term or life-long, with minor impediment to her activities of daily living or severe disability compromising her productivity.
In addition to an analysis of the themes that emerged across different contexts, this paper presents the trends in researching particular morbidities over time; which morbidities have received attention in different regions; the methodologies employed; and the profiles of funders and researchers in this field over the last seventeen years – illustrating the shifting role of qualitative research in maternal health.

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Theme 2 - Oral Presentation – Session 3 - 2

Community-based prevention and management of severe pre-eclampsia and eclampsia in a low-resource setting of Bangladesh

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Objective:
Severe Pre-Eclampsia (SPE) and Eclampsia (E) are the second leading causes of obstetric deaths in Bangladesh. This study looked at the feasibility of early identification, and management of SPE/E cases with loading dose of MgSO4 at community level by Community Skilled Providers (CSPs) prior to referral. The study also measured the outcomes of case management (i.e., maternal, perinatal and neonatal deaths).

Methods:
This is an experimental study including intervention and control arms (~20,000 pregnancies in each arm) and was implemented in a north-eastern district of Bangladesh. In the intervention arm, cases received a loading dose of MgSO4 and were referred to a comprehensive emergency obstetric care facility by trained CSPs. In the control arm, cases were only referred by CSPs according to the existing protocols. Information was obtained from records of CSPs, service records at facilities, and through
structured interviews with patients. 301 and 302 cases in the intervention and control arms were enlisted over the 12 months of the study from May 2013- to June 2014. Qualitative methods such as Focus Group Discussions (FGDs) with both community based (CSPs) and facility based providers were conducted.

**Results:**
24% (n=73, SPE=57, E=16) of all listed SPE/E cases in the intervention arm received a loading dose of MgSO\(_4\) by CSPs before referral, and none of the women with SPE progressed to eclampsia but two eclamptic mothers had recurrent convulsions after receiving the loading dose. There was a significant difference in the numbers of cases diagnosed by CSPs between the intervention and the control areas (35 % vs 13 %, p< 0.05) and this is correlated with increased antenatal care (ANC) coverage by CSPs in the intervention arm compared to the control arm (60% vs 40%, p<0.01). The CSPs also showed a significant difference in relation to their referral activity in the intervention compared to the control area (48% vs 13%). Maternal deaths were almost double in the control (14) compared to the intervention (8) arm. Although no difference in perinatal deaths was found between intervention and control arm (16.2% and 14.2% respectively), perinatal deaths were lower among women who received a loading dose at community level (10.9%).

FGD showed CSPs correctly stated the signs and symptoms of SPE/E, blood pressure measurement and urine test techniques. They also demonstrated positive attitudes towards training on SPE/E and its management at community level. CSPs mentioned the lack of supportive infrastructure as a cause of low ANC uptake by CSPs at country-based clinics. Facility based providers mentioned a lack of motivation and house to house visit by CSPs, and a lack of formal supervision and monitoring of the CSP program as barriers.

**Conclusion:**
Early identification of SPE/E through ANC and provision of a loading dose of MgSO\(_4\) at community level were effective interventions and had contributed to a reduction in adverse maternal and neonatal outcomes. Low rates of case identification by CSPs suggests for strengthening existing CSP programs not only through training and logistics, but also supported by close monitoring and supervision.

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Objective:
To describe the Multidimensional Assessment of Fatigue (MAF) and the Fatigue Assessment Scale (FAS) at one and six months postpartum, in a trial of maternal postpartum deworming, carried out in an area highly endemic for soil-transmitted helminth (STH) infections.

Methods:
A trial comparing single-dose 400 mg albendazole and placebo is currently being carried out in 1,010 women following delivery in Iquitos, Peru. At one month postpartum, the MAF was administered to all participants, and the FAS was administered to a subsample of 210 participants. At six months postpartum, the FAS was administered to all participants. Higher scores are indicative of higher levels of fatigue.

Results:
In the subsample of participants who were administered both scales, neither the MAF nor FAS were associated with maternal age or anemia. However, the FAS was associated with district of residence (β: 2.9; 95% CI: 1.3-4.6) and not completing primary school (β: 3.6; 95% CI: 0.4-6.9). In the total study population who were administered the FAS at six months postpartum, higher FAS scores were found in anemic mothers (β: 0.8; 95% CI: 0.05-1.5), and those infected with ascaris (β: 1.3; 95% CI: 0.4-2.2) and hookworm (β: 1.9; 95% CI: 0.3-3.6), controlling for age, district and education level.

Conclusion:
To date, no study has assessed the effect of STH infections on fatigue using standardized scales. The FAS shows promise as a tool to measure maternal postpartum fatigue in STH-endemic areas. Future research should evaluate
the effect of maternal fatigue on infant health outcomes, including mother-child interactions.

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Theme 2 - Oral Presentation – Session 3 - 4

Development and preliminary validation of the post-fistula repair reintegration tool among Ugandan women

Alison El Ayadi1, Josaphat Byamugisha2, Susan Obore2, Haruna Mwanje2, Othman Kakaire2, Justus Barageine2, Hadija Nalubwama2, Felicia Lester1, Sharon Knight1, Abner Korn1, Suellen Miller1

Objectives:
Obstetric fistula, a debilitating birth injury, affects approximately two million women globally. While surgical fistula repair services have been scaling up over the past decade, little is known regarding women’s post-surgical reintegration into families and communities. The aims of this exploratory sequential mixed-methods study were to explore the post-surgical reintegration process and to develop and validate a post-surgical reintegration measurement instrument.

Methods:
Collaborators from Makerere University, Kampala, Uganda and the University of California, San Francisco conducted 16 in-depth interviews and four focus groups (n=17) with women who underwent fistula surgery 6–24 months previously. We conducted thematic analysis of qualitative data and used the results to inform the development of our post-surgical reintegration instrument. We have enrolled a longitudinal cohort of 60 women seeking fistula surgery at Mulago National Referral Hospital in Kampala, Uganda, to validate the reintegration instrument across a 12-month follow up period. In the current analysis, we evaluated the distributional and psychometric characteristics of our baseline reintegration data as preliminary instrument validation.
**Results:**
Women reported a variety of physical and emotional stresses due to living with obstetric fistula including pain, weakness, depression, social isolation, and stigma. Resuming continence, mobility, responsibilities, capabilities and autonomy were emphasized as reintegration priorities. Based on our qualitative findings and review of existing reintegration measures, we developed a reintegration measurement tool comprising 22 items on mobility, work, participation in social activities, meeting personal and family roles, comfort with relationships, self-esteem, mental health, and hope for the future. Preliminary results using study baseline data suggest a two-factor structure. Our reintegration measure had high internal consistency reliability (α=0.87), and good content validity.

**Conclusions:**
Further psychometric validation will confirm the reliability and validity of this post-fistula repair reintegration tool over time since surgery; however, our preliminary results suggest that it may be useful for evaluating women’s reintegration success within the context of monitoring and evaluation of post-repair programming and to improve evidence-based practice.

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Poster

Theme 2

Maternal Morbidity and Its Consequences on Newborn and Women’s Health

Thème 2

La morbidité maternelle et ses conséquences sur la santé du nouveau-né et des femmes
Facteurs pronostiques de la mortalité maternelle chez les éclamptiques en réanimation maternité Lalla Meriem CHU Ibn Rochd Casablanca, Maroc.

Karima Zine

Introduction:
L’éclampsie est une complication grave de la grossesse, responsable d’une lourde morbi-mortalité maternelle et fœtale. Elle se voit encore fréquemment au Maroc.

Méthodes:
Il s’agit d’une série de cas rétrospective d’une durée de 12 ans à visée descriptive de 1130 patientes éclamptiques qui avait comme objectif d’étudier les facteurs pronostiques de la mortalité maternelle (MM) chez les éclamptiques.

Résultats:
Cette étude a recensé 1130 patientes éclamptiques sur une période étendue de 12 ans. L’âge moyen des patientes éclamptiques était de 27±6,64 ans. Cinquante-cinq patientes ont décédé (4,9%), 112 morts fœtales in utero (MFIU) et 108 décès néonataux. Les causes de décès les plus retrouvées étaient: l’hémorragie cérébrale (25,5%), la défaillance multi viscérale (14,5%) et l’œdème aigu pulmonaire (OAP ; 14,5%). Les facteurs pronostiques associés statistiquement au décès étaient: l’âge avancé (>30 ans) (p=0,009), la tension artérielle moyenne systolique (TAS) élevée (p=0,005), la tension artérielle moyenne diastolique (TAD) élevée (p=0,03), le score de Glasgow (GCS) bas ≤8, l’oligo-anurie, le HELLP syndrome, l’insuffisance rénale aiguë (IRA), la coagulation intravasculaire disséminée (CIVD), l’œdème aigu du poumon (OAP), l’hémorragie du post-partum (HPP) étaient tous associés significativement aux décès des éclamptiques avec un p<0,001.

L’analyse multivariée a objectivé les résultats suivant : l’âge maternel (>30 ans) (OR= 3,17, IC 95% [1,2 ; 8,39]; p=0,02) ; GCS bas ≤8 (OR= 4,12, IC 95% [1,5 ; 10,9]; p=0,005) ; hémorragie cérébrale (OR=4,46, IC 95% [1,58 ; 12,5]; p=0,005) ; CIVD (OR=10,2, IC 95% [2,9 ; 35,8]; p<0,001).
Conclusion:
Les résultats de cette étude vont permettre aux praticiens, principalement réanimateurs et obstétriciens de mieux identifier les facteurs pronostiques de la MM et ainsi adopter une prise en charge plus adéquate des parturientes.

Poster Session II – A - 2

Unregulated usage of labor-inducing medication in a region of Pakistan with poor drug regulatory control: characteristics and risk patterns

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Background:
In developing countries such as Pakistan, poor training of mid-level cadres of health care providers, combined with unregulated availability of labor-inducing medication can carry considerable risk for mother and child during labor. Here, we describe the exposure to labor-inducing medication and its possible risks in a vulnerable population in a conflict-affected region of Pakistan.

Methods:
A retrospective cohort study using program data, comparing the outcomes of obstetric risk groups of women treated with unregulated oxytocin, with those of women with regulated treatment.

Results:
Of the 6379 women included in the study, 607 (10%) received labor-inducing medication prior to reaching the hospital; of these, 528 (87%) received unregulated medication. Reportedly, Traditional Birth Attendants
197 (42%) and Lady Health Workers 157 (33%) provided unregulated treatment most frequently. Women given unregulated medication who were diagnosed with obstructed/prolonged labor were at risk for uterine rupture (RR=4.1, 95%CI 1.7-9.9) and severe birth asphyxia (RR=3.9, 95% CI=2.5-6.1), and those with antepartum hemorrhage were at risk for stillbirth (RR=1.8, 95%CI=1.0-3.1).

Conclusions:
In a conflict-affected region of Pakistan, exposure to unregulated treatment with labor-inducing medication is common, and carries great risk for mother and child. A tighter regulatory control of labor-inducing drugs is needed, and enhanced training of the mid-level cadres of healthcare workers is required.

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Poster Session II – A - 3

The mothers’ status: two years after undergoing caesarean-section in a rural emergency obstetrics care center in Burundi

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Background:
Burundi has among the highest Maternal Mortality Ratios globally, at 650/100,000 live-births. Since 2008, MSF has offered emergency
obstetrics, of which about half were caesarean sections, and neonatal care in a rural hospital in Burundi. Risk of uterine rupture is high in pregnancies post C-section, and women are recommended to wait 24 months for another pregnancy, and to ensure hospital delivery. However, little is known on how well these recommendations are adhered to.

**Methods:**
A follow-up survey was conducted among women who underwent caesarean sections in 2012.

**Results:**
Of the 156 women included, 1 (0.9%) died of cholera, and 116 (74%) could be traced. Their median age was 24 years, with on average three pregnancies and two living children. Of 23 women who had delivered, 5 (22%) did not do so in a hospital. One woman survived a uterine rupture, and there were no maternal deaths. 83 (72%) accepted family planning (FP) at discharge and 33 (28%) needed prior consultation with their husbands or refused. FP-adherence had dropped by half at time of interview. Among 40 women who became pregnant, 27 (68%) had originally accepted FP. Their median inter-pregnancy-interval was 16 months. This was not different among the remaining (13; 32%) women who had not accepted FP (15 months).

**Conclusion:**
There are still too many vulnerable women who did not deliver in a hospital. The initial acceptance of FP did not influence the inter-pregnancy-interval. Socio-cultural factors play an important role in child spacing. Whilst husbands should be engaged at an early stage, further investigation is needed.

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Maternal and perinatal outcomes of pregnant/postpartum women with eclampsia in a large referral hospital in Bo, Sierra Leone

Séverine Caluwaerts¹, Imose Itua², Jacob Maikere³, Patrick Trye³, Rafael Van den Bergh⁴, Eva De Plecker¹, Petra Alders⁵

Introduction:
Eclampsia remains one of the major causes of maternal/perinatal mortality in low-resource countries. In the Gondama Referral Centre in Bo, Sierra Leone, we set out 1) to assess the maternal and neonatal mortality related to eclampsia, 2) to determine correct treatment, and 3) to explore possible risk factors associated with eclampsia-related maternal mortality.

Methods:
278 maternal eclampsia patient files were included, and perinatal data were available for 293 babies. Maternal/perinatal mortality was calculated by retrospective chart review, and data on variables (antenatal care attendance, mode of delivery, parity, twin pregnancy, maternal age, geographical distance, moment of convulsion and correct treatment) were extracted. Association with maternal death was assessed by Chi-square test using SPSS 20. Any factors found to be statistically significant in a bivariate model were analyzed in a logistic regression model.

Results:
Maternal/perinatal case-fatality rate were respectively 6.5% (18/278 patients) and 24.9% (73/293 babies). 93.8% of patients received the correct treatment for the correct duration. In a bivariate analysis, the moment of convulsion, multiparity, and geographical distance to the hospital were associated with maternal mortality. Association was confirmed for multiparity (p=0.012) and distance (p=0.001) with logistic regression.

Conclusion:
Maternal mortality due to eclampsia in a referral hospital in Sierra Leone was significantly lower than in most published sub-Saharan settings, likely as a result of the correct use of a strict management protocol, free healthcare, and availability of human resources and quality drugs.
However, perinatal mortality was comparable to other low-resource settings. In order to reduce the perinatal mortality, more investment in care for sick newborn is needed.

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Poster Session II – A - 5

Learning from the 1st obstetric fistula patients conference – how to improve the quality of care

Gloria Esegbona1

Background:
To understand why women with fistula believed they were injured and the consequences for their lives.

Methods:
21 successfully repaired fistula patients and 63 incurable women of different ages in Nigeria were invited to discuss issues affecting their lives. They set the agenda for focus group discussions and subsequent plenaries. 95% of women were illiterate and expressed their ideas with the aid of drawings.

Results:
Key issues addressed in focus groups (29 women) included reasons for developing the fistula and the impact on their family lives. All women had poor understanding of how labor could get obstructed and their drawings revealed little understanding of the anatomy within their bodies. All cited
that proper understanding by women and decision makers of anatomy and birth would aid decision making. 25 women believed the fistula was caused by a lack of quality hospital care. 20 women had delivered in hospital but did not receive care. The majority of the women (16) had bahanya (vaginal stenosis) and were divorced. Having a bahanya repair was seen as crucial – the main reason cited was to be able to have coitus and to have a child. They also described coping mechanisms for stenosis some of which posed dangers to their health such as sitting in substances to shrink or expand vaginal capacity or not drinking.

**Conclusion:**
More effort is needed to include the women’s voice in programs even in surgery as it affects compliance, quality of repairs and can provide the solutions to prevention.

1 Institute for African Women's Health, London, United Kingdom

**Poster Session II – A - 6**

**Physical, emotional and economic burden of caregivers for women with obstetric fistula**

Alison El Ayadi¹, Josaphat Byamugisha², Susan Obore², Haruna Mwanje², Othman Kakaire², Justus Barageine², Hadija Nalubwama², Felicia Lester¹, Sharon Knight¹, Abner Korn¹, Suellen Miller¹

**Background:**
Little is known about the burden and meaning of caregiving for obstetric fistula. Literature on caregivers of other health concerns reveals that primary caregivers are impacted broadly by their caregiving responsibilities, thus any comprehensive appraisal of obstetric fistula requires attention to the caregiving role. Caregivers may provide a complementary perspective to patients and providers for optimizing support and reintegration programming.
Methods:
Study researchers from Makerere University, Kampala, Uganda and University of California, San Francisco are conducting an ongoing series of in-depth interviews (n=18) and focus groups (n=13 respondents) with primary caregivers of women seeking fistula surgery at Mulago National Referral and Teaching Hospital. Transcripts were analyzed thematically with deductive and inductive codes in Atlas.ti.

Results:
Most caregivers were family members of patients. Caregivers reported significant physical, emotional and economic consequences to providing care for women with obstetric fistula. Many were the sole care providers. Substantial amounts of time and energy were spent cleaning the patient and the patient’s soiled materials. Most caregivers reported experiencing depression and anxiety, but also fulfilment for providing such needed assistance. Due to their responsibilities, the primary caregivers were not able to maintain employment (including jobs or home farming responsibilities), which resulted in reduced income. Little evidence of stigma was noted.

Conclusion:
Impact on caregivers must be considered within the overall burden of obstetric fistula. Support for caregivers should be included within fistula programming. Ignoring the role of the caregiver may represent a missed opportunity for improving community-based resources for fistula patients and reintegration activities.

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Poster Session II – A - 7

Maternal factors associated with breast milk quality indicators in Iquitos, Peru

Layla S. Mofid

**Objective:**
To determine factors associated with micronutrient composition in breast milk during the course of exclusive lactation in an area endemic for soil-transmitted helminth (STH) infections.

**Methods:**
In a trial of maternal postpartum deworming, a subsample of 202 mother-infant pairs were included in a breast milk assessment, at one and six months postpartum. Milk samples were collected using a hospital-grade breast pump, frozen at -80°C, and shipped to Ghent University for laboratory analysis.

**Results:**
After controlling for age, district of residence and body mass index, vitamin D concentration in breast milk was lower in mothers who reported higher levels of fatigue using the Multidimensional Assessment of Fatigue (MAF) at one month postpartum (β: -0.17 ng/L; 95% CI: -0.26, -0.083 ng/L) and the Fatigue Assessment Scale (FAS) at six months postpartum (β: -0.15 ng/L; 95% CI: -0.26, -0.035 ng/L). Mothers infected with Ascaris and Trichuris at six months postpartum, had milk calcium concentrations 2.5 mmol/L lower on average than uninfected mothers. Moderate/heavy intensity infection with Trichuris was associated with lower levels of calcium in milk (β: -9.18 mmol/L; 95% CI: -17.04, -1.33 mmol/L). Maternal anemia was not associated with milk iron concentration at either time point.

**Conclusion:**
STHs can block nutrient absorption and compete for micronutrients, leading to deficiencies in vitamins and minerals. This study suggest that maternal nutrition and infection may impact breast milk quality and subsequently impair infant growth and development. Future analyses will
explore the effect of single-dose deworming to mothers following delivery on nutritional composition of breast milk.

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Poster Session II – A - 8

Exploring postnatal maternal morbidity through home-visits: A prospective community-based study in a Palestinian rural village, West Bank

Sahar Jamal Hassan1

Objective:
To determine the incidence, the magnitude and types of postnatal maternal morbidity during the first and seventh week, and at three months after birth in a Palestinian village.

Methods:
This is a prospective community-based intervention study conducted in 2013. Interviews were conducted during home-visits three times with each postpartum woman. A physical assessment and health education session were carried out at each visit, depending on the needs of each woman. Among the women who gave birth (n=196), we visited 194 (99%) postpartum women during the first week, 186 (95%) during 7th week and 188 (96%) three months after birth. Ethical approval and oral consent from women were obtained.

Results:
Among the women visited the first week after birth, 107 (55.2%) women reported one to three morbidities, and 56 (28.9%) women reported four to ten morbidities. Among the women visited during the 7th week after birth, 74 (39.8%) women reported one to four morbidities, while 50 (26.6%) women visited at three months after birth reported one to four morbidities. The most frequently reported morbidities were pain, fatigue and problems related to the breast (cracked/sore nipples, engorgement),
wounds/stitches, perineum, extremities and elimination. We referred 34 (17.5%) women for further medical care during the first week after birth due to bleeding, high blood pressure, high temperature and potential infection.

**Conclusions:**
Maternal morbidities were common among Palestinian women during their puerperium period. This suggests the need to implement postnatal home visiting programs to help the women in need and to reduce maternal and newborn morbidities.

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**Poster Session II – B - 1**

**What profile of neonatal mortality in the Wilaya of Oran, Algeria to the 2015 deadline?**

Nabila Heroual\(^1\), Laouari Sid Ahmed\(^2\), Naouel Belarbi\(^2\), Leila Houti\(^1\)

**Introduction:**
Neonatal and infant mortality remains problematic in developing countries. The objectives of the Millennium Development Goals target a reduction in infant and maternal mortality until the year 2015. The objective of this work is to identify the causes of neonatal mortality recorded in 2014 at the scale of the Wilaya of Oran, Algeria.

**Material and methods:**
A retrospective study based on cases recorded in 2014 by the Regional Health Observatory, was performed on the database of the declarations of deaths according to the "WHO" death certificate that is used in hospitals since 2014. The causes of death were coded according to the recommendations of the international classification of diseases ICD-10.
**Results:**
Of 380 infant deaths recorded, 79% occurred before the first month of life. Early neonatal deaths (0-6 days) represent 79% of all neonatal deaths. Among the causes of death in the early neonatal period, 74.5% of deaths were related to perinatal conditions, including respiratory diseases (51.0%) and preterm birth (07.7%), followed by congenital malformations (21.7%) of which 28.3% were due to heart defects. In the late neonatal period, the most frequent pathologies involved were birth defects especially of the nervous system (31%). In more than 53%, the cases of death were related to preterm birth, alone or associated with other perinatal conditions.

**Conclusion:**
Several causes of death being preventable, there is a need to reorient and strengthen health programs to reduce neonatal mortality.

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**Poster Session II – B - 2**

**Bacteriological profile of neonatal infection in Mohammed VI Hospital, University of Marrakesh, Morocco**

Kaouthar Razzouki¹, Nadia El Idrissi Slitine¹, Fadl Mrabihrabou Maoulainine¹

**Background:**
Neonatal infection is one of the most common reasons for hospitalization in neonatology. The objective of this work was to identify the bacterial profile of neonatal infections and its kinetics to adapt it to local antibiotic microbial ecology.

**Methods:**
This is a retrospective study of newborns admitted with suspected neonatal infection from August 2009 to December 2013 to the neonatal intensive care unit (NICU) of Mohammed VI Hospital, University of Marrakesh, Morocco.
Marrakesh in Morocco. All newborns with a pathogen isolated in blood culture and/or urine and/or cerebrospinal fluid (CSF) were included. Nosocomial infections and soiled blood cultures were excluded.

**Results:**
Among 2735 neonates admitted to the unit, 351 had a confirmed neonatal infection, a prevalence of 12.8%. The mean age was 4.91 days (range [H2; J25]), with a male predominance of 61.3%. Term newborns accounted for 63%. The delivery was vaginal in 74.73% of cases. In 60.6%, newborns had a weight greater than 2500g. Infectious anamnesis was positive in 65.4% of cases, CRP was positive in 39.6% of cases. Bacterial identification revealed Gram positive cocci in 48.67% of cases and culture essentially isolated staphylococcus aureus followed by enterococci; Gram-negative bacilli were found in 36.1% of cases, dominated by E.coli and Klebsiella Pneumoniae.

**Conclusion:**
The bacteriological profile of neonatal infections in the NICU of Marrakesh seems to have changed lately since we observe more infections with gram positive bacteria. Therefore it is necessary to adapt the antibiotherapy to the local profile.

1 Childhood, Health and Development research team, University Cadi Ayyad, Faculty of Medicine, Marrakesh, Morocco.

**Poster Session II – B - 3**

**Risk factors for congenital malformations: Prospective study at the Souissi Maternity Hospital, Rabat, Morocco**

Narjisse Sabiri¹, Rachid Razine², Aicha Kharbach¹, Amina Barkat¹

**Introduction:**
Congenital malformations are one of the leading causes of morbidity and infant and child mortality. The objective of this study was to analyze the main factors involved in the occurrence of congenital malformations in our context.
Patients and methods:
This was a prospective, descriptive and analytical study carried out at the Souissi Maternity Hospital in Rabat over a one year period from January 2010 to December 2010. This study involved the use of obstetric and perinatal records of a sample of the population. A data extraction sheet was completed for every newborn with sociodemographic, obstetric, nursery, monitoring, surveillance of pregnancy, childbirth and neonatal data. The group of healthy newborns and those with a malformation were compared and analyzed. The malformations considered were those that were clinically detectable.

Results:
Of 1000 births, 960 were healthy newborns and 40 carriers of malformations. The malformations found were cleft palate (10 cases), anencephaly (four cases), poly-malformed (12 cases), hydrocephalus (four cases), imperforate anus (two cases) and spina-bifida (eight cases). Risk factors significantly associated with the occurrence of congenital malformations were taking medication (antiepileptic drugs) and/or plants (fenugreek) during pregnancy ($P<0.001$), the presence of a maternal chronic disease which was mainly diabetes ($P<0.001$), family history of a congenital malformation ($P<0.001$) and twin pregnancy ($P=0.028$).

Conclusion:
The study of congenital malformations should be used to set up specific prevention measures.

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2 Laboratory of Biostatistics and Epidemiological Research, Rabat, Morocco
Dépistage néonatal de l'hypothyroïdie congénitale- Implantation de la phase pilote au Maroc

Laila Acharai, Amina Barakat, Asmaa Tan Tan, Jamila El Mendili, Aicha Kharbach, Nouzha Dghoughi, Nadia Ozahra, Ayayhi Chabraou, Khalid Lahlou

Objectifs:
Tester l'organisation de l'implantation du programme National de Dépistage Néonatal de l'Hypothyroïdie Congénitale (DNHC) et évaluer le degré d'implication du personnel de santé dans le DNHC.

Méthode:
La phase pilote a été réalisée de mars 2012 à mars 2014 au niveau de sept structures d'accouchement représentant 80% des naissances attendues de la région de Rabat Salé Zemmour Zaër. Les professionnels de santé et les techniciens de laboratoire ont été formés aux techniques de prélèvement, d'acheminement, d'analyse des résultats, et à la relance des cas suspects pour confirmation. Les équipements et les réactifs ont été fournis et un guide de référence et les supports d'information ont été élaborés. Un système de suivi a été mis en place comprenant des registres et des rapports mensuels par niveau et des indicateurs de suivi d'input, de processus et de résultats.

Résultats:
75 cas suspects ont été dépistés dont 13 confirmés positifs sur un total de 35 872 prélèvements effectués jusqu'à mars 2015, soit une prévalence de l'hypothyroïdie congénitale d'un cas sur 1700 naissances vivantes. Le taux de conformité des prélèvements était de 68% (12%-99%). La durée d'acheminement n'a pas dépassé trois jours dans la majorité des structures. Le délai de confirmation du test a été réduit à huit jours à partir de février 2013. Une équipe rodée aboutit à une nette amélioration de la qualité de conformité et la réduction du délai d'acheminement des échantillons. L'implication des soignants a été progressive et effective.
Conclusion:
La phase pilote a été un succès. Les cas positifs détectés auront un développement psychomoteur normal grâce au traitement hormonal de substitution, au suivi médical et la sensibilisation des parents. La prochaine étape est de renforcer les aspects organisationnels, de communication pour améliorer la qualité du dépistage et préparer les étapes futures pour aller à échelle.

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Poster Session II – B - 5

Community managed nutrition centers for improving maternal nutrition and reducing IUGR in an indigenous tribal population – Experience from the Fulwari Initiative in India

Samir Garg

Background:
Chhattisgarh state in India has 40% of women (15-49 years) with a Body-Mass-Index (BMI) below 18.5. The prevalence of intrauterine-growth-retardation (IUGR) is high amongst tribes, thus placing children at risk of mortality and various morbidities at different ages.

Methods:
To prevent IUGR, a strategy of improving maternal nutrition was adopted. The State of Chhattisgarh initiated 2850 community managed nutrition-daycare centers called Fulwari, where 35,000 young children (6 months to 3 years of age), 16,000 pregnant women and 17,000 lactating mothers are provided hot cooked meals daily with the inclusion of eggs and vegetables. Community Health Workers called Mitanins provide nutrition and health
education and linkages with healthcare services. The program involves multi-sector convergence, and nutrition-daycare centers are managed by collectives of mothers. Birth weights of 700 newborns in 194 randomly selected rural habitations with *Fulwaris* were measured. Weights of a group of 1000 6 month to 3 years old children in Fulwari were tracked.

**Results:**
Women get more rest along with quality meals in *Fulwari*, more frequent contact with health workers and a reduced burden of child-care. Weight gain during pregnancy improved. 13.9% of newborns of mothers enrolled in *Fulwari* during pregnancy and 25.5% of newborns of mothers not-enrolled in *Fulwari* had birth-weights less than 2.5 kg. In the 6 month to 3 years age group of severely underweight children enrolled, 64% were able to come out of the severe-underweight category and overall underweight prevalence reduced by 24% over the period of one year. The State has decided to expand the program.

**Conclusions:**
Feeding pregnant women and children under the age of three years in community managed nutrition-daycare centers can significantly reduce IUGR and child malnutrition in tribal populations.

1 State Health Resource Centre, Chhattisgarh, India

**Poster Session II – B - 6**

Évaluation de la qualité de la consultation prénatale et postnatale : cas du dépistage et prise en charge de la pré-eclampsie / éclampsie

Aicha Kharbach¹, Jamila El Mendili², Laila Acharai², Khalid Lahlou²

**Objectif:**
Évaluer la qualité de la consultation prénatale et postnatale (CPN et CPoN) et élaborer un modèle d’intervention opérationnel pour réduire les risques de complications évitables en amont de l’accouchement (cas du dépistage et prise en charge correcte de la pré-éclampsie).
Méthodes:
Etude descriptive avec deux approches quantitative et qualitative et trois niveaux d’analyse (femmes, professionnels et établissements sanitaires) réalisée au niveau 3 structures constituant un réseau de prise en charge des grossesses à risques au niveau de la Province de Kénitra (CSU, CSCA et Maternité CHR).
La population de l’étude a concerné les femmes qui se sont présentées aux sites d’étude pour la CPN/CPoN durant la période de collecte des données (trois focus groupes : un par Établissement Sanitaire après l’organisation de la classe des mères), 22 professionnels de santé impliqués dans la CPN/CPoN au niveau des sites d’étude (gynéco-obstétriciens, médecins généralistes, sages-femmes, infirmières) et sept responsables et gestionnaires (locaux, provinciaux et régionaux).
Les interviews ont été menées par la consultante et deux cadres de la DP/MS, de même que les observations réalisées en avril et mai 2014.
La seconde évaluation (supervision formative) a eu lieu en août et novembre 2014.

Résultats:
L’étude a permis de formuler des recommandations par niveau (stratégique, régional, provincial et local) et d’établir un plan de mise en œuvre. La mise à niveau des établissements et la formation des prestataires impliqués ont été assurés.
La réévaluation, a montré une nette amélioration de la qualité de dépistage et prise en charge où la référence des cas de pré-éclampsie/éclampsie.

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Prevalence of congenital heart disease in newborns from diabetic mothers and macrosomic newborns in Morocco

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Background:
Maternal diabetes is known as an important risk factor for the onset of heart defects. The objective of this study was to determine the prevalence of congenital heart disease (CHD) in newborns of diabetic mothers and in macrosomic newborns.

 Patients and Methods:
Retrospective study from January 2010 to March 2014, concerning all newborns from diabetic mothers and macrosomic newborns admitted to the Neonatal Intensive Care Unit at the University Hospital Mohammed VI, Marrakesh.

 Results:
Data of 84 cases were collected. Newborns of diabetic mothers accounted for 53 % of which 26% had macrosomia; macrosomic newborns of non-diabetic mothers constituted 45%. Maternal diabetes was type 1 in 24%; type 2 in 18% and gestational diabetes present in 20% of mothers. Echocardiography performed in 76% of patients showed heart disease in 48% of cases with 22 % having hypertrophic cardiomyopathy, 32% left-right shunts heart disease, 3% primary pulmonary hypertension and one case had a transposition of the great arteries.

 Conclusion:
Echocardiography should be systematic in newborns of diabetic mothers and in macrosomic newborns given the high risk of CHD.

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Vitamin D status in pregnant women and newborns: reports of 102 cases

Fouzia Mnebhi Loudyi¹, Jamal Kassouati², Aicha Kharbach¹, Amina Barkat¹

Introduction:
The main objective of this work is to examine the vitamin D status in a group of full term pregnant women and their newborns by measuring the serum concentration of vitamin D (25[OH] D3).

Patients and Methods:
We measured of serum vitamin D (25[OH] D3) concentration of pregnant women at the time of admission for childbirth. The measurement of vitamin D (25 OH D3) was also performed in newborns by umbilical cord blood sampling. Patients were enrolled over four seasons: spring, summer, autumn and winter. In parallel we investigated the phosphocalcic status of mother and child by measuring serum calcium, phosphorus and alkaline phosphatase. The included women had answered a questionnaire consisting of sociodemographic and epidemiologic data.

Results:
Our study included 102 cases of mother-newborn pairs. The average age of mothers was 28.3 +/- 6.7 years (range 17 - 43 years), 90.1 % of enrolled women had a hypovitaminosis D, the average weight of newborns was 3377.9 +/- 509g (2270 - 4880 g). Hypovitaminosis D is not correlated with origin, season, body mass index, birth interval or birth weight but it is positively correlated with maternal serum calcium (p=0.000).

Conclusion:
These results show the benefit and the importance of vitamin D supplementation for pregnant women and the need for further studies to gain a better understanding of the determinants to develop suitable preventive measures.

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Les infections du postpartum à la Maternité du Centre Hospitalier Prince-Régent Charles, Bujumbura

Jean-Marc Chapplain

Objectif:
Pour sensibiliser les soignants aux risques d’infection et améliorer les pratiques pour les prévenir, cette étude a déterminer la fréquence des infections maternelles après l’accouchement.

Méthode:
Les parturientes ayant accouché par voie basse, présentes le matin pendant la durée de l’enquête, tirées au sort et après leur consentement étaient incluses. Les caractéristiques et les coordonnées des patientes étaient colligées pour une évaluation téléphonique réalisée par un médecin de la maternité à 48h puis à 10 jours après l'accouchement.

Résultats:
Sur 1538 accouchements pendant l’étude, 300 femmes ont été incluses, avec une moyenne d’âge de 28 ans (+/-7), 38% présentaient une précarité majeure, une parité médiane de 2 [1-4] et un terme moyen de 39 (+/- 3) semaines d’aménorrhées. 23 % bénéficient d’une épisiotomie et 34% d’une révision utérine, 5% sont infectées par le VIH. A 48h, 27 femmes (9%) déclarent un signe d’infection: 11 infection urinaires (3,7%), neuf vaginites (3%), sept épisiotomies suppurées (2,3%). A 10 jours, 56 autres femmes (19%) présentent un signe d’infection : 26 vaginites (9%) , 18 épisiotomies suppurées (6%), 10 infections urinaires (3,3%), deux endométrites (0,7%), soit 22% d’infections au total associées aux soins.

Conclusion:
Ce taux d’infections peut s'expliquer par le non-respect de règles d'hygiène de base (hygiène des mains) mais aussi par l’absence de maîtrise des indications de procédures obstétricales (révisions utérines, épisiotomies). L’absence d’éducation en santé des femmes est également un inconvénient car si les infections restent pour la plupart superficielles, c’est bien le retard de leurs prises en charge qui provoque les principales complications.
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Theme 3

Maternal Death Surveillance Systems

Thème 3

Les systèmes de surveillance des décès maternels
Surveillance des décès maternels (et périnatals) et réponse (SDMR – MDSR)

Si l’élimination de la mortalité maternelle et périnatale évitable d’ici à 2030 est bien notre objectif commun, alors il faut immédiatement se (re)pencher sur les stratégies qui peuvent nous permettre de poursuivre en l’accélérant la réduction entamée durant les dernières décades et en la rendant une réalité pour tous. L’amélioration de la qualité des soins de maïeutique (soins de sage-femme) et obstétricaux ne va pas seulement réduire ces mortalités et la morbidité associée mais aussi attirer plus de femmes vers les consultations prénatales et les salles d’accouchement.

Différentes stratégies complémentaires peuvent être utilisées pour atteindre ces objectifs, en particulier la « Surveillance des décès maternels (et périnatals) et la réponse » (SDMR).

Cette stratégie, qui se fonde sur l’expérience acquise dans la revue des décès maternels (OMS – Au-delà des Nombres, 2006), inclue la déclaration obligatoire des décès, leur analyse au niveau des structures de santé comme au niveau communautaire, dans le but de déceler leur cause et leur évitabilité, et enfin l’élaboration de recommandations pour l’action qui nécessitent un suivi organisé et responsable. L’OMS, UNFPA et le CDC ont publié en 2014 un guide technique qui présente les principaux aspects de la stratégie et des recommandations pour sa mise en œuvre. Ce guide sera présenté brièvement.

Rendre la déclaration des décès maternels (et périnatals) obligatoire est une décision politique devant être prise par chacun des pays. Elle permet que chaque décès soit considéré, analysé, et aussi d’obtenir partout, à tous les niveaux, des chiffres réels de mortalité maternelle (et périnatale). Nous verrons que la revue des décès maternels (et périnatals) basée sur l’auto-évaluation des pratiques de soins par l’équipe médicale, doit amener des changements tout comme la participation des communautés dans l’analyse des décès survenus en son sein.

La dimension de plaidoyer au plus haut niveau est aussi à considérer : la déclaration systématique et obligatoire de chaque décès produisant des données fiables en temps réel pouvant être présentées de façon régulière,
mensuelle par exemple, aux décideurs politiques, peut réellement jouer un rôle important dans leur soutien aux programmes de santé maternelle et néonatale.

La philosophie de la SDMR est parfaitement alignée avec la Stratégie Globale du SG des NUs et va aider à mesurer plusieurs indicateurs globaux retenus pour les Objectifs de développement durable 3.1, 3.2 et 3.7.

La mise en œuvre de la SDMR se heurte à différents obstacles qui ont déjà, pour beaucoup, prévalu dans la mise en œuvre des revues de décès maternels : le manque de leadership et de volonté politique, le manque d’enthousiasme des professionnels pour l’auto-évaluation des pratiques de soins, la crainte, plus ou moins fantasmée, de l’utilisation de la SDMR par la justice.

Introduction :
Malgré les gros efforts fournis depuis des années pour obtenir une réduction de la mortalité maternelle au Burkina Faso, force est de constater que le niveau actuel reste loin du niveau souhaité. En effet, le taux de mortalité maternelle est passé de 610 pour 100 000 NV en 1994 à 341 p 100 000 NV en 2014. Parmi ces décès, 80% sont de causes directes et évitables et plus de la moitié des décès survient dans les 24h qui suivent l’accouchement. Les décès néonatals représentaient 28 p 1000. Une composante essentielle de toute stratégie d’élimination est le système de surveillance. En particulier pour les décès maternels, la surveillance permet de mieux mesurer l’ampleur du phénomène à travers le nombre de cas recensé et surtout de comprendre les facteurs sous-jacents et comment en venir à bout. Le système de SDMR peut fournir des renseignements essentiels nécessaires pour stimuler et orienter les actions visant à prévenir les décès maternels à venir et à améliorer la méthode d’estimation de la mortalité maternelle. Au Burkina Faso, la mise en œuvre de cette surveillance a commencé en 2012 et se poursuit de nos jours.

Méthodologie :
La mise en œuvre de la SDMR au Burkina Faso a respecté un processus qui se résume aux étapes ci-après :

- Novembre 2011 : première rencontre de réflexion en collaboration avec les partenaires techniques (OMS, UNFPA), les sociétés savantes (pédiatrie, GO)
- Mise en place d’un groupe de travail avec l’appui d’une personne ressource pour élaborer les outils: introduction des décès maternels et néonatals au niveau de TLOH;
- Décembre 2011: atelier d’orientation des acteurs décentralisés (CISSE et pharmaciens régionaux et des hôpitaux) sur la surveillance des décès maternels et néonatals et sur le suivi des produits de la SR
- Diffusion des outils à tous les acteurs du système de santé
• Elaboration de notes officielles ministérielles en faveur de la mise en œuvre de la SDMR
• Démarrage de la surveillance à partir du 1er janvier 2012 ;
• Révision du Guide de la SMIR avec prise en compte des décès maternels néonatals
• Définition du circuit de transmission de l’information

Résultats :
La surveillance a permis d'obtenir le résultats ci-après suivant:

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015 (S34)</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Décès maternels</td>
<td>702</td>
<td>527</td>
<td>517</td>
<td>377</td>
<td>2123</td>
</tr>
<tr>
<td>Décès néonatals</td>
<td>1776</td>
<td>1274</td>
<td>1876</td>
<td>1626</td>
<td>6552</td>
</tr>
</tbody>
</table>

En terme de riposte, elle a été locale à travers la mise en œuvre des plans d'action des districts sanitaire, mais aussi centrale à travers le renforcement des capacités et un certain nombre d'interventions spécifiques

Conclusion :
La SDMR est une réalité au Burkina Faso. Elle devra à l'avenir s'appesantir sur les décès en milieu communautaire pour être le plus exhaustif possible. Aussi, la mise en œuvre des revues des décès maternels dans les établissements de soins serait d'un atout considérable.
Underreporting of maternal deaths in the current surveillance system in Morocco

Saloua Abouchadi ¹,²,³, Wei-Hong Zhang², Chakib Nejjari¹, Vincent De Brouwere³

Background:
Despite the progress achieved by Morocco in the field of maternal health, maternal mortality is still relatively high (112/100000 live births) and remains a national priority. One of the major problems experienced by the Ministry of Health is the difficulty in getting accurate information on the causes and circumstances of all maternal deaths. This limits the Ministry’s ability to develop appropriate strategies for accelerating the reduction of maternal and neonatal mortality. The Moroccan Ministry of Health started the implementation of a maternal death surveillance system (MDSS) in 2009. However, only half of the estimated number of deaths was reported by this system. This limits the relevance of the recommendations issued from the analysis and has consequences on the motivation of the health personnel to adhere to such a MDSS.

Objective:
This research aims to assess the completeness of MDSS at regional level, to determine the factors that explain the under-reporting of maternal deaths, and to identify obstacles to the use of MDSS data in the region.

Methods:
We conducted a survey on women of reproductive age (WRA) mortality in the region of Gharb Chrarda Bni Hssain. Between 1 January 2013 and 30 September 2014, deaths of WRA were identified by using multiple data sources (Vital Statistics Offices, Offices of Health, local authorities and hospitals). Data has retrospectively been collected by health professionals from health facilities. In a second step, verbal autopsies were conducted with family members of the deceased women to determine medical causes and circumstances of death. An individual record and a standardized verbal autopsy questionnaire have been used to collect data after obtaining the informed consent of the family. Maternal deaths are classified as maternal...
deaths either by direct or indirect obstetric causes, late maternal deaths and accidental deaths.

Preliminary results:
A total of 783 deaths of WRA were identified. We have been able to investigate only 548 of them which allowed us to identify 66 pregnancy related deaths. The analysis of the MDSS reports for the years 2013 and 2014 revealed that only 635 deaths of WRA and 32 pregnancy related deaths were recorded. This means we were able to identify more than two times more pregnancy related deaths. The data base analysis is still in progress but preliminary results will be ready by October 2015.

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Theme 3 - Oral Presentation – 2

Le système d’audit des décès maternels en Tunisie – performances et limites

Chaouch Mohamed1, Derouiche Sondes1, Dellagi Rafla1

Objectif:
En Tunisie la réduction de la mortalité maternelle constitue un objectif national depuis plusieurs décennies. Cet objectif est partagé avec la communauté internationale depuis les années 2000 dans le cadre du 5ème Objectif du Millénaire pour le Développement. La Tunisie a mis en place depuis 1999 un système d’audit des décès maternels. Ce système est appliqué dans tous les établissements sanitaires publics. Il a pour objectif l’identification des causes et des facteurs qui contribuent à la survenue de ces décès et proposer des recommandations pour éviter la survenue de décès maternels dans le futur. Ce travail élucidera les performances de ce système et les difficultés pour sa pérennité.
Méthodes:
Ce système consiste à identifier, parmi les décès des femmes en âge de reproduction, ceux qui ont un caractère maternel selon la définition de l’OMS. L’audit de ces décès se passe à double niveau, le premier est départemental par des comités régionaux, le second est national par un comité central. Des supports de recueil des données spécifiques à caractère confidentiel et un logiciel informatique sont dédiés à ce système. Ce système est régi par une circulaire ministérielle qui précise les modalités de recueil des données, la composition, les attributions et le fonctionnement des différents comités.

Résultats:
Performances : Ce système a permis depuis sa création de recenser 800 décès durant les 15 années à raison de 50 à 60 décès par an en moyenne. L’investigation des dossiers médicaux a permis d’identifier les causes qui sont dominées par l’hémorragie (30 à 40 %), puis toxémie gravidique, les cardiopathies, les infections et les maladies thrombo-emboliques ; de juger l’évitabilité des décès (70 à 80 % sont jugés évitables) et d’identifier les facteurs ayant contribué à ces décès qui sont essentiellement les facteurs humains par inadéquation de prise en charge. Des recommandations pour pallier les insuffisances remarquées ont été émises et ont permis une réduction de la mortalité maternelle évitable.
Limites : Ce système ne concerne que les décès enregistrés dans le secteur public et doit s’étendre au secteur privé qui voit sa place grandir. L’investigation des décès est totalement concentrée sur la prise en charge médicale et étudie peu les déterminants socioéconomiques qui expliquent les disparités départementales. Ce système ne permet pas une estimation exacte du ratio mortalité maternelle, qui n’est pas son objectif principal et connaît un retard, voire l’absence, de réalisation des recommandations, ce qui influence les performances du système.

Conclusion:
Bien que le système d’audit a permis d’identifier les principales causes et facteurs liés à la mortalité maternelle, des insuffisances ont été notées surtout le manque d’opérationnalisation des recommandations. Devant ce constat la Tunisie a entamé une révision de ce système permettant d’identifier les solutions opérationnelles pour la réduction de la mortalité maternelle.

1 Direction des Soins de Santé de Base, Ministère de la Santé, Tunisie
La surveillance des décès maternels au Cameroun : les défis de l’intégration dans la Surveillance Intégrée des Maladies et Riposte.

Marquise Kouo Ngamby\textsuperscript{1}, Léopold Donfack\textsuperscript{2}, Chanceline Bilounga Ndongo\textsuperscript{1}, Nadia Ampoulia\textsuperscript{1}, Martina Baye\textsuperscript{3}

**Contexte:**
Entre 1998 et 2011, le ratio de mortalité maternelle a pratiquement doublé au Cameroun passant de 430 à 782 décès pour 100 000 naissances vivantes. Pour inverser cette tendance, plusieurs interventions ont été mises en œuvre cette dernière décennie : une des plus récentes est la surveillance des décès maternels. Elle est mise en œuvre depuis 2012 mais est restée embryonnaire.

**Objectif:**
L’objectif de l’étude était d’identifier les goulots d’étranglement à une surveillance efficace des décès maternels au Cameroun.

**Méthode:**
Une analyse de la mise en œuvre des activités de surveillance des décès maternels ainsi que de son intégration à la Surveillance Intégrée des Maladies et Riposte (SIMR) a été réalisé. La méthodologie a consisté en une revue documentaire et des interviews des informateurs clés du secteur santé, des niveaux central, régional et opérationnel.

**Résultats:**
La SIMR est opérationnelle avec des procédures bien définies ainsi qu’un système de communication établi. La notification des décès maternels a déjà été intégrée dans la fiche de notification des maladies de la SIMR. Cependant, le taux élevé des accouchements à domicile (39\%) ne permet pas une surveillance efficace des décès maternels. Par ailleurs, la recherche des décès maternels en communauté n’est pas organisée comme celle des paralysies flasques aigues. De même, les outils d’investigation ne sont pas disponibles au niveau des formations sanitaires et le personnel est insuffisamment formé pour conduire ces investigations. La riposte aux décès maternels n’est pas juxtaposable à la riposte telle que définie dans la SIMR.
Conclusion:
La notification et l’investigation des décès maternels sont les aspects de l’intégration qui nécessitent des améliorations. Aussi, il serait nécessaire de repenser le modèle d’intégration entre la surveillance des décès maternels et la SIMR.

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2 Progamme Elargi de Vaccination, Yaoundé, Cameroun
3 Programme National Multisectoriel de Lutte contre la Mortalité Maternelle, Néonatale, Infanto-juvénile, Yaoundé, Cameroun.

Theme 3 - Oral Presentation – 4

Contraintes et obstacles à l’intégration de la surveillance de la mortalité maternelle dans les structures de santé de la ville de Lubumbashi, en République Démocratique du Congo

Abel Ntambue Mukengeshayi1, Françoise Malonga Kaj1, Michèle Dramaix-Wilmet2, Philippe Donnen2

Contexte:
La République Démocratique du Congo est parmi les pays avec un niveau élevé de mortalité maternelle (MM). La surveillance de cette mortalité (SMM) y est essentiellement basée sur la revue et l’audit des décès maternels, mais elle s’avère difficile à être intégrée aux paquets d’activités de soins de santé de la mère, du nouveau-né et de l’enfant.

Objectif:
Cette étude a été menée en vue de déterminer les contraintes et obstacles à l’intégration de cette surveillance dans les structures de santé de la ville de Lubumbashi.

Méthodes:
L’étude était transversale. Les données issues des registres de maternité, dossiers des femmes et registres confidentiels des décès maternels (DM), et les rapports mensuels des maternités (de ≥30 accouchements/mois,
n=180) ont été analysées. Elles ont été comparées entre ces différents outils pour rechercher la concordance du nombre des décès tels que déclarés dans chacune des maternités. L’interview du personnel (prestataires de la maternité, superviseurs des Zones de Santé) a complété cette analyse en déterminant les obstacles à l’intégration de la SMM. L’étude a été réalisée en avril 2015.

**Résultats:**
Entre 2010 et 2015, il y a eu 115 DM (RMM= 1128 pour 100 000 naissances vivantes). Seulement 67 (58,3%) étaient enregistrés dans les documents officiels des structures de santé, parmi lesquels 85% seulement étaient notifiés. Les décès survenus chez les femmes appelées «apportées mortes», avaient deux fois plus la chance d’être notifiés que ceux survenus chez les femmes «apportées vivantes» (75% vs 35%; p<0,001). Seulement 10% des notifications avaient fait objet d’un audit. Pour les prestataires (n=238), l’attitude répressive des autorités sanitaires (85%) et le manque d’information sur les audits (92%) étaient les obstacles à la mise en place de la SMM. Concernant les membres de l’équipe cadre de la Zone de santé (ZS), le manque de fiches d’audit (dépendance des ZS vis-à-vis des ONG; 78%), l’absence de notification des décès par les prestataires (94%) - qui préfèrent cacher les décès - ainsi que le manque du moyen de transport pour rechercher les décès dans les structures de santé et en communauté (64%), étaient présentés comme obstacles à l’intégration effective de la surveillance de la mortalité maternelle.

**Conclusion:**
La mortalité maternelle demeure encore importante à Lubumbashi, mais la notification des décès par les structures de santé est faible, et rend difficile la SMM. Améliorer la compréhension du personnel de santé sur la notification des cas, mettre en place les mesures d’appropriation de SMM par les ZS (production des outils) et combiner plusieurs techniques, peuvent améliorer la qualité de la SMM.

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1 Ecole de Santé Publique, Université de Lubumbashi, République Démocratique du Congo
2 Ecole de Santé Publique, Université Libre de Bruxelles, Belgique
Building a cost-effective system of maternal death surveillance in resource-poor settings by involving communities and innovative implementation structures

Samir Garg\(^1\)

**Objective:**
Maternal mortality in Chhattisgarh state of India is worse than the national average. The state has a system of maternal death reporting and auditing conducted through Government doctors. To augment it, Government initiated a community-based system of maternal death surveillance.

**Methodology:**
Chhattisgarh government has promoted 19,100 Village Health Committees supported by a network of 66,200 Community Health Workers (CHW) called Mitanins, covering 19 million rural population. Since 2011, village committees record deaths and discuss them in monthly community meetings. Verbal autopsies of maternal deaths were started in 2013 to enable community based death audits. 170 existing local facilitators in the CHW program were trained to conduct verbal autopsies of maternal deaths. The information collected on each death was reviewed and summarized by a technical team in discussion with the facilitators. The information compiled was shared with government and communities.

**Results:**
402 maternal deaths from October 2013 to September 2014 were covered. The verbal autopsies showed that hypertensive disorders, postpartum hemorrhage and anemia were leading probable direct causes while malaria, jaundice and sickle-cell-disease were key indirect causes and that 42\% of cases received less than three ANC check-ups and 10\% had received none. Complications were identified in 54\% cases during the ante-natal period. 70\% of them sought treatment but treatment was perceived as successful only for half of them; 83\% of cases had come in contact with CHWs and 99\% of them were referred to a health facility; 65\% women tried accessing government transport but only 63\% of them could get it. Amongst cases referred from one facility to another, 47\% had a Government transport; 82\% women managed to reach a health facility of
whom 62% had to go to more than one facility and 39% amongst them had to go to three or more facilities. Amongst the intra-partum or postpartum deaths, 78% were institutional deliveries. Compared to this, the overall rural institutional delivery rate for Chhattisgarh state was 51%. Though the usage of health facilities was fairly high, deaths happened as the required procedures or services were not available. The out-of-pocket expenditure was considerable.

Findings indicate that a strategy of increasing overall institutional deliveries may be ineffective in a situation of limited availability of critical services in health-facilities. The recommendation was to focus on identification of high risk pregnancies and ensuring availability of required transport, treatment and obstetric care for them. A community-based surveillance system has helped in understanding systemic gaps contributing to maternal mortality from the perspective of the community. It has facilitated local collective action including demanding accountability from the healthcare system. The registration and reporting of maternal deaths also increased.

**Conclusion:**
Families and communities are willing to report maternal deaths and facts about surrounding circumstances without the reluctance that is often shown by Government functionaries. Large-scale and cost-effective systems of maternal death surveillance are feasible by integrating them with CHW programs and other community based structures. The significant autonomy granted by the Government to alternative facilitation structures is crucial to the functioning of community-based death-surveillance systems.

1 State Health Resource Centre, Chhattisgarh, India
Dead Women Talking
An alternative approach to knowledge creation on maternal deaths in India

Renu Khanna¹, Subha Sri², Sundari Ravindran³

Introduction:
In India, maternal mortality has significantly reduced over the last few years. However, it is certain that India will fail to achieve MDG 5. Since 2010, the Government of India has mandated maternal death reviews at the district level. However, little information is available in the public domain on the analysis and actions emerging from the government MDRs. This is the context in which several civil society groups across India came together to create ‘Dead Women Talking’ (DWT) to move beyond the biomedical paradigm of looking at maternal deaths and centre stage the lived experiences of the women who died and their families and communities. The initiative also brought together the fragmented attempts to collect maternal death information and channel these efforts into coordinated advocacy efforts.

Methods:
Dead Women Talking used the Social Autopsy concept. Social autopsy has been defined as "an interview process aimed at identifying social, behavioral, and health systems contributors to maternal and child deaths" and is meant to complement verbal autopsy for maternal/child death which, through interviews with the members of the dead woman/child's household, draws conclusions about clinical cause of death. Over two years – between January 2012 and December 2013 - documentation of maternal deaths was done in 31 districts across 10 states of India. A social autopsy tool was developed with the participation of collaborating partners. An analysis of 124 maternal deaths occurring over this period was published as a national level civil society report on maternal deaths. The report is being used at the national as well as the state levels for advocacy.
Results:
This paper describes how the Dead Women Talking initiative used an alternative approach to study maternal deaths through participatory action research guided by feminist principles. The initiative focused on broader contributors to the death and attempted to elucidate social determinants and issues of power and marginalization as critical in the pathway to death - thus, building an alternative knowledge resource that is based on the lived experiences of the women. It also therefore fills the gap in the knowledge base on who are the women who are dying and the pathways that lead to their death. Challenges are discussed - resistance of the health system to engage with the process and its findings, lack of access to medical records, and the gendered nature of both the family and the health system.

Conclusion:
The DWT process ensured that community members and community based organizations played an active role in documenting the maternal deaths while simultaneously defining the parameters and processes for doing so. It demonstrated that there is an alternative approach to reviewing and learning from maternal deaths that is participatory and guided by feminist values, involves communities, broadens the understanding of contributing causes, and that can be used for local action.

1 SAHAJ – Society for Health Alternatives, Vadodara, India
2 Steering Committee, CommonHealth – Coalition for Maternal Neonatal Health and Safe Abortion, India.
3 Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical Sciences & Technology, Trivandrum, India
Poster

Theme 3

Maternal Death Surveillance Systems

Thème 3

Les systèmes de surveillance des décès maternels
Les audits des décès maternels et néonatals dans les départements de l’Atlantique et du Littoral, Bénin, 2 ans après avoir été rendus obligatoires par arrêté ministériel

Toshiharu Okayasu¹, Carole Aguessy², Primous Godjedo³, Clément Glele Kaikai³

Objectifs:
Le ratio de mortalité maternelle est encore élevé au Bénin (397/100.000 nv en 2006). La réduction de ce ratio est l’une des priorités du Ministère de la Santé. Les bailleurs de fonds tels que la JICA et l’USAID ont soutenu des formations pour les audits de décès maternels et néonatals depuis 2010 dans les départements de l’Atlantique et du Littoral. Le Ministère de la Santé a institutionnalisé depuis mai 2013 l’obligation d’organiser un audit pour chaque décès maternel et néonatal par un arrêté ministériel. Cette étude a pour objectif d’évaluer la mise en œuvre effective du Système de surveillance/Revue des Décès Maternels et Riposte (SDMR) dans les départements concernés.

Méthodes:
L’évaluation repose sur l’analyse des données disponibles SDMR (période 2014 et 1er trimestre de 2015).

Résultat:
En 2014, 146 décès maternels ont été rapportés et seulement 11 cas (7,5%) ont été audités. Sur les 28 ‘échappé belle’, seuls trois audits (10,7%) ont été rapports. Parmi les 834 décès néonatals rapportés, 12 audits (1,4%) ont été réalisés. Pour le 1er trimestre 2015, il n’y a que trois audits de décès maternels réalisés parmi les huit décès maternels rapportés, cinq ‘échappé belle’ et 62 décès néonatals.

Conclusion:
Poster Session III - 2

Barriers and bottleneck analysis (BBA) of maternal mortality in Algeria: Enhancing the maternal death audit system

Lylia Oubraham

Objective:
To deepen the understanding of the broader enabling environment for a reduction of maternal mortality in Algeria in general and to specifically improve the Maternal Death Audit System (MDAS).

Methods:
In-depth Barriers & Bottleneck Analysis (BBA) of the enabling environment (governance, social and political economy), including sub-sector analysis focusing on human resources for health (HRH) for priority setting, planning and budgeting. Through FGDs with more than 40 Algerian health professionals with additional high-level technical expertise and the application of the Barriers Analysis Tool (BAT), constraints and challenges to maternal mortality reduction were identified and analyzed alongside secondary data.

Results:
Judicial and legal mechanisms as well as ministerial instructions have been instituted, including mandatory reporting through MDAS of maternal deaths wherever they take place. Local approaches and tools have been appropriated and capacity developed (48 teams of auditors at national level, two per Wilaya). MDAS generates qualitative and quantitative data, including disparities data (to date, 3,200 mothers from 11 Wilayas; around 100 of 700 annual deaths). Data is informing finalization of the National Plan for the Reduction of Maternal Mortality to promote safe delivery and
women’s participation in line with Algeria’s full commitment towards “A Promise Renewed”.

Conclusions:
BBA provides a rigorous frame for strategic interventions to tackle constraints in ending preventable maternal deaths at multiple levels, to document and tackle disparities in access to quality health care despite the existence of national health policies; to improve governance, particularly in rural regions and the south most affected by the absence of monitoring during pregnancy and un-accompanied births.

1 UNICEF, Algiers, Algeria

Poster Session III - 3

La mortalité maternelle et néonatale au Cameroun : les défis de la mise en place d’un système de surveillance des décès maternels et riposte (SDMR) fiable.

Seidou Moluh¹, Noël Vogue²

Contexte:
Avec un ratio de 782 décès maternels pour 100 000 naissances vivantes, le Cameroun est classé au 9ème rang mondial de forte mortalité maternelle. Le SDMR qui est un modèle permettant d’éliminer le décès maternel évitable via le lien entre le système d’information sanitaire et le processus d’amélioration de la qualité a été institutionnalisé depuis 2013. En intégrant la notification hebdomadaire dans la SIMR (surveillance intégrée des maladies et réponse), on est passé de l’audit des décès à la surveillance des décès maternels et riposte.

Méthode:
Les étapes suivies dans ce processus ont été: formation et sensibilisation des acteurs, élaboration des outils, et mise en place des comités de surveillance.
**Résultats:**
L’analyse de la base nationale des données de SIMR de routine révèle qu’en 2014, 188/189 DS du Cameroun ont notifié 288 décès maternels sur 212.132 accouchements, tous survenus dans les formations sanitaires. La complétude globale des districts (98%), et la promptitude (60%) restent faibles. La première cause de décès maternels rapportée reste l’hémorragie (2 cas sur 3). Deux régions du septentrion enregistrent à elles seules 40% des décès. Les décès néonataux notifiés, mais sans précision de l’étiologie sont quatre fois plus élevés.

**Conclusion:**
Les défis majeurs sont la complétude des données, la notification des décès maternels survenus en communauté, l’application des recommandations issues des comités de revue, la redevabilité, ainsi que les textes réglementaires rendant obligatoire la SDMR.
Le démarrage de la surveillance des décès en communauté, l’élaboration d’un plan d’action triennal de SDMR, et la tenue semestrielle du comité national de SDMR sont les prochaines étapes.

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1 Ministère de la Santé, Yaoundé, Cameroun
2 DRSP Centre, Yaoundé, Cameroun

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**Poster Session III - 4**

**Apport des audits obstétricaux dans la réduction de la mortalité maternelle et périnatale dans la zone sanitaire d’Aplahoue-Dogbo-Djakotomey de 2005 à 2013.**

Jacques Zinsou Saizonou

**Contexte:**
Certains pays africains dont le Bénin ont eu recours à la stratégie des audits pour atteindre ou approcher les OMD 4 et 5.
Objectif: 
L’objectif de cette étude était de déterminer l’apport des audits obstétricaux dans la réduction de la mortalité maternelle et périnatale dans le district sanitaire de Aplahoué-Dogbo-Djakotomè au Bénin.

Méthodes: 
Il s’agit d’une étude évaluative. Un total de 5012 dossiers obstétricaux ont été analysés et les rapports de réunions d’audit de 2005 à 2013 exploités; 44 agents de santé ont été interviewés. Les données qualitatives ont fait l’objet d’analyse de contenu et des comparaisons quantifiées ont été réalisées avec les tests de Chi2 de Pearson et t de Student, avec un seuil de signification de 0,05.

Résultats: 
Le taux d’accouchements assistés dans les maternités est passé de 51,2% à 75,2% (p value = 0,000); le ratio de mortalité maternelle intra-hospitalier de 163,56 pour 100 000 naissances vivantes à 63,28 et le taux de mortalité périnatale intra-hospitalier de 34,86 pour 1000 naissances vivantes à 25,04. La motivation du personnel s’est nettement améliorée. Suite à un accord conclu avec la Centrale d’Achat des Médicaments essentiels le district sanitaire pouvait se ravitailler exceptionnellement quelle que soit sa situation financière. Les maternités, les ambulanciers et l’administration sont reliés sur le plan communicationnel par un système flotte GSM renforçant ainsi le système de référence obstétricale. La tenue des dossiers et l’archivage des supports de données se sont nettement améliorés.

Conclusion: 
La pratique des audits a contribué à l’amélioration des services obstétricaux et des indicateurs de mortalité maternelle et périnatale.

1 Institut Régional de Santé Publique, Ouidah, Bénin
Maternal death reviews – a review of facility based maternal deaths reviews from Nigeria

Oluwatosin Kuti

Background:
Reviewing maternal morbidity and mortality provides evidence for quality improvement and local decision making towards making pregnancy safer. Nigeria presently accounts for about 13 percent of global maternal deaths with an estimated 36,000 annual maternal deaths. Though a large proportion of these deaths are due to preventable causes, information on the underlying causes are usually drawn from health facility clinical records largely due to a weak civil registration and vital statistics system.

Objective:
The objective of the study is to review reported causes and characteristics of maternal deaths from Nigerian health facility based maternal death reviews.

Methods:
A computer search of Cochrane Library, EMBASE, MEDLINE, Popline, and Google Scholar online databases using search strategy keywords based on ("maternal") AND ("deaths " OR "mortality") AND ("reviews" OR "audits") AND "Nigeria". All articles titles and abstracts were screened with full text of eligible results were being reviewed.

Results:
258 records were screened and 17 facility-based maternal mortality audits were reviewed. The audit spanned a period from 1998 to 2012 and involved facilities from all six geo-political areas of Nigeria. Pooled Maternal Mortality Ratios from the 17 studies was 1464 per 100,000 live births. Obstetric hemorrhage, puerperal sepsis and hypertensive disorders were the three top ranked causes of mortality. The frequently occurring risk factors were lack of ante-natal care (unbook cases), low socioeconomic status, poor educational level and grand multi-parity.
**Conclusion:**
Facility based maternal death reviews is a viable and credible means of obtaining field level information on causes and consequences of pregnancy related health challenges in Nigeria.

1 UNICEF, Abuja, Nigeria

**Poster Session III - 6**

**Measuring maternal mortality using a reproductive age mortality study (RAMOS)**

Florence Mgawadere¹, Regine Unkels¹, Nynke van den Broek¹

**Objective:**
To assess the feasibility of conducting a RAMOS study in a low-income setting, to obtain contemporaneous estimates of the number, cause of and conditions associated with maternal deaths (MD).

**Design:**
Prospective Reproductive Age Mortality Survey (RAMOS)

**Setting:**
Mangochi District, Malawi

**Population:**
All women of reproductive age (WRA) (n=207 688)

**Methods:**
MD among all deaths of WRA were identified using the ICD-10 definition. Cause of death and contributing conditions identified by a panel of experts using the classification system for deaths during pregnancy, childbirth and puerperium (ICD-MM)

**Results:**
Out of 424 deaths of WRA 151 were MDs giving a Maternal Mortality Ratio (MMR) of 363 per 100,000 live births (95% CI: 307-425). Only 86 MDs had
been reported via existing reporting mechanisms representing an underreporting of 43%. The majority of MDs (62.3%) occurred in a health facility and were the result of direct obstetric causes (74.8%) with obstetric hemorrhage as the leading cause (35.8%), followed by pregnancy-related infections (19.4%), hypertensive disorders (16.8%) and pregnancy with abortive outcome (13.2%). Malaria was the most frequently identified indirect cause (9.9%). Contributing conditions were more frequently identified when both verbal autopsy and facility-based death review had taken place and included obstructed labor (28.5%), anemia (12.6%) and positive HIV status (4.0%).

**Conclusion:**
The high number of MD that occur at health facility level, cause of death and contributing conditions reflect deficiencies in the quality of care at health facility level. A RAMOS is feasible in low and middle-income settings and provides contemporaneous estimates of MMR.

1 Centre for Maternal and Newborn Health, Liverpool School of Tropical Medicine, United Kingdom

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**Poster Session III - 7**

Analyse du système tunisien de surveillance de la mortalité maternelle

Jamel-Eddine Hamdi¹, Messaoud Hammouda¹

**Introduction:**
Le système de surveillance de la mortalité maternelle (SSMM) hospitalière est instauré depuis 1999 afin d’analyser les causes des décès, les défaillances et de proposer des solutions.

**Objectif:**
Décrire le système de surveillance, sa fonctionnalité, ses résultats et ses limites.

**Résultats:**
La mortalité maternelle a diminué de 67 à 44,8 pour 100000 nv de 1994 à 2008 (en deçà du résultat attendu < 30 pour 100.000 nv). Les résultats du système de surveillance sont concordants avec ceux des enquêtes: 67% causes directes dont 65% par une hémorragie ou toxémie; 33% indirectes (cardiopathies); 78% par causes évitable avec un déséquilibre régional.

**Discussion:**
L’avantages du SSMM est qu’il permet le monitoring de la mortalité maternelle hospitalière dans le secteur public, une prise de décisions correctrices à l’échelle régionale et l’élaboration de consensus de prise en charge.

Des points faibles subsistent: Le système ne couvre pas les décès maternels survenus à domicile et dans le secteur privé; les médecins spécialistes ne sont pas suffisamment disponibles; le système est peu efficace en l’absence d’une véritable décentralisation du pouvoir; une seule cause est retenue pour chaque décès maternel alors que certaines causes sont souvent multiples et intriquées; l’évitabilité reste une notion subjective.

**Conclusion:**
Il est nécessaire d’élargir la surveillance à tous les cas de décès maternels, de renforcer le rôle des comités régionaux et de donner plus de pouvoir aux responsables régionaux.

1 Ministère de la Santé, Région de Médenine, Tunisie
Parallel Session

Mobile Health

Session Parallèle

Télésanté
Les facteurs de succès de l’implantation et de l’utilisation de la télésanté pour l’accès aux soins de santé maternelle en Afrique subsaharienne

Mohamed Ali Ag Ahmed¹, Marie-Pierre Gagnon¹, Louise Hamelin-Brabant¹, Gisèle Irène Claudine Mbemba¹, Hassane Alami¹

Contexte:
L’accès aux soins de santé est encore limité pour un grand nombre de femmes en Afrique subsaharienne (ASS) alors qu’il demeure un déterminant important de la mortalité et de la morbidité maternelle. Les technologies de l’information et de la communication (TIC), telles que la télésanté, peuvent contribuer à faciliter cet accès en agissant sur les différents obstacles que rencontrent les femmes qu’ils soient d’ordre socio-culturel, économique, géographique ou organisationnel. Cependant, divers facteurs influencent le succès de son implantation et de son utilisation dont la méconnaissance ou la non prise en compte ne permet pas aux projets de dépasser le stade de projet pilote.

Objectif:
L’objectif de cette revue systématique de la littérature est de synthétiser les connaissances empiriques sur les facteurs de succès de l’implantation et de l’utilisation de la télésanté pour faciliter l’accès aux soins maternels en ASS.

Méthodes:
Nous avons consulté les bases de données suivantes : PubMed, Web of science, Embase, Scopus, CINHAL et le site de l’OMS. Une recherche supplémentaire a été faite sur Google Scholar en utilisant les mots-clés « telemedicine, telehealth, telecare, telehome care, teleconsultation, telemonitoring, teleimaging, teleassistance, telepahtology, teleradiology, telepsychiatry, telemental health, telepsychology, teledermatology, telecardiology, telestroke, telecardiology, mobile health, maternal health services, maternal welfare, health maternal, pregnancy, parity, prenatal care, prenatal, labor obstetric, childbirth, postpartum and Africa”. Nous avons inclus les études publiées en français ou en anglais sans restrictions sur la date de publication.
Résultats:
Les résultats ont été synthétisés en s’appuyant sur le cadre conceptuel de Broens et coll. en cinq catégories : 1) la technologie, c’est-à-dire la disponibilité du soutien aux utilisateurs, leur formation, la facilité d’utilisation de cette technologie ou sa qualité ; 2) son acceptation par les utilisateurs qui elle-même dépend de leur participation au processus de conception et de l’existence des preuves scientifiques sur sa réussite dans d’autres contextes ; 3) le financement pour s’assurer de la continuité des projets ; 4) des changements organisationnels éventuels qu’elle peut entraîner au sein des structures de la santé ; et enfin 5) des aspects politiques ou législatifs sans lesquels il sera impossible de déployer à grande échelle la technologie.

Conclusion:
La télésanté est prometteuse pour la réduction de la morbidité et de la mortalité maternelle en ASS alors que son potentiel reste peu exploité. Plusieurs défis limitant le succès de son implantation et utilisation devraient être considérés depuis la conception d’un projet.

1 Université de Laval, Canada

mHealth Session - Télésanté – 2

Mobile for Mothers: Results from the baseline study of a quasi-experimental intervention in Jharkhand, rural India

Ukwuoma Ona Ilozumba1,2

Objectives:
Mobile for Mothers (MfM) is a four-year quasi-experimental mobile health intervention implemented in selected rural communities in Jharkhand, India. The program offers an integrated solution, which utilizes mobile technology at the community level, involving Sahiyyas (Community health workers). The program has three main goals: i) To improve the information and referral services of Sahiyyas to pregnant women in rural India ii) To increase the knowledge level and health-seeking behavior of pregnant women in selected rural communities, leading to higher uptake of essential
health services during and after pregnancy iii) To improve the collection of
essential health indicators related to safe motherhood at block level, which
help district level authorities to improve health policies. This current study
is an assessment of the implementation of MfM and of the facilitators and
barriers related to the application utilization by multiple stakeholders.

Methods:
The study uses a mixed methods approach. Quantitative data collection
included a multi-stage cluster sampling approach, was utilized to
quantitatively assess women’s baseline knowledge and behaviors
(n=2220). Qualitative data collection included semi-structured interviews
(SI) and FGDs with pregnant women (n (SI)= 15, n (FGD)=3), husbands (n
(SI)=15 n; (FGD) =2), Sahiyyas, auxiliary nurses (n=7) and other actors
(n=10) to examine overall acceptability of the intervention, program
implementation and facilitators and barriers of MfM utilization.

Results:
Quantitative baseline findings indicated that multiple social determinants
of maternal mortality such as high incidence of early marriages, adolescent
pregnancy and low literacy were prevalent among women in the selected
rural community. The selected women also scored poorly on
acknowledged indicators of maternal health, for example, only 12% of all
women sampled attended the WHO recommended four or more ANC visits
and over 50% of births were home deliveries. Previous research has shown
that these are all factors related to increased maternal mortality.
Preliminary qualitative analysis indicates that prior ownership and
exposure to mobile technology, literacy levels and training serve both as
facilitators and barriers to the effective utilization of MfM by Sahiyya’s.
Socio-cultural factors were observed as particularly relevant with regards
to the end-users (pregnant women and their husbands) acceptance of
MfM and its messages. While MfM focuses on the individual level factors,
the data suggests that the role of health systems and the government must
be addressed. Participants cite access to needed services at health centers
and unexpected costs as a barrier to seeking institutional care.

Conclusion:
Based on the results of the baseline study and preliminary qualitative
analysis, we can conclude that the Mobile for Mothers intervention could
contribute to the outcomes of enhanced knowledge of pregnant women
on maternal health indicators, while also promoting higher utilization of
institutional delivery. However, the results suggest that for MfM to be
Effective, socio-cultural factors need to be taken into account as these are at play at the individual level (micro), (also within relationships between Sahiyyas and pregnant women) and at the level of the health system (macro).

1 Vrije Universiteit Amsterdam, The Netherlands
2 Institute of Tropical Medicine, Antwerp, Belgium

mHealth Session - Télésanté – 3

Effect of home visits and mobile phone consultations on maternal and newborn care practices in Masindi and Kiryandongo, Uganda: a community-intervention trial

Richard Mangwi Ayiasi

Background
Home visits by Community Health Workers (CHWs) are recommended to improve maternal and newborn care. We determined effects of home visits made by CHWs combined with mobile phone consultations with professional health workers for advice.

Methods
We conducted a community intervention trial in Masindi and Kiryandongo districts, Uganda from May/June 2013 to November/December 2014. Sixteen health centers were equally randomized to control and intervention arms. CHWs were deployed to offer promotional maternal and newborn care messages during home visits. CHWs used mobile phones to consult with professional health workers for advice. A total of 1385 (758 control and 627 intervention) were included for analysis. Primary outcomes from selected maternal and newborn variables were dichotomized; multilevel analysis was done using xtmelogit command in Stata.

Results
Statistically significant differences were noted in delivery place [OR 11.7(3.78-36.01); p<0.001], thermal care [7.83(3.91-15.71); p<0.001], cord care [2.34(1.09-5.01); p=0.029] and timely care-seeking for newborn illness
[3.57(1.12-11.47); p=0.032]. Other outcomes such as antenatal consultations, birth preparation and exclusive breastfeeding within six hours after delivery were positively related to intervention but were not statistically significant.

Conclusions
Results highlight potential benefits of combining home visits with phone consultations between CHWs and professional health workers. Adherence to recommended maternal and newborn care practices is a step towards lowering newborn morbidity and mortality. This was a proof of concept, a larger study to measure effect on newborn mortality is recommended.

1 Makerere University, School of Public Health, Kampala, Uganda
Parallel Session

Quality of Care

Session Parallèle

Qualité des soins
WHO vision for improving quality of care for pregnant women and newborns

Özge Tunçalp

Background:
With increasing global utilization of health services, a higher proportion of avoidable maternal and perinatal mortality and morbidity have moved to health facilities. In this context, poor quality of care (QoC) in many facilities becomes a roadblock in our quest to end preventable mortality and morbidity. Effective care to prevent and manage complications during childbirth and the period immediately after birth is likely to have significant impact on reducing maternal deaths, stillbirths and early neonatal deaths.

Methodology:
Beyond 2015, the World Health Organization (WHO) and partners envision a world where “every pregnant woman and newborn receives quality care throughout pregnancy, childbirth and the postnatal period.” Based on current evidence, we have identified seven high priority areas where QoC improvement will have impact: labour monitoring / action and essential newborn care; management of pre-eclampsia / eclampsia; management of postpartum haemorrhage; management of difficult labour by enabling safe and appropriate use of medical technologies during childbirth; newborn resuscitation; management of preterm labour, birth and appropriate care for preterm and small babies; management of maternal and newborn infections.

Following on, the WHO has conceptualized a QoC framework that identifies domains of QoC that should be targeted to assess, improve and monitor care within the context of health systems. This is structured around the operational characteristics of QoC of safety, efficacy, timeliness, efficiency, equitability, and people-centeredness. The QoC framework will inform an evidence-based and systematic approach to research, guideline development, standards of care, identification of effective intervention strategies for quality improvement, development of monitoring indicators at all levels, and capacity strengthening for quality improvement research, measurement and programming.
**Conclusion:**

With increased coverage of skilled attendance at birth and essential interventions for mothers and newborns, the next phase should target multiple domains of QoC to further reduce the burden of preventable mortality and morbidity.

1 Department of Population, Family and Reproductive Health, World Health Organization, Geneva
Le QUIP-Care, LIP en français (Taux de Létalité Intra Partum), clé du monitorage de la qualité des soins intra partum

Vincent Fauveau

L’Objectif du Millénaire pour le Développement numéro 5 (Améliorer la santé maternelle) est l’OMD ayant fait le moins de progrès dans le monde, et ce dans la grande majorité des pays. On peut même dire que les progrès de l’OMD N° 4 (Réduire la mortalité infantile) ont été très freinés par la mortalité des très jeunes nouveau-nés, elle-même très liée aux soins obstétricaux.

Près de 2 millions de nouveau-nés meurent précocement chaque année dans le monde, la moitié pendant les premières 24 heures et l’autre moitié pendant le travail (mort-nés intra partum).

Depuis 1997 les agences des Nations Unies et le programme « Averting Maternal Death and Disability (AMDD) » de l’Université Columbia de New York assistent les pays à réaliser une enquête nationale sur leur capacité à fournir des SONU de qualité, en utilisant les 8 indicateurs de processus SONU. Or, les indicateurs de processus habituels des SONU ne mesurent pas la qualité des soins du point de vue du fœtus ou du nouveau-né. Nous savons que les interventions qui sauvent la mère en cas de complications obstétricales sévères ont aussi un impact bénéfique sur le nouveau-né, et nous aimerions pouvoir mesurer les progrès dans cette direction. Le nouvel indicateur de qualité des SONU présenté ici, est le ”Taux de Létalité Intra-Partum” (LIP, ou QUIP-Care en anglais). L’hypothèse de base est que tout décès d’un fœtus normal in-utero ou d’un nouveau-né normal dans les premières 24 heures est lié à un déficit de qualité des soins dispensés à la maternité, et qu’un programme d’amélioration de ces soins intra-partum doit conduire à une diminution du LIP.

Le LIP est défini comme la proportion de décès pendant le travail et les premières 24 heures de vie sur toutes les naissances dans une maternité donnée et une période donnée.

L’indicateur LIP se construit de la façon suivante:

**Numérateur:** mort-nés frais Plus décès pendant les premières 24 heures pour des nouveau-nés de plus de 2500 grammes

**Dénominateur:** toutes les naissances (de plus de 2500 grammes) dans cette maternité pendant la même période
La construction de l’indicateur est simple dans son principe, et l’exploitation des données normalement disponibles dans les registres d’admission et d’activité de toutes les maternités devrait suffire. En pratique c’est plus difficile, car la qualité des soins affecte en premier la qualité des enregistrements de données dans les hôpitaux. C’est un fait d’observation, corroboré par de nombreux experts.

La présentation identifie les points sensibles de la mesure :
1/ L’identification/enregistrement de la mortalité et des décès très précoces
2/ l’identification de la « normalité » du fœtus ou du nouveau-né

La présentation discute ensuite des conditions de recueil et d’analyse des informations pour évaluer les programmes de santé maternelle et néonatale et en améliorer la performance

L’objectif ultime étant l’amélioration de la qualité des soins intra-partum, qui nécessite un travail d’équipe, il est important que tous les membres du personnel de la maternité soient informés, et désireux de participer, y compris toutes les sages-femmes et les professeurs. Il est essentiel aussi qu’ils acceptent de se soumettre à un programme d’amélioration de la qualité des soins une fois l’indicateur construit.

1 HOLISTIC SANTE, Montpellier, France
Quality post abortion care

Hailemichael Gebreselassie

Ipas supports post-abortion care (PAC) for over 150,000 women in 21 countries each year. PAC is the treatment of incomplete, missed or unsafe abortion. Ipas’s approach to PAC service delivery emphasizes rights, choice, access and quality and takes into account women’s individual physical and emotional health needs and circumstances and ability to access care. Ipas’s PAC includes compassionate counseling; contraceptive services; related sexual and reproductive health services provided onsite or via referrals to accessible facilities and community-service provider partnerships. It includes a range of health services that helps women exercise their sexual and reproductive rights and ensures services for young and unmarried women.

Ipas is committed to ensuring quality of PAC services in all of the countries where we work, and in order to monitor and evaluate the provision of quality services, we use the World Health Organization’s quality of care framework to guide PAC provision. This framework includes the dimensions of safety (delivering health care which minimizes risks and harm to service users), effectiveness (delivering health care that is adherent to an evidence base and results in improved health outcomes for individuals and communities, based on need), a people-centered approach (delivering health care which takes into account the preferences and aspirations of individual service users and the cultures of their communities), accessibility (delivering health care that is timely, geographically reasonable, and provided in a setting where skills and resources are appropriate to medical need), efficiency (delivering health care in a manner which maximizes resource use and avoids waste) and equity (delivering health care which does not vary in quality because of personal characteristics such as gender, race, ethnicity, geographical location, or socioeconomic status). Ipas also includes WHO’s emphasis on creating quality standards and measures with the input of stakeholders and service users.

We routinely measure twice a year several quality indicators as part of our program monitoring to measure effectiveness, efficiency and equity. To
ensure safety we have routine monitoring of providers and a provider mentorship program whereby more senior providers work closely with newer providers. Ipas also has an adverse events reporting system. In each country program client exit interviews are conducted yearly or every other year to measure effectiveness, a people-centered approach, accessibility and equity. Further research is conducted where needed to understand more in-depth the results of the routine monitoring data and client exit interviews. In this presentation, we will review these dimensions of quality PAC and give examples of indicators and results from Ipas countries to illustrate the implementation of these programs.

1 IPAS
Speaker’s Bios

Bruno Gryseels

Bruno Gryseels studied medicine at the State University of Ghent from 1972 until 1979, and Tropical Medicine and Hygiene at the Institute of Tropical Medicine in Antwerp (ITM) in 1979. He obtained his PhD at the University of Leiden (NL) in 1990.

After his studies he joined the Institute as a researcher in the Department of Tropical Pathology. From 1980-1981 he worked for ITM at the Laboratory of Parasitology at the University of Zaire in Kinshasa and from 1982 to 1986 he worked for the Belgian Agency for Development Cooperation as chief of the national research and control program for schistosomiasis and intestinal parasites for the Ministry of Health in Burundi. In 1986 he became lecturer and, later, associate professor at the Laboratory of Parasitology and Institute of Tropical Medicine of the University of Leiden.

During his research career, he directed a large number of international research programs and authored some 150 scientific papers including major reference papers. Since 1995 Bruno Gryseels is Director of ITM.
Vincent De Brouwere

Vincent De Brouwere is a medical doctor and professor at the department of public health of the Institute of Tropical Medicine (ITM) Antwerp, Belgium, head of the Maternal & Reproductive Health Unit and coordinator of the Woman & Child Health Research Center.

Vincent has over 15 years of field experience in low and middle income countries (seven years in DRC and eight years in Morocco), including as research director at the Institute of Research for Development. His main area of research is about health care systems, with a particular focus on maternal health and access to health services (quality of care and the management of human resources required for the good functioning of health systems).

His current research topics cover maternal morbidity (postpartum consequences, obstetric fistula, gestational diabetes), maternal death surveillance systems and quality of maternity care. He developed his expertise in maternal & newborn mortality reduction strategies partly through his research work and partly through evaluations of reproductive health strategies in support to ministries of Health in low and middle income countries.
Marge Berer

Marge Berer has been working in the field of reproductive and sexual health and rights in the United Kingdom and internationally since 1976 as a women’s health advocate, editor, author, speaker, teacher and conference organizer. From 1990 to 1993 she was both editor and main author of Women & HIV/AIDS: An International Resource Book (Pandora), London UK. From 1992 to 2015 she was co-founder, editor and director of Reproductive Health Matters, London UK and since 2015 she coordinates the International Campaign for Women’s Right to Safe Abortion. From 1993 to 1998 Marge was member of the International Women’s Advisory Panel of IPPF, London and chaired several panels and committees including the Gender Advisory Panel at the Department of Reproductive Health and Research/HRP, WHO; the Steering Committee of the International Consortium for Medical Abortion and Voice for Voice, a coalition of UK pro-choice organizations. In 2007 Marge was granted the Olivia Schieffelin Nordberg Award for Excellence in Writing and Editing in the Population Sciences at the Population Council, New York.
Charlotte Warren is one of Population Council’s lead social scientists in maternal and newborn health (MNH) and focuses on developing innovative solutions to improving access to MNH services. She is a registered nurse with a Masters in primary health care and a PhD in Health Sciences from Ghent University and has over 25 years of reproductive and public health implementation experience with over 17 years of living and working in Africa. Countries include Angola, Ethiopia, Kenya, Lesotho, Mozambique, Rwanda, Sierra Leone, Sudan, Swaziland and Zambia.

Charlotte leads a study on measuring the prevalence of disrespect and abuse during childbirth in Kenya, including developing solutions to promote respectful maternity care. She is currently the Director of the Ending Eclampsia Project which seeks to expand access to proven underutilized interventions and commodities for the prevention, early detection, and treatment of pre-eclampsia and eclampsia and strengthens global partnerships (initial implementation research in Bangladesh and Nigeria). She is also the study PI to identify barriers that women living with fistula in developing countries face, which prevent them from seeking and reaching adequate and appropriate care (Nigeria and Uganda) as well as leading implementation research on integrating SRH and HIV services and postnatal care (Kenya and Swaziland).

Charlotte has extensive experience in planning, developing and managing reproductive health and MNH projects and policy with a particular focus on Africa. She has experience in program management, training and quality assurance, implementation research, and design of models of health care financing and emergency public health.
Sundari Ravindran is professor at Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum, Kerala, India with a PhD in applied economics, Jawaharlal Nehru University, Delhi, India. Sundari is visiting faculty at the School of Public Health at the University of Witwatersrand, Johannesburg, South Africa; she worked as gender and health specialist at WHO Geneva from 2001 to 2003 and as a technical officer for RHR, Geneva from 2003 to 2009. She is a consultant to and lead author of several publications by WHO’s regional office in SE Asia Region and Western Pacific Region and member of several groups: the UN MDG Task Force on Maternal and Child Health; RORE (Rights Oriented Research and Education in sexual and reproductive health); WHO team of trainers on “Gender and rights in reproductive health” for health managers in Southern Africa, Kazakhstan, Sudan, Malaysia and Cambodia; she was member of the External Advisory Group at UNFPA New York from 2011 to 2013 and is a founding member of the National Coalition for Maternal-Neonatal Health and Safe Abortion in India, established in 2006. Sundari is former co-editor and editorial advisory board member of the journal Reproductive Health Matters and authored and co-authored 14 monographs/books, was editor or co-editor of five books, author/co-author of 50 articles in peer-reviewed journals and book-chapters, including contributions to the Encyclopedia of Public Health. While her work is focused on gender and reproductive health and rights, she has also written on health financing and privatization in health and its implications for gender equity and access to reproductive health services.

Michel Boulvain studied medicine and did his specialty in gynecology and obstetrics in Brussels (ULB). He worked in several developing countries with Médecins Sans Frontières. He did a fellowship in maternal fetal medicine in Canada, together with a PhD in epidemiology. Since 1997 he is working in Geneva in a clinical research unit of the Department of Gynecology and Obstetrics. The unit conducted several randomized controlled trials and other clinical studies in obstetrics and gynecology. He is also responsible for the undergraduate teaching in epidemiology at the faculty of medicine of Geneva University. He collaborate with WHO, as member of consensus panels and as chair of the RP2 (Research projects Review Panel). He was named associate professor at the department of gynecology and obstetrics in 2010.
Rima Jolivet

Rima Jolivet is a certified nurse-midwife with a doctorate in public health, specializing in global maternal health policy, maternal health system strengthening and quality improvement. She currently works at the Maternal Health Task Force at the Harvard T. H. Chan School of Public Health, where her primary role is to support the WHO-led Ending Preventable Maternal Mortality (or EPMM) Working Group. In this capacity, she has coordinated the group’s work to develop and build global consensus on targets and strategies for maternal mortality reduction post 2015. She also served as principal author of the visionary report based on extensive consultation, Strategies toward Ending Preventable Maternal Mortality (EPMM). This report in turn feeds into the UN Secretary-General’s updated Global Strategy for Women’s, Children’s and Adolescents’ Health. Her previous work includes the provision of strategic direction and technical support for implementation and scale-up of an innovative, evidence-based model of group antenatal and postpartum care, directing the foundational work on Respectful Maternity Care led by the White Ribbon Alliance, including convening the multi-sector RMC Council and drafting the Universal Charter of the Rights of Childbearing Women as well as directing the Transforming Maternity Care project at Childbirth Connection, a multi-stakeholder national policy consultation in the US that resulted in two direction-setting papers, the 2020 Vision and Blueprint for Action for a High-Quality, High-Value Maternity Care System.
Veronique Filippi

Veronique Filippi is reader in maternal health and epidemiology at the London School of Hygiene and Tropical Medicine (LSHTM), where she has been employed since 1989. Veronique studied political sciences (IEP Grenoble) and demography (IDP, Paris Sorbonne) in France and epidemiology in the United Kingdom (LSHTM). She teaches post-graduate students and conducts research in low and middle income countries on different aspects of maternal and reproductive health: developing tools and approaches to enable the accurate assessment of maternal morbidity including near-miss morbidity and abortion morbidity; documenting the health, social and economic consequences of poor maternal health, including consequences on productivity and health functioning; conducting systematic reviews of observational data on maternal morbidity; testing the effectiveness and understanding the sustainability of quality of care improvement approaches, including near-miss audits and maternal death reviews; designing and conducting robust evaluations to test the effectiveness of complex interventions in maternal and child health and family planning. Most of her research is multi-disciplinary and takes place in African countries. Veronique also provides technical assistance to organizations and countries on near-miss and maternal death reviews. Currently, she is a member of the WHO Working Group on maternal morbidity and head of department.
Katerini T. Storeng is associate professor in medical anthropology at the University of Oslo’s Centre for Development and the Environment and honorary lecturer at the London School of Hygiene & Tropical Medicine. She currently holds a young scientist grant from the Research Council of Norway and is a founding member of The Young Academy of Norway.

Her research takes an ethnographic approach to global health policy and practice at both the global and national levels, often carried out within interdisciplinary public health projects. Katerini’s research has explored the health, social and economic consequences of life-threatening obstetric complications in Burkina Faso, and the politics of unsafe abortion in Burkina Faso. She is currently leading a five-country assessment of the influence of international NGOs’ advocacy and policy work on national abortion policy.

At the global level, Katerini has studied the Safe Motherhood Initiative’s effort to position itself within the highly competitive global health field and the GAVI Alliance’s appropriation of broader health systems strengthening agendas and, most recently, global civil society movements’ strategies for challenging the dominant business-oriented global health ethos.
Julia Hussein is the scientific director of Immpact at the University of Aberdeen. She trained as an obstetrician and gynecologist in Ireland and the United Kingdom and worked in Afghanistan as a clinician and developed an interest in ‘public health obstetrics’. Julia has since implemented and managed maternal mortality reduction programs for UNICEF and the UK government in Asia and sub Saharan Africa. At the University of Aberdeen, Julia’s interests are in health services research for maternity care, quality improvement, referral systems, infection control, monitoring and evaluation and capacity strengthening in low and middle income countries. She has authored over 50 publications in peer reviewed scientific journals and is on the editorial boards of the British Journal of Obstetrics and Gynecology and Reproductive Health Matters.

Julia has worked in the following countries: Afghanistan, Bangladesh, Burkina Faso, Ghana, India, Indonesia, Ireland, Jamaica, Malawi, Malaysia, Mexico, Mozambique, Nepal, Nigeria, Pakistan and the United Kingdom.
Hannah Blencowe is a lecturer at The London School of Hygiene and Tropical Medicine, coming from a clinical background with experience in pediatrics, general practice and obstetrics and gynecology in the UK and Malawi. Hannah’s main interests are in maternal and child health, with a particular focus on perinatal and newborn health. Hannah’s recent work has focused on measurement and global estimation of perinatal conditions (including preterm birth, low birthweight, small-for-gestational-age, stillbirths, congenital abnormalities and neonatal morbidity and associated long term consequences) as part of the Every Newborn Action plan. She has provided technical inputs and analysis contributing to the previous Lancet Stillbirth Series in 2011, and Lancet Every Newborn Series in 2014, and is a member of the Lancet Ending Preventable Stillbirths steering committee.
Özge Tunçalp

Özge Tunçalp is a physician and epidemiologist currently based in Geneva as a scientist in the Department of Reproductive Health and Research at the World Health Organization. In collaboration with country, regional and international partners, she uses quantitative and qualitative methodologies as well as innovative approaches to research quality of care for maternal and newborn health, maternal morbidity, perinatal mortality and safe abortion in low and middle-income countries. She completed her PhD at Johns Hopkins Bloomberg School of Public Health and a postdoctoral fellowship at the Department of Obstetrics and Gynecology at Yale School of Medicine.
Prof. Albrecht Jahn, MD, PhD, MSc Community Health, MSc Biol., is a medical doctor and biologist by training. He specialized in obstetrics and gynecology, and public health. After several years of clinical work in Germany, Kenya and Tanzania, he joined the Institute of Tropical Hygiene at the University of Heidelberg as senior lecturer and researcher. His research work focusses on maternal and child health, reproductive health and health policies and systems. He worked with the European Union’s Directorate General for Research as Scientific Officer from 2004 to 2010, covering international public health and health system as well as reproductive health and neglected diseases. In this context, he coordinated the EU Africa Call (Health) in 2010. He then joined the Institute of Public Health at Heidelberg University, where he heads the unit on Global Health Policies and Systems. He was a member of WHO’s Consultative Expert Working Group (CEWG) on innovative financing for Research and Development. His main current research areas are (a) maternal and perinatal health, (b) priority setting in health research and related funding mechanisms and (c) rights-based approaches towards universal health coverage and the post-2015 agenda.
Luc de Bernis is obstetrician and gynecologist trained in epidemiology and public health. He spent more than 10 years in francophone West Africa, as technical assistant and adviser for the French Ministry of Cooperation and Ministers of Health (Chad, Senegal). He was one of the coordinators of the first African multi-centric survey on maternal mortality and morbidity (MOMA).


Until recently Luc was senior maternal health adviser at the technical division of UNFPA, based successively in New York and Geneva. His main task was to support technically the efforts conducted by the regional and country offices in the field of sexual reproductive health, in particular maternal and newborn health, but including family planning, the elimination of the mother to child transmission of the VIH, prevention and treatment of obstetric fistula and maternal death surveillance and response (MDSR). He also focused on strengthening health systems, strategic planning, human resources development and management, in particular midwifery, services delivery and monitoring and evaluation.

Working within the H4+ (UNICEF, WHO, UNFPA, The World Bank, UNAIDS and UN Women - Joint Program for Maternal and Newborn Health) he was contributing to strengthening partnerships at global, regional and country levels. In regard to midwifery, Luc was working with partners to conduct midwifery workforce assessments and coordinated the development of the State of the World’s Midwifery report 2014, with WHO and ICM.
Luc also coordinated the first phase of the UNFPA Mano River Midwifery response, aimed to re-establish and strengthen RMNH services in Liberia, Guinea and Sierra Leone. In Geneva, he supported UNFPA work on sexual reproductive health and rights.
Charlemagne Ouédraogo a fait ses études de médecine générale et de spécialité dans les universités de Ouagadougou, Abidjan, Tours, Paris et Bordeaux. Il est titulaire de plusieurs diplômes de spécialité en gynécologie obstétrique et d'un diplôme universitaire en épidémiologie et méthodes statistiques. Il a exercé la gynécologie obstétrique dans un hôpital de district à Ouagadougou. Il était chef de service de maternité et a mis en œuvre les SONU à l'échelle du district. A la faveur de l'arrivée du projet AQUASOU dont il était le pilier principal à Ouagadougou, il a entrepris avec l'appui des partenaires (IMT, IRD, E&P), la mise en place d'un système de partage des coûts pour réduire les barrières financières de l'accès aux SONU et améliorer la participation communautaire. Ce travail a fait l'objet de plusieurs publications scientifiques auxquelles il a été associé. Nommé comme assistant à l'université de Ouagadougou en 2007, il est devenu professeur agrégé en gynécologie obstétrique en 2012(CAMES). Au terme de 10 ans d'expérience en district sanitaire, il a rejoint le CHU comme chef de service. Il a développé son expertise dans les domaines suivants:
- la surveillance des décès maternels et riposte (SDMR et audits),
- la formation en SONU, en planification familiale,
- l'évaluation des besoins en santé de la reproduction (SONU, PF),
- l'élaboration des normes, standards et protocoles en SR,
- le task shifting ou délégation de compétences
Cette expertise lui a permis d'être sollicité par divers organismes (UNFPA, OMS, USAID, JHPIEGO, etc.) pour un appui à certains pays d'Afrique (Mauritanie, RCI, RCA, Niger, Burundi, Rwanda, Guinée Bissau). Il a reçu la médaille de la légion d'honneur de la république sur la réserve personnelle du président Français pour féliciter son engagement en faveur de la santé maternelle.
Vincent Fauveau a fait ses études de médecine et sa thèse de doctorat et spécialité de pédiatrie à l’Université de Toulouse, son Master de santé publique (MPH) à l’Université Johns Hopkins de Baltimore, son doctorat d’Université en Santé Publique à Nancy (option démographie médicale). Il a passé l’essentiel de sa vie professionnelle outre-mer dans des grands programmes de santé mère-enfant. Présentement il est consultant privé basé à Montpellier, pour HOLISTIC SANTE.


Il a aussi été impliqué dans l’enseignement et la recherche en santé publique internationale, notamment concernant la mortalité maternelle et néonatale, les causes de décès, les enquêtes de soins obstétricaux et néonatals d’urgence, les ressources humaines pour la santé maternelle (sages-femmes).

Il a coordonné des études sur la santé maternelle PAPFAM, les mutilations génitales féminines, les fistules obstétricales, les ressources humaines pour la santé maternelle (sages-femmes), en particulier la premier Rapport Mondial sur les sages-femmes 2011 et le deuxième en 2014.
Hailemichael Gebreselassie

Senior Research Advisor, Africa Region, Ipas
MD and MPH, Addis Ababa University, Ethiopia; PhD in Epidemiology and Biostatistics, McGill University, Canada.

Since joining Ipas in 2000, Dr. Gebreselassie has conducted research to assess PAC service quality and access in public and private-sector health facilities in Ethiopia and Mozambique; evaluated readiness of health facilities and professionals to provide comprehensive abortion care in Ghana; estimated the magnitude of abortion complications treated in public hospitals in Kenya, Ethiopia, Sierra Leone, and Malawi; assessed the clinical competency of nurses to ascertain completeness of medical abortion in Mozambique; assessed the cost of unsafe abortion to public health systems in Malawi, Sierra Leone and Kenya; evaluated the scale-up of PAC services in Zimbabwe; conducted strategic assessment of programs and policies and research issues related to prevention of unsafe abortion in Ghana, Malawi and Zambia; and participated in a longitudinal survey of Ethiopian school-based adolescents. He has published (as author and co-author) articles in the BMC Pregnancy and Childbirth, Contraception, Social Science and Medicine, International Perspective of Sexual and Reproductive Health, Ethiopia Journal of Health Development, Reproductive Health Matters, Women’s Health Care, and International Journal of Obstetrics and Gynecology. His professional interests include measurement of the incidence of unsafe abortion, HIV/AIDS and abortion, medical abortion, cost studies on unsafe abortion, and measurement of service quality and availability.
Mulu Muleta

from Ethiopia is an obstetric fistula surgeon and local representative of Women and Health Alliance International (WAHA). She obtained her medical degree from Gondar College of Medical Sciences in 1984 and her specialization in obstetrics and gynecology from Addis Ababa in 1990 University. Mulu has a MSc in Disease Control from the Institute of Tropical Medicine, Antwerp, Belgium (2000); a certificate degree in leadership training from the University of San Francisco (2003) and a PhD from the University of Bergen (2010).

Mulu Muleta, Obstetric fistula surgeon and local representative of Women and Health Alliance International (WAHA), Mulu is currently a teaching staff member of University of Gondar; external advisor at the National Unit for Gynecological Fistulae, Haukeland University Hospital, Department of Obstetrics &Gynecology, Bergen, Norway; president of the International Society of Obstetric Fistula Surgeons (ISOFS) and active member of the international fistula working group. She is reviewer of Ethiopian Medical and Ethiopian Reproductive Health Journals. She has been a council member of the Ethiopian Science and Technology Commission and member of the National Ethical Clearance Committee from 2003 to 2006.

She received several awards in recognition of her professional contribution and main ones include: Certificate of recognition for her long term service at the Addis Ababa Fistula Hospital, Addis Ababa, 2007; FIGO award in recognition of women obstetrician/gynecologist, Cape Town, 2009; Athena international award, Chicago, USA, 2010, and the highest recognition in France « Ordre national de la Légion d’Honneur » in 2015.

Mulu Muleta authored and co-authored several articles published in reputable Journals.
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