24th Canadian Conference on Global Health
24 e Conférence canadienne sur la santé mondiale

Oral Abstracts

Résumés orales

Fragile environments and Global Health: Examining drivers of change
Environnements fragiles et santé mondiale: Examiner des facteurs de changement

Hilton Hotel, Toronto, Canada

November 19-21 novembre, 2018

Achim, Julie
Département de psychologie, Université de Sherbrooke - Campus de Longueuil, Canada

Co-authors: Julie Achim, Université de Sherbrooke - Campus de Longueuil, Canada; Miguel M.Terradas, Université de Sherbrooke - Campus de Longueuil, Canada; Maryse Benoit, Université de Sherbrooke - Campus de Longueuil, Canada; François Couturier, Université de Sherbrooke - Campus de Longueuil, Canada; Mahamane Maiga, Université de Sherbrooke et INSSS, Mali; Pierre Rodrigue, Traoré, CSCOM-U ASACOBA, Banconi, Mali; Al-housseynou Sissoko, CSCOM-U ASACOBA, Banconi, Mali

La santé mentale au Mali : promouvoir et soutenir sa prise en compte au sein des pratiques cliniques en CSCOM

Enjeu : Les problèmes de santé mentale (SM) représentent un enjeu de santé considérable au Mali. Leur prise en compte pose d'importants défis puisqu'ils demeurent assez méconnus et font l'objet de préjugés. Les centres de santé communautaires (CSCOM) constituent une porte d'entrée privilégiée pour sensibiliser la population à cette réalité et offrir des soins aux individus vulnérables.

Objectifs : Un projet de recherche-action réunissant des partenaires canadiens et maliens a été implanté pour pallier à cette situation. Il visait 3 objectifs : 1) dresser un portrait préliminaire des problèmes de SM au sein de la population malienne ; 2) développer des activités de formation et de sensibilisation aux problématiques de SM ; 3) évaluer les retombées de ces activités sur la capacité des agents de santé (AS) travaillant en CSCOM à identifier ce type de problèmes.

Méthode : Différentes activités ont été mises en place : 1) groupes de discussion pluridisciplinaires ; 2) formation à l'évaluation de la SM et 3) rencontres avec des responsables de programmes et directeurs d'institutions. Divers outils ont aussi été développés : 1) questionnaire sur l'expérience de travail auprès de personnes présentant des problèmes de SM; 2) outils de dépistage de problèmes de SM ; et 3) questionnaire évaluant la satisfaction quant à la formation offerte.

Résultats : Les résultats se situent à différents niveaux, dont : 1) sensibilisation des AS aux problèmes de SM ; 2) implantation de l'outil de dépistage des troubles de SM dans certains CSCOM ; 3) formation de 50 AS à l'évaluation des problèmes de SM. L'analyse des données permet aussi de dégager différents constats touchant principalement la périnatalité, les implications du contexte sociopolitique actuel sur la SM et l'émergence de problématiques liées à la toxicomanie.

Leçons tirées : 1) Les consultations dans le cadre de la maternité semblent une porte d'entrée privilégiée pour aborder les problèmes de SM ; 2) le renforcement des compétences de base des AS quant à l'évaluation et l'intervention auprès des personnes présentant un stress post-traumatique est prioritaire ; 3) la violence et l'exclusion pouvant être à l'origine de certains problèmes de SM, il est important de développer des activités de sensibilisation à l'égard de ces thématiques.

Principaux messages : La poursuite d'activités de sensibilisation et de formation ainsi que la mise en place d'activités de prévention et d'intervention en SM au Mali s'avère cruciale. Il importe de sensibiliser les instances gouvernementales à cette question.

Ag Ahmed, Mohamed Ali
Université Laval, Canada

Déterminants socioculturels du recours à l'accouchement assisté par les nomades de Gossi, au Mali : Etude qualitative.

Problématique

En Afrique Subsaharienne (ASS), les nomades sont très nombreux (30 à 60 millions). Leur mobilité à la recherche des pâturages et des points d'eau leur rend les services de santé peu accessibles. Peu de femmes nomades ont recours à l'accouchement assisté, ce qui rend le risque de décès maternel élevé. Les raisons pour lesquelles elles n'ont pas recours ont été très peu documentées.

Objectif et méthodes

L'objectif de cette recherche est de comprendre les déterminants socioculturels du recours à l'accouchement assisté par les nomades. Il s'agit d'une recherche qualitative qui s'est déroulée dans la commune de Gossi (Mali) essentiellement peuplée par des nomades. Une revue documentaire, 26 entretiens semi-dirigés, le journal de bord et l'observation non participante ont permis de collecter les données. Ont été inclues les femmes nomades ayant accouché au cours des trois derniers mois, qu'elles aient eu recours ou non à l'accouchement assisté. L'analyse de contenu thématique a été privilégiée et le logiciel QDA Miner utilisé.

Résultats

Plusieurs participantes reconnaissent l'intérêt du recours l'accouchement assisté, mais accouchent à domicile. Ce recours est la résultante d'une combinaison complexe de déterminants socioculturels. Il est déterminé par les représentations que ces femmes se font de leur corps ainsi que les émotions associées à l'accouchement. En effet, elles perçoivent la grossesse et l'accouchement comme des évènements normaux auxquels leur corps serait capable de faire face sans aucune assistance. Par ailleurs, leur faible autonomie de mouvement, de décision et économique a également été identifiée comme déterminante de ce recours. En effet, les femmes ne sont pas libres de leurs mouvements et leurs déplacements pour recourir aux soins requièrent la permission et l'accompagnement d'un homme. Aussi, les participantes n'ont aucun revenu puisque les ressources financières familiales sont contrôlées par les hommes. Le recours à l'accouchement assisté n'est souvent envisagé qu'en cas de complications.

Leçons

Les femmes nomades n'ont pas recours à l'accouchement assisté, ce qui les expose à une forte mortalité maternelle et néonatale. Le premier verrou à ce recours est constitué par les déterminants socioculturels. Ils devraient être considérés par les systèmes de santé.

Messages principaux

Les nomades sont nombreux en ASS et les services de santé ne leur sont pas accessibles et encore moins pour les femmes et les enfants.

Des stratégies qui leur sont spécifiques mais complémentaires des systèmes de santé devraient être implantées pour que leur recours aux soins soit effectif.

Agbaiyero, Kehinde
Systemone, Nigeria

Cost-effective digital reporting system improves healthcare responses to drug resistant drTB in Nigeria

Background: Nigeria, ranked as the 4th highest TB-burden and 11th DR-TB burden country in the world. Problem stems from the location of GeneXpert MTB/RIF machines to diagnosis DR-TB at multiple clinical sites spread across a country of over 160 million, continued reliance on paper records and slow data transit systems, resulting in lack of timely quality data to guide resource allocation.

Methods: SystemOne developed an innovative mobile-based solution that sends GeneXpert diagnostic results to key health system actors instantly to enable quick enrollment of newly diagnosed patients in a DR-TB treatment program. GxAlert is configured on GeneXpert systems by installing a modem from a local telecom that sends encrypted data sent to the secure web-based GxAlert database in real time. GxAlert is a rapid reporting system that networks the GeneXpert labs with the capability to send diagnostic test results out to national programs, supervisors, clinicians and patients via SMS text, email, and web dashboard or by connecting into existing M&E, patient record, or case management tools already in use.. The system then sends the results in a SMS alert to program decision makers at the state and national TB program, shortening the new-case reporting period from months to seconds.

Results: The proportion of DR-TB patients enrolled for treatment based on GxAlert messages received from 35 GeneXpert facilities jumped to 85% in March, 2015 from only 50% enrolled in April 2014. SMS or text message alerts speed treatment initiation. Weekly reports of all new TB+ cases are both emailed and sent by SMS to local health officials to ensure better connection between diagnosis, enrollment and treatment. GxAlert has demonstrated its potential to strengthen surveillance of DR-TB, TB in children and the HIV infected, speeding response and improving programmatic decision in over 350 labs through the National TB Program (NTP), reporting tens of thousands of test results making for faster enrollment of patients in treatment programs.

Conclusion:The use of GxAlert SMS notification of GeneXpert testing suggests a scalable model for sustainability: Lesson learned include: Installation is done once and locally. Technology is kept simple as local telecom modems are readily available and affordable for GxAlert connectivity. Additional challenges encountered during the scale up included traveling around different states in Nigeria for the installation during the insecurity and insurgency in some part of the country which required engaging and trained installers from that region and hired security armed guards to accompany them.

Amirazodi, Elmira
McMaster University, Canada

Co-authors: Elmira Amirazodi, McMaster University, Canada; Michelle Turcotte, University of Ottawa, Canada; Andrea Hunter, McMaster University, Canada

Obesity trends and risk factors among refugee children/youth: a scoping review

Issue/problem: Obesity is an increasingly important public health concern in both high-income countries (HICs) and low/middle-income countries (LMICs). Overweight and obese children are at a heightened risk of adult-onset health complications including hypertension, cardiovascular disease, type 2 diabetes, certain cancers, and psychosocial complications. These disorders can begin in childhood, which increases the likelihood of early morbidity and mortality. Over the past two decades, the global population of refugees has grown substantially. Given the rapid increase of refugee populations in Canada, it is important to understand how obesity and overweight patterns for refugee children and youth differ from those of native-born populations.

Objectives and Methods: Research in the domain of obesity is growing rapidly but, to date, no review has comprehensively documented weight gain trends and risk factors in pediatric refugee populations. A scoping review of the literature was conducted using Medline, CINAHL, and EMBASE for publications in English from August 1991 to April 2017. A total of 11 articles were identified relating to prevalence and risk factors for becoming overweight/obese in refugee children and youth aged 0 to 18 years old after arrival in a high-income setting.

Results: Pediatric refugees were at increased risk of rapid weight gain after migration. After living in a HIC for 1.5 to 9 years, refugee children demonstrated a prevalence of obesity that ranged from 1.4 to 21%. The prevalence of overweight children and youth ranged from 5.7 to 22.8%. Refugee children and youth had a steeper increase in their BMI compared with non-refugees ($p < .001$). Younger children (< 2 years) experienced an increase in BMI at a slower rate ($p = .002$) than older children and youth. A longer length of stay in HICs was associated with an increase in BMI percentile among refugee children. Populations of Eastern European, African, and Middle Eastern ethnic backgrounds demonstrated a higher risk of becoming overweight/obese in comparison to other pediatric refugees or non-refugee children.

Lessons to date: This review demonstrates that despite methodological differences between the 11 included studies, 6 of the included studies consistently demonstrated a direct relationship between increased BMI and length of residence in HICs among refugee children. Multiple studies (n=7) emphasize the need for culturally tailored prevention strategies including timely orientation to nutrition in HICs.

Main messages: Preventing the development of obesity among refugee children is crucial for reducing the short and long-term health consequences associated with childhood obesity.

Anderson, Sarah
CARE Canada, Canada

The Role of Gender in Nutrition: Qualitative Research using Photovoice and Marital Networks

CARE Canada has conducted a formative research study at the beginning of our two-nutrition projects: Growing Nutrition for Mothers and Children (GROW) in Ethiopia, and The Southern African Nutrition Initiative (SANI) in Malawi, Mozambique, and Zambia. Funded by the Government of Canada, these two projects aim to contribute to the reduction of maternal and child mortality in targeted regions by improving the nutritional status of women of reproductive age (15-49 years) and children under 5 years. The formative research study has helped ensure women's voices in the design and delivery of the projects. The objective of this study was to provide locally specific context information in project sites related to gender and nutrition. The purpose of the study was to describe the current state of gender dynamics in the project locations and suggest how women's empowerment and men's engagement can be defined and measured in regards to nutrition-specific practices and the project outcomes. Additionally, this study served as a means to hear directly from women in the implementing communities to have their input on project design and delivery. Photovoice and focus group discussions with mothers of young children (0-5 years) were conducted in each country, as well as separate focus groups with members of their marital network - their husbands and mother-in laws. Key informant interviews with female and male community leaders were also conducted.

This research provided in-depth information on the key contextual themes that influence nutrition such as entrenched gender roles, unequal household food distribution, unequal household decision-making, lack of access to nutritious foods, working on other's land to make ends meet, cultural practices around unexclusive breastfeeding, and negative influences of mothers-in-law. The PhotoVoice methodology allowed for greater discussion in focus groups on sensitive topics. This approach was also a women's empowerment initiative as female participants took pictures of what they wanted to, in relation to their role in nutrition. Photovoice proved to be an effective way to ensure that women's voices were included, which, as a result, provided richer contextual data to improve project delivery. The marital networks allowed for triangulation between women, their husbands, and their mothers-in-law to better understand these power dynamics at the household level.

Main messages: Photovice is an effective tool for gender transformative health programming and women's empowerment

Arguelles, Armund
Department of Health, Philippines

Co-authors: Armund Arguelles, Department of Health, Philippines; Beverly Lorraine Ho, Department of Health, Philippines

Divergence of project-level and policy-level health impact assessment (HIA) practice in the Philippines

The Department of Health's use of Health Impact Assessment as a decision-support tool for appraising potential health impacts of development proposals marked the early efforts of the Philippine government to lead and create healthy environments. However, in the 20 years of HIA practice, its application has since been focused on appraising environmentally-critical infrastructure projects with the Department of Environment and Natural Resources (DENR), and effectively limiting its ideal influence also on upstream public policies of other sectoral agencies. This reality and the growing demand for the DOH to provide health inputs on non-health sector policies have prompted the DOH to expand the use and branch-out from current project-level HIA to policy-level, as well.

This paper seeks to report the factors that necessitated the divergence between policy- and project-level HIA. Additionally, this paper describes the DOH's experience in mainstreaming structure and resources for the institutionalization of policy-level impact assessment, and suggests ways forward to catalyze implementation.

Existing policy documents were examined including department issuances, related manuals, and legal agreements with sectoral partners. In-depth interviews with policy makers, program managers, early HIA practitioners and other key stakeholders were also conducted.

There were generally diverging conditions in operationalizing both levels of HIA, and existing structures, tools, and capacities used in the context of project-level HIA are incompatible with that of policy-level. Specifically, the following were identified as factors that merit the need to create an alternative system for policy-level HIA: (1) current governance framework of impact assessment designates DENR as process owner; (2) DENR-owned impact assessment process limits DOH's role to reviewing of externally-conducted HIA reports; (3) existing screening criteria limits the focus of HIA on proposals with environmental determinants; (4) qualifications of practitioners presently engaged, who influence problem framing and direction of analysis, are incompatible with the objectives of policy-level HIA; and (5) measures or indicators of HIA effectiveness are different.

The practice of HIA across the globe is intrinsically linked to, in some cases limited and subsumed under, the Environmental Impact Assessment. This paper reveals the imperative for a dedicated, even separate, policy-level HIA policy and implementation framework that transcends the realm of mere natural environment. This paper hopes to institutionalize a framework of HIA in the Philippines that addresses and puts the same level of primacy to the social, economic, and other determinants of health to ensure its holistic contribution to the Filipino public space.

Arthur, Megan
University of Edinburgh, United Kingdom of Great Britain and Northern Ireland

Understanding public and private roles in health governance: Examining philanthropic foundations' engagement in national child undernutrition policymaking in India

Issue:

The prominent role of philanthropic foundations as major funders in global health (particularly the Bill & Melinda Gates Foundation (BMGF)) has led to calls for critical assessment of their engagement in health governance and implications for traditional state-centred notions of accountability. Philanthropies occupy a unique space within debates on private sector engagement in health governance, reflecting contestations about their position on the spectrum of public and private entities. This research aims to advance debates about the role of philanthropies via an analysis of the implications of their engagement based on the perceptions of key stakeholders in India.

Objectives/Methods:

Philanthropic engagement in national-level policymaking for child undernutrition is studied in India via case studies of both a domestic Indian philanthropy (Tata Trusts) and a foreign philanthropy (BMGF). This permits insight into the multi-level dynamics of nutrition governance processes and the involvement of philanthropies at global and national levels as experienced in India. Data collected through documents and semi-structured interviews are analyzed via network analysis and discourse analysis.

Results: Preliminary findings from this research indicate a shift toward a more coordinated approach to engagement with state-led nutrition governance processes by particular coalitions of non-state actors, including philanthropic foundations in addition to non-governmental organisations, international governmental organisations, and others. This networked approach is understood to facilitate policy advocacy with government actors, particularly for foreign philanthropy in the current Indian political environment sensitive to external influence. However, these networks are perceived to exclude certain actors within the national nutrition arena, such as historically prominent civil society organisations.

Lessons: The role of philanthropic foundations in coordinated approaches toward non-state actor advocacy in health governance can be understood through the theoretical lens of the advocacy coalition framework and concepts of network governance. An analysis of power in relation to these frameworks permits an understanding of public and private authority within health networks and new forms of accountability within networked health governance arrangements.

Main messages: Greater coordination and consensus in policy advocacy efforts among a central network of actors, at times led by philanthropic foundations, is understood to come at the cost of active debate and dissent in a policy context with divergent perspectives on the problem and solutions. This raises questions about access and the representation of interests within health policy networks involving philanthropic foundations. This research highlights the need to more carefully delineate the roles of public and private actors within health governance.

Astle, Barbara
Trinity Western University, Canada

Co-authors: Barbara Astle, Trinity Western University, Canada; Sheryl Reimer-Kirkham, Trinity Western University, Canada; Ikponwosa Ero, United Nations (UN), Switzerland; Kristi Panchuk, University of British Columbia, Canada; Duncan Dixon, Trinity Western University, Canada

The influence of spiritual and cultural practices on healthcare of people with albinism: insights from a scoping review

Issue/problem: Persons with albinism – a disability found worldwide – are particularly at risk for human rights violations in Africa. Stigma and discrimination face persons with albinism, resulting in social isolation and lack of access to health services. More recently, the media has drawn attention to reports of violence and killing of people with albinism in certain areas of Africa for their body parts, used in the preparation of "magic" medicines. Civil society organizations and human rights have begun to address this situation. Academic research is urgently needed to fully understand the scope of the problem, the underlying mechanisms, and possible healthcare and social responses to address the health and security needs of persons with albinism.

Objectives and Method: A scoping review was conducted employing the review framework by Arksey and O'Malley (2005), and refined by Levac and colleagues (2010) with the purpose to establish the current state of knowledge on three intersecting concepts for albinism, spiritual and cultural practices, and implications for health and health services. Electronic searches of nine databases were conducted. After screening, 40 articles were reviewed.

Results: Four themes emerged: health implications of albinism; health-related cultural and spiritual meanings attached to albinism; health-related experiences of persons with albinism; and human rights and albinism. The findings reveal that African ontologies, including witchcraft beliefs and practices, are implicated by their construction of the persons with albinism as an ontologically different entity, although few studies explicate this relationship.

Lessons to date: This review revealed a remarkable increase, in the past decade, in the volume of academic literature on these intersecting topics, which coincided with international, and media attention of the experiences of persons with albinism. While civil society organizations were named in the literature reviewed, silos of academic scholarship and advocacy initiatives remain entrenched. In addition, while the majority of the studies focus on Africa, most of the lead authors are not from African countries. As well, many with albinism have access only to fragmented, partial healthcare services, and human rights framing was uncommon in this sample.

Main messages: This scoping review lays the groundwork for intersectoral, and interdisciplinary research, and increasingly led by scholars in Africa. Bringing multiple (e.g., biomedical, cultural, critical and human rights) to research albinism, spiritual and cultural practices, and health and health services is essential to building a robust body of evidence from which to advance advocacy, policy, and improved health and social services.

Aston, Megan
Dalhousie University School of Nursing, Canada

Co-authors: Megan Aston, Dalhousie University School of Nursing, Canada; Keisha Jefferies, Dalhousie University, Canada; Danielle Macdonald, University of Ottawa, Canada; Gail Tomblin Murphy, Dalhousie University, Canada; Shawna O'Hearn, Dalhousie University, Canada

Nurse-midwives and obstetricians talk about postpartum care in urban Tanzania

Issue/problem: Only 32% of mothers in Tanzania access postpartum services within the recommended 48 hours after giving birth and almost 50% of global maternal deaths occur within the first 24 hours postpartum. Nurse-midwives and obstetricians are health care professionals who provide direct care to mothers, newborns, and families. Care includes clinical assessments, and the provision of support and information to mothers to ensure they are healthy and safe during this highly vulnerable time. However, to better understand this situation and how to improve it, we need to further examine the social and institutional discourses that affect the practices of nurse-midwives and obstetricians.

Objectives and Methods: The purpose of this study was to explore the experiences of nurse-midwives and obstetricians in the provision of postpartum care in Tanzania. The study was guided by feminist poststructuralism to understand how social and institutional discourses affected provision of care, the delivery of postpartum services, and how relations of power were negotiated.

Results: Four themes were identified including; 1) thorough assessments are needed to identify danger signs 2) education can save lives 3) it is critical to establish trusting relationships 4) limited and inconsistent access to resources interferes with safe care

Lessons to date: Nurse-midwives and obstetricians in urban Tanzania recognize that the postpartum period is a crucial time to save maternal and neonatal lives. They take pride in their abilities to conduct clinical assessments, educate and build relationships with mothers and families. However, nurse-midwives and obstetricians in urban Tanzania are challenged in their care for mothers and newborns during the postpartum period due to; limited clinical resources, an insufficient number of health care providers, and the conflicting message of free perinatal care for women and newborns from the government. Nurse-midwives and obstetricians consistently challenge clinic practices and public expectations in order to negotiate safe care for mothers and newborns.

Main messages: Nurse-midwives and obstetricians in urban Tanzania are committed to providing safe postpartum care to women and newborns. They work hard to clinically assess, educate, and build relationships with the women and families they provide care. Nurse-midwives and obstetricians in urban Tanzania face challenges such as having limited access to; equipment, medications, and staff. These challenges are exacerbated by the government promise of accessible perinatal care for all women and newborns in Tanzania.

Baada, Jemima Nomunume
University of Western Ontario, Canada

Co-authors: Jemima Nomunume Baada, University of Western Ontario, Canada; Bipasha Baruah, University of Western Ontario, Canada; Isaac Luginaah, University of Western Ontario, Canada

Looming crisis – erratic environmental conditions in Ghana's breadbasket: the experiences of agrarian migrants

Global climate change continues to impact livelihoods and shape the adaptation strategies employed by vulnerable societies dealing with the associated negative consequences. The Upper West Region (UWR) of Ghana located in the dry-savannah ecological zone is an example of an area where subsistence agricultural livelihoods have become less sustainable due to depletion of soils, unpredictability of rains and a reduction in rainfall amounts. Studies show that migration from the UWR to the Brong-Ahafo Region (BAR) of Ghana has become an important adaptation strategy for many subsistence farmers in the attempt to deal with poverty and food insecurity. The BAR, affectionately called Ghana's breadbasket, is a preferred destination as it has a relatively better agricultural climate. However, despite the large in-flow of migrants to the BAR, there is a dearth of research on the post-migration farming experiences of migrants in the BAR, particularly in relation to changing climatic conditions. Using in-depth interviews (n=40) and focus group discussions (n=5), we examined migrant farmers' perceptions of agricultural productivity in the BAR and assessed their pre-migration expectations vis-a-vis their lived experiences of farming in BAR. The findings revealed that Ghana's breadbasket is also experiencing environmental degradation which makes farming less profitable than expected. The study sheds light on the experiences of climate change in an agrarian context and its implications for agriculture-related migration as a means of livelihood improvement. It highlights the need for proactive policy measures that mitigate negative climate change impacts at both local and national levels.

Babalola, Tesleem
University of KwaZulu-Natal, South Africa

Knowledge, Perception and Acceptance of National Health Insurance Scheme (NHIS) among Health Workers in Public Health sector of a Nigerian Province.

Background: Most of the countries of sub-Saharan African region are currently facing economic crisis which has negative impacted the general wellbeing. Most of the citizens are struggling to meet up with their daily needs including healthcare bills. The National Health Insurance Scheme (NHIS) is one of the mechanisms of healthcare financing adopted in Nigeria as an attempt to arrest the deplorable health care status and reduce the burden of soaring cost of health care.1 However, history has shown that survival of this kind of scheme depends on level of awareness and utilization by the people.2 Thus, this study was carried out to assess the knowledge, perception and acceptance of health workers in public health sector about the insurance scheme.

Methodology: This was a descriptive cross-sectional study conducted in one of the districts of Lagos state, Nigeria. A quantitative research method was used. The sample size was calculated using Cochran approach and finite population correction factor (nf) to give a total of 175 participants and a stratified sampling technique was used to select the study participants. Participants were selected from all the five primary healthcare facilities and two randomly selected secondary health facilities in the district and these include doctors/dentists, nurses, pharmacist/pharmacist technicians and laboratory scientist/technicians directly involved in patients' care while others were excluded. Data collection was done using a pre-tested structured self–administered questionnaire. A scoring system and Likert scale approach were deployed in grading the knowledge and perception of participants respectively. All statistical tests were carried out at 95% CI (P=0.05).

Findings: Overall, only 13.0% of the participants had very good knowledge about NHIS. This reflects in majority (58.7%) having negative overall perception of the scheme and very few (14.3%) already registered. The result also shows that profession, years of experience/practice, family size were among factors statistically associated with knowledge and perception among participants.

Conclusion: The health insurance scheme is relatively a new means of healthcare finance in most sub-Saharan African countries and studies have shown the acceptance level to be generally low. There is need to improve knowledge about the NHIS scheme among health workers to change their perception and thereby increasing their acceptance of the scheme, which will likely improve awareness and acceptance among the general population in the nearest future.

Barghouth, Muna
Red Cross Canada, Canada

Co-authors: Mariam KONE, Croix Rouge Canadienne, Canada; Voumpine DA, Croix Rouge Francaise, Guinea; Mamady KEITA, Croix Rouge Guinéenne, Guinea

Ebola Recovery in Guinea : Strengthening the Health System, Restoring Trust and Community Resilience

CONTEXTE

La crise de la Maladie à Virus Ebola (MVE) en République de Guinée en 2014-2016 a été d'une ampleur et d'un impact considérables sur les populations et le système de sante déjà fragile . La préfecture de Macenta dans la région sanitaire de la Guinée Forestière a été une des localités la plus touchée par l'épidémie, avec 743 cas confirmés, 432 décès sur les 3 814 cas officiellement notifiés au plan national.

A l'instar des autres pays de l'Afrique de l'Ouest affecté par l'épidémie, le système de santé guinéen, naguère performant a éprouvé d'énormes difficultés à faire face à l'épidémie et à se relever de cette crise tout en faisant face à une crise de confiance de la part des communautés qui ont déserte les structures sanitaires.

Au nombre des facteurs de la faiblesse du système de santé dans la préfecture de Macenta, on note entre autres :

- la vétusté des infrastructures sanitaires,
- l'insuffisance dans le domaine de la prévention et le contrôle des infections,
- l'insuffisance de la surveillance épidémiologique,
- la précarité des conditions d'hygiène dans les communautés
- le faible niveau de compétence des agents de santé.

La crise de la MVE ayant clairement mis en évidence de l'importance des systèmes de santé. La Croix Rouge Française en collaboration avec la Croix Canadienne et la Croix Rouge guinéenne, après avoir participé à la levée de l'urgence sanitaire, se sont engagées à accompagner l'Etat Guinéen au niveau de cette préfecture sanitaire à travers des projets de renforcement du système de santé qui se sont déroulés entre 2016 et 2018.

Forte de sa programmation conjointe et sa collaboration étroite avec le ministère de la santé, des succès durables ont été réalisés.

Bartels, Susan
Queen's University, Canada

Petit “Casques Bleus”: A Legacy of Sexual Abuse and Exploitation by UN Peacekeeping Personnel in Haiti

Problem: Peacekeepers have been associated with sexual exploitation and abuse (SEA) of the vulnerable populations they are mandated to protect in a variety of countries including the Democratic Republic of Congo, Sierra Leone, and Haiti. Consensual relationships also occur between peacekeepers and local women / girls and some of the intimate relations (both of a voluntary and exploitive/abusive nature) lead to pregnancies and to children being born. These so-called ‘peace babies’ and their mothers often face particular challenges in volatile post-conflict communities.

Objectives and Methods: Using an innovative mixed quantitative / qualitative data collection tool, Cognitive Edge’s SenseMaker®, this research provides much needed empiric data on children fathered by foreign peacekeeping personnel and born to local Haitian women and girls. This work is particularly relevant in light of multiple recent peacekeeping missions being tarnished by reports of SEA.

Results: In June – August 2017, a team of 12-trained research assistants collected a total of 2,541 self-interpreted stories about the experiences of Haitian women and girls hosting UN peacekeeping missions. An analysis of the 265 stories specifically about peace babies in Haiti will be undertaken to describe the life challenges for children fathered by foreign peacekeeping personnel and born to mothers. At time of abstract submission, only preliminary results are available.

Lessons to date: Many peace babies in Haiti experience considerable adversities as a result of being fathered by foreign UN personnel: they are often biracial in typically ethnically homogeneous communities, are most often raised in single-parent families in settings with a keen sense of family and kinship bonds, and frequently live in disproportionately poor economic circumstances. Current policies and programs to support peace babies are woefully inadequate. Some of the SEA policy and advocacy recommendations arising from Haiti may be relevant to peace babies in other countries hosting UN peacekeeping operations.

Main messages: SEA by UN peacekeeping personnel have left behind a legacy of peace babies who often face considerable challenges such as extreme poverty and stigmatization in austere conflict and insecure settings like Haiti. These children and their mothers often have great difficulty accessing justice and reparations, and effective policies to support them are lacking.

Batonga-Danteu, Sandrine
Plan International Canada, Canada

Community health committees: including communities in health facilities governance to advance women's and children's health and rights

Introduction: Public health facilities are frequently managed by ministries of health and their decentralized entities at regional, district and facility levels, with officials exercising exclusive decision-making power on priorities, budget allocations and staffing. The communities served often have a limited role in decision-making processes, particularly women and adolescent girls. Where facility-level governance bodies exist, they often are not representative of the community served, have ineffective resource management practices, and low capacity to make evidence-based decisions regarding facility and service improvements. Through effective community health committees (CHC), women, men and adolescents from facilities' catchment areas can be consulted and influence facilities management, resources prioritization and the quality and responsiveness of care. They are empowered to hold authorities accountable and act to improve service delivery.

Interventions: Plan International Canada's SHOW (Strengthening Health Outcomes for Women and Children) project, running from 2016-2020 in Bangladesh, Ghana, Haiti, Nigeria and Senegal has the goal of contributing to the reduction of maternal and child mortality. A key project component is CHCs strengthening/creation through training members on governance, inclusive leadership, gender equality, the unique needs of adolescent clients, MNCH and SRHR issues. The project promotes equal representation between men and women and women holding leadership roles in each CHC to empower women and girls, and to ensure women's and girls' health needs and rights are considered. Adolescent boys and girls' representation is also encouraged to support adolescent-friendly healthcare and fulfill adolescents' right to participate in decisions affecting them.

Results: To date, 528 CHCs with women and adolescent representation were formed through the project. Specifically, in Bangladesh, 43 CHCs were created. CHCs proactively met with district-level government officials and participated in forums advocating for the functioning of non-operational Union Health & Family Welfare Centers (UH&FWC). Such meetings resulted in the Government allocating budget to renovate the Logang UH&FWC. In Chengi UH&FWC, the committee decided to ensure safe water resource by setting up a tube-well. Some CHCs initiated fund-raising activities to finance specific facilities improvements.

Conclusion: Community health committees are liaisons between communities and health facilities and play an important role to strengthen local governance and increase accountability of service providers to the community. For CHCs to effectively contribute to quality and responsive health care, members must be representative of users and reflect the issues and concerns of women and adolescents. CHCs create community ownership of the project, taking initiatives which will benefit their communities beyond the project's end.

Benoit, Maryse
Université de Sherbrooke, Canada

Co-authors: Maryse Benoit, Université de Sherbrooke, Canada; Julie Achim, Université de Sherbrooke, Canada; Miguel Terradas Carrandi, Université de Sherbrooke, Canada; Pierre-Rodrigue Traore, CSCUM-U ASACOBA/ BANCONI, Mali; Guimba SISSOKO, CSCOM-U ASACOBA, Mali; Mahamane, Maiga, Université de Sherbrooke, Mali; Fraçois Couturier, Université de Sherbrooke, Canada

Santé mentale au Mali : La co-construction et l'appropriation des savoirs au coeur d'une recherche action

Enjeu ou problème : À ce jour, les problématiques de santé mentale (SM) sont peu considérées dans le système de santé malien. Les ressources spécialisées sont limitées et les agents de santé (AS) sont peu formés pour évaluer et intervenir auprès de personnes souffrant de problèmes de SM. Les collaborations internationales sont précieuses au développement d'outils et des connaissances, mais ces collaborations n'ont de réelle portée que si elles prennent en compte les réalités culturelles distinctes.

Objectifs : Un projet de recherche action mettant en collaboration des partenaires maliens et canadiens visait notamment à développer des outils et des activités de formation en SM. Un sous objectif de cette recherche était de documenter le processus de co-construction des savoirs qui a sous tendu l'élaboration des outils et des activités afin qu'ils soient facilement transférables, ceci dans le but d'en assurer leur appropriation et leur pérennité dans le contexte malien.

Méthode : Le processus de co-construction s'est déroulé ainsi : 1) 3 groupes de discussion ont été conduits qui avaient notamment pour but d'échanger sur l'expression de la souffrance psychique, de même que sur la conception de la santé et de la maladie mentale au Mali; 2) une analyse qualitative a été réalisée sur les données recueillies et les résultats ont été pris en compte dans l'élaboration et l'adaptation des outils et des activités de formation; 3) les premières ébauches ont été mises à l'épreuve et ont fait l'objet d'allers-retours réguliers entre les AS maliens et les partenaires canadiens.

Résultats : Ce processus de co-construction a permis 1) une appropriation des savoirs par les AS qui ont récupéré les activités de formation en les offrant à d'autres AS; 2) l'adaptation des outils de dépistage à la réalité malienne et leur appropriation par des AS qui les utilisent dans deux centres de santé communautaires; 3) la consolidation des collaborations qui a mené à la formation d'une Équipe santé mentale réunissant des partenaires maliens et canadiens de différentes disciplines. Des rencontres régulières en visioconférence ont toujours lieu afin de poursuivre les échanges.

Leçons tirées à ce jour : Il est important d'envisager des façons novatrices de maintenir les collaborations dans le contexte socio-politique actuel qui limite les déplacements au Mali.

Principaux messages : La co-construction des savoirs est primordiale dans le travail de collaboration internationale, notamment en ce qui concerne l'expression de la souffrance psychique qui est fortement modulée par les variables socioculturelles.

Beyer, Linda
Visiting Scholar, Urbanization and Well-Being Unit, African Population and Health Research Center, Kenya

urban food deserts: food insecurity and resilience in two Nairobi slum settlements

This research shows geo-spacial and differentiated socio-economic dimensions of food insecurity and resilience of vulnerable urban populations in two informal settlements of Nairobi (Korogocho and Mukuru). Using a mixed methods design, two years of monthly data sets and bi-monthly market data have been used to explore dimensions of food insecurity at a household level as well it's the interface with various socio-environmental factors. Further, in depth interviews in Korogocho and Mukuru have been undertaken to explore dimensions of resilience (or what makes a difference) in relation to food insecurity.

A highlight of some findings include: significance in food insecurity (measured by Household Food Insecurity Access Prevalence - HFIAP) and severe household hunger (using the household hunger score - HHS) associated with lower quintile of household income, female headed households and casual labour as a source of livelihoods ($p < 0.05$). Further the impact of illness is significantly attributed to higher rates of food insecurity and severe household hunger with a 58 % associated increase in food insecurity in Mukuru ($p < 0.05$) and an 87 % increase in Korogocho ($p < 0.001$). Floods and water related shocks showed a significant association and increase (73 % increase) in food insecurity for housholds in Mukuru ($p < 0.05$). Households in Korogocho that experienced an aggressive practice in the past month were four (4) times more likely to have sever hunger ($p < 0.05$). Food insecurity was also significantly associated with use of food credit, taking additional actions to obtain income and removing children from school ($p < 0.05$). Noted was a differentiated effect of use of food credit, with households using food credit in Korogocho having a 21 % reduction in food insecurity ($p < 0.05$).

Seasonal variation in food insecurity and associated changes in shocks, coping behaviours as well as changes in market prices for core commodities have helped to capture dimensions of adaptive, adoptive and transformative capacities to food insecurity at a household level. The results of this analysis help to explore the critical and complex understanding of how vulnerable urban populations cope or adapt to food insecurity.

Bicaba, Frank
Société d'Etudes et de Recherche en Santé Publique, Burkina Faso

Co-authors: Frank Bicaba, Société d'Etudes et de Recherche en Santé Publique, Burkina Faso; Abel Bicaba, Société d'Etudes et de Recherche en Santé Publique, Burkina Faso

La conception d'un modèle consensuel de mesure de la performance d'un système de santé de district au Burkina Faso

Enjeu ou problème

Le système de santé du Burkina Faso s'appuie sur un ensemble de 70 districts sanitaires. Les autorités sanitaires sont soucieuses de pouvoir en apprécier la performance régulièrement, et de disposer à cet effet d'instruments de mesure consensuels et valides. Une recension des écrits scientifique montre que la disponibilité de ce type d'outil est très limitée.

Objectifs et méthodes

Cette étude vise à concevoir et tester un modèle de mesure de la performance du système de santé de district. Il s'agit d'une étude de cas multiples réalisée entre 2014 et 2017 dans 10 districts sanitaires de deux régions du pays. La mesure de performance combine plusieurs sources de données: (i) des entretiens avec des élus locaux et responsables administratifs, et des responsables au niveau central du Ministère de la santé (n= 86); (ii) une collecte des données dans les formations sanitaires (n=319); (iii) trois ateliers Delphi ont été tenus dans chaque région avec des membres de la société civile, et des agents de santé des districts et des régions (n=113); Un modèle d'analyse et d'agrégation des indicateurs a été conçu pour construire des indices agrégés de performance.

Résultats

Un consensus s'est dégagé à propos de la perception des différents acteurs de la fonction d'un système de santé de district, et subséquemment, de la notion de performance. Des indices couvrant différentes dimensions de la performance ont été dérivés en s'appuyant sur un cadre conceptuel de référence (Sicotte et al 1998). Un ensemble de 48 indicateurs a été retenu pour la construction des indices par district et par formation sanitaire. Les résultats ont été partagés avec les parties prenantes et il a été noté un consensus sur les niveaux de performance et une acceptabilité de la démarche par les concernés.

Leçons tirées à ce jour :

Il apparait qu'il est possible d'aller au-delà des mesures sélectives des indicateurs pour avoir une appréciation globale et consensuelle de la performance d'un système de santé de district.

Principaux messages :

Le modèle tel que défini, obéi à une démarche participative et consensuelle. Son adoption faciliterait d'avantage le management de la performance des systèmes de santé de district.

Biswas, Tuhin
University of Queensland, Australia

Current progress and future directions in the double burden of malnutrition among women in South and Southeast Asian countries

Introduction: In order to combat the double burden of malnutrition under Sustainable Development Goal-2 (SDG2), the general assembly of the United Nations has defined a set of nutritional targets that member countries need to achieve by 2025 to eradicate all forms of malnutrition worldwide. To understand progress towards this goal, we estimated trends, determinants and the probability of South and Southeast Asian countries achieving SDG2 target by 2025.

Methods: We used population representative cross-sectional data from the Demographic and Health survey (DHS), conducted between 1996 and 2016, for eight South and Southeast Asian countries: Bangladesh, India, Nepal, Pakistan, Myanmar, Timor, Maldives, and Cambodia. We calculated average annual rate of change in underweight and overweight, along with associations of both with potential determinants identified using multinominal logistic regression. We used a Bayesian regression model to estimate the trend and to forecast the prevalence of underweight and overweight by 2025.

Findings: Overall pooled prevalence of underweight, overweight and obesity in the South and Southeast Asian region was 22.9%, 21.3% and 8.6% respectively. From earliest data points across the eight countries, prevalence of underweight was highest in India (22.5%) and lowest in the Maldives (7.5%). The highest prevalence of overweight was observed in the Maldives (37.8%) and the lowest in Timor (10.2%). Regional annual rate of increase (AARI) and average annual rate of reduction (AARR) for the period 1996 to 2016 were 1.3% and 8.4% for underweight and overweight respectively. Women who had a higher education and were in the 45-49 years age group were 1.3 (95% CI: 1.27-1.33) times and 8.28 (95% CI: 8.09-8.48) times more likely to be overweight and 0.77 (95% CI: 0.75-0.79) and 0.49 (95% CI: 0.48-0.50) less likely to be underweight, as compared to those who had no education and those in the 15- 19 years age group respectively. Wealthier individuals and those living in urban areas had adjusted odds ratios for being overweight or obesity of 4.41 (95% CI: 4.32-4.51) and 1.29 (95% CI: 1.28-1.31) respectively compared to poorest individuals and those residing in rural regions. We estimated that if the current trends of underweight and overweight continue as projected, the proportion of underweight and overweight will be 8.8% (95% CI: 3.9-19.9) and 66.0% (95% CI: 43.4-82.7) respectively in 2025.

Conclusion: We found that despite progress, the South and Southeast Asian counties in our study will not achieve the 2025 SDG2 target if current trends continue.

Bomfim, Emiliana
University of Saskatchewan, Canada

Co-authors: Emiliana Bomfim, University of Saskatchewan, Canada; Celso Belo, Lúrio University, Nampula, Mozambique., Canada; Kristen Siemens, University of Saskatchewan, Saskatoon, Canada., Canada; Fernando Mitano, Lúrio University, Nampula, Mozambique., Canada; Paulo Pires, Lúrio University, Nampula, Mozambique., Canada; Jaibo, Mucufo, Lúrio University, Nampula, Mozambique., Canada; Gizela Bambo, General Hospital of Marrere, Nampula, Mozambique; Jorgina de Castro, General Hospital of Marrere, Nampula, Mozambique, Canada; Edward Rooke, University of Saskatchewan, Canada; Ron Simens, University of Saskatchewan; Canada

Patients' satisfaction with antenatal care, and nurses' perception of antenatal service delivered in nampula, mozambique: an exploratory study

The objective of this study was to analyze patients' satisfaction with the quality of antenatal care and to explore the perception of nurses about the antenatal care delivered. We conducted a mixed method exploratory study in Nampula province, Mozambique. Semi-structured interviews were performed with antenatal nurses. All interviews were tape-recorded and transcribed verbatim. Principles of the Bardin's Thematic Content Analysis were used to elicit and assess the nurses' answers. Surveys to assess patients' satisfaction were applied to a sample of women undergoing antenatal care. Six key informant interviews and 100 surveys were held and 100 patients were interviewed. The mean number of pregnancies varied depending on the women's age. Overall, 69% of women rated their level of satisfaction with the visit as "good", and 26% found the visit "satisfactory". 32% report that they were not asked if they had doubts and questions and only 39% felt they were listened to. As for the perception of nurses about the antenatal care delivered, interviews with 6 antenatal care nurses were undertaken. The following major themes were derived from the interviews in relation to antenatal care: (i) Need for health education for individual behavior, culture, and social change - especially for men; (ii) Access, transport and mapping of pregnant women; (iii) Training of health professionals, and (iv) Material resource needs. Although there is a high overall level of satisfaction with antenatal services among pregnant women in Natikiri, areas for improvement were identified. 90% said they strongly agreed or agreed that they felt welcome during their visit and 96% strongly agreed or agreed that they felt respected. However, when asked if there is lack of respect during the visits, 23% strongly agreed or agreed. Moreover, this was also mentioned in the open-ended questions from the patients' surveys as a priority. When asked about wait times, only 44% strongly agreed or agreed that it was appropriate. Of those surveyed, only 55% strongly agree or agree about planning on using contraception and 53% knew how to access contraception after delivery. Open ended questions revealed that patients wanted more privacy, more respect, and shorter wait times. These study revealed that there is a low overall level of satisfaction with antenatal services among pregnant women in Ntikiri. Policy makers and health providers should increase coverage of skilled delivery care, improve training and monitoring of health care staff, with greater family participation in antenatal care visits.

Burgess, Raquel C.
Department of Family Medicine and MSc Global Health Program, McMaster University, Canada

Co-authors: Raquel C. Burgess, Department of Family Medicine and MSc Global Health Program, McMaster University, Canada; Brown Lekekela, Blinded, South Africa; Ruari-Santiago McBride, School of Education, University of Limerick, Ireland; John Eyles, School of Geography & Earth Sciences, McMaster University, Canada

"It's not about me…it's about her getting the treatment": Masculinities, gender equity, and access to healthcare in a South African township

Issue/problem: Breast cancer (BC) is becoming an increasingly prevalent health issue in low- and middle-income countries. In South Africa (SA), women tend to present to the healthcare system at advanced stages of the disease, resulting in poor health outcomes. Limited access to health education, large distances to health care centers, and inequalities in health insurance status have been implicated as factors contributing to the risk of delayed presentation. In addition, historical and current oppression on the basis of race and gender creates the social and financial vulnerability experienced by black South African women, making it difficult for them resolve their health needs. Despite this, little is known about what South African male partners know about BC and what role they play in their partner's access to healthcare.

Objectives and methods: This interpretive qualitative case study, guided by the theoretical framework of hegemonic masculinity, investigated black South African males' knowledge and perceptions of BC and the influence of gender norms in regards to healthcare access. Semi-structured, face-to-face interviews were conducted with 20 black South African males living in a resource-poor setting near Johannesburg in June & July, 2017. Interview data was analyzed using thematic analysis and compared to observational data collected through opportunities with local BC organizations.

Results: Participants demonstrated very little knowledge of BC and cancer in general. Specific misconceptions about cancer were reported, including confusion between cancer and HIV/AIDS. Participants were positive about survival with cancer if health care is received, but are burdened by barriers to reaching care and a lack of access to information about the disease. The men demonstrated sentiments that are congruent with hegemonic forms of masculinity, but also displayed perspectives in line with alternative, gender-equitable forms of masculinity.

Lessons to date: South African men appear to know little about BC, and seem to be playing an active role in their partner's access to healthcare. The dimensions of this role provide indication of both a positive (facilitating) and negative (limiting) influence on women's access to care. These findings may have implications for other health issues in SA.

Main messages: Epistemic injustices need to be addressed through wide-scale, strategic public health messaging about BC. The role of the male partner in women's health issues should be recognized within interventional efforts. Alternative forms of masculinity should be documented and promoted as tools in the advancement of women's rights in SA.

Chatuluka, Mathias
Options, Malawi

Co-authors: Mathias Chatuluka, Options, Malawi; Paul Kasalu, Mzimba DHMT, Malawi; Patricia Doherty, Options, UK; Sara Nam, Options, UK; Sarah Fox, Options, UK

Budget Transparency Self-Assessments: An innovative approach to fostering cross-sector collaboration in Malawi

Issue / Problem: In Malawi, significant gaps in quality of care at health facilities have limited progress towards SDG 3. Yet communities generally have little involvement in planning how resources for health are allocated at local level. To address this, E4A-MamaYe supported civil society and district councillors to improve multi-sectoral participation in the district budget process through the Health Budget Transparency Assessment (HBTA).

Objectives and Methods: HBTA, implemented since 2016, involves a self-assessment, designed and implemented through multi-sectoral consultation. It interrogates the extent to which: district councils consult during budget planning; have supportive governance structures and disseminate budget details once finalised. This is achieved through involving different sectors including district government (health and finance departments), traditional leaders, CSOs and key stakeholders in the consultative review and scoring process.

Results are synthesised into simple, visually appealing scorecards and presented at council meetings. Recommendations on how to improve performance are translated into action plans with the District Commissioner, the Planning and Development Department, the Health Department. Civil society use these action plans to hold district governments to account for budget allocation, disbursement and expenditure. HTBA serves as a mechanism to strengthen knowledge of national budget guidelines, which are not well understood by local stakeholders.

Results: The introduction of HBTA has been a successful stimulus for multi-sectoral action, resulting in community inputs being considered in the development of District Implementation Plans. Other achievements include: increased prioritisation among government officials on accountability to the community; increased local official capacity to adhere to national guidelines; strengthened accountability between national and district level.

All four intervention districts recommended integration of HBTA as a practice for local council departments. HBTA addressed complaints that the local budget-planning process did ‘not reflect the wishes of the people’. Results presented in HBTA scorecards highlight increased multi-sectoral action. For example, in Mzimba district, where the budget process was shown to be increasingly consultative.

Lessons to Date: The HBTA methodology is a simple approach that can be applied to multiple contexts to share and translate knowledge among stakeholders on the budget process. It is of interest to health officials working at sub-national levels to improve governance and accountability through multi-sectoral action.

Main Messages: Communities generally have little involvement in planning how resources for health are allocated at local level; HBTA provides a means for multi-sectoral consultation on budgets. ; HBTA has been a successful stimulus for multi-sectoral action in Malawi.

Dainton, Christopher
McMaster University, Canada

Co-authors: Christopher Dainton, McMaster University, Canada; William Cherniak, Bridge to Health; Markham Stouffville Hospital, Canada; Christina Gorman, University of Toronto, Canada; Charlene Chu, Toronto Rehabilitation Institute-University Health Network, Canada

Assessing adherence to best practices of short-term medical missions (STMMs): a preliminary validation of the Service Trip Audit Tool (STAT)

Issue/problem: The role of private non-government organizations (NGOs) in providing medical care abroad raises issues of ethics and accountability which have so far not been addressed by rigorous assessments of program structure. Despite the prevalence of private sector short-term medical missions (STMMs), little information exists on their quality.

Objectives: We aimed to assess the adherence of STMMs operating in Latin America and the Caribbean (LAC) to key best practices using the Service Trip Audit Tool (STAT). This tool was based on a previous literature-based and stakeholder validated inventory of 18 key best practices for STMMs.

Methods: Program administrators from 333 North American organizations offering STMMs in LAC were invited to complete an anonymous SurveyMonkey tool evaluating adherence to 18 best practice elements. The tool was also publicly available to volunteers who had recently traveled with each organization. Adherence to each practice was reported as Yes, No, or Not Sure, and conflicting data was resolved by investigator consensus. Adherence was calculated as the percentage of organizations with a Yes response. Krippendorff's alpha (k) was used to assess the interrater agreement of the responses.

Results: 178 individuals responded from 93/333 organizations (response rate 28%). The cumulative reported adherence was over 80% for 12 of the 18 best practices, including formal partnership (89.3%) and local leadership (82.8%). There was lower reported adherence for the remaining six best practices, which ranged from 55.1% to 75.3%.

For the 32 organizations with multiple raters, interrater agreement was moderate to substantial (0.5> k >0.7) for 12/18 best practices, fair for two items (>0.4 k >0.6), slight for four items (0> k <0.2).

Lessons to date: This is the largest existing study of STMM best practices, and the first to attempt a bottom-up assessment of adherence to practice standards. Representatives from the sample of NGOs claimed adherence to the majority of the key best practices assessed by the STAT, and responses were moderately reliable between raters. We can speculate that those with the greatest adherence to best practices are also most likely to participate in such quality improvement initiatives.

Main messages: STMM evaluation using the STAT may be useful to professionals and trainees in selecting a high-quality project. Furthermore, such evaluation allows a mechanism for assessment and monitoring of STMMs.

Dancause, Kelsey
Université du Québec à Montréal (UQÀM), Canada

Relationships between psychosocial health and diet during pregnancy and infant physical growth in a lower-middle income country: “Healthy mothers, healthy communities” study in Vanuatu

Issue/Problem: Maternal psychosocial health during pregnancy affects not only a woman's well-being, but the long-term development of her infant. High levels of maternal stress during pregnancy are associated with adverse outcomes at birth such as low birthweight and preterm birth, and with later risk of obesity and diabetes. These effects might be even more severe in low and middle-income countries (LMICs), where stressors might differ and where maternal undernutrition could interact with and exacerbate the effects of prenatal stress. Unfortunately, we have few detailed studies of maternal psychosocial health and nutrition during pregnancy, and their relationships with infant and child development, in LMICs.

We address this knowledge gap with our "Healthy Mothers, Healthy Communities" study in the lower-middle income country of Vanuatu in the South Pacific. We collected data on nutrition and on stress due to a natural disaster among 187 pregnant women in 2015, and chronic psychosocial health measures among 659 pregnant women in 2016. We analyzed birthweights of infants in the sample, and conducted detailed follow-up of physical growth outcomes among a sub-sample at 6-12 months of age.

Results: Psychosocial distress due to a natural disaster was a robust predictor of infant birthweight in 2015 and 2016, explaining more than 8% of variance. Effects persisted when controlling for maternal dietary diversity. There were no independent or interactive relationships of maternal dietary diversity on infant birthweights. Preliminary analyses showed no effects of depression or maternal dietary diversity on infant weight at birth or on longer-term growth patterns.

Lessons: Maternal distress has important implications for maternal and child health. In LMICs, low birthweight remains a pressing public health concern. Distress during pregnancy might represent one underlying risk factor. Efforts to increase psychosocial health resources and infrastructure in LMICs, especially following disasters or other stressful events, might have the dual benefit of improving adult health and wellbeing, as well as infant health outcomes. Where small size at birth remains a persistent problem, this could represent a particularly important public health initiative.

Main messages: Maternal psychosocial health might contribute to the persistent burden of low birthweight in LMICs.

Davison, Colleen
Queen's University, Canada

Co-authors: Lydia Di Stefano, Queen's University, Canada; Eva Purkey, Department of Family Medicine, Queen's University, Canada; Colleen Davison, Department of Public Health Sciences, Queen's University, Canada

Children not residing with their living biological parents in Thailand: An epidemiological investigation

Issue/problem: Poverty, social and environmental change place pressures on children and families globally. In 2012, the National Statistics Office of Thailand, in collaboration with UNICEF and other national organizations, conducted the Multiple Indicator Cluster Survey (MICS) to gain insight into the situation of women and children in the country. MICS data indicates that 22.4% of 0-17 year-olds in Thailand were 'separated children', (not residing with their living biological parents). Previous studies have identified positive and negative health and child rights outcomes associated with separation from biological parents. This study describes the social-demographic and educational characteristics of separated and non-separated children in Thailand providing greater insight into differences in the lived experiences of these children.

Objectives and Methods – Cross-sectional study using data for 0-17-year-olds within the MICS 2012 national dataset from Thailand (n=27,448). Socio-demographic and household characteristics of separated (n=5126) and non-separated (n=22,322) children were described and summarized with counts, proportions and Chi-square tests for differences between groups. The outcome "age-appropriate school attendance" was modelled using binomial logistic regression. Separation was the primary exposure and sociodemographic and geographic factors were considered as potential confounders.

Results: A significant proportion (n=2035, 39.7%) of separated children reside in North-Eastern Thailand and 80.1% of separated children reside in a household governed by a grand-parent. While bivariate associations indicated that separated children were less likely to attend school at an age-appropriate level (p=0.003), after adjusting for independent variables in a binomial logistic regression, child's separation status did not show significant effect (p=0.860). Age-appropriate school attendance was more likely among girls [OR = 1.19 (1.09-1.31)]; from wealthier families [OR = 1.88 (1.59-2.34)] and among children the North-East region [OR = 1.315 (1.079 – 1.602)]. Younger children (0-11 years) were more likely to be separated than older children (12-17 years) (p=0.001).

Lessons to date: At least one in every five children aged 0-17 years in Thailand is residing separately from their living biological parents. A large proportion of these children are living with grandparents. Separation did not independently affect age-appropriate school attendance. While the reasons underpinning separation were not identified in this study, data indicate there may be economic, gender and geographic drivers for these trends.

Main messages: 22.4% of children aged 0-17 in Thailand do not reside with their living biological parents. Patterns of separation were found by age, geographic region and wealth quintiles. Separation was not found to independently affect age-appropriate school attendance.

Ddumba, Isaac
African Research Centre for Aging and Dementia, Uganda

Co-authors: Isaac Ddumba, African Research Centre for Aging and Dementia, Uganda; Brain Kakande, Mukono District Local Government, Uganda; Daniel Kajungu, Makerere University Center for Health and Population Research, Uganda; Davis Natukwatsa, Makerere University Center for Health and Population Research, Uganda; Mijia Murong, Faculty of health science, McMaster University, Uganda

Mortality rates among the elderly in rural Uganda: Implication for the health care system

Background: Demographic and health transition observed among Low and Middle Income Countries (LMICs) have led to improvements in life expectancy and longevity. A rise in population aging within LMICs, especially in Sub-Saharan Africa (SSA), may pose a threat to over-stretched health systems. Both health care systems planners and decision makers need information on mortality trends and its causes, to aid in the understanding of health care needs within a community. Knowledge of mortality rates is vital for improving the functionality of health care systems, and crucial in evaluating a health systems performance in terms of sustainable development goals. However, there is paucity of data on the mortality rates of the elderly within SSA, despite an increase in their absolute numbers. This study aims to address mortality rates in this group, and understand its implications for the health system in the context of rural SSA.

Findings: During the study period of 2006-2017, 1513 deaths among elderly (> 50 years) were recorded from an average population of 772,137 within the Health Demographic Surveillance System, yielding a crude all-cause mortality rate of 6.55 per 1000 (95% CI, 6.42-7.62). Mortality from non-communicable diseases (NCDs) ranked higher (544 / 913; 59.6%) than communicable diseases (260 / 913, 28.5%). Since then, in 2006, the all-cause mortality increased substantially (risk ratio = 1.5; 95% CI, 1.44-1.60; $p < 0.0001$) due to a four-fold rise in deaths due to NCDs across all age categories and sexes (risk ratio = 4.04; 95% CI, 3.98-5.34; $p < 0.0001$). The burden of elderly requiring chronic care (risk ratio = 1.68, 95% CI, 1.38-2.02; $p = 0.0002$) has also significantly increased compared with those requiring acute care (risk ration = 0.6, 95% CI, 0.53-1.53).

Lesson learnt: There is a disproportionate increase in number of deaths resulting from NCDs in the elderly of SSA when compared to communicable diseases. This has important implications for health care systems, and highlights the desirability of integrating chronic care management to address the escalating burden.

Key message: The rise in NCDs highlights the need for developing countries to address the need for care systems that are responsive to the chronic needs of the elderly. Mortality data is required by policy and decision makers, and should not be ignored when considering evidence-based programs.

Deaconu, Ana Laura
University of Montreal, Canada

Co-authors: Ana Laura Deaconu, University of Montreal, Canada; Malek Batal, University of Montreal, Canada; Geneviève Mercille, University of Montreal, Canada

Farmers creating their own pathways to human and environmental health in rural Ecuador

Issue: While many countries have made important advances toward the sustainable development goal of reducing hunger, another nutritional problem is on the rise: the people most vulnerable to nutrient deficiencies are now also experiencing increased obesity, placing them under a double burden of malnutrition. As a result, they experience both the pernicious consequences of poor growth and development as well as the extensive health effects of obesity. As this problem accelerates among rural and especially rural indigenous populations, it disproportionately affects the people who are already at the brunt of environmental enteropathy, pesticide poisoning, ecosystem degradation leading to reduced crop production, crop insecurity leading to food insecurity, and the social and economic exclusion associated with poverty.

Objectives and methods: This research aims to identify promising endogenous solutions that act on health, environmental and social imperatives to create healthier, more resilient rural communities. Specifically, it explores the case of resource-poor, mostly-indigenous 'agroecological' farmers in Ecuador, who have organized via farmer-to-farmer social networks around an organic production system, agroecology, to evade pesticide poisoning and improve crop resilience; in the process, have also created social and productive conditions with potential to affect nutritional status. We deploy a cross-sectional comparative survey of female agroecological farmers (n=61) and their non-agroecological neighbors (n=30) to detect differences in diet, production, social capital and socioeconomic factors. Further, we use ethnography and key informant interviews to provide qualitative depth and ensure appropriate participatory interpretation of findings.

Results: Among the study population, 57% live in poverty, with no difference between the agroecological and non-agroecological sub-samples. Agroecological farmers perform better on the food-group based index Minimum Dietary Diversity for Women by one food group per day, bringing them to meet minimum dietary diversity needs. Agroecological farmers also produce more total diversity and diversity by food group. Quantitative and qualitative results identify barter in agroecological markets and own-production as key contributors to dietary diversity.

Lessons: The higher dietary diversity and production diversity among Ecuador's agroecological farmers empirically demonstrates how healthy diets and healthy environments can go hand in hand, even among marginalized people. The role of agroecological markets in providing food access through barter points to the importance of alternative food networks in promoting rural health.

Main message: Effective responses to pressing global development problems can be found within the heterogeneity of experiences lived and practiced by vulnerable populations. Such locally-adapted and endogenously-spread practices should be leveraged for healthy, sustainable development.

DiLiberto, Deborah
Global Health Office, McMaster University, Canada

Co-authors: Deborah DiLiberto, McMaster University, Canada; Josephat Nyagero, Amref Health Africa International University, Kenya; Morrish Ojok, Amref Health Africa, South Sudan, SS|South Sudan; Kate Miller, Global Health Office, McMaster University, Canada; Kevin O'Neill, Amref Health Africa, Canada, Canada; Andrea, Baumann, Global Health Office, McMaster University, Canada

Examining health workers' non-clinical decision dilemmas in humanitarian settings

Issue: In high risk, high need humanitarian settings, health workers (HW) face unprecedented challenges when providing care. They work in deteriorating health systems amidst a lack of resources, security risks, and challenging sociopolitical contexts. In this complex environment, HWs face difficult decision dilemmas beyond the norm of clinical care which include the logistical, social and political components of service delivery that are critical to the provision of care and which ultimately affect health outcomes. Research into these dilemmas is needed and will facilitate the humanitarian-development nexus (sub-theme 4) by informing approaches for strengthening HWs' capacities to deliver and sustain quality health services within fragile environments.

Objective and Methods: Objective – To critically examine the concept of national HWs' non-clinical decision dilemmas in fragile environments and their potential impact on provision of care and health outcomes.

Methods – 1) Scoping review of published literature to identify HWs' non-clinical decision dilemmas in humanitarian settings and their potential impact on quality of care and health outcomes. 2) Concept development workshops with NGO stakeholders working in humanitarian settings in Kenya and South Sudan.

Results: Results are preliminary. The scoping review identified a gap in the literature on HW non-clinical decision dilemmas in humanitarian settings. Papers focused on provision and management of clinical care by expatriate teams, coordination of humanitarian actors, and HW security. The workshops revealed that non-clinical decision making is not currently addressed in training for national HWs, but remains a significant impediment to provision of quality care and health systems strengthening.

Lessons to date: Non-clinical decision dilemmas are embedded in national HWs' current and future working context, yet there remains little research identifying these dilemmas, their impact on the provision of care, and what evidence-based strategies can be used to address them. There is a need for innovative and scalable evidence-informed training to support the development of national HWs' non-clinical decision making skills. These findings are widely applicable as HW training and health systems strengthening remain a focus for research and action to improve health in fragile environments.

Main messages: The importance of HW non-clinical decision making for the provision of quality care and improvement of health outcomes has been recognized by stakeholders working on the frontlines of humanitarian settings. However, the limited research on this topic presents a significant barrier to developing evidence-informed training to strengthen HWs' capacities to navigate these dilemmas and deliver quality health services in fragile environments.

Dodd, Warren
University of Waterloo, Canada

Co-authors: Warren Dodd, University of Waterloo, Canada; Marvin Gómez Cerna, Fundación para la Investigación Participativa con Agricultores de Honduras, HO|Honduras; Paola Elena Orellana, Fundación para la Investigación Participativa con Agricultores de Honduras, HO|Honduras; Sally Humphries, University of Guelph, Canada; Donald Cole, University of Toronto, Canada

Interrogating the dimensions of human security within the context of migration and rural livelihoods in Honduras

Issue: Internal and international migration are important livelihood strategies for many rural households in Honduras. Key drivers of migration within and from Honduras include political instability, violence, and a lack of local economic opportunities. For family members left behind, remittances from migration may represent a critical source of household income for immediate needs including food and healthcare costs. In the context of the SDGs, which highlights the development potential of migration for households and communities of origin, there is a need to understand the differential motivations and outcomes of migration among migrant and non-migrant households in rural Honduras.

Objectives and Methods: This study explored the motivations and outcomes of migration among migrant and non-migrant households from the rural municipality of Yorito, Honduras. Using multi-stage random sampling, 248 household surveys (including 1,263 individuals) were conducted across 22 rural communities. Demographic, socioeconomic, migration, and health data were collected.

Results: Of the 248 households included in the study, 19.0% had at least one migrant member. The majority of migration from this area was internal (83.6%) to urban centres such as San Pedro Sula. Migrants were employed in industries such as construction, maquiladoras, and agriculture. All (100%) migrant households indicated that a main motivation for migration was a lack of local rural employment opportunities. Migrant households received remittance transfers an average of 9.1 times (SD: 3.8) per year and most (85.4%) used this money to meet immediate needs rather than long term savings. However, remittance amounts varied widely between migrant households (range $33.43 USD - $334.29 USD per month). Family responsibilities (100%) and agricultural responsibilities (65.7%) were the most commonly cited reasons for not migrating among non-migrant households. Overall, 35.5% of all households (migrant and non-migrant) indicated that someone in the household would likely migrate in the next five years.

Lessons: For rural household in Yorito, Honduras, migration represents an important source of income and livelihood diversification. However, migration is not a desirable livelihood strategy for all rural households in this context, highlighting the need for rural investment and local employment opportunities.

Main messages: Within the SDGs, there is simultaneous recognition of the development potential of migration and the difficult conditions that migrants often experience in transit or in places of employment. Enhanced understanding of the motivations and outcomes of migration among migrant and non-migrant households is critical to understanding the relationship between migration, rural livelihoods, and sustainable development in Honduras.

Dol, Justine
Dalhousie University, Canada

Co-authors: Justine Dol, Dalhousie University, Canada; Thecla Kohi, Muhimbili University of Health and Allied Sciences, United Republic of Tanzania; Marsha Campbell-Yeo, Dalhousie University, Canada; Gail Tomblin Murphy, Dalhousie University, Canada; Megan Aston, Dalhousie University, Canada; Lilian, Mselle, Muhimbili University of Health and Allied Sciences, United Republic of Tanzania

Facilitators, barriers, and opportunities in postnatal care education in Dar es Salaam, Tanzania

Problem: In low-income countries, postnatal care has not received the same attention on educating mothers with essential newborn health information as has the antenatal or childbirth period. Gaps exist in understanding how Tanzanian mothers receive postnatal education in hospital prior to discharge. Therefore, we conducted a qualitative study to explore the barriers, facilitators, and opportunities related to postnatal newborn care discharge education in Dar es Salaam, Tanzania. In-depth semi-structured interviews were held with eight mothers who recently gave birth and eight nurse midwives working on the postnatal and labour ward at Muhimbili National Hospital using convenient sampling in September 2017. Interviews were conducted in Swahili and transcribed and translated into English. Interviews were analyzed using a priori categories of barriers, facilitators, and opportunities followed by analysis of emerging themes within each.

Results: Most mothers were multiparous (75%) and on average 29.6 years of age (SD=5.1). Nurse midwives had an average of 10 years of experience (SD=7.5) working on the labour or postnatal ward and were on average 37.4 years of age (SD=6.3). Key barriers occurred at the: system level (e.g., lack of standard postnatal education guidelines); community level (e.g., community norms against hospital teaching); hospital level (e.g., staff shortages); and personal level (e.g., current gaps in teaching received including skin-to-skin contact). Important facilitators included that nurses were already providing teaching on important topics (e.g., breastfeeding, cleanliness), nurses had a desire to teach, and mothers were receptive to teaching provided by nurses. Finally, opportunities to improve maternal postnatal education included developing standard guidelines, training nurses how to engage mothers and families, and engaging mothers through preferred learning methods (e.g., mass media, practice, print, and verbal).

Lessons to Date: While mothers received some education while in hospital prior to discharge and nurses want to teach, challenges remained in receiving sufficient education on all recommended postnatal education topics due to barriers across several levels. Opportunity to improve postnatal education can be addressed through the development of standardized education and engaging mothers through preferred learning methods, which should be implemented and modified as appropriate for mother low-income countries.

Main Messages: The World Health Organization has postnatal care guidelines, but this primarily targets healthcare providers and their provision of care rather than that of families. Providing standardized postnatal education to mothers is recommended to ensure mothers have sufficient knowledge of newborn care prior to discharge through a combination of novel engagement strategies.

Duffy, Damian
BC Children's Hospital, Canada

Co-authors: Damian Duffy, BC Children's Hospital, Canada; Geoffrey Blair, BC Children's Hospital, Canada; Phyllis Kisa, Mulago National Referral Hospital, Uganda; Mary Nabukenya, Mulago National Referral Hospital, Uganda; Robert Baird, BC Children's Hospital, Canada; Arlene, Nakanwagi, BC Children's Hospital, Uganda; Eleanor Reimer, BC Children's Hospital, Canada; Joh Sekabira, Mulago National Rerral Hospital, Uganda; Mary Margaret Ajiko, Soroti Regional Referral Hospital, Uganda; Emmanuel Batiibwe, Nguru Hospital, Uganda; Doreen Birabwa-Male, Mulago National Referral Hospital, Uganda; Nasser Kakembo, Mulago National Referral Hospital, Uganda

Camps, Capacity-Building, and Collaboration: Advancing Sustainable Surgical Care for Children in Uganda

Issue/problem: Uganda has a population of 44.2 million people of whom 48.05% are under the age of 14.1, 2 This nation has an infant mortality rate of 56.1/1,000 of live births and was unable to achieve Millennium Development Goals 4 and 5 associated with child and maternal health.3, 4 With one of the highest birth rates in the world, there are just four paediatric surgeons to provide care to Ugandan children.5 These scarce human resources struggle with an untreated surgical condition prevalence at 7.4% in the pediatric population.6 Recognizing many young Ugandan women are currently moving into their reproductive years, the pressing challenges of providing specialized paediatric surgical care to children will be daunting for the foreseeable future. Surgical services are usually situated in urban settings7, which cause additional roadblocks for the vast majority of poor, rural families on their journey to surgical care.

Objectives and Methods: Uganda has implemented a Pediatric Surgery Camp model to address the overwhelming need for surgical care. This camp model can mobilize to the community where the burden of surgical disease is the greatest. In 2008, Ugandan and Canadian pediatric surgical teams partnered to help address access to care for children, providing high volumes of surgery within a short period of time. To help address glaring health human resource shortages, this partnership has sponsored paediatric surgical fellowships for Ugandan graduate general surgeons.

Results: Since 2008, there have been seven regional paediatric surgical camps, resulting in 1,178 children receiving life-saving surgery. Parental surveys have confirmed family satisfaction with care provided through this model. The surgical camps have served as a forum for teaching, research, and mentorship of young Ugandan doctors on pediatric surgery. Four physicians have now been provided fellowship education: two pediatric surgery/urology, one pediatric anesthesiologist, one pediatric plastic surgeon. At the undergraduate level, a summer research program has emanated from the surgical camps allowing Canadian and Ugandan trainees and their mentors to collaborate on community-prioritized studies.

Lessons to date: Surgical camps are sustainable and provide a partial remedy for the overwhelming need for surgical care in Uganda. Partnership and capacity building have been realized through the camp model, which has also resulted in tangible health human resource strengthening.

Main messages: Paediatric surgical camps can provide an important component to capacity building partnerships in efforts to address the Lancet Commission on Global Surgery targets and to advance children's surgical care in low resourced settings.

El Morr, Christo
York University, Canada

Co-authors: Manpreet Layal, York University, Canada

The Use of Information Communication Technology for Women Experiencing Violence: A Systematic Review

Issue/problem

With nearly one in every third woman having experienced intimate partner violence (IPV) or sexual violence, tools for spreading awareness, teaching women about prevention, skills to assess their risk, and encouragement to leave their abusers must become widely available. Information communication technology (ICT) incorporates telecommunications such as the internet, networks, cell phones, smart phones, computers, radios, and other communication medias. The use of ICT-based interventions for IPV may show potential for a cost-effective, easily accessible, and widely available platform for tools and information women can use to inform their decisions, undergo IPV screening, and create action/safety plans. A standard systematic review was conducted employing a digital search of bibliographic databases. Our paper presents the results of this review in terms of evidence related to the use of ICT to address Violence Against Women (VAW) globally.

Results (effects/changes)

In total, 692 articles were identified and only 21 articles were retained after the inclusion criteria was applied: 17 randomized-controlled trials, 2 cross-sectional studies, and 2 case report studies met our inclusion criteria. Our review presented evidence of ICT being able to assist in spreading awareness and knowledge about VAW including intimate partner violence (IPV), creating safety and action plans, disclosing exposures to violence, assessing ICT ability to address VAW challenges, teaching decision making skills, attaining self-efficacy, and increasing safety behavior. ICT assisted in improving mental health of women victims of violence.

Lessons

ICT-based IPV screening, prevention, awareness, and action tools show promise of reducing decisional conflict, improving knowledge and IPV risk assessment, and motivating women to disclose, discuss and leave their abusive relationships. Data suggests ICT-based screening tools for IPV are best used as a supplement to face-to-face screening, as they depict higher number of disclosures, with face-to-face discussions allowing for more in depth and tailored advice from the provider.

Main message

The use of low cost ICT-based interventions can be an effective tool that assist in scaling up VAW interventions, especially in disseminating awareness and prevention information, due to the wide availability of ICTs for most women, especially in more developed countries.

Escrig Pinol, Astrid
University of Toronto, Dalla Lana School of Public Health, Canada

Co-authors: Astrid Escrig Pinol, University of Toronto, Dalla Lana School of Public Health, Canada; Denise Gastaldo, University of Toronto, Dalla Lana School of Public Health, Canada; Andrea Cortinois, University of Toronto, Dalla Lana School of Public Health, Canada; Janet McLaughlin, Wilfrid Laurier University, Canada

Family separation as a social determinant of transnational families' health and well-being: The case of seasonal agricultural workers in Canada and their non-migrating kin in Mexico

In the face of ever-increasing rates of family separation due to economic and forced migration globally it becomes imperative that we gain a better understanding of the relationship of prolonged separation, family, and health and well-being. More than 25,000 Mexican men and women impacted by the heightened political and economic fragility of their country migrate yearly to Canada, where they face precarious work, living, and migration conditions as Seasonal Agricultural Workers (SAWs). SAWs generally spend 4 months of the year home and 8 in Canada, and frequently point at the extended and cyclical periods of family separation as the hardest part of their experience. Research has shown the negative effects of family separation on migrants and on families with a migrant abroad, such as increased levels of anxiety, stress, and depression. However, most studies have either focused on the migrant or on the non-migrating kin.

This study addresses this gap by focusing on transnational families as the unit of analysis. The research design is a focused critical ethnography with 27 participants from 5 families made up of women SAWs and their kin. Data was generated in multiple sites in the Niagara region, Ontario, Canada, and in the central region in Mexico (2017-2018), through participant observation, interviews, and visual participatory methods.

Preliminary findings reveal that relationships in transnational families are negatively affected by the migration of a central family member for most of the year. In turn, the mental health and well-being of transnational families are impacted by this stress on relationships. For instance, non-migrating older children, 12-18yo, often struggle with abandonment feelings which impact the relationship with their migrating relative and other family members, as well as their school performance, and mental and emotional health. In turn, migrating mothers, who leave behind younger children, 1-11yo, commonly experience guilt and all-consuming worry, which sometimes lead to anxiety and depression.

Family separation due to migration is an understudied determinant of the health of transnational families, who suffer a disruption of family relationships with profound effects on their health and well-being. Migration schemes that prevent families from traveling together or visiting each other have overlooked the detrimental impact of family separation on the families' health and well-being. Policy changes are needed to ensure the right to family life of transnational families and to avoid the negative impact on their health related to family separation.

Femi-Pius, Oluwayemisi
Pathfinder International, Nigeria

Co-authors: Oluwayemisi Femi-Pius, Pathfinder International, Nigeria; Kazeem Arogundade, Pathfinder International, Nigeria

An integrated rights-based approach in promoting respectful maternity care in health facilities in LMIC: the smgl experience

Cross River state in Nigeria has an estimated MMR of 2000 maternal deaths per 100,000 live births and Neonatal mortality rate of 120 per 1000 live births. These figures are much higher than the national averages (MMR 576 and NMR 37 respectively). One of the most effective ways to improve maternal and newborn health outcomes is to have deliveries being attended to by skilled birth attendants. Although not all women in Nigeria are certain of access to routine maternity care, studies have shown that women whose deliveries are attended to by skilled birth attendants are subjected to abuse and disrespect. This negatively impacts on the women's choice in accessing skilled birth attendants and consequently birth outcomes.

The Saving Mothers Giving Life (SMGL) Initiative is currently collaborating with the CrossRiver State Government to improve maternal and newborn health outcomes by implementing a package of evidence-based strategies which integrates promotion of respectful maternity care (RMC). These packages are implemented in 97 health facilities and their catchment communities.

The initiative has trained in-service health providers and Pre-service tutors on integrated maternal and newborn health training package including RMC (A total of 478 Skilled Birth Attendants trained). Monthly mentorship of health care providers in supported facilities is done in collaboration with professional bodies like Society of Gynaecology and Obstetrics of Nigeria (SOGON), Nigerian Society of Neonatal Medicine (NISONM) and mentor midwives, with the use of an integrated checklist with RMC components. Facility infrastructural upgrade are also carried out with provision for audio-visual privacy for women. The initiative is also collaborating with Traditional Birth Attendants (TBAs) in the communities to orient them on prompt referral and linkages with health facilities. This orientation encourages TBAs as escorts and birth companions to pregnant women which promotes culturally sensitive care. There are regular community sensitization meetings to key stakeholders, including pregnant women, on reproductive health issues which integrates their rights to quality and respectful care.

MMR for supported facilities now stands at 225/100,000 as compared to 313 from the baseline representing a 28% reduction likewise NMR stands at 44/1000 as compared to baseline of 58 representing a 24 % reduction.

The SMGL initiative has demonstrated an integrated approach in promoting RMC to improve maternal and new-born health outcomes.

Femi-Pius, Oluwayemisi
Pathfinder International, Nigeria

Co-authors: Oluwayemisi Femi-Pius, Pathfinder International, Nigeria; Kazeem Arogundade, Pathfinder International, Nigeria

Working with transport workers to improving women's health in LMICs. An effective and sustainable intersectoral collaboration for health.

In Cross River State, Nigeria, maternal mortality ratio (MMR) and neonatal mortality rate (NMR) is high. There is an estimated MMR of 2000 maternal deaths per 100,000 live births and NMR of 120 per 1000 live births. These figures are higher than the national averages (MMR 576 and NMR 37 respectively). In low and middle income countries (LMICs), the major causes of maternal deaths are hemorrhage, eclampsia, sepsis and obstructed labour. However, these conditions do not bring about maternal deaths in developed countries. Hence, other factors are key determinants of pregnancy-related deaths in LMICs.

The ``Three Delays'' model recommends that pregnancy-related deaths are devastatingly due to delays in: (1) decision to seek appropriate obstetric care medical (2) reaching an appropriate health facility; and (3) receiving adequate/quality care after reaching facility the facility. The SMGL initiative, in collaboration with the Cross-River State Government, seeks to address these three delays through implementing evidence-based strategies through intersectoral collaboration.

One of the strategies employed by the SMGL initiative, in addressing the delay in reaching the appropriate health facility, was setting up a functional, community driven emergency transport service (ETS). The initiative engaged 63 ward health development committees to locally source for funds for an emergency transport service for all pregnant women in the community. They also identified transport workers/drivers that reside in the community. These transport workers operate in the community and they volunteered to be a part of the emergency transport service for pregnant women in that community. An orientation was conducted for the transport workers on emergency transportation preparedness and how to transport a pregnant woman in labour with or without danger signs. The transport workers are reimbursed for costs of fuel, using a voucher system, at the health facility upon arriving at the facility with the pregnant woman. Over 150 pregnant women have been transported within 21 months (June 2016- May 2018) of implementation of ETS in supported communities. 40 of 63 wards are currently generating funds locally to sustain ETS.

Due to social determinants of health, intersectoral collaboration for health are critical. The SMGL initiative has demonstrated effective intersectoral collaboration to improve maternal health in catchment communities in Cross River State.

Filion, Francoise
Ingram School of Nursing, McGill University, Canada

Co-authors: Francoise Filion, Ingram School of Nursing, McGill University, Canada; Jodi Tuck, Ingram School of Nursing, McGill University, Canada; Glenda Sandy, CLSC Kawawachikamach, Canada; Cheryl McDonald, Ingram School of Nursing, McGill University, Canada

The Ashukin Program: A Bridge to Indigenous Community Health Nursing

Introduction: The concept “Ashukin” means bridge in Cree, Naskapi and Atikamekw language. This program was created in the summer of 2017 to provide undergraduate and graduate nursing students with an experiential learning opportunity in collaboration with an Indigenous community. The first phase of the program was implemented with undergraduate students in January 2018 within a community health nursing project course. Three teams of 4-6 students each created a primary prevention project in partnership with three different Indigenous community organizations. The goal of the program was to favor heuristic learning between nursing students and Indigenous communities to develop cultural humility and safety.

Methods: The students used the Population Health Promotion Model (Hamilton and Bhatti, 1996) and an Indigenous framework of Two-Eyed Seeing (Marshal, Marshal & Bartlett, 2015) to support their projects. They elaborated on social and structural determinants of health including Indigenous status; gender; personal health and coping skills and social exclusion. Moreover, the strategies they used developed personal skills, built healthy public policies and created supportive environments.

Results: Two of the three projects had an advocacy component. One project created posters that were inspired and illustrated by Indigenous women to portray their culture and strengths. Another project created a video giving voice to Indigenous men and women and their experience with the health care system. This video was shown to nursing students to help them understand the perspective of indigenous patients in the health care system. Additionally, this project responded to these lived experiences and developed a booklet of Indigenous- friendly health and social services, now available on the community organization’s website. The third project established an intergenerational link between elders and youth where high school students visited an Elder’s Lodge to share stories, language and activities. Further to this project, the director has now instituted a policy of 50 hours of mandatory volunteer work for youth to graduate high school.

Conclusion: This description is the first phase of the Ashukin Program where nursing students and indigenous community organizations came together for mutual learning and sharing. Next steps include an evaluation of the impact of these health promotion projects and collaborations on the students and community partners, with the hope that it ultimately strengthens student’s cultural humility and safety.

Gopalakrishnan, Preetha
University of Calgary, Canada

Co-authors: Preetha Gopalakrishnan, University of Calgary, Canada; Hollyn Maloney, University of Calgary, Canada; Aoife Hogan, University of Calgary, Canada; Zecherias Igembe, Catholic University of Health and Allied Sciences (CUHAS)., United Republic of Tanzania; Zabron Uholya, Catholic University of Health and Allied Sciences (CUHAS)., United Republic of Tanzania; Karin, Orsel, University of Calgary, Canada; Frank van der Meer, University of Calgary, Canada; Elias Charles Nyanza, Catholic University of Health and Allied Sciences (CUHAS), United Republic of Tanzania; George Masigati, Shinyanga Regional Referral Hospital, United Republic of Tanzania; Rashid Said Mfaume, Shinyanga Region, United Republic of Tanzania; Jeremiah Seni, Weill Bugando School of Medicine, Catholic University of Health and Allied Sciences (CUHAS), United Republic of Tanzania

Exploring guardians' health-seeking behaviour and bacterial antimicrobial resistance patterns of young children with diarrhea in Shinyanga, Tanzania

Diarrheal disease is a major cause of mortality for children under five years of age in low and middle-income countries (LMIC). Accurate and fast diagnostics are needed to optimize treatment, as misdiagnosis can result in mistreatment and antimicrobial resistance (AMR). AMR affects healthcare providers' ability to provide effective treatment to children presenting with drug-resistant strains of diarrheal pathogens. Additionally, appropriate health seeking behaviours of guardians are important to mitigating economic, psychosocial and other costs of diarrheal disease.

The objective of this study was to identify possible links between social determinants of health, health-seeking behaviours of guardians who present children for treatment at the hospital, and AMR of the pathogens causing diarrheal disease. In our study, nurses at the pediatric wards in the Shinyanga Regional Referral Hospital (SRRH) and the Kambarage Health Centre (KHC) in Shinyanga, Tanzania obtained stool samples from diarrheal patients under five years of age and used a short questionnaire to collect socio-demographic and clinical information. Stool samples were analyzed by culture and by CerTest® rapid diagnostic test to identify bacterial and viral pathogens, respectively. Ten common antibiotics were used in drug susceptibility tests to determine the AMR profiles of E. coli, Shigella, or Salmonella species isolated from the stool samples.

During the two-week study period, twelve children under five presented at the SRRH and KHC with diarrhea. Of these, five of the guardians finished primary school. Six guardians were subsistence farmers and three were formally employed. Seven guardians had obtained antibiotics from a health facility prior to their hospital visit.

None of the stool samples tested positive for gastrointestinal viruses. All of the E. coli (n=8), Shigella (n=1), and Salmonella (n=1) were resistant to ampicillin. Six E. coli isolates, the Shigella isolate, and the Salmonella isolate were resistant to trimethoprim/sulphamethoxazole. Five E. coli isolates were resistant to tetracycline. Some E. coli isolates (n=2) were resistant to ceftriaxone and exhibited the extended spectrum beta lactamases (ESBL) phenotype.

From these results, two key lessons can be learned. Firstly, guardians tend to medicate their children with antibiotics from pharmacies (n=1), drugstores (n=1), and other health facilities (n=5) prior to consulting a healthcare professional with diagnostic capability. Secondly, children presented to healthcare facilities often have gastrointestinal bacteria resistant to multiple antibiotics.

The main message from this study is the need to foster AMR stewardship in LMICs where empirical treatments prevail to reduce morbidity and cost attributable to drug resistant bacteria.

Grépin, Karen
Wilfrid Laurier University, Canada

Can we measure progress towards Universal Health Coverage with existing indicators: a data quality assessment of current UHC indicators

Issue: Sustainable Development Goal (SDG) 3 aims to ensure healthy lives, including target 3.8 to Universal Health Coverage. Measuring progress towards Universal Health Coverage requires reliable and timely internationally standardized indicators of health status, health service utilization, and financial protection. As of yet, there has not been an assessment of the quality of data available track and monitor progress towards UHC.

Objectives and Methods: This evaluation begins with a summary of frameworks that have been developed to conceptualize universal health coverage (e.g. the UHC cube) to define the criteria that indicators for UHC should measure. Then it takes the existing indicators of universal health coverage (3.8.1 Coverage of essential health services and 3.8.1 Financial protection when using health services) and assesses the quality of data available to measure these concepts using the principals of data quality assessment (DQA), namely (1) completeness, (2) consistency, (3) uniqueness, (4) validity, (5) accuracy, and (6) timeliness.

Results: The DQA to data has identified a number of quality limitations of current indicators, for example the lack of completeness of data to track many of the tracer essential health services. It also points to important challenges associated with the timeliness of data to track all components of UHC. Finally, the assessment points to important challenges with regards to the validity and accuracy of data to track financial protection for health.

Lessons to date: Our ability to track both service coverage and financial indicators are limited by data timeliness. The coverage of essential health services indicators suffers mainly from issues of completeness and timeliness whereas the financial indicators suffers from issues related to validity and accuracy.

Main messages: While progress has been made on the development of indicators for UHC, our ability to accurately monitor progress across countries is currently limited due to both the availability of data as well as conceptual flaws in the construction of these indicators. Suggestions will also be made on alternatively approaches to the measurement of UHC.

Gyorkos, Theresa
McGill University, Canada

Co-authors: Theresa Gyorkos, McGill University, Canada; Kariane St-Denis, Research Institute of the McGill University Health Center, Canada

Pregnancy and parasites in low-resource settings: special considerations for deworming programs

Issue/problem: Vulnerable populations in over 100 countries are at risk of acquiring intestinal parasite infections from fecally-contaminated environments. Large-scale deworming programs are recommended to reduce the disease burden from these infections in specific population groups including women of reproductive age. This recommendation extends to pregnant women, but only after the first trimester. It can be difficult to assess the pregnancy status of women in a large deworming program and some women will be inadvertently treated. To date, there has been no comprehensive assessment of the effects of inadvertent exposure to deworming treatment in the first trimester.

Objective: To assess the magnitude and consequences of exposure to deworming treatment (i.e. albendazole or mebendazole) in the first trimester of pregnancy.

Methods: A systematic review of primary research in human populations was carried out using the MEDLINE database with the following search terms: (albendazole or mebendazole) and (pregnancy or pregnant or trimester). There were no restrictions in terms of time or language.

Results: From a yield of 186 papers based on titles alone, 53 papers, reporting results from 44 originator studies (27 on albendazole and 17 on mebendazole) , constituted the evidence base. These included 8 trials, 16 observational studies and 20 case reports. Among the 20 studies which had included women in the first trimester of pregnancy within their study population, only 9 reported disaggregated data from which exposure to deworming treatment in the first trimester could be determined. None of these studies reported a statistically significant difference in the rates of adverse birth outcomes in infants of women treated in the first trimester compared to non-treated women. Due to heterogeneity in terms of study design, sample size, deworming dose and outcomes measured, data from these studies could not be combined. When reported, maternal adverse outcomes were mild and transient.

Lessons: Challenges were encountered in comparing the studies which prevented pooling of studies for a meta-analysis. A review of study strengths and limitations, and especially, attention to the reporting of disaggregated data and data analyses, will inform future research on this, and related, topics.

Main messages: From a review of the published literature, there was no increased risk of adverse birth events related to exposure to deworming treatment in the first trimester of pregnancy. This finding should reassure deworming program managers who might be concerned about inadvertently administering deworming treatment to pregnant women.

Haddad, Slim
Université Laval, Centre de recherche du CHU de Québec, Canada

Co-authors: Slim Haddad, Université Laval, Centre de recherche du CHU de Québec, Canada; Moussa Soumana, Ministère de la santé, Mali; Fatoumata Coumaré, Société d'Études et de Recherche en Santé Publique, Burkina Faso; Soumaila Laye Diakité, Unité de Santé Internationale, Projet Medik, Mali; Abel Bicaba, Société d'études et recherche en santé publique, Burkina Faso

Impacts d'un modèle innovant d'intervention fondé sur la mobilisation des femmes de la communauté, sur l'accès aux services maternels au Mali.

Enjeu

Les comités des femmes utilisatrices (CFU) ont été mis en place au Mali pour renforcer l'autonomie et la participation des femmes dans la gestion et la gouvernance des services, et contribuer à accroitre la fréquentation des services de santé maternels.

Objectif et méthode

L'étude vise via un devis quasi expérimental à estimer les retombées des CFUs sur la fréquentation des services maternels dans 15 aires de santé. Cinq aires abritent des CFUs en activité depuis au moins 18 mois ; les 10 autres sont des aire-témoins limitrophes. Le devis est longitudinal, couvrant une fenêtre d'observation de 24 trimestres consécutifs (01/2012 – 09/2017). Les indicateurs de résultat sont le nombre d'accouchement et de consultations prénatales trimestriels. Les analyses reposent sur des modèles de séries temporelles interrompues de type multiniveau, tenant compte des tendances séculaires, des variations saisonnières et de l'évolution propre de chaque centre.

Résultats

En moyenne, l'augmentation attribuable à l'introduction des CFUs est de + 39 CPN par trimestre et + 65 accouchements assistés. Ces effets sont statistiquement significatifs et d'ampleur substantielle au regard des populations ciblées. Les analyses montrent toutefois que les réponses diffèrent fortement d'une aire à l'autre en fonction du contexte local et des circonstances particulières ayant présidé à la mise en œuvre des CFUs.

Leçons tirées

Cette étude démontre l'influence positive des CFUs sur la fréquentation des centres de santé par les femmes enceintes. L'effet est cependant hétérogène d'un centre de santé à un autre.

Principaux messages

L'analyse des effets sur la fréquentation corroborent les résultats montrant par ailleurs l'impact favorable des CFUS sur le pouvoir d'agir des femmes. L'hétérogénéité de leurs retombées témoigne de la nécessité d'éventuels soutiens différenciés pour en assurer une implantation réussie.

Handa, Ruchika
University of Montreal, Canada

Co-authors: Malek Batal, University of Montreal, Canada; Bilkis Vissandjée, University of Montreal, Canada

Management of Type 2 Diabetes Mellitus in Countries like India: Looking through a Gender lens

Type 2 Diabetes Mellitus (T2DM) has emerged as a global epidemic. It is evident that effective management of diabetes requires sustained modification in behavior and basic lifestyle practices such as diet and exercise, and these determinants have been documented to affect women and men in differentiated ways. The management of T2DM in countries like India is complex and riddled with a lot of barriers, and one of such barrier is the gender inequity that prevails in these countries. Even though studies have acknowledged the importance of gender differences in the management of T2DM, limited understanding is available regarding the extent and scope of these differences and the ways to mitigate them. To fill the identified gap, we conducted an in-depth search in six public health databases: CINAHL, PUBMED, EMBASE, Web of Science, SCOPUS, and PsycINFO. Despite the challenges presented by the lack of consistent or systematic use of words 'Sex' and 'Gender', in our search, we identified various gender-based differences in relation to access to healthcare, reporting of symptoms and dietary habits. Men were less likely to utilize health care services and sought the support of their spouse for adherence to diet, whereas women sought the support of the spouse for adherence to medications and exercise. Men accounted location, attitude, equipment, time and cost of equipment as the exercise-related barriers whereas, women reported barriers were mainly related to the safety and time. Women were found to be anxious about their safety to exercise outside and lacked confidence in attending exercise classes. Men's gender-based provider role of providing for their family act as a barrier to the self-management of their diabetes whereas, women's gendered role of being involved in the care of others poses a challenge in T2DM self-management. However, it is shown that women's caregiver role may protect their mental health. Nonetheless, gender-sensitive practices to self-manage T2DM were not clearly identifiable in our search, underlining the lack of integration of this knowledge into practice by healthcare professionals. In order to help diabetic women and men in effective self-management of their T2DM, our study demonstrated the urgent need for a gender-transformative structured self-management intervention/ education program to build the capacity of healthcare professionals.

Hasan, Shaikh Mehdi
icddr,b, Bangladesh

Co-authors: Shaikh Mehdi Hasan, icddr,b, Bangladesh; Shakil Ahmed, icddr,b, Bangladesh; Dipika Shankar, icddr,b, Bangladesh; Sohana Shafique, icddr,b, Bangladesh

Mapping the urban healthcare landscape for governance and improved service delivery

Issue/problem:

The world is rapidly urbanizing and 70% of the world's population will be living in towns and cities by 2050.Bangladesh is also experiencing an unprecedented pace of urbanization characterized by increased population density and changing healthcare needs. However, the absence of well-designed policies for urban health system strengthening, and lack of coordination between different stakeholders and a massive private sector, amplifies inequities in health care provision. Comprehensive information on the supply of healthcare services and their distribution across the urban landscape is needed for better coordination and to make evidence-based strategies to achieving urban-related SDGs. The objective of this study is to generate evidence for policy makers and service providers to assist decision-making around urban health governance and service delivery. The data used in this paper originate from health facility mapping exercise executed in five cities in Bangladesh in 2014-2017. All operating health facilities were identified and geo-located, and a survey was conducted to gather service, license and cost-related information. Descriptive statistics were performed, and the prevalence and spatial distribution of different health services were quantified and mapped in order to identify gaps and duplication in service provision.

Results (effects/changes):

In five different urban settings of Bangladesh a similar pattern of uneven distribution of healthcare facilities was evident. Among all the static facilities, the private-for-profit is the dominant sector representing around 90% of total facilities. A noticeable gap in emergency and critical care services is apparent in all study areas especially around poor settlements. After working hours, mainly private health facilities are available for providing services. In all of the cities, there is a huge variation in cost of services across facilities.

Lessons:

Data furnished from these maps are being used by local level authorities to redistribute service locations based on gaps and duplications. NGOs are using this information for their upcoming programme design with a view to avoid service duplication. Information on cost of services will help to set new standards to control service pricing especially in the private sector. Other countries facing similar urban growth may benefit from our experience.

Main messages:

Private sector is dominating the urban healthcare landscape and knowing more about this sector is a first step in efforts to hold it accountable in terms of quality, affordability and accessibility. In the context of rapid urbanization, it is essential to establish an effective urban health policy and governance framework.

Heagle, Adele
International Development Research Centre, Canada

Doing no harm in a fragile context: the ethics of conducting adolescent reproductive health research and programs with Syrian refugee girls in Jordan

In the global landscape, political unrest and displacement are lived realities for millions of people. The most impacted are often the most vulnerable: adolescents, refugees, and women. This reality holds particularly true in the Middle East and North Africa (MENA). In Jordan, adolescent sexual and reproductive health (ASRH) is a relatively taboo topic. ASRH becomes an ethical challenge with the intersection of gender, trauma, youth, and displacement. Jordan is no stranger to these difficulties, especially in the wake of the Syrian refugee crisis. Of the estimated 600,000 Syrian refugees in Jordan, 42,000 are girls between the ages of 12 and 17. This large population has recently put a spotlight on ASRH work. Despite the focus, literature on the ethics of ASRH work with Syrian refugee girl participants is limited. Though ethics reviews work to prevent undue harm, the ethical outcomes of ASRH research and programs are not often explored in crisis settings. In these settings, ethical conduct is frequently neglected due to time and topic constraints. As a result, researchers and programmers in fragile contexts often fail to align ASRH work with age-appropriate cultural competency. This project aims to fill these gaps by mapping the ethical landscape of ASRH research and programs conducted with Syrian refugee adolescent girls in Jordan. This project explores ethics from the research and program practitioners' perspectives. Including individual researchers, institutional review boards (IRBs), and programmers in organizations - working with Syrian adolescents on ASRH. Using a grounded theory approach, qualitative key informant interviews (KIIs) were conducted with the stakeholders to form a narrative on ethics. A thematic and summative content analysis of the KIIs and a document review were completed. Key elements of ethics related to risk, participant girls' rights, positionality, consent, and confidentiality are highlighted. The project results emphasize the need to carefully reflect on ethically-informed practices when working with this vulnerable population and ensuring promotion of work that reflects the needs and cultural values of research participants. The conceptualization of high ethical governance and comprehensive ethical guidelines is also raised. The presented results aim to contribute to the growing evidence-base on ASRH in MENA and the ethical implications of working on health in humanitarian settings. In doing so, this work will help inform more inclusive and ethically sound ASRH research and programs for Syrian refugee girls in Jordan and other fragile contexts - promoting ASRH work that operationalizes the "do no harm," principle.

Ho, Carmen Jacqueline
Harvard T.H. Chan School of Public Health, United States of America

International Agreements as Drivers of Policy Change: Scaling Up Nutrition in Southeast Asia

Issue/problem: Maternal and child undernutrition is the cause of 3.1 million child deaths every year, approximately 45 percent of child deaths (Black et al., 2013). The economic consequences are equally serious, amounting to $3.5 trillion in lost productivity and increased health care costs each year (FAO 2013). In spite of the availability of simple, low-cost interventions (Bhutta et al., 2013), national nutrition policies remain inadequate in many countries (WHO, 2013). Can a nonbinding United Nations (UN) agreement drive national policy change?

Objective and Methods: The objective of this research is to investigate the effect of the UN "Scaling Up Nutrition" (SUN) initiative, a nonbinding agreement, on national policy change. Using two paired case comparisons, Indonesia and the Philippines, and Laos and Cambodia, I trace the impact of SUN on national policies for maternal and child nutrition. I conducted over 70 interviews with policymakers, civil society organizations, and development partners in the country case studies. I supplemented these data with informal participant observations and three closed-door regional health and nutrition meetings organized by the Interparliamentary Union, Association for Southeast Asian Nations (ASEAN), and European Union.

Results: My findings highlight the importance of state-coalition interactions. The characteristics of the state – state capacity and political regime – influence the type of coalition that mobilizes in response to a nonbinding agreement. The coalition elicits policy change when it strategically uses the agreement to elevate the issue to higher levels of government (by building vertical networks) and facilitate intra-bureaucracy cooperation (by building horizontal networks). While the existing literature identifies domestic coalitions as central to policy change, few studies examine why certain types of coalitions mobilize or how they leverage the agreement within government bureaucracies.

Lessons to date: By examining Indonesia, the Philippines, Laos, and Cambodia, I show how a nonbinding UN agreement can increase the political salience of an issue. I also show how vertical and horizontal networks are important for facilitating policy change.

Main Message: A nonbinding UN agreement can drive national policy change – but only under certain conditions. In my research, I highlight the need to mobilize national policymakers and equip them with tools for building networks and pushing through policy change.

Hobday, Karen
Menzies School of Health Reses, Australia

Co-authors: Karen Hobday, Menzies School of Health Reses, Australia; Jennifer Hulme, Department of Family and Community Medicine, University of Toronto, Canada

The interconnection between maternal health, human rights and development: A case study examining the scale-up of misoprostol to prevent post-partum haemorrhage in Mozambique.

Mozambique's maternal mortality rate is 408/100 000 live births (DHS, 2011); post-partum haemorrhage (PPH) is the leading cause of maternal deaths (David et al., 2014; Ministério Da Saúde, 2014). Oxytocin to prevent PPH is only used in health facilities, however, 30% of births take place without a Skilled Birth Attendant (IMASIDA, 2016). Misoprostol is a proven safe alternative uterotonic where oxytocin is not available and can be administered by a community health worker or self-administered (Derman et al., 2006; Walraven et al., 2005).

In 2011, the MoH approved the scale-up of misoprostol for the prevention of PPH at the community level. The MoH and partners have contributed technical support to roll-out the program in 35 districts. Mozambican women have the right to access essential medicines including misoprostol.

Objective: Examine the barriers and facilitators to the scale-up of Mozambique's misoprostol program using a human rights, health and development framework.

Methods: Qualitative research was collected between June-October 2017 in 2 provinces in Mozambique. Semi-structured key informant interviews were undertaken with stakeholders, health staff and Traditional Birth Attendants (TBAs) regarding use and understanding of misoprostol and barriers and facilitators to the program. National policy and planning documents and literature about Mozambique were reviewed. Data was analysed using a human rights, health and development framework (Tarantola et al., 2008).

Results: The majority of stakeholders felt strongly that misoprostol was an essential medicine which women have a right to access; this, alongside institutionalisation and strong local governance in certain regions, facilitated the program roll-out. Mozambique is a signatory to all major human rights treaties; however access to quality reproductive health services remains limited, particularly in rural areas. The framework revealed institutional challenges with the supply chain, funding and availability of human resources which hindered coverage of misoprostol. Abortion law reform took place in 2014; yet health staff perceptions surrounding the misuse of misoprostol for abortion contributed to limiting the distribution of misoprostol.

Lessons to date: The institutionalisation of the misoprostol program by the MoH greatly facilitated the expansion of the misoprostol program and is essential for program sustainability.

Heath staff and TBAs should provide clear messages about how to access and use misoprostol and encourage demand at the community level.

Main Message: The MoH should disseminate information about the National PPH Strategy to ensure all health staff, including pharmacists, support the distribution of misoprostol and increase uterotonic protection for women who birth at home.

Htoo, Saw Nay
Burma Medical Association, Thailand

Co-authors: Eva Purkey, Queen's University, Canada; Colleen Davison, Queen's University, Canada; Saw Nay Htoo, Burma Medical Association, Thailand; Rachel Whelan, Community Partners International, Thailand; Tee Tar Sway, Burma Medical Association, Thailand

Creating a locally driven research agenda for the ethnic minorities of Eastern Myanmar

Problem: Ownership of local research agendas is a key challenge in Global Health. Agendas are often set by international organizations, donors, and academics. Local communities often are not consulted on what their priorities may be. This may lead to new knowledge being created that is not relevant or useful to local communities, or that inappropriately diverts energy and funds, leaving gaps in priority areas. The Ethnic Health Organizations (EHOs) on the Thai-Burma border have been providing healthcare for ethnic minorities inside Burma as well as migrant populations in Thailand for decades while this population has been predominantly overlooked by the Myanmar government. The persistent ethnic conflict both in Eastern Myanmar and in Rakhine State makes this a particularly fragile environment.

Objectives and Methods: EHOs have identified a need to build capacity in research, an area that has been predominantly led by foreign partners, as a tool which might allow them to further serve their population and also to engage as legitimate partners with the Myanmar government in the precarious environment that is now Myanmar. EHO leaders from Eastern Myanmar would like to develop their own research agenda targeting the needs of the population they serve, which can then be supported by the skills and expertise of foreign partners as part of a capacity building process. In April 2018, a workshop was held in Mae Sot, Thailand, with sixty representatives from twelve EHOs. Following two days of introduction to research projects and research methodology, a day-long workshop was held to identify research priorities for the communities in Eastern Myanmar.

This workshop was supported by Community Partners International and was run by faculty from Queen’s University in Kingston, Canada. Results: Using the nominal group technique, many areas of interest, research questions, and stakeholders were highlighted and discussed. The final five research priorities identified were (1) water and sanitation; (2) mental health; (3) illegal drug use; (4) under-5 malnutrition; and (5) the use of pharmaceuticals. Lessons to Date: This workshop highlights the capacity of EHOs to conceptualize their own research priorities, articulate research questions and begin to imagine methodologies.

Main Messages: Global Health research needs to be led and directed by the priorities and concerns of stakeholders in communities. Community leaders have the knowledge and vision to articulate the priorities of their communities and to provide direction for international donors and partners on the areas of research which should be prioritized.

Hynie, Michaela
York University, Canada

Co-authors: Darius Gishoma, University of Rwanda, Rwanda; Michaela Hynie, York University, Canada; Benoite Umubyeyi, Western University, Canada; Donatilla Mukamana, University of Rwanda, Rwanda; Marie Claire Gasanganwa, Government of Rwanda, Rwanda; Providence, Umuziga, University of Rwanda, Rwanda; Laetitia Nyirazinyoye, University of Rwanda, Rwanda; Yvonne Kayiteshonga; Government of Rwanda, Rwanda; Jean Damascene, Iyamuremye, Government of Rwanda, Rwanda; Jeanne d'Arc, Dusabeyezu, Biomedical Centre, Rwanda

Building social support for vulnerable women to reduce perinatal depression in Rwanda

Issue: Perinatal depression is one of the world's most common mental health problems. It is associated with poor health and mental health outcomes for mothers, but also has negative consequences for their infants, including malnutrition, stunting and poor cognitive development.

Objectives and Methods: The major goal of this research was to estimate rates of perinatal depression in a Rwandan community sample, and identify risk and protective factors. Of particular interest was whether building social support can provide protection from perinatal depression for vulnerable women. 594 women in 60 communities participated in door-to-door interviews, 211 at 3 time points, 239 at time 1 only, 144 at times 2 and 3 only. Measures included a Rwandan version of the Edinburgh Postnatal Depression Scale (EPDS), a modified version of the Maternal Social Support Scale, and sociodemographic variables known to be associated with risk of perinatal depression. Women in 30 randomly chosen communities (50%) received 6 months of visits from Community Women Leaders who had been trained in active listening.

Results: About 19% of pregnant women and 22% of new mothers had EPDS scores above the cut-off for depression. At first screening, Gender Based Violence predicted both antenatal and postnatal depression; postnatal depression was also predicted by poverty. However, once peer and husband support were taken into account, only support variables predicted depression. Depression, lack of support from peers, and infant stunting were particularly pronounced for single mothers. Looking at predictors over time (N = 355), a structural equation model showed that only initial screening EPDS scores and husband support predicted depression at time 3, and that changes in husband support from initial screening to time 3 predicted changes in EPDS scores. There was no effect of the visits on maternal depression, but more women receiving visits were connected to services for treatment.

Lessons to Date: Rates of perinatal depression were high in this sample of community women, suggesting an increased need for awareness and treatment options. The importance of factors related to their spouse (GBV and husband support) indicate that community initiatives supporting couple relationships may be the most effective intervention. These should also be explored in other settings.

Main Messages: Perinatal depression is prevalent and under-recognized in Rwanda, as elsewhere. The importance of spousal support emphasizes that prevention may be the best way to reduce the incidence and impact of perinatal depression on mothers and their infants.

Idi, Saidou
Plan International Niger, Niger

Co-authors: Saidou Idi, Plan International Niger, Niger; Issoufou Abdou, Plan Niger, Niger; Erika Silva, Plan International Canada, Canada

Approche genre et inclusion pour améliorer le dépistage de la tuberculose au niveau communautaire

Problème : Le taux d'incidence de la tuberculose au Niger est estimé à 93 cas pour 100.000 habitants en 2016, mais le taux de notification de cas était de 50 pour 100.000 habitants. Ce taux relativement faible s'observe dans un contexte d'une couverture sanitaire très faible. Seul 47% de la population se trouve à moins de 5 Km d'un centre de santé. Au Niger 74,82% de cas de tuberculose dépistés sont des hommes contre 25,17 % de femmes.

Objectifs et Methods : Pour comprendre les raisons de ces disparités et du sous dépistage, il a été initié dans trois districts sanitaires un processus genre transformateur impliquant tous les acteurs de lutte contre la tuberculose au niveau communautaire. Ce processus comporte le respect du genre et inclusion dans le choix des relais communautaires, la formation des acteurs sur l'approche genre, la conception participative des outils de collecte de données désagrégées, les visites à domicile par des agents de santé communautaires féminins, la sensibilisation des communautés sur les modes de transmission et les moyens de prévention. Ainsi les relais communautaires organisent des sorties dans les communautés les plus éloignées des centres de santé pour toucher les populations les plus vulnérables et notamment les femmes et les enfants.

Résultats : Cette approche a augmenté le nombre de cas dépistés dans les communautés à 65%. Il a également permis d'augmenter le ratio des cas positifs femmes à 30%. Les femmes ont moins accès aux centres de santé parce qu'elles sont tributaires des autorisations des hommes.

Leçons à ce jour : A partir de cette expérience, nous avons constaté qu'il est possible de réduire les inégalités dans le taux de dépistage de la tuberculose lorsque les auteurs au niveau communautaire intègrent une approche sensible au genre et à l'inclusion.

Messages principaux :

Un système communautaire envisageant des interventions différenciées pour atteindre les communautés les plus difficiles à atteindre et les populations les plus vulnérables pourrait aborder les obstacles liés au genre et à la santé pour améliorer l'accès au diagnostic et traitement de la tuberculose.

Kangmennaang, Joseph
Department of Geography and Resource Management, University of Waterloo, Canada

Water Insecurity in Ghana, new issues and new measures

Title: Water Insecurity in Ghana, new issues and new measures

Authors: Joseph Kangmennaang and Susan J. Elliott (Department of Geography and Environmental management, University of Waterloo)

Water security is critical to the health and wellbeing of people around the world, especially among countries experiencing water stresses due to climate change and rapid urbanization. Existing methods to assess water insecurity have largely focused on water quality, quantity or adequacy, source or reliability, and affordability. These methods have significant advantages in terms of their simplicity and comparability, but are widely recognized to oversimplify and underestimate the global burden of water insecurity. To address the urgent need in the literature for validated measures of water insecurity that are socially, culturally and geographically relevant, we conducted a population-based study among urban and semi-urban areas in Ghana in order to understand participant perceptions of water insecurity. In so doing, we also tested the psychometric properties of a (modified) household water insecurity access scale across urban and semi-urban districts in Ghana. Preliminary psychometric analyses provided strong evidence of the internal structure, reliability, and validity of a new seven-item Household Water Insecurity Access Scale (HWIAS). Photo-voice interviews provided context for our findings, suggesting modifications to the scale to enable it capture locally contextual phenomenon while allowing comparability across communities. The availability of such an instrument is valuable to guide policy implementation at the local and national levels as validated measures can lead to better assessments and more effective interventions.

Keywords: Water security; Photo-voice; Structural Equation Modelling; Ghana, sub-Saharan Africa

Kapiriri, Lydia
McMaster University, Canada

Intersectoral collaboration: A critical step on the path to achieving Universal health care coverage

Issue/ problem: Universal health care (UHC), has been identified as critical to the achieving of the Sustainable Development Goals (SDGs); since it is thought to provide an avenue through which people can, "lift themselves from poverty, and lead healthy, productive lives-- lives with dignity, equity and opportunity" (World Bank, 2014). However, some of the literature has criticized UHC as a deterrent for governments to deal with the broader determinants of health since this could potentially lead to inequities in health outcomes---especially for the most vulnerable populations.

Objectives: The aim of this paper is to review the strategies employed, including collaborations between sectors, by low income country governments to ensure equitable UHC, and the degree to which these strategies can contribute to achieving effective equitable health outcomes.

Methods: In-depth qualitative interviews were conducted with health system stakeholders in Ethiopia (n=32), Uganda (n=22) and Zambia (n=32) and these were triangulated with policy documents.

Results: In all three countries, the ministries of health operate in parallel with other line ministries, with minimal collaboration between the sectors. However, there are attempts to bridge these gaps. The ministry of health is responsible for UHC, and has focused on health service delivery; decentralizing health service delivery and re-orienting services to primary care, and the essential health package. Services are provided free of charge. However, the quality of care in some of these units remains poor. However, even if the quality is improved the most vulnerable populations still experience barriers that prevent them from accessing the services; such as extreme poverty, poor roads, lack of education; which factors lie outside the health sector.

Lessons to date: While most of the literature on UHC has focused on health services, the fact that many barriers lie within other sectors, requires that inter-sectoral collaboration and addressing the broader determinants of health are integrated in the UHC strategy in order to ensure equitable health outcomes---especially for the most vulnerable populations.

Main Massages:

1) UHC is perceived as a vehicle for achieving equity in health outcomes; and hence critical to achieving the SDGs

2) Many vulnerable populations experience barriers outside the health sector, when trying to access the services provided through UHC

3) Intersectoral collaboration needs to be mainstreamed on the path to achieving UHC for the most vulnerable.

Kebe, Fatou
Gresafric, Senegal

Les obstacles et les facteurs facilitant l'accès des jeunes vivant avec un handicap (jvh) aux services de santé sexuelle et reproductive (ssr) au sénégal

Problème: De récentes initiatives ont cherché à donner la priorité aux jeunes dans les politiques et conventions relatives à la santé sexuelle et reproductive (SSR) au Sénégal. Des engagements ont été pris pour défendre les droits sanitaires des personnes vivant avec un handicap (Article 17 constitution). Toutefois, la recherche sur l'utilisation des services SSR chez les jeunes vivant avec un handicap (JVH) est négligeable.

Objectifs/ Méthodes: Notre étude a exploré les priorités de la SSR pour les JVH, les vulnérabilités clés et l'accès aux services y compris les préférences et obstacles pour accéder à ces services.

17 groupes de discussion et 50 entretiens individuels ont été menés avec les JVH à mobilité réduite ou ayant un handicap visuel ou auditif âgés de 18 à 24 ans à Dakar; Kaolack et Thiés. Une approche par les pairs a été utilisée pour la collecte et l'analyse des données.

Résultats: IL a été noté une faible connaissance et utilisation des services SSR chez les JVH. Ils étaient dépendants pour accéder aux services SSR, ce qui entrave la confidentialité. L'utilisation des méthodes contraceptives était relativement limitée aux préservatifs. De multiples cas de viol ont été révélés chez les femmes ayant un handicap auditif. Les principaux obstacles à des services SSR pour les JVH étaient: les obstacles financiers, les attitudes des prestataires/parents et l'accessibilité (liés à leur handicap). L'étude a révélé peu ou pas l'utilisation de stratégies SSR existantes et spécifiques pour les jeunes au Sénégal. En outre, aucune mention de l'accès à la nouvelle initiative des services de santé gratuits pour les personnes handicapées (cartes d'égalité des chances) n'a été faite.

Leçons à ce jour : Les femmes JVH sont plus confrontées à des contraintes, en liaison avec les normes sociales . La récente initiative nationale consistant à introduire la gratuité des soins pour les personnes handicapées; doit être accessible/ appropriée pour les JVH, mais aussi devrait être subventionnée au niveau du privé. De plus amples recherches sur les personnes vivant avec un handicap sont nécessaires afin d'explorer le poids de la violence sexuelle, le rôle des prestataires dans l'accompagnement des cas de viol, les déterminants de l'utilisation ou non des méthodes contraceptives par les JVH.

Messages principaux: L'âge et le handicap sont des contraintes pour les JVH d'accéder aux services SSR. Les interventions pour accroître l'accès aux services doivent prendre en compte les obstacles spécifiques aux handicaps et les normes de genre.

Koyiet, Phiona
World Vision International, Kenya

Simple therapy to reduce the global burden of disease by building ministry of health (moh) workforce for community mental health care

Issue/ Problem

More than 41% of Kenyan women experience sexual and/or physical violence by intimate partners in their lifetime. The women who are survivors of such violence often experience life-long emotional, mental health problems and poor reproductive health. Many women become intensive long-term users of health services while many more have no access to such services.

In Kenya's health facilities, approximately 25% of outpatients and 40% of inpatients receiving treatment experience mental illness. Common diagnosis include depression, substance abuse, stress and anxiety.

In 2016, World Vision and partners demonstrated the effectiveness of Problem Management Plus (PM+) - a brief trans-diagnostic mental health intervention delivered by a Community Health Volunteers (CHVs) amongst women with a history of Gender-Based Violence. With Kenya's growing demand for, but limited mental health care workforce and services, PM+ offered Kenya's MoH the opportunity to task shift mental health care to primary and community levels.

Objectives/Methods

The objective was to establish a PM+ Implementation Framework aligned with Kenya's Mental Health Policy (2015-2030) for "affordable, equitable, accessible, sustainable and good quality" mental health care; accounting for women, men, gender roles and community diversity. Funded by Grand Challenges Canada, this was achieved by piloting the framework for PM+ in four Kenya counties to: build capacity of Kenya's community health workforce; and sustain CHVs to deliver mental health care.

Results

Partnership with Kenya's MOH demonstrated a successful approach to working with scale-up evidence-based interventions. PM+ Framework facilitated national and county ministries to scale-up PM+ and build the capacity of their health workforce; including 20 PM+ Master Trainers, 150 Primary Health Care Workers as PM+ Providers Trainers/Supervisors and 1560 CHVs as PM+ Providers who delivered PM+ to 4,800 clients of which 60% were women.

Lessons: Promoting mental health care, task shifting and integration of PM+ into clinical care and enhancing social support with families will not only reduced stigma associated with mental illness but also enhance treatment adherence for clients with other health conditions like HIV, which will significantly reduce the global burden of disease.

Mental health interventions can play a broader role in the reduction of GBV by supporting those at risk of perpetration as well as those who have already fallen victim to such violence.

Main Messages: With this framework, the MOH will bridge the gap of primary mental health care that can address the needs of the most vulnerable and advance the health of women and their families.

Lamptey, De-Lawrence
Bloorview Research Institute, Holland Bloorview Kids Rehabilitation Hospital, Canada

Health beliefs and behaviors of families toward the health needs of children with intellectual and developmental disabilities (IDD) in Ghana

Issue/Problem: It is common for families in Ghana to seek religious and spiritual interventions for their children with disabilities with the hopes of reversing the disabilities because of cultural beliefs that link the causes of disabilities with supernatural forces. Relatively little is known about how these beliefs influence the families' response to the health needs of children with disabilities, especially non-disability related health needs. This study explored the health beliefs and behaviors of families of children with intellectual and developmental disabilities (IDD) in Ghana toward the health needs of the children. This study therefore aligns with the advancement of children's health and rights.

Objectives and Methods: This study addressed the following research question: What are the health beliefs and behaviors of families toward the health needs of children with IDD in Ghana? The aim was to inform health promotion strategies for families of children with IDD toward Ghana's commitment to achieve the Sustainable Development Goals on equitable health for all. Twenty-two parents of children with IDD participated in this study. Semi-structured interviews were used in exploring the health beliefs and behaviors of the parents toward the children. The interviews were analyzed using constant comparison.

Results: Most of the parents self-prescribed medication to treat symptoms of ill-health in the children or waited for the symptoms to persist for a while before accessing healthcare because they experienced difficulties managing the behavioral problems associated with IDD in public and attitudinal barriers. Many parents did not patronize religious and spiritual interventions for the children. Meanwhile, some parents explained that in addition to seeking medical care to address the physical symptoms of the children's disabilities and/or illnesses, they sought religious interventions because they believed that there could be a spiritual dimension to the situation.

Lessons to date: The findings suggest that families are beginning to desist from religious and spiritual interventions in responding to the health needs of children with IDD in Ghana. However, difficulties families experience in managing the behavioral problems associated with IDD and attitudinal barriers may lead families to delay in accessing healthcare for the children in favor of self-medication. It appears that overconcentration of the literature on cultural barriers may be overshadowing other salient issues undermining equitable healthcare for children with disabilities in many developing countries.

Main messages: Supporting families in managing the behavioral problems associated with IDD is critical to promoting equitable healthcare for children with IDD in Ghana.

Lanktree, Esmé
Canadian Red Cross, Canada

Strengthening Red Cross emergency response capacity

Background: The Canadian Red Cross (CRC) deploys Emergency Response Units (ERUs) to respond to the health needs of those affected by humanitarian emergencies internationally. These deployments typically last up to four months. During and in the months and years following the emergency response, CRC works together with local National Societies to develop their capacity to respond to domestic emergencies. National Society staff and volunteers are the first on site following a disaster and know their country and population best; equipping them with the tools and skills to respond with their own field hospitals paves the way for quicker, more tailored and cost-effective responses in the longer term. National Societies with strengthened capacity are also less dependent on partners within the Red Cross Movement and international community.

To facilitate the humanitarian to development transition, CRC has donated equipment and supported classroom- and simulation-based trainings on their use in several countries, notably in the Philippines post-Typhoon Haiyan (2013), Nepal post-earthquake (2015), and Somaliland following a cholera outbreak (2017). CRC works with the National Societies to train local Red Cross staff, volunteers, and delegates, to deploy and use this equipment for subsequent emergencies.

Learning objectives: This video will introduce viewers to CRC's involvement in capacity strengthening of National Societies through training on setting up and running field clinics and field hospitals.

Viewers will learn about the Philippines Red Cross Society's achievements since Typhoon Haiyan in 2013. CRC staff supported PRCS to develop Emergency Field Hospital trainings, which they are now hosting regularly, and are responding frequently to domestic emergencies (e.g. volcanoes, cyclones), and are even requested to deploy pre-emptively for mass gatherings.

Viewers will also learn about the Nepalese Red Cross Society's creation of a Red Cross Emergency Clinic, following the emergency response to the 2015 earthquake, primarily for deployment to waterborne disease outbreaks. The Canadian Red Cross supported their first training of trainers, as well as their first theoretical and simulation-based Technical and Health Red Cross Emergency Clinic trainings. This included facilitation by CRC, PRCS and NRCS staff and delegates.

Through footage of trainings conducted in the Philippines, Nepal, and Canada, and the discussion following the viewing, viewers will gain an in depth understanding of the Canadian Red Cross' approach to maintain a connection with the National Society once the humanitarian phase is over and support them to adapt and deliver trainings to meet their country-specific objectives.

Main messages:

- The Canadian Red Cross supports National Societies following humanitarian crises to create their own emergency response capacity through practical, simulation-based trainings
- Through collaboration, National Societies such as the Philippines Red Cross Society and Nepal Red Cross Society have conducted their own trainings to build their own rosters of emergency response delegates

LeBlanc, John
Dalhousie University, Canada

Co-authors: Shawna O'Hearn, Dalhousie University, Canada

Successful scale up of "Comprehensive Emergency Obstetrical and Newborn Services" (CEmONC) in Tanzania. Mid-term results of a 5-year longitudinal study in 5 health centres

Issue: Tanzania is committed to reducing maternal and newborn mortality by scaling up comprehensive emergency obstetrical and neonatal care (CEmONC) to 50% of its health centres (HCs) by 2020. CEmONC includes regional anaesthesia, C-sections and care of sick or premature newborns. The five-year IDRC/GAC/CIHR-funded implementation research project called “Accessing Safe Deliveries in Tanzania” (ASDIT) is assessing the structural and social barriers in selected HCs to this scale-up.

Objectives and Methods: ASDIT includes a 3-month training program in 2016 where experienced nurse-midwives and clinical officers received postgraduate training in anaesthesia and obstetrical techniques and deliver these services in HCs with regular post-training mentorship. ASDIT is tracking 5 intervention health centres and 2 control health centres in Morogoro region from 2016 to 2020. Evaluation includes analysis of health services and HC maternity log books, staff questionnaires, and community focus groups. This presentation focuses on changes in intervention HCs from 2016-2018.

Results: 8 of 20 clinicians who underwent the 3-month training program currently deliver CEmONC services in all 5 intervention HCs. In 2018, mentorship/supportive supervision visits were held every three months. Local and regional decision makers helped HCs receive appropriate resources to deliver CEmONC services. HCs were regularly out of stock of essential supplies but noted improvement in supply management in 2018. Delivery rates doubled from pre-intervention 174/month in the five HCs to 349/month in 2018 while HC referral rates to district hospitals remained stable or dropped. Since training, 750 C-sections were done with no related maternal deaths. Newborn deaths cannot be accurately assessed due to inadequate recording. Baseline focus group discussions revealed that women feel empowered to make decisions about family planning and choice of birth facility but still depend on men for decisions affecting family finances.

Lessons: This study highlights factors that hinder women accessing health care facilities for antenatal, natal and postnatal care. Incorporating qualitative methods into the overall project provides evidence to understand the behavioural, cultural and social contexts factors hindering pregnant and post-partum women accessing health care facilities.

1. Offering CEmONC services increases delivery rates at HCs and reduces referrals to district hospitals.
2. Non-physician clinicians can do C-sections safely, are accepted by their communities but require regular supportive supervision.
3. Involvement of local and regional decision makers is key to successful CEmONC delivery.
4. Mothers feel empowered to make health decisions.

Messages:

- CEmONC services can be delivered safely in HCs by non-physician clinicians in resource-poor settings when basic supply management and supportive supervision are in place and health decision makers are actively involved
- Incorporating qualitative methods into the overall project provides evidence to understand the factors hindering pregnant and post-partum women accessing health care facilities.
- Importance of mentoring and ongoing training for new CEmONC graduates was identified by the health care team as well as community members

Mac-Seing, Muriel
Université de Montréal, Canada

Co-authors: Muriel Mac-Seing, Université de Montréal, Canada; Kate Zinszer, Université de Montréal, Canada; Christina Zarowsky, Université de Montréal, Canada,

The uneasy relationship between policy and sexual and reproductive health service utilisation services by people with disabilities in Northern Uganda

Problem: About one person in five in Uganda lives with disability. Cited as an exemplary disability rights promoter among sub-Saharan African countries, Uganda adopted several pro-disability legislation and policies. Sexual and reproductive health (SRH) is also at the core of its socioeconomic development plan.

Objectives and Methods: This qualitative study explores the perceptions of different policy actors, including people with disabilities (PWD), regarding the relationships between legislation, health policy and utilisation of SRH by PWD in the post-conflict Northern Uganda. We conducted 32 and 13 semi-structured in-depth interviews with adult women and men with disabilities (i.e. physical, vision, hearing and mental) and nationally-based actors respectively; nine focus groups with health staff (n=50), representatives of disabled people's organisations (DPO) (n=8), and PWD (n=12); and non-participant observations of health facilities (n=6), in three districts. We report preliminary thematic analyses. Intersectionality theory, the ultimate goal of which is social justice, is used as the theoretical and analytical framework.

Results: Preliminary findings suggest a very limited level of awareness among PWD of the existing legislative and policy instruments supposed to protect their SRH rights, combined with multiple environmental, attitudinal and communication barriers to access to and use SRH services. Often, due to ableism and cultural beliefs that disabled people are "cursed", PWD especially pregnant women with disabilities, report being discriminated against at the point of service delivery by health personnel. Very few women with disabilities are aware of and use family planning. Women with disabilities are more likely to be abused sexually, and those who have children are more likely to live without their male partners, while men with disabilities are in a relationship with one or more wives, hence influencing their gender roles and pattern of SRH service utilisation.

Lessons to date: Health personnel and DPOs are cognizant of the multiple jeopardy people with disabilities are facing, and are proposing solutions to improve the access of PWD to SRH services, such as training disabled people, health workers and decision-makers on disability rights and friendly service provision, hiring disabled workers in health facilities, and collecting data on and monitoring the health needs of PWD over time.

Main messages: The initial study findings provide evidence that the Ugandan policy-makers, its health system and its SRH service providers can no longer ignore 20% of its population which lives with disability, while identifying policy and programmatic gaps to improve the SRH rights of people with disabilities.

Maltais, Stéphanie
Université d'Ottawa, Canada

La gestion résilience des crises sanitaires dans les États fragiles. Étude de la crise d'Ebola en Guinée.

Les crises sanitaires touchent tous les pays du monde, mais l'impact est plus grand sur les États fragiles en raison de l'inefficacité des institutions, d'un manque de résilience ou encore des économies précaires. Le cas d'Ebola en Guinée, est un exemple des lacunes dans les préalables de la résilience, ayant mené à des difficultés dans la gestion de la crise. Le renforcement des systèmes de santé permet d'accroître la capacité de réponse aux crises sanitaires et diminue, par le fait même, l'ampleur de ces crises et la dépendance de l'État fragile face à l'aide internationale.

L'étude de cas unique cible les acteurs internationaux, nationaux et locaux, ayant participé à la gestion d'Ebola en Guinée, et analyse leurs méthodes d'intervention en les comparant aux variables de la résilience sanitaire. Les données ont été collectées en Guinée, entre mars et août 2017. Grâce à une approche multiscalaire, quarante entretiens ont été réalisés avec des parties prenantes et plus de trente-cinq événements (réunions, conférences, ateliers et autres) liés à la gestion des crises sanitaires ont été observés. Enfin, l'analyse documentaire vient compléter la triangulation des données.

C'est à travers la théorisation ancrée que les résultats ont été analysés. Depuis l'épidémie d'Ebola en Guinée, les acteurs sont conscients des lacunes et des besoins à combler en vue d'avoir un système résilient. Avant Ebola, il y avait des faiblesses dans toutes les dimensions de la gestion des crises en Guinée (surveillance, coordination, gestion des données, communication, prise en charge, logistique, etc.). Depuis Ebola, l'État a mis en place divers mécanismes de renforcement du système de santé comme une augmentation du budget accordé à la santé; le recrutement de 4000 agents de santé; la mise en place d'une Agence nationale de sécurité sanitaire et de 8 équipes régionales polyvalentes d'alerte et de riposte aux épidémies; l'évaluation interne et externe du Règlement sanitaire international; des mécanismes d'harmonisation de la coordination du secteur de la santé; etc.

Étant donné les lacunes en termes de résilience avant Ebola, il faut s'attendre à ce que la Guinée prenne encore beaucoup de temps avant de mettre en place un système résilient selon le modèle proposé dans la littérature. Le pays est encore trop dépendant des partenaires techniques et financiers. Par contre, il est possible de dire qu'il dispose désormais de certains mécanismes, qu'on peut lier aux variables de la résilience sanitaire, qui permettraient de mieux organiser la réponse face aux crises

Mandu, Rogers
Makerere University, School of public Health, Uganda

Swimming against the tide to save small babies in Eastern Uganda; the experience of the pre-term birth initiative.

Swimming against the tide to save pre-term babies in Eastern Uganda; the experience of the pre-term birth initiative.

Problem: Globally, each year, an estimated 13 million infants are born before 37 completed weeks of gestation. Complications from preterm births are the leading cause of neonatal mortality. Preterm birth is directly responsible for an estimated one million neonatal deaths annually and is also an important contributor to child and adult morbidities.

Low- and middle-income countries are disproportionately affected by preterm birth and carry a greater burden of disease attributed to preterm birth. Causes of preterm birth are multifactorial, vary from gestational age to geographic and ethnic contexts.

Interventions like antepartum maternal steroid administration and kangaroo mother care for improved preterm neonatal survival after birth have been demonstrated to be effective.

Objectives and Methods: The University of San Francisco in collaboration with Makerere University, school of public health Preterm Birth Initiative encourages the use of these practices through a facility-based, intrapartum intervention package in selected Hospitals in the Eastern region of Uganda.

Collaborative quality improvement (QI) network among four (4) Hospitals was established; where QI cycles are used from locally generated data to manage preterm labour. Mentorship in clinical skills was done every two weeks for 18 weeks. Four learning sessions were conducted for best practices learning since January 2017.

Data strengthening sessions on the use of the modified safe birth child checklist were conducted quarterly for 24 months. Data from the facility registers and files is extracted, cleaned and entered into the dashboard. Report cards are generated from the outcome data to inform the quality improvement initiatives for each Hospital.

Effects: Gestational age estimation improved from 35% in December 2016 to 85% by January 2018; giving of antenatal corticosteroids improved from 10% in December 2016 to 95% in January 2018; Kangaroo mother care improved from less than 10% in December 2016 to 100% in January 2018.

Pre-discharge mortality for preterm babies reduced from a median rate of 10.1 per 1000 live births in December 2016 to 7.8 in in January 2018.

Lessons to date: Doing a little more saves more preterm babies and therefore reduce neonatal mortality; Collaborative improvement learning is a driver of change in a health system.

Main messages: What can be measured can be improved; Champions emerge in a supportive work environment and improvements can be sustained; Change is a slow process but once attained can be sustained.

Mauluka, Chancy
UNICEF, Malawi

Rebranding Culture for Social Accountability-the case of Bwalo Forums in Malawi

In Malawi, demand for health services is constrained by irresponsive supply due to a number of factors that include lack of accountability on the part of duty bearers. For instance, in 2016, 54% of women had no access to family planning services when they needed them while 60% of facilities has no basic staff, and 86% had no transport for referral. To counter this background, UNICEF launched a social accountability project to increase citizen voice for improved services in reproductive, maternal, neonatal, child, and adolescent health. The project, which reaches 48% of the population in 5 districts, is underpinned on the premise that citizen empowerment will improve services and consequently health standards.

To increase the citizen voice, the project pioneered a Bwalo Model. The approach is an innovative resuscitation of an ancestral indigenous mode of community dialogue through which all elders and opinion leaders frequently met in a round forum (the Bwalo) to discuss and address diverse issues affecting their community. Emulating and repositioning this indigenous mode, community Bwalos constitute representatives from all active groups in the village. Representatives gather information to generate evidence on issues affecting demand and perceived quality of services. Such evidence is presented to duty bearers at community, health center, and district levels where they demand action from the supply side. Issues that cannot be addressed at district level are referred to national platforms that include the Social Accountability Technical Working Group, the Parliament, and the Ministry of Health. The media amplifies the Bwalo voices through features and radio drama to create public agenda.

Using evidence from the Bwalos, districts are responding to over 50% of the issues raised. Health workers are developing positive attitudes towards clients while communities are promoting care-seeking behaviors e.g. early Antenatal Care visits, health-center deliveries, birth preparedness, and male involvement. Politicians, civil society and district authorities are getting engaged by communities to improve infrastructure, staffing, and supply/safety of commodities. At national level, the health budget was increased by 14% from 2016 to 2017.

The overarching idea emerging from this intervention is that using cultural forms expression as citizen voice can improve service provision and promote positive behaviors. The activity also engenders a lesson that advocacy for change can be done while working with the targeted population (duty bearers) as allies rather than adversaries. In addition, it demonstrates the power of on-going dialogue as a research method for generating evidence for change.

Mmanyi Mtenga, Sally
Ifakara Health Institute, United Republic of Tanzania

'A man has seven ribs, so a woman has to obey him in everything'. Gender inequality and reproductive and maternal health of adolescents and young women in rural Tanzania

Background: Maternal mortality has increased in Tanzania, partly due to underutilization of maternal and reproductive health services (MHs and RHs). Young women and adolescents girls are the most affected. Gender inequality is one of the barriers in accessing reproductive health services. We conducted a study to explore the dimensions of gender inequality in Tabora region to inform specific CARE project interventions.

Methods: Qualitative mixed methods (9-diaries, 30-In-depth Interviews (IDIs) and 4-Focus Group Discussions (FGDs) were used. We explored experience and norms related to gender relations, MHs, RHs and socioeconomic opportunities for adolescents and women. Adolescent girls and boys (age 15 to 17), women and men (age 18-49), community and religious leaders and in-laws were the main participants. Thematic analysis was employed. For action and interpretation, the study findings were presented using the CARE Gender Equality Framework (CGEF).

Results: Findings presented using the CGEF framework: Build agency (community structures have limited ability to defend the rights of women and girls against abuse and violence, young women and girls are not empowered to fight for their rights), Change relations (sexual abuse, abandonment by partner/husband, unfriendly attitude of parents and health care providers towards adolescents' use of contraceptives, unfriendly attitude of health care providers towards young women, boy child preference, married women's denial of rights to decide the use and sale of crops), lack of rights to own land), Transform structures (forced early marriage (limited decisions on when/whom to marry), denial of rights to pursue secondary school, girls being perceived as inferior to boys, intimate partner violence following the use of family planning, men's negative attitude towards child spacing, women's ascribed role (child bearing), women's misconception and harmful beliefs on FP. These aspects were found to constrain adolescents and young women's access to socioeconomic opportunities and MH and RH services.

Conclusion: Women and girls in Tabora still suffer from gender discriminatory social norms and violence, which if not addressed could be a setback to efforts invested to improve maternal, neonatal health and socioeconomic development among adolescents and women. Integration of gender equality interventions into health system strengthening are needed to achieve the intended reproductive and maternal health outcomes. Addressing gender inequality among adolescent girls and women should be prioritised and supported in all sectors by clear policies and legal structures. To maximize opportunity in addressing gender inequality in Tanzania, men should be used as pioneers.

Mulumba, Moses
Center for Health, Human Rights and Development, Uganda

Religion, Culture and Politics as Drivers of unsafe abortions in Uganda: Implications for Sexual, Reproductive health and Rights for Women

Problem

Despite the overwhelming evidence of the negative effects of the criminalisation abortions, many countries including Uganda have chosen the path of keeping such offences on their statute books. While some of the offences are historically kept on their penal, some of these countries have also taken the bold steps to develop specific legislation to further criminalise abortions. The global developments such as the United States Gag rule have also undermined efforts to decriminalise access to abortion services. In Uganda, induced abortion is a very common phenomenon. Because of the legal restrictions almost all abortions are clandestine, and large proportions are performed under dangerous conditions. Stigma and negative values are a major factor that drives up the incidence of unsafe abortion. These do not only hinder women from seeking safe abortion services, they also affect the decision of a health service provider to provide this service. This results into a major hindrance in research and developing solutions to deal with unsafe abortion.

Objectives and Methods:

This paper presents lessons learnt from a three year project whose goal is to increase access to safe and legal abortion in Uganda through the networking and coordination civil society advocacy groups. The results presented in the paper demonstrate the kind of innovative advocacy approaches that are central to advancing women's sexual reproductive health and rights in highly 'moralized and religious' communities.

Results and Lessons:

The advocacy work in this project has demonstrated that there is a positive relationship between the criminalization of sexual reproductive health aspects that affect women's rights and the political, cultural and religious environment in the country and globally. Whereas, many of the current laws carrying such offences largely originated from colonial times, there is an active process that continues to support this criminalization that is deeply rooted in the religious, cultural and political environment of the country. These have the effect of acting as negative drives for advancing sexual reproductive health and rights of women. It is therefore important to have an active process that engages this opposition through both dialogues and dissent as a way of advancing the sexual reproductive health and rights of women. Working through advocacy coalitions, civil society groups can go a long way in mitigating the impacts of regilion, culture and politics

Main messages:

Culture, Religion and Politics are into a major hindrance in research and developing solutions to deal with unsafe abortion.

Mwamba, Dieudonné
Université de Montréal, Canada

Leçons apprises de la gestion des épidémies de la maladie à virus Ebola en République Démocratique du Congo de 2007 à 2017.

Problématique

La République Démocratique du Congo a un écosystème favorable à la survenue des maladies d'origine zoonotique à l'interface homme –animal dont la maladie à virus Ebola (MVE). Face à une létalité reconnue être élevée pour cette dernière, notre étude s'est intéressée aux mécanismes de gestion des épidémies récurrentes d'Ebola survenues à Mweka (2007 et 2008), à Isiro (2012), à Boende (2014) et à Likati (2017).

Objectifs et Méthodes

L'objectif de l'étude est de décrire les différents éléments de réponse mis en place lors de chacune de ces épidémies et identifier ceux qui ont une influence significative sur l'ampleur et la létalité.

Une étude transversale analytique a été menée sur les données secondaires recueillies lors de la gestion de ces cinq épidémies de la Maladie à virus Ebola. Les statistiques descriptives ont été réalisées pour caractériser chaque épidémie. Les analyses univariées de chaque élément de réponse ont été menées en rapport avec la létalité. Les comparaisons de décès selon les différentes modalités de types des réponses ont été effectuées par la comparaison des rapports de cotes (Odds Ratio) associés.

Résultats

Un total de 422 cas a été enregistré avec 282 décès soit 66,8 % de létalité. La grande majorité de cas se trouve dans la tranche d'âge de 15 à 49 ans. Le sexe féminin est le plus représenté. Parmi tous les éléments de la réponse, dans un modèle univarié, le déploiement du laboratoire mobile (p=0,002), la fonctionnalité des commissions (p=0,001), le déploiement d'une équipe multidisciplinaire et le système de surveillance performant (p=0,001) sont en association avec la létalité.

Leçons tirées

Lors de ces cinq épidémies de la MVE enregistrées en République Démocratique du Congo, l'étude a permis de démontrer que tous les éléments de réponse ne sont pas en association significative avec la létalité. Cependant le déploiement rapide du laboratoire mobile sur le terrain, le déploiement des équipes multidisciplinaires, la bonne fonctionnalité des commissions et le système de surveillance fonctionnel permettent de réduire significativement la létalité, ce qui a fait défaut en Afrique de l'Ouest en 2014.

Principaux messages

- La détection et la mise en place de la réponse aux épidémies d'Ebola doivent être rapides.
- Une réponse coordonnée avec des équipes multidisciplinaires est essentiel pour une gestion efficace d'une épidémie d'Ebola.

Mwangi-Powell, Faith
Options Consultancy Services, Kenya

Co-authors: Faith Mwangi-Powell, The Girl Generation, Options Consultancy Services, Kenya; Liza Akinyi, The Girl Generation, Options Consultancy Services, Kenya; Asenath Mwithigah, The Girl Generation, Options Consultancy Services, Kenya; Harsley Wesisi, The Girl Generation, Options Consultancy Services, Kenya; Jo Hemmings, The Girl Generation, Options Consultancy Services, UK

Accelerating Social Change, to end Female Genital Mutilation in three African Countries

The Issue/Problem: Female genital mutilation (FGM) is a harmful practice, sustained by deeply rooted socio-cultural norms, and a form of gender-based violence (GBV) that has affected over 200 million women and girls globally. For the practice to end, collective community social change is needed. Social change communication (SCC) can accelerate such change by penetrating engrained norms, paving the way for collective action to end FGM.

Objectives and Methods: The Girl Generation is a SCC initiative with the objective of ending FGM in ten of the most affected countries in Africa. Our approach is to build a critical mass of people working to end FGM at all levels, from the national to community. Central to our approach is a SCC 'training the trainer' (TOT) model, complemented by a grassroots funding platform to scale up effective social change. Through a mixed methods study, we evaluated the contributions of our SCC training in ending FGM in three countries (i.e., Kenya, Nigeria and the Gambia). To date we have trained 468 TOTs across the three nations, who have in turn trained over 40,000 people. We evaluated the impact our TOT model upon 20% (n=82) of those trained.

Results (effects/changes): Sixty-five percent of our sample reported the SCC training had resulted in a scaling up or improved effectiveness of their communications to end FGM. There was also evidence of positive stories of change, where youth champions and communities are sparking new norms shifts and transforming the social norms underpinning FGM. For example in Nigeria a community dialogue with expectant mothers saved 341 babies from undergoing FGM, in Kenya young people denounced FGM for their future children and in the Gambia political leaders declared a ban on FGM.

Lessons: The SCC training, in particular the focus on social norms and 'do no harm', has been transformational among FGM activists, changing their approach to working with communities to end FGM and broader GBV.

Key messages: (1) SCC is an effective 'lever for change' that can be used to accelerate social change; (2) By changing communications across various actors, we can transform the way they communicate, creating local ownership for ending FGM, and; (3) Promoting our 'do no harm' approach has resulted in sensitive, locally-led conversations about FGM and breaking the pervasive cycle of silence.

NKURUNZIZA, Edouard
Memisa, Burundu

Co-authors: Felipe SERE, Memisa, Belgium; Elies VAN BELLE, Memisa, Belgium; Edouard NKURUNZIZA, Memisa, Burundi

Private Mutual funds in Burundi: an opportunity for Universal Health Coverage or a step towards a fragmented health system?

Burundi's health system faces important challenges regarding fragmentation within the sector. The non-profit private sector, organized as local and regional mutual funds, is supported by international organizations and competes with the public insurance, the Medical Assistance Card, by targeting the same population. The mutual funds, organized within a national platform, are currently working towards harmonizing their efforts and building strong and sustainable national mutual funds. This non-for-profit private sector is however not considered in the process of Universal Health Coverage (UHC) by the national health authorities.

This article focuses on the coexistence between the non-for-profit private mutual funds and the public sector. We underline the risks and opportunities of this synergy and develop different possible scenarios based on official positions and considered strategies of the mutual funds, the national public health system and the local authorities. The role played by international stakeholders is also a key factor when studying the situation. Indeed, the international development sector is highly fragmented in their support to the health system and their actions create controversy and confusion among national stakeholders. We present an innovative approach to these interactions based on win-win single payer strategies. By placing shared values at the centre, we foster good governance, nurture healthy communication between parties and strengthen the health sector while taking into account existing and functioning organizations as well as Burundi's history and national health strategy.

By the end of the 20th and beginning of the 21st century, international organizations filled the gap of health coverage by promoting and supporting local non-for-profit mutual funds. A few years later, the mutual funds were acknowledged and authorized by the Ministry of National Solidarity. Both public and private systems coexist, competing with each other and therefore increasing the financial risk for the population. Our research builds bridges between the two sectors, recognizing their strengths and difficulties and emphasizing the opportunity of learning from both sectors.

The learnings apply for countries with public-private interactions and/or a fragmented national health system. The focus of this piece is useful for researchers, policymakers and development cooperation organizations, working on closing the gap of financial access to health. To study, acknowledge the existence and rethink the interactions between both sectors, would benefit the path towards UHC.

Novignon, Jacob
Kwame Nkrumah University of Science and Technology, Ghana

Towards achieving the health-related SDGs: the role of unconditional cash transfers in Africa

Improving health care access and outcomes continue to dominate global development agenda. In the SDGs various targets have been set to ensure significant progress by the year 2030. This is particularly relevant in Africa where several countries lag behind in health outcomes. In recent years many governments in the region have turned to cash transfer programmes with the aim of improving poverty, education and health outcomes. However, while unconditional cash transfers have demonstrated widespread, positive impacts on consumption, food security, productive activities, and schooling, the evidence to date on health seeking behaviors and morbidity in the context of unconditional cash transfers in Africa is more limited. Against this backdrop, we investigate the impact of unconditional cash transfers on morbidity and health seeking behavior using data from experimental and quasi-experimental study designs in Kenya, Malawi, Zambia and Zimbabwe. Programme impacts were estimated using Difference-in-Differences (DiD) estimation technique with longitudinal data.

Results

The results indicate favourable programme impacts on selected health indicators (incidence of illness) and health seeking behaviours. There was also protective impact on health expenditure. The findings were, however not consistent across countries. We also found that, in some countries, programme impact worked through supply side factors, including improved health care quality.

Lesson

The findings suggest that while unconditional cash transfers could improve health and health seeking, simultaneous improvements in supply side infrastructure, or facilitation of linkages between existing facilities and cash transfer households, is likely needed for more widespread impacts on morbidity and health seeking to materialize. These include ensuring easy access to health care infrastructure.

Main message

Cash transfer (CT) programmes are fast becoming popular in SSA. The primary objective of these CTs is to reduce poverty. We show that, there may be significant public health benefits of CTs. Our results suggest that, aside improving health outcomes, CTs also provide financial risk protection in seeking health care.

Oga-Omenka, Charity
School of Public Health of the University of Montreal, Canada

Co-authors: Charity Oga-Omenka, School of Public Health of the University of Montreal, Canada; AderonkeAgbaje, Institute of Human Virology Nigeria, Canada; Joseph Kuye, National TB Control Program Nigeria, Canada; Richard Menzies, McGill University International TB Centre, Canada; Christina Zarowsky, School of Public Health of the University of Montreal, Canada

Predictors of Treatment Initiation and Timeliness among Drug-Resistant Tuberculosis Patients in Nigeria

Background: Nigeria has one of the lowest tuberculosis (TB) case detection and treatment rates in the world despite offering free drug-resistant (DR) TB services since 2011. DRTB survival rates are lower and treatment more difficult, however, survival is optimized with early detection and treatment enrollment within 4 weeks of diagnosis. Studies on DRTB care access in sub-Saharan Africa are rare. This study explored structural, provider and patient factors associated with the timeliness of treatment access among DRTB-diagnosed patients in Nigeria.

Methods: As part of a sequential mixed methods study, we conducted a retrospective cohort study using 2015 diagnosis and treatment data from the National TB program in Nigeria to examine "treatment ever received" (yes/no) and "treatment within 30 days" (yes/no). We compared systemic and patient characteristics between groups using chi-square and binomial logistic regression, controlling for confounders.

Results: 996 patients were diagnosed with DRTB in 2015 with 47.8% untreated. The patients were aged 0-87 years (median 34 years), and 64.4% were males. Of the 520 patients treated, 51.2% were treated within 30 days, 26.6% between 31-60 days, and 22.2% after more than 60 days.

Treatment initiation was significantly associated with patient test center location ($\chi 2 = 26.82$, $p= 0.020$, effect size =0.164). Timely treatment initiation was also significantly associated with the patient treatment location ($\chi 2 = 76.69$, $p<0.0005$, with a moderate effect size =0. 385), whether patients were enrolled in the hospital or directly within the community ($\chi 2 = 14.3$, $p< 0.0005$, effect size =0.166), and type of treatment facility ($\chi 2 = 52.5$, $p=<0.0005$, with a moderate effect size =0.318). The strongest predictors of treatment enrollment in logistic regression models were patient test location, and age group (with >60 years 5 times less likely than 0-19 years). The strongest predictors of early treatment initiation were patient treatment location (e.g. Benue State patients were 4.7x more likely than those in Abia) and geopolitical zones (4.8x more likely in the South West than in North Central).

Conclusions: Disparities, mainly at the community or state levels, hamper timely access to diagnosis and treatment services, and thus, patient's survival and treatment outcomes. Type of care facility and being initiated in the community were associated with earlier treatment initiation, suggestive of delays in MTB/RIF Assay diagnosis and hospital admission processes. The National TB Program should engage communities and State teams in order to promote prompt bacteriological diagnostic procedures and timely treatment access for DRTB.

Pablo, Lesley
Queen's University, Canada

Co-authors: Lesley Pablo, Queen's University, Canada; Colleen Davison, Queen's University, Canada

Exploring fathers' familial role and its effects on child health in Mongolia between 2005-2013

Issue: Over the last two decades, Mongolia has experienced dramatic socioeconomic and climate changes that have significantly impacted nomadic migration, family livelihoods, and gender roles. There are concerns over the effects a decline in pastoral lifestyles is having on family and child health and on gender relations in Mongolia. While some gender-focused research exists, limited research examines the child health effects of the loss of identity and changing roles of men specifically in Mongolia.

Objectives and Methods: This is a historical, multiple cross-sectional study using point-prevalence data on father engagement and health outcomes for children aged 3-4 years from the Mongolian Multiple Indicator Cluster Surveys (MICS) conducted between 2005-2013. Father engagement is measured using indicators relating to six activities (e.g. reading or playing with their children, taking the child out of the compound, etc.). A p-test for trend is used to determine statistically significant changes over the 8-year period. Associations between the level of father engagement and risk of disease in children aged 3-4 years are being explored using multivariate Poisson regression to adjust for potential confounding variables. Child disease indicators include the occurrence of diarrhoea, cough, or fever in the child.

Preliminary Results: In the 2005, 2010, and 2013 MICS, prevalence of children whose father engaged them in at least one activity in the three days prior to the survey was 49.1%, 38.4%, and 46.1%, respectively ($p\text{-trend} < 0.05$). Prevalence of father engagement in at least 1 activity was higher with higher parental educational attainment and amongst wealthier families for all three time-points. Associations between father engagement and child disease outcomes are currently being determined and will be presented.

Lessons to date: There is strong rationale for examining changing gender and social roles as they relate to family and child health outcomes in Mongolia. Prevalence of fathers engaging in different activities with their children fluctuated between 2005-2013 and analyses are ongoing. This study will fill an important gap in our knowledge around the child health effects of father engagement and how these patterns might be changing.

Main messages: Little is known about the effect of changes in the father's role on child disease outcomes. This unique study describes changes in father engagement with their children and its association with child illness indicators during a period of rapid socioeconomic and climate change in Mongolia.

Percival, Valerie
Norman Paterson School of International Affairs, Carleton University, Canada

Are health system interventions gender blind? examining health system interventions in fragile states

Issue: Global health policy prioritizes improving the health of women and girls, as evident in the Sustainable Development Goals (SDGs), multiple women's health initiatives, and the billions of dollars spent by international donors and national governments to improve health service delivery in low-income countries. Despite this attention, research and policy do not sufficiently explore how health system interventions contribute to the broader goal of gender equity.

Methods: This paper utilizes a framework synthesis approach – a systematic approach to analyse available evidence and develop themes and frameworks to guide subsequent inquiry – to examine if and how rebuilding health systems affected gender equity in Mozambique, Timor Leste, Sierra Leone, and Northern Uganda. We utilized the WHO health systems building blocks to establish benchmarks of gender equity. We then identified and evaluated a broad range of available evidence on these building blocks within these four contexts. We reviewed the evidence to assess if and how health interventions during the post-conflict reconstruction period met these gender equity benchmarks.

Results: Our analysis shows that in none of the four countries did health systems meet gender equitable benchmarks. Across all four contexts, health interventions did not adequately reflect on how gender norms are replicated by the health system, and conversely, how the health system can transform these gender norms and promote gender equity. Moreover, gender inequity undermined the ability of health systems to perform efficiently and effectively improve health outcomes for women and girls. From our findings, we suggest the key attributes of gender equitable health systems to guide further research and policy.

Lessons: The use of gender equitable benchmarks provides important insights into how interventions have neglected the role of the health system in addressing gender inequities. Given the frequent contacts made by individuals with health services, and the important role of the health system within societies, the gender blind nature of health system engagement in the post-conflict period has missed an important opportunity to contribute to more equitable and peaceful societies.

Perehudoff, Katrina
University of Toronto, Dalla Lana School of Public Health, Canada

The right to health as the basis for universal health coverage and equitable access to medicines: A cross-national analysis of national legislation from 16 mostly LMICs

Universal health coverage (UHC) aims to ensure that all people have access to health services including essential medicines without risking financial hardship. In many low- and middle-income countries (LMICs) inadequate UHC fails to ensure universal access to medicines and protect the poor and vulnerable against catastrophic spending in the event of illness. National legislation has the potential to remedy these inequities yet it is an understudied determinant of medicines accessibility. This study aimed to compare legal text for medicines affordability and financing in UHC legislation from 16 mostly LMICs (Algeria, Chile, Colombia, Ghana, Indonesia, Jordan, Mexico, Morocco, Nigeria, Philippines, Rwanda, South Africa, Tanzania, Turkey, Tunisia, Uruguay) using descriptive content analysis. We developed and used a 12-point policy checklist of principles for health systems and human rights principles in national law and policy based on WHO policies and international human rights law. We found that legal rights and State obligations towards health and medicines are codified in the national law of countries with UHC, while principles for good governance are much less common. Some technical principles to implement medicines affordability and financing are frequently embedded in national UHC law (i.e. pooled user contributions and financial coverage for the vulnerable), while other principles are infrequent (i.e. Sufficient government financing) to almost absent (I.e. seeking international cooperation). We found that wealthy countries tended to embed explicit rights and obligations, clear boundaries to those rights and obligations, and mechanisms for accountability and redress into domestic law while less affluent countries did not. This study offers concrete examples of how principles for medicines affordability and financing are codified in national UHC laws of 16 mostly LMICs. These examples can be tools for policy makers in LMICs aspiring to design predictable, transparent, and accountable UHC schemes that can lead to more responsive, equitable, and sustainable medicines access.

Rab, Faiza
Western University, Canada

Effective strategies for implementing childhood vaccination programs in fragile countries

Issue

Despite an emphasis on childhood vaccination programs as being the most effective intervention in reducing childhood mortality, millions of children remain unvaccinated globally; the majority of whom live in countries in 'fragile states' with crumbling health infrastructure and poor healthcare delivery. Due to lack of infrastructure and poor accessibility, fragile countries are more likely to have gaps in the delivery of immunization programs. To get a measure of pragmatic solutions for supporting health systems within these 'fragile countries,' it is imperative to understand how existing services operate in these countries.

Objectives and Methods

Our aim was to identify strategies to improve childhood vaccination uptake in 'fragile' countries and compare community-based programs for their effectiveness.

'Childhood,' 'immunization' and 'fragile states' were key concepts identified for systematic literature search, limited to the English language, conducted between January and March 2017 by two independent reviewers. Screening results were compared at three levels and kappa statistics calculated at each level. Cochrane collaboration criteria and Effective Public Health Project tool (EPHPP) were used to assess the risk of bias.

Data extraction included the year of the study, location, setting, study design, characteristics, type of vaccination assessed in the study, the intervention or campaign, control, vaccination outcomes, study limitations and measures of effect (OR, RR) describing an increase in coverage or decrease in dropout and missed vaccination. Random effects model was used to evaluate the effectiveness of vaccination programs.

Results

Twenty-seven studies published between 1996 and 2016 were identified as effective community-level strategies for childhood vaccinations in fragile countries. Kappa for the three levels of screening ranged from substantial to good (0.75, 0.61, 0.58). The included studies had low to moderate risk of bias. Identified strategies included: recall and reminder through SMS texts, phone calls, reminder stickers and cards; health education programs; microplanning strategies; monetary incentives. Data was collected from 43,018 participants. SMS text reminders were found to be the most effective intervention (RR 1.32, CI: 1.14 to 1.52).

Key messages

- SMS reminders are an effective way for vaccination coverage in fragile countries with higher parent satisfaction.

- Educating spiritual leaders, youth and care providers, including communities in planning and implementation of vaccination campaigns, have the potential for long-term vaccination uptake.

- Integrating childhood vaccinations with animal vaccinations in pastoralist and nomadic communities are effective ways to improve childhood vaccination.

- Use of monetary incentives for vaccinations may not be sustainable over time.

Reddy, K Srikanth
McGill University, Canada

The financial sustainability of the World Health Organization: Funding proposals and the political economy of global governance

The World Health Organization (WHO) continues to experience immense financial stress. The precarious financial situation of the WHO has given rise to extensive dialogue and debate. This dialogue has generated diverse technical proposals to remedy the financial woes of the WHO, and is intimately tied to existential questions about the future of the WHO in global health governance. In this paper, we review, categorize, and synthesize the proposals for financial reform of the WHO. It appears that less contentious issues, such as convening financing dialogue and establishing a health emergency programme received consensus from member states. However, member states are reluctant to increase the assessed annual contributions to the WHO, a de facto endorsement for greater autonomy for the Organization. The WHO remains largely supported by earmarked voluntary contributions from states and non-state actors.

We argue that while financial reform requires institutional changes to enhance transparency, accountability and efficiency, it is also deeply tied to the political economy of state sovereignty and ideas about the leadership role of the WHO in a crowded global health governance context.

Riddle, Alison
University of Ottawa, Canada

Co-authors: Alison Riddle, University of Ottawa, Canada; Vivian Welch, Bruyère Research Institute, Canada; Elizabeth Ghogomu, Bruyère Research Institute, Canada; Alomgir Hossain, University of Ottawa Heart Institute, Canada; Paul Arora, Dalla Lana School of Public Health, University of Toronto, Canada; Simon, Cousens, London School of Hygiene and Tropical Medicine, Canada; Michelle Gaffey, Hospital for Sick Children, University of Toronto, Canada; Rehana Salam, Aga Khan University, Canada; PeterTugwell, University of Ottawa, Canada; Zulfiqar Bhutta, Hospital for Sick Children, University of Toronto, Canada; George Wells, University of Ottawa Heart Institute, Canada

Mass deworming to improve the health of children in endemic helminth areas: Systematic review and individual participant data network meta-analysis

Issue: Soil transmitted (or intestinal) helminths (STH) affect millions of children worldwide. Previous systematic reviews have disagreed about the effects of mass deworming on child welfare outcomes.

Objectives and Methods: The primary objective was to use individual participant data network meta-analysis to explore whether the effects of different types and frequency of deworming drugs on anaemia and growth vary with child-level and study-level characteristics. We included randomized and quasi-randomized trials of deworming children (6 months to 16 years) for STH compared to placebo or other interventions (e.g. iron or micronutrients) with data on weight, height, hemoglobin or serum ferritin.

Results: We identified 41 eligible studies which included 40,361 participants. Of these, we received data from 19 RCTs with 31,945 participants. We found no effect for STH deworming vs placebo on weight gain (0.01 kg, 95%CI: -0.08, 0.11), on height (0.09 cm, 95%CI: -0.08, 0.27), or on haemoglobin (0.32 g/L, 95%CI: -0.63, 1.26). STH deworming with iron or micronutrients compared to placebo increased hemoglobin (1.98 g/L, 95%CI: 0.74, 3.21). Deworming with praziquantel resulted in an increase in hemoglobin compared to placebo (1.85 g/L, 95%CI: 0.53, 3.18). Similarly, deworming with praziquantel combined with iron or micronutrients increased hemoglobin (2.72 g/L, 95%CI: 1.05, 4.40). There were no statistically significant subgroup effects across any of the effect modifiers: age, sex, baseline nutritional status, haemoglobin, and STH infection intensity.

Lessons to date: These findings are limited by the data we were able to identify, locate and receive. Global initiatives to prospectively register randomized trials and make data available in open data repositories will greatly facilitate these types of analyses.

Main messages

1. This review found a robust effect of STH deworming on increasing hemoglobin when STH deworming is combined with either praziquantel or iron and micronutrients and no effects of STH deworming on weight or linear growth.

2. We did not find evidence to suggest deworming effects are modified by a range of pre-planned effect modifiers including age, sex, infection intensity for any type of STH infection, BMI for age, height for age or anaemia.

Sandhu, Ravinder
McMaster University, Canada

Identifying refugee women with history of gender-based violence using screening tools implemented alongside the standard Initial Health Assessment

Issue: Due to the high prevalence of sexual and gender-based violence (SGBV) experienced by refugee women, the Ontario Initial Health Assessment (IHA) for refugees arriving in Canada needs to be modified to include screening for and identifying victims of rape, human trafficking, and SGBV. Treating the emotional and mental trauma endured by refugee women is a positive step towards advancing their health and well-being.

Objectives and Methods: The objectives of the policy brief were to identify research that supports the proposed recommendation to incorporate SGBV screening into the IHA. Quantitative and qualitative studies from the following two areas were critically appraised and integrated: (1) the experiences of SGBV in refugee women, (2) the reintegration impact of mental health counselling. Acknowledging the lasting trauma of SGBV as part of the IHA could set a global standard for refugee policies for countries dealing with high levels of refugee migration.

Results: The literature indicates that women experience SGBV from guards, smugglers, and from other refugee men in their host country and refugee camps. The abuse has been shown to cause long-term emotional distress, with women reporting symptoms such as stress, nightmares and emotional detachment. Mental disorders are prevalent in war-refugees living in a host country even years after settlement. Studies looking at the positive impact of mental health counselling demonstrate that counselling can lead to self-empowerment and reduce social isolation.

Lessons: The current method of refugee integration promotes health inequities by ignoring mental health issues resulting from SGBV. This brief proposes two modifications to the IHA: (1) to include culturally-sensitive screening for a history of SGBV, (2) to implement legal provisions to ensure that screening is carried out within one month of arrival and that victims are referred for further counselling. Collaboration between public health, physicians and refugee settlement programs need to be strengthened to implement these recommendations. This brief could promote further research and the collection of more empirical evidence on the prevalence and impact of SGBV.

Main Message: Helping refugee victims of SGBV through screening procedures and subsequent referrals to mental health counselling will allow them adjust better to their new lives. Recovery promotes social inclusion and impacts their ability to contribute to the economy. Canada can set a global standard for integration and refugee health assessment protocols of other countries. While the trauma these women experienced cannot be undone, countries can take action to mitigate further damage from SGBV.

Seale, Emily
University of Toronto, Canada

Co-authors: Emily Seale, University of Toronto, Canada; Alanna Chu, University of Toronto, Canada; Joanna Collaton, University of Toronto, Canada; Christopher Tait, University of Toronto, Canada; Lauryn Conway, University of Toronto, Canada

Examining the global prevalence of suicidal behaviour among adolescents from 77 low- and middle-income countries (LMICs)

Issue: Mental health disorders are a leading cause of health-related disability in youth globally. However, there is currently a paucity of research investigating severe mental health concerns, specifically suicidal behaviours, among adolescents in LMICs. Making up 91% of the world's children and youth, this demographic group has the potential to substantially contribute to future global economic growth. This study provides comprehensive epidemiological data regarding suicidal behaviour among adolescents from LMICs. The conference's "Advancement of mothers' and children's health and rights" sub-theme is addressed by highlighting the burden of suicidal behaviour among youth from LMICs, and providing an empirical basis for the advancement of culturally relevant policies to support this vulnerable group's mental health.

Objectives: This study aimed to estimate the prevalence of suicidal behaviours (suicide consideration, planning, and attempt) among adolescents from LMICs. We quantified the heterogeneity across world regions, and differential patterning in these behaviours between boys and girls

Methods: Individual-level data was obtained from the most recent Global School-Based Student Health Survey – a cross-sectional survey designed to assess children's health behaviours, using similar standardized procedures in all countries between 2003-2013. The study sample included adolescents aged 12-15 from 77 LMICs. Lifetime suicide consideration, planning, and attempt were ascertained through self-report. We estimated the prevalence of the three suicidal behaviours within each country overall and stratified by gender. DerSimonian-Laird random effects models were used to pool prevalence estimates according to WHO region and to assess the heterogeneity between countries.

Results: The analysis included 209,840 adolescents. The overall self-reported lifetime prevalence of adolescents who considered suicide in their lifetime was 16.3% (95% CI: 14.6%-18.0%); who planned to commit suicide was 15.8% (95% CI: 13.9%-17.8%); and who attempted to commit suicide was 16.6% (95% CI: 13.7%-19.7). On average, the burden of suicide consideration, planning, and attempts was higher in girls than boys.

Lessons:

- Globally, approximately 1 in 6 youth were reporting suicidal behaviours.
- A disproportionately high prevalence of adolescents in the African Region were reporting suicidal behaviour compared to other LMIC regions.

Main messages:

- This study is the first of its kind to investigate the prevalence of adolescents reporting suicidal behaviours in LMICs using comparable nationally representative datasets with over 200,000 ethnically diverse adolescents.
- Overall, the prevalence of suicidal behaviours was high, but substantial heterogeneity existed within and across regions.
- This work contributes to the scarce body of evidence regarding the burden of suicidal behaviours in youth in LMICs.

Sermé, Luc
Société d'études et de recherche en santé publique, Burkina Faso

Co-authors: Luc Sermé, Société d'études et de recherche en santé publique, Burkina Faso; Alice Bila, Société d'Études et de Recherche en Santé Publique, Burkina Faso; Antarou Ly, Université Laval, Canada; Abel Bicaba, Société d'Études et de Recherche en Santé Publique, Burkina Faso; Slim Haddad, Université Laval, Centre de recherche du CHU de Québec, Canada

Les facteurs favorisant une bonne implantation de la chimio-prévention du paludisme saisonnier au Burkina Faso

Enjeu

La Chimio-prévention du paludisme saisonnier (CPS) a été progressivement implantée au Burkina-Faso depuis 2014 dans le but de réduire l'incidence du paludisme chez les enfants de 3 à 59 mois. En 2017, 59 des 70 districts sanitaires sont couverts par l'intervention. Malgré les defis et la complexité de la mise en œuvre de la CPS, des évaluations indépendantes ont montré qu'elle a été implantée avec succès conduisant rapidement à une réduction de la transmission du paludisme dans les populations ciblées.

Objectifs et méthodes

Cette étude vise à mieux identifier les facteurs clés ayant conduit à ces résultats. Il s'agit d'une étude mixte (qualitative et quantitative) réalisée entre 2016 et 2017. Elle repose sur la mise en commun de plusieurs sources de données à savoir les sources documentaires, les données du Programme National de Lutte contre le Paludisme (PNLP) sur le monitorage, les entretiens menés auprès d'acteurs impliqués dans la mise en œuvre de la CPS et des membres de la communauté (n=72), les cahiers de bord des enquêteurs et une enquête réalisée auprès des distributeurs communautaires (n=424).

Résultats

La qualité de l'implantation de la CPS est imputable à une combinaison de facteurs favorables relevant principalement : (i) d'une bonne coordination du Programme National de Lutte contre le Paludisme qui parvient à mobiliser les ressources financières auprès des bailleurs, à associer les partenaires techniques et financiers autour d'une intervention homogène avec un souci de suivi et de réajustement annuel des activités; (ii) d'une bonne capacité d'adaptation et d'anticipation des acteurs locaux tels que les infirmiers chefs de poste, les distributeurs communautaires, les mères et les comités de gestions des centres de santé pendant la mise en œuvre; (iii) de l'adhésion et la mobilisation de la population (l'intervention répond aux besoins et aux attentes des populations)

Leçons tirées à ce jour : La CPS se distingue de certaines interventions sanitaires (verticales) car elle est bien organisée. Les acteurs locaux qui sont impliqués dans sa mise en œuvre ont une bonne capacité d'adaptation et d'anticipation. De même la capacité à mobiliser convenablement les populations tout en étant en adéquation avec leurs besoins en santé apparaît comme un ingrédient du succès.

Principaux messages

La réunion de tous ces éléments constitue une bonne combinaison pour implanter de telles interventions dans les pays d'Afrique subsaharienne.

Shafique, Sohana
International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), Bangladesh

Co-authors: Sohana Shafique, International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), Bangladesh; Dipika Shankar Bhattacharyya, International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), Bangladesh; Shaikh Mehdi Hasan, International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), Bangladesh; Shakil Ahmed, International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), Bangladesh; Tarek Hossain, International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), Bangladesh; Rahenul, Islam, International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), Bangladesh; Nibras Rakib, International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), Bangladesh; Alayne Adams, Department of International Health, Georgetown University, USA

Institutionalizing a geo-referenced health information system tool to strengthen health service planning, delivery and oversight in urban Bangladesh

Issue/problem: Urban health governance in Bangladesh is complex as multiple actors are simultaneously engaged. Health management information systems (HMIS) of the country lack information on urban areas where inequalities in health persists. A novel geospatial information communication and technology (ICT) tool – the Urban Health Atlas (UHA) - provides critical information on the type and location of healthcare facilities for strengthening service quality and coverage. The objective of this study was to identify barriers and facilitators in institutionalizing UHA in planning processes which will ultimately enhance understanding of how geo-referenced health facility information can inform maternal, neonatal and child health (MNCH) service planning and decision making in Bangladesh. This mixed methods implementation research was conducted in three cities in Bangladesh: Dhaka, Dinajpur and Jessore during June 2016 to May 2018. In-depth interviews were conducted along with desk reviews and stakeholder analysis to understand and document stakeholder perceptions and experiences of institutionalizing UHA.

Results: The institutionalization process of UHA was conceptualized to involve three stages: uptake, use and regular update. Capacity building around UHA substantially enhanced understanding of health managers around its utility and UHA was utilized in local level service planning and decision making. For uptake, challenges were encountered in motivating key decision makers about potential of UHA and thus engaging them into institutionalizing the tool. Use of UHA was hindered by inadequate ICT infrastructure, shortage of human resources and general lack of ICT skill among the available staff. Unclear mechanism of coordination among the relevant stakeholders both at national and local level affected building a consensus on how regular update of UHA could be achieved; however, drivers and facilitators for overcoming bureaucratic challenges were identified through stakeholder analysis.

Lessons: While uptake of UHA were encouraged with stakeholder engagement and user buy-in, multiple factors at the policy and implementation level hindered regular use and update, and immediate institutionalization into government systems. Ensuring system readiness and clear roles and responsibilities at the local level is required for uptake of the UHA.

Main messages: While there is consensus that UHA has potential for planning, decision-making, and oversight of urban MNCH services, implementation is not straightforward. Efforts to facilitate use of evidence in policy-making are prerequisite to enabling uptake of UHA or any ICT by government systems. Clear understanding of context, actors and system readiness is crucial for implementation of ICT tools to enhance government HMIS in resource-poor settings like Bangladesh.

Sharma, Vandana
Harvard T.H. Chan School of Public Health, United States of America

Community health workers and maternal health: Evidence from a cluster randomized trial in Jigawa, northern Nigeria

Issue/problem: Though Nigeria is home to 2% of the world's population, it accounts for more than 10% of the world's maternal and child deaths. The highest levels are in the north, where instability, violence and population displacement as well as poor health infrastructure, and low maternal health services use contribute to poor outcomes. We conducted a cluster randomized controlled trial to assess the effects of three community health worker (CHW) interventions on maternal and newborn health in Jigawa, Nigeria.

Methods: The study was implemented in 96 clusters of communities across 24 Local Government Areas (LGAs) in Jigawa. Clusters were randomly assigned to four study arms: 1) training women as CHWs who provide education and referrals to pregnant women, 2) the CHW program plus distribution of safe birth kits to pregnant women, 3) the CHW program plus community dramas to change social norms related to maternal health, 4) a control group. Quantitative data were collected from a 15% random sample of households (N=7,069) at baseline, and again four years later. All births and maternal deaths across study communities during the follow up period were captured via an SMS based surveillance system. Post-birth questionnaires were also administered 3 days and 28 days after birth among the sampled households if a birth occurred during the study period.

Results: 4528 pregnancies occurred during the follow up period and only 20% of pregnant women in treatment arms reported ever receiving a CHW visit. Women in communities where the CHW programs were implemented were significantly more likely to have ever attended antenatal care (ANC), and on average attended more visits than women in the control arm. Utilization of post-natal care was also significantly higher, but there was no effect on facility based deliveries or skilled attendance at birth, or male presence during ANC or delivery.

Lessons to date: The deployment of community health workers to educate women and provide information about the benefits of facility delivery increases utilization of some forms of maternal care, but had no effect on deliveries at health facilities. Implementation challenges may have affected community health workers' ability to reach targeted households, and continued gaps in quality of care at health facilities may have reduced respondents' interest in utilizing care.

Main message: A community health worker program in northern Nigeria increased utilization of some forms of maternal care, but did not improve facility-based deliveries.

Sharma, Vandana
Harvard T.H. Chan School of Public Health, United States of America

Social and cultural influences on intimate partner violence among Somali refugees: Findings from a qualitative study in Dollo Ado, Ethiopia

Issue/Problem: Gender-based violence (GBV) is prevalent in humanitarian crises; however there are fewer data on intimate partner violence (IPV) among displaced populations. The aim of this study was to understand women's risks of IPV within Somali refugee camps in Dollo Ado, Ethiopia and to explore underlying socioeconomic, religious and cultural factors.

Methods: A qualitative study was conducted in Bokolmanyo refugee camp in Dollo Ado, Ethiopia in 2016 to inform the development of an intervention. Somali women and men residing in the camps were recruited by purposive sampling. In-depth interviews (IDIs) and focus group discussions (FGDs) were conducted with individuals or groups of women and men aged 15 and older, as well as elders/clan leaders, religious leaders, health workers, NGO workers and policymakers. Trained male and female Somali interviewers conducted the interviews in Somali or Amharic and these were transcribed and translated. Two independent investigators analyzed transcripts using content thematic analysis.

Results: In total, 30 IDIs and 10 FGDs were conducted. Respondents' mean age was 36.8 years and average length of time residing in the camp was 7.3 years. Preliminary analysis suggests that IPV and non-partner sexual violence are common within the camp. Described acts of IPV included insulting, hitting, slapping, assault with weapons including sticks and knives and pouring boiling water on the spouse. Religion, frequently cited as a guiding framework for cultural and social norms, was mentioned as a factor contributing to IPV. Some respondents described the Islamic religious texts as supporting some forms of IPV. Early and/or forced marriage, polygamy, female genital cutting (FGC), and men chewing Khat, a local plant with stimulant properties, were also described as contributing factors. Many respondents were not aware of IPV prevention programs and stated that it is dealt with in the family or in more serious cases, mediated via community elders.

Lessons to date: Qualitative data reveal that violence is occurring within intimate partnerships among Somali refugees in Dollo Ado and highlight the social, cultural and religious influences on IPV. The data also highlight the lack of programs and services for IPV survivors. Programs and policies targeting IPV should consider and address the social, cultural and religious influences on IPV and its association with practices such as early marriage and polygamy.

Main message: Intimate partner violence is prevalent among Somali refugees, and programs and services are needed to prevent and respond to IPV and address its underlying social, cultural drivers.

Simba, Stephano
Tanzania Midwives Association (TAMA), United Republic of Tanzania

Co-authors: Stephano Simba, Tanzania Midwives Association (TAMA), United Republic of Tanzania; KarlineWilson-Mitchell, Ryerson University, Canada; Rachel Sandwell, Canadian Association of Midwives, Canada

Promoting respectful maternity care practice Lake and Western Zone of Tanzania

Issue/problem: Research demonstrates that worldwide many mothers giving birth in health facilities encounter disrespect and abuse; this mistreatment deters mothers from seeking healthcare. Unattended birth is a risk factor for maternal and neonatal morbidity and mortality. In Tanzania the prevalence of disrespect and abuse in facilities is high. The rate of health facility deliveries is low, especially in rural areas in the country's Lake and Western Zones, in some sites as low as only 40%, while maternal mortality is very high at 556 per 100,000 deliveries. There is an urgent need to encourage facility-based births, and to improve the treatment pregnant women receive in facilities. Campaigners have started to advocate for Respectful Maternity Care (RMC) to improve the quality of care available.

We will discuss a training program developed and delivered by a team of Canadian and Tanzanian midwives to a group of 175 practicing midwives in rural Tanzania on how to integrate RMC into midwifery practice in a low-resource setting.

Objectives: The two-day RMC training used innovative methods to introduce gender sensitive respectful maternity care. The overall aims were to improve the quality of service delivered, increase client satisfaction, and increase health facility utilization, therefore reducing maternal and neonatal mortality. The training acknowledged structural issues that contribute to disrespect and abuse, but also highlighted hands-on methods to improve practice even in low-resource contexts.

Methods: Participatory teaching methods approach: problem solving, role plays, small group work, discussions, presentations, demonstrations, observation and use of anatomic models.

Results & Lessons Learned: Successful partnerships create effective capacity building, namely the Canadian Association of Midwives, the Tanzania Midwives Association, and Jhpiego led the More and Better Midwives for Rural Tanzania Project. A total of 175 (146 Female, 29 Male) practicing midwives were trained in July and August 2017, from small teaching hospitals in rural and remote Lake and Western Zones of Tanzania, constrained by extreme poverty and low resources.

Strikingly, all midwives who participated confessed that they had previously treated patients disrespectfully or abusively, often due to lack of knowledge. Most midwives were unaware of clients' rights or how their actions could improve working conditions. Participants reported that the training inspired them to change their practice and advocate for institutional policy changes.

Main messages: The training provided an important site for midwives to reflect on their own work, share challenges, and brainstorm solutions together.

Tchoumkeu Pendeme, Alice Noël
Institut de Formation et de Recherche Démographiques, Cameroon

Les jeunes femmes en situation de handicap physique face aux risques sexuels et reproductifs : Ambivalence et vulnérabilité à Yaoundé, Cameroun

Le droit à la santé sexuelle et reproductive est un droit de l'Homme, inséparable des autres droits à la santé, de la Conférence Internationale sur la Population et le Développement tenue au Caire en 1994. Par la suite, la Convention relative aux droits des personnes handicapées a eu pour objet de promouvoir, protéger et assurer la pleine et égale jouissance de tous les droits de l'homme et libertés des personnes handicapées. Toutefois, les personnes handicapées sont à la fois victimes d'une négation de leur sexualité par l'imaginaire populaire et en même temps victimes de violences sexuelles. De même, leurs besoins sexuels et reproductifs spécifiques apparaissent comme les « parents pauvres » des politiques de santé.

Cette communication examine les logiques et tensions qui régissent le vécu sexuel et reproductif de jeunes femmes en situation de handicap physique à Yaoundé en lien avec leur environnement social. Il utilise les données de deux discussions de groupe et de quarante entretiens individuels réalisés en 2015 et 2017 dans le cadre de ma thèse. L'analyse de contenu est thématique. Cette communication est pertinente du point de vue de la santé mondiale dans le mesure où 15,6% de la population mondiale vit avec un handicap. 80% de cette population vit dans les pays à ressources limitées. Alors que l'épidémie du VIH/Sida connait une baisse remarquable en Afrique subsaharienne, les personnes handicapées ce sont révélées être un groupe fortement vulnérable à l'égard de l'épidémie.

Les résultats de cette étude montrent que le caractère ambivalent des relations qu'entretiennent ces jeunes femmes avec leur famille, leurs partenaires sexuels et les prestataires de santé avec qui elles sont en contact. Sont présents, des comportements à la fois de bienveillance et de violence. La perception que ces femmes ont de leur vulnérabilité s'accompagne d'une revendication en acte de leur capacité à mener une vie sexuelle. Le déni par leur entourage de cette capacité ainsi que la perception d'une différence est à l'origine de diverses formes de violences qui exposent les jeunes filles à des relations sexuelles non consenties voire à une grossesse non planifiée et à la transmission d'infections sexuellement transmissibles dans un contexte de forte prévalence du VIH.

Leçon: les personnes handicapées sont autant à risque des problèmes de sexualité les que les personnes non handicapées.

Messages

1- Inclusion des personnes handicapées dans la riposte contre le VIH/Sida

2- Faciliter leur accès aux services de santé sexuelle et reproductive.

Thomas, Fiona
Ryerson University, Canada

The intergenerational transmission of trauma: Biological correlates

Issue: The adverse effects of war and extreme stressors on population mental health are well-documented. Less understood are its consequences across generations. While initially anecdotal, the hypothesis that parental trauma or stress exposure impacts offspring, is now supported empirically by studies with Holocaust survivor offspring, veterans, and other populations. Much of this work is framed by the Developmental Origins of Health and Disease (DOHaD) hypothesis, which suggests that severe stressors early in development are directly related to disease risk later in life. Epigenetics has provided the tools for the DOHaD hypothesis, enabling the empirical study of the intergenerational transmission of trauma. Researchers are extending the DOHaD model to understand how perinatal mental disorders influence fetal development based on changes to the intrauterine environment. This knowledge, and its application in postconflict settings, can have important ramifications for expecting mothers in such contexts, many of whom face extreme stressors. A comprehensive literature review was conducted in 2017 with the following objectives: 1) review the biological mechanisms underlying the intergenerational transmission of trauma; 2) assess whether the DOHaD model and epigenetics analysis can be applied in situations of extreme and prolonged stressors, such as postconflict situations.

Results: Key neuroendocrine and neuroanatomical alterations, as well as transgenerational epigenetic marks in the intergenerational transmission of trauma, will be presented. The identification of precise underlying molecular mechanisms is impeded by methodological limitations. Yet, findings indicate that the DOHaD model is promising for elucidating the intergenerational transmission of trauma in postconflict settings through the application of epigenetic studies.

Lessons: This field of research has only very recently been applied to postconflict settings, providing evidence to suggest that the effects of war can propagate across generations, including at the biological level. The DOHaD model is valuable for understanding the biological cascade of trauma from one generation to the next, including in postconflict settings.

Main messages:

• Given that our world is currently in the midst of the worst migration crisis since World War II and managing various civil wars, there is no doubt that understanding this phenomenon and identifying important periods of intervention is of value.

• While the precise underlying molecular mechanisms of how extreme environmental stressors are transmitted from parent to fetus at the gestational stage are still under investigation, the DOHaD hypothesis and ongoing epigenetic studies informs our understanding of the perpetuation of trauma across generations.

Torres, Mary Ann
ICASO, Canada

Triple threat: resurging epidemics, a broken health system, and global indifference to venezuela's crisis

Triple threat: Resurging epidemics, a broken health system, and global indifference to Venezuela's crisis." Venezuelan's undoubtedly live a profound health emergency. Cases of malaria have increased by 205%, after the country had declared its elimination. There is no access to tuberculosis tests for vulnerable populations such as prisoners or indigenous communities. The number of AIDS-related deaths in the country has gone up by almost 75% since 2011. Food shortages and cases of malnutrition and starvation are becoming more common. People living with HIV and AIDS in Venezuela describe frequent absences of medications such as antiretrovirals and fear imminent death.

The session will be an opportunity for the participants to learn about the current situation in Venezuela including the population in-country and the refugee community and how the systematic failure of the health system has created a regional health crisis. This will also cover community responses and the international engagement and oversight of the situation. The topics will cover HIV, Malaria and TB and how both Civil Society and Private/Public organizations have been Involved in the response.

Van Dyk, Brittany
Aga Khan Foundation Canada, Canada

Co-authors: Anthony Ngugi, Faculty of Health Sciences, Aga Khan University- East Africa, Kenya; Shafiq Mirzazada, Aga Khan University- Afghanistan, AF|Afghanistan; Omrana Pasha, Department of Population, Family and Reproductive Health, Johns Hopkins Bloomberg School of Public Health, USA

Innovative strategies for routine maternal and child health surveillance in fragile contexts like Afghanistan and Kenya

Issue/Problem: In many developing countries, availability of reliable health information is limited by non-existent or weak civil registration and surveillance systems. In fragile geographies, obtaining credible population data is further constrained. With diverse socio-political, cultural and economic contexts, both Afghanistan and Kenya are fragile as a result of insecurity, remote geographies and weak health systems. Lack of vital statistics related to women and children undermines evidence-informed policy making, program design, and service delivery.

Objectives and methods: In partnership with governments, AKDN agencies in Badakhshan, Afghanistan and Kilifi, Kenya deliver community-based strategies to routinely monitor maternal and child health outcomes. Both strategies established simple civil registration systems to collect population-based data by local networks of community health workers (CHWs). Initial and ongoing training of CHWs on data collection and quality control, mentorship and supervision are essential to reliable and timely data collection. Leveraging eHealth technology reinforces these efforts and contributes to cost-effectiveness in comparison to systems in similar and more stable settings. Additional training on data analysis and use serve to ensure data informs government and programmatic decision-making.

Results: These models contribute to transparent, reliable national civil registration and surveillance systems rooted in local realities, informing improved service provision.

In Afghanistan, 24,919 pregnancies were enrolled between 2013 and 2017 across 253 villages, with delivery outcomes established for 23,352 pregnancies and another 1,456 ongoing pregnancies, representing a follow-up rate of 97%, contributing to improved ANC and PNC support.

In Kenya, 78,183 residents, including 16,652 women of reproductive age and 10,729 children under five were registered since the system started in 2017. Maternal and child health data, including 881 pregnancies, is collected on an ongoing basis.

Lessons to date: Working through existing community structures is a proven strategy to mitigate challenges associated with routine population data collection in fragile contexts. Using simple civil registration systems and providing regular training opportunities improves availability of quality data to inform decision-making and planning. Similar systems in rural and slum settings in Pakistan, and findings in Afghanistan and Kenya demonstrate the replicability of the model in fragile settings. Following initial success, expansion is planned to seven additional sites in Afghanistan that together are representative of the national population and will enable the production of nationally representative maternal and child health statistics.

Key messages: Experiences in Afghanistan and Kenya demonstrate the feasibility of establishing civil registration systems for routine maternal and child health surveillance in fragile contexts.

Verboom, Ben
University of Oxford, Burkina Faso

Regional governance mechanisms and capacity for evidence-informed health policymaking: An exploratory case study of the West African Health Organization

While years of research have generated evidence on interventions to improve maternal and child health outcomes, such evidence rarely translates directly into policy. There is growing consensus among West African leaders that conscious and deliberate capacity strengthening of policymaking systems is required to reliably deliver evidence-informed responses to the region's health problems. The West African Health Organization (WAHO) is at the centre of these efforts. Headquartered in Bobo-Dioulasso, Burkina Faso, WAHO is a regional governance body that supports the work of the region's 15 national ministries of health (MoHs). During the past decade, WAHO has increasingly sought to promote evidence use in the health policymaking of its member states, with a particular focus on maternal and child health.

Objectives

This two-phase case study explores and evaluates the possibilities and prospects of regional governance for improving the use of research evidence in national health policymaking. Using a combination of interviews and participant observation at WAHO headquarters, the exploratory 'hypothesis-generating' phase reported here has two objectives:

(1) To identify and map WAHO's initiatives to support evidence use in health policymaking

(2) To hypothesize relational (social) governance mechanisms underlying these strategies (which will be further examined in the evaluative phase of the project)

Results

WAHO's work as a regional governance body involves several initiatives through which evidence use in policymaking might be improved. The mechanisms likely underlying these strategies can be summarized in four categories: Control (or Compulsion), Coordination (or Cooperation), Collaboration and Communication. For example, Control mechanisms underlie a recently adopted Resolution by WAHO's Assembly of Health Ministers compelling national policy actors to systematically use "best available" research evidence. Country-level and region-wide training workshops appear to operate through a mix of Communication and Cooperation mechanisms. The organization's Knowledge Translation platform, and initiatives implemented by WAHO's Research Unit to promote 'cultures of evidence' in MoHs, likely work through a complex mix of Communication, Control and Collaboration mechanisms.

Lessons to date

Regional governance bodies like WAHO implement a diverse array of initiatives to improve policymaking processes. Further evaluative and explanatory research is needed to strengthen our understanding of the mechanisms underlying these strategies.

Main messages: WAHO's work to promote evidence-informed policymaking among its member states likely operates through a number of social mechanisms. Greater understanding of these underlying mechanisms will improve our knowledge of these processes, and may improve the transferability of these lessons to other governance contexts, both within Africa and beyond.

Waita, Javan
Population services Kenya, Kenya

The role of private sector in increasing access to contraceptive services in Kenya. Case study of the Tunza franchise.

Background information: Women and adolescent girls have the right to access, high quality and effective contraceptive services and information. However, availability and access of quality contraceptive services and products is one of the key challenges affecting contraceptive prevalence rate globally. This problem is more prevalent in developing countries and Kenya is not left out. In Kenya, the private sector still remains fairly unexplored and neglected for health service provision. Social franchising gives an opportunity to private providers to be in a network that standardize quality and monitors the service provision through health care standards. Methodology: in 2017, Population Services Kenya through the health communication and marketing program worked within the Tunza franchise to increase quality family planning service uptake. Service providers were recruited and trained on a contraceptive technology update. The trained providers were supported with a family planning starter kit and a supply of subsidized contraceptive commodities This paper analyzed family planning service delivery data from January to December 2017 in 372 facilities comparing method mix and Tunza contribution to the national dashboard and different service delivery channels. Results: Health service delivery were offered in 372 facilities. A total of 234,470 clients were provided with family planning health services out of which. Out of the total family planning clients reached 25% (n=59,144) were new users of family planning. 26 %(62,015) of clients attended were adolescent and youth with74% been women above 25 years of age. Method mix analysis revealed 63% of the clients preferred injections, and 15% implants, 12 % Pills 7 % intrauterine device. On analysis of the method mix during outreaches, majority 53% preferred implants as method of choice, followed by intrauterine devices 23%, injections 12%, condoms 9% and pills 3%. Overly, the Tunza franchise contributed to 7.3% of the Kenya national family planning performance with long acting reversible contraceptives contributing to an average of 7.5%. Program implications: Private sector through social franchising is a reliable service delivery channel that's providing Kenyans with an opportunity to access quality contraceptive services. The contribution of the Tunza franchise to the national dashboard is a significant indicator of the project success towards reduction of maternal mortality and women empowerment.

Wigle, Jannah
Dalla Lana School of Public Health, University of Toronto, Canada

Co-authors: Jannah Wigle, Dalla Lana School of Public Health, University of Toronto, Canada; Stewart Paul, Parent and Child Health Initiative, Canada; Brenda Gladstone, Dalla Lana School of Public Health, University of Toronto, Canada; Paula Braitstein, Dalla Lana School of Public Health, University of Toronto, Canada; Anne-Emanuelle Birn, Dalla Lana School of Public Health, University of Toronto, Canada

Young people's participation in sexual and reproductive health policymaking in Malawi: Policy or practice?

Background: The involvement of young people in decisions that affect their health and wellbeing is recognized as a human right, and a key strategy to address their unique sexual and reproductive health (SRH) needs. In Malawi, young people represent more than half of the population and adolescent pregnancy rates have increased despite substantial investments and efforts by the government and donors. Key international and regional commitments and national policies in Malawi enshrine young people's right to participate in decision-making processes. However, limited research is available on how young people's perspectives and priorities have shaped policymaking in practice and their lived experiences of participation. Youth represent the majority of the population in many low- and middle-income countries, and addressing their SRH and rights is critical.

Objective: This presentation will map how young people are engaged in SRH policymaking processes in Malawi. It will critically analyze key national policies and strategies, and examine young people's lived citizenship and participation in the development and implementation of SRH policies.

Methods: This critical, focused ethnographic study was informed by postcolonial feminist theory and a difference-centred citizenship theory, and conducted in Malawi between October 2017 and June 2018. Research methods used included: policy analysis, focus group discussions (n=6), observations of national and sub-national policy meetings, as well as semi-structured interviews and open-ended drawing exercises with young people (n=30). Semi-structured interviews with key informants (n=32) were also conducted.

Results: Preliminary results highlight that young people are involved at community, district, national and international levels. Engagement of youth has involved consultations during policy and program formulation, with limited involvement in priority-setting, implementation and evaluation. Political will, a conducive policy environment, and structures for youth participation represent facilitators. Challenges include a lack of resources, poor policy implementation, and donor dependence. Unequal opportunities to participate by gender, as well as cultural and traditional practices threaten youth SRH and participatory rights.

Lessons: Tangible interventions and opportunities for youth to be involved from grassroots to national levels will help to ensure equitable participation of young people. Understanding young people's participation in SRH policymaking will help to improve the quality of reproductive health services for youth in Malawi and beyond.

Main Messages:

• Malawi has introduced progressive policies that emphasize young people's SRH and right to participate, in line with international and regional standards.

• The active and meaningful engagement of youth in SRH policymaking remains limited, despite supportive policies/structures for participation.

Williams, Dinsie
University of Toronto, Canada

Co-authors: Dinsie Williams, University of Toronto, Canada; Jillian Kohler, University of Toronto, Canada; Andrew Howard, University of Toronto, Canada; Zubin Austin, University of Toronto, Canada; Yu-Ling Cheng, University of Toronto, Canada

Enhancing the impact of humanitarian initiatives in Sierra Leone and Ghana

Issue: Transnational funders and donors contribute 80% of funds used to equip public hospitals in resource-limited health care systems with medical devices, yet 72% of devices in these settings are unused and abandoned. This means that for every dollar donated toward medical devices, as much as 90 cents are wasted. The international community has tolerated the status quo for more than 20 years. For humanitarian initiatives to have an impact on development, there must be better returns on investment.

Objective: The objective of this oral presentation is to highlight the impact that humanitarian initiatives involving the introduction of resource-intensive medical devices have on frontline and administrative hospital staff. The study reports on health care initiatives that are truly global, extending from humanitarians or funders in countries such as Canada, Germany, the United States, and Belgium, to recipients in countries such as Sierra Leone and Ghana.

Methods: We developed a case study using a three-pronged qualitative research process based on critical appraisals of national guidelines, interviews of frontline staff at 22 sites across Ghana and 4 sites in Sierra Leone, and direct observation. Thematic analysis of interview data was conducted to elicit concepts that key informants associated with humanitarian initiatives.

Results: Fifty-seven key informants in Ghana underscored the importance of developing policies that promote communication and collaboration during acquisition of medical devices, and ensure quality, functionality, and appropriateness. They also highlighted the importance of establishing mechanisms to support management oversight of medical devices over an extended period. In Sierra Leone, nine informants highlighted lack of trust, quality, and appropriateness of medical devices. As well, the absence of ancillary services limited the effect of the devices. Triangulation of the appraisals, interviews, and observation created a comprehensive account of barriers and facilitators to enhancing the impact of humanitarian initiatives the involve the introduction of resource-intensive medical devices into resource-limited settings.

Lessons to date: Frontline hospital staff and administrators have a wealth of information that could be useful in facilitating the humanitarian-development nexus. Majority of hospital management teams do not have a qualified engineer or technical expert to represent the voices of biomedical technicians. These findings reflect the literature on initiatives in Haiti, Tanzania, and Benin.

Main messages: For humanitarian initiatives to contribute toward development, there is a need to develop sustainable models to manage medical devices.

Wilson, Lucy
Research Institute - McGill University Health Centre, Canada

Co-authors: Lucy Wilson, Research Institute - McGill University Health Centre, Canada; Layla Mofid, WHO Collaborating Centre for Research and Training in Parasite Epidemiology and Control, Canada; Theresa Gyorkos, WHO Collaborating Centre for Research and Training in Parasite Epidemiology and Control, Department of Epidemiology, Biostatistics and Occupational Health, McGill University, Canada

Effects of deworming and soil-transmitted helminth infections on mother's breast milk quality

Issue/problem: The soil-transmitted helminths (STH) Ascaris lumbricoides, Trichuris trichiura, and the hookworms, Ancylostoma duodenale and Necator americanus, infect approximately 2 billion people worldwide. Women of reproductive age are considered a high-risk group as these infections can cause iron deficiency anemia and nutrient malabsorption. Breast milk is a major source of nourishment for infants and can be the sole dietary source in the first six months of life. To date, little attention has been paid to the effects of STH infection prevalence and intensity, and deworming, on breast milk quality.

Objectives and Methods: The objective was twofold: 1) to determine the effect of postpartum deworming on macronutrients, and 2) to investigate the relationship between STH infection and macronutrients in breast milk. Between February 2014 and September 2016, a randomized controlled trial was conducted in Iquitos, Peru to assess the effectiveness of postpartum deworming on infant and maternal health outcomes. Following delivery, and before hospital discharge, a total of 1010 mothers were randomly assigned to receive either the single-dose deworming treatment albendazole, or placebo, and then they were followed up for 24 months postpartum. From a random sample of 200 mothers, data on macronutrients (fat, protein, and carbohydrate) from breast milk were collected at 1- and 6-month timepoints and STH infection was diagnosed from stool specimens obtained at 6 months.

Results: The prevalence of any STH infection was 36.5% (95% CI: 30.1%, 43.5%), with the prevalence of hookworm only reaching 4% (95% CI: 2.0%, 7.8%). After univariate and multivariate analyses, overall, no statistically significant difference in milk macronutrient content was found between the intervention groups at either timepoint. However, after adjusting for confounders, hookworm-infected mothers were found to have statistically significantly lower fat content in their breast milk at 1 month (-1.05 g/d; 95% CI: -1.96, -0.15) compared to uninfected mothers.

Lessons to date: Opportunities to detect differences in macronutrients between treated and untreated mothers, and between STH-infected and STH-uninfected mothers, may have been hindered because of the lower than expected STH prevalence and intensity in the study population. Additional evidence is needed especially from populations living in areas of higher hookworm and Trichuris endemic areas.

Main messages: The results of this study indicate that hookworm infection may affect the fat content in a mother's breast milk. If confirmed, responsive nutrition and education strategies for increasing the fat content in a woman's diet should be considered in public health intervention strategies.

Zivot, Chloe
Ontario Veterinary College, University of Guelph, Canada

Co-authors: Chloe Zivot, Ontario Veterinary College, University of Guelph, Canada; Matthew Little, Ontario Veterinary College, University of Guelph, Canada

Burden and determinants of anemia in a rural population in south India: A cross-sectional study

Issue/Problem: Anemia and its associated health impacts are considered a leading global health concern. Anemia is highly prevalent in India, and it remains the leading cause of countrywide disability, and has serious implications on physical and cognitive development, health, and productivity.

Objectives/Methods: The aim of our research was to determine the prevalence and determinants of blood haemoglobin level and mild, moderate, and severe anemia among adults from rural Tamil Nadu, India. From 2013-2014, we recruited a sample of men and non-pregnant women aged 20 years and older. Clinical health measures included blood haemoglobin concentration and body mass index. Using linear and logistic regression modelling, we assessed associations between anemia outcomes and socio-demographic and dietary factors.

Results: A total of 753 individuals (412 women and 341 men) participated in this study. The prevalence of anemia was 57.2% among women and 39.3% among men. Prevalence of anemia increased with age among men ($P<0.001$) but not women ($P>0.05$). Iron intake was low; 11.7% women and 24.1% of men reported iron intakes above recommended dietary allowances ($P<0.001$). Factors (OR (95% CI)) associated with mild or moderate anemia among women included: television ownership (0.27 (0.13, 0.58)); livestock ownership (0.46 (0.28, 0.75)); refined grain consumption (1.32 (1.02, 1.72)); meat consumption (0.84 (0.71, 0.99)); and commercial agriculture production (mild: 4.6 (1.1, 18.8); moderate: 6.8 (1.98, 23.1)). Factors associated with mild, moderate, or severe anemia among men included: rurality (0.50 (0.25, 0.99)); sugar consumption (1.04 (1.01, 1.06)); egg consumption (0.80 (0.65, 0.99)); and high caste (7.3 (1.02, 52.3)).

Lessons to date: Prevalence of anemia, and in particular moderate/severe anemia, was higher than the national average among adult men and non-pregnant women in the sample population. As one of the first studies to examine associations between anemia and a wide range of behavioural, socio-economic, and geographic factors in rural India, we found that a number of non-dietary variables were associated with blood Hb concentration and risk of anemia. Therefore, while examining immediate dietary factors is important, we should not overlook the role of socio-economic, cultural, and demographic factors (e.g. occupation, wealth, and social status) that may influence risk of anemia by altering dietary consumption or through other causal pathways.

Main Points: Both women and men in rural Tamil Nadu may be particularly vulnerable to anemia, and future research must expand beyond dietary risk factors to examine the impacts of socio-economic, cultural, and environmental factors.