

Final Abstracts



21st Canadian Conference on Global Health

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Symposia/workshop Presentation Abstracts

Workshop 1:

Topps, MPH, Sarah

Canadian Coalition of Global Health Research

Lisa Allen-Scott (University of Calgary), Caity Jackson (Karolinska Institutet), Shweta Dhawan (University of Alberta)

Building a toolkit for success in global health: the many faces of mentorship

Background: Interest in global health research and practice is growing rapidly in Canada and around the world (Crump and Sugarman 2010). While academic training and real world work experiences are key to developing global health researchers and practitioners, professional development opportunities through mentorship can help one develop career goals, understand competencies and navigate the competitive landscape. With the exception of informal mentoring, this need is largely unaddressed by the current training programs. The Canadian Society for International Health (CSIH) MentorNet Program and the Canadian Coalition for Global Health Research (CCGHR) Mentorship Working Group and Student Network provide examples of programs developed to address this gap (CCGHR 2014; CSIH 2014). These programs focus on facilitating mentor-mentee relationships between senior global health researchers/practitioners and students and student-to-student mentorship in the 'pay it forward' model.

Objective: To provide a mentorship toolkit and roadmap that students and young professionals can utilize to advance their global health careers.

Activities: This workshop will provide students and young professionals with an environmental scan of current mentorship opportunities within the Canadian context. Students will engage in lively conversation with CSIH and CCGHR mentors and peer-groups on the current challenges of global health research and practice, and have an opportunity to be paired in small groups with other students or young professionals to develop peer mentorship relationships. A toolkit outlining strategies for finding a mentor, becoming more involved in global health, and improving one's global health competencies will be provided. This toolkit will be used within the workshop to help participants develop a personalized 5-year roadmap for their global health career.

Deliverables: Students and young professionals will leave the workshop with an improved peer-network and armed with the tools to begin or continue a mentorship relationship that will greatly benefit their blossoming global health career. The toolkit provided will assist students and young professionals in developing clarity around their personal goals and how mentorship can assist in achieving them.

References

- CCGHR. (2014). "Mentorship Working Group: An Introduction." Retrieved April 28, 2014, from <http://www.ccgrr.ca/working-groups/mentorship-working-group/>.
- Crump, J. A. and J. Sugarman (2010). "Ethics and best practice guidelines for training experiences in global health." *American Journal of Tropical Medicine and Hygiene* 83(6): 1178-1182.
- CSIH. (2014). "Canadian Society for International Health (CSIH) MentorNet." Retrieved April 28, 2014, from <http://csihmentornet.wordpress.com/about/>.

Symposia 1:

O'Hearn, Shawna

Dalhousie University

Examining the "Lean In" Generation of Global Health Workers

Symposia Objectives

When Sheryl Sandberg published her book, "Lean in – Women, Work, and the Will to Lead", it started debates on the issue of women in leadership. Why are women so under-represented in senior positions? Are the greatest barriers institutional or psychological?

With all the attention being given to women leaders in the private sector, it's time we ask: what does 'leaning in' look like for women in global health? While gender mainstreaming may be a development priority, there is little visible debate on the place and potential of women as professionals in the sector.

What are the challenges faced by female professionals in global health? How do we support an inclusive and diverse global health workforce in Canada and globally?

Approach

Currently, there is limited research and/or discussion examining women's role in global health. This symposia will bring together key leaders across multiple disciplines in order to examine the role of gender within global health. A panel will be made up of a Canadian Member of Parliament (MP), an academic with a research background in gender in the workplace, representatives from civil society and the private sector. These individuals will share their lived experience, examine the shifts occurring in the workplace and identify opportunities for gender mainstreaming within global health.

Target Groups

All conference participants would benefit from this symposia in order to ensure that we are being inclusive in our planning, implementation and evaluation of projects, policy and research development in global health.

Deliverables

The symposia aims to identify the unique leadership challenges and opportunities facing women in global health today as well as gain an understanding of when and how gender plays a role in both organizational and personal advancement. The anticipated goal is to create a network of leaders across the global health sectors who will continue to support each other and advance this important area of work.

Symposia 2:

Jones, Andrew
THET, UK

Harnessing the professionals - why institutional health partnerships work

Project objective :

THET (the Tropical Health and Education Trust) is a specialist global health organisation that educates, trains and supports health workers through partnerships; strengthening health systems and enabling people in low and middle income countries to access essential healthcare. THET currently supports about ninety capacity building projects run by institutional health partnerships through the Health Partnership Scheme, a \$55m CAD programme funded by the UK government.

Target groups (the problem addressed)

The critical shortage of appropriately trained health workers in developing countries threatens to undermine efforts to improve the availability of quality health services to the poorest and most disadvantaged people in the world. Where is the logic in improving access to healthcare if people continue to encounter poorly-trained staff and unsafe practices? The Health Partnership Scheme channels unprecedented levels of funding into partnership projects designed to address these challenges.

Activities :

THET has been working for twenty-five years to harness the skills and knowledge of health workers in the UK to train and educate their counterparts overseas through developing Institutional Health Partnerships – long-term relationships where equity and mutual benefit lead to powerful and effective outcomes in improving the quality of healthcare where it is most needed.

Deliverables (of the session)

This session will explore the history and development context of Health Partnerships; their value at home and abroad; why they are able to achieve results that other development interventions find difficult; how to go about setting up a Health Partnership; what makes a good Health Partnership; the challenges that Health Partnerships encounter; and why Health Partnerships should be in every development professional's toolkit.

Illustrated with relevant case studies, the presenters will demonstrate how Health Partnerships have brought about real changes in behaviour for thousands of health workers, in turn improving the quality and accessibility of care across a wide range of specialisms.

Workshop 3:

Betts-Symonds, Graham
Irish Red Cross

Principles behind bars: an innovative Red Cross Approach to Improving Prisoner Health and Wellbeing

Prisoners in Ireland tend to emanate from socially and educationally disadvantaged areas. They demonstrate higher levels of addiction and mental health problems than their community counterparts, are at risk for drug use practices, increasing their incidence of HIV and TB, and are often the victims of injury due to blade violence. Using WHO's (2007) Whole Prison Approach to Health, in 2009, the Irish Red Cross (IRC) formed an innovative partnership with the Irish Prison Service and the Educational Training Board to pilot a program in Wheatfield prison in Dublin aimed to empower prisoners to manage and improve their own health. The programme received international interest and partners will participate in the WHO European Health in Prisons Meeting to be hosted by Ireland later this year. Significant program results of this prisoner-led partnership with prison management include a 92% reduction in cutting weapons attacks in one major prison from 2012 to 2014 and the scale up of other violence prevention activities is contributing to the national program.

The programme advocates for a number of disciplines to collaborate to promote more effective health in prison. It has demonstrated concrete examples of significant impact in the field of prison health, safety, personal empowerment and improved relationship changes between prisoners and staff. Utilizing the International Federation of the Red Cross's (IFRC) Community Based Health and First Aid (CBHFA) approach, the IRC trained prisoners in basic first aid, disease prevention, health promotion, community mobilization and the Fundamental Principles of Red Cross; increasing self esteem and engendering in participating prisoners a sense of community responsibility and self governance and a probable positive impact on recovery once released.

To date, 577 inmate volunteers (males and females) trained in CBHFA in 14 prisons have led successful projects for tuberculosis awareness, smoking cessation, winter vomiting bug, seasonal flu, heart disease and stroke awareness; initiated practical demonstrations in cardiopulmonary resuscitation and basic first aid; and raised HIV/AIDS awareness resulting in a 65% increase in voluntary uptake of HIV testing in several prisons and reduced stigma.

This workshop session will outline the program elements that enabled its successful uptake, the challenges its partners faced within their new constellation and the impact it has had on prisoner's mental and physical health. The focus now needs to be extended to the re-integration of prisoners into society.

Symposia 3:

Kere, Emily

CBM Canada; TGID

Muriel Mac-Seing, Mathieu Simard (Handicap International; TGID); Nicole Atchessi (University of Ottawa; TGID)

Alexis Davis (BC Children's Hospital/Sunny Hill Health Centre; TGID); Nicole Atchessi (University of Ottawa; TGID), Yin Brown (Ontario Council for International Cooperation; TGID), Cathy Cameron (ICDR; TGID), Deb Cameron (University of Toronto; TGID), Lynn Cockburn (University of Toronto; TGID), Clement Habiyakare (Canadian Medical Association; TGID), Djenana Jalovic (Queens University ICACBR; TGID)

Inclusive development: What it is and why it makes global health projects better

Objective and Background:

To review and understand the concept of “Inclusive development”, which is a social justice-oriented approach that aims to ensure that vulnerable groups actively participate in and benefit from development activities, regardless of ability, age, gender, religion, ethnicity or other social identity. This approach seeks to redress the deepening inequities experienced by those who are systematically excluded from development gains. “Development inclusive of ability diversities”, in particular, is an approach that serves to not only ensure the equal rights, inclusion and empowerment of ability diverse people, but also offers a model for better engaging other marginalized groups in development. Inclusive development is relevant to all spheres of life, but is particularly significant for global health. This cutting-edge thinking is at the centre of the WHO’s historic “Global Disability Action Plan 2014-2021”, which was just adopted at the 67th World Health Assembly in May 2014.

Target Groups:

This is an interactive workshop designed for people (researchers, academicians, programmers) who have limited experience with inclusion, ability diversity or accessibility.

Activities and Deliverables:

The activities are designed to “meet people where they are at”, and to help them develop insights about the topic and how it applies to their own global health (or other) activities at the ground level. Deliverables include knowledge about inclusive development, real world examples of inclusive development approaches, and quick wins about how to make global health activities more inclusive.

Workshop 4:

Manouchehrian, Mitra (Plan International Canada)

Magalie Nelson; Patrice Bauduhin; Bernabe Yameogo (Plan International Canada)

Partnership and community engagement in GFATM-financed malaria projects: Case studies from Plan International

Malaria is a global health issue accountable for 600,000 deaths annually, the majority in sub-Saharan Africa in children under five. While progress has been made in reducing their malaria burdens, many countries still face considerable challenges.

Plan International is implementing grants in Liberia, Guinea, Senegal and Zimbabwe financed by the Global Fund to Fight AIDS, TB and Malaria (GFATM). In Liberia and Guinea, malaria is the main cause of outpatient consultation, accounting for a large proportion of deaths. In Liberia 1,265,268 malaria cases were diagnosed in 2010, with children under 5 representing 38.3% of cases. In Guinea, 950,000 cases were diagnosed, children under 5 representing 35% of all cases. Senegal had 30,000 confirmed cases of malaria in children under 5 in 2009. Malaria is the fifth leading cause of morbidity in Zimbabwe, pregnant women and children under five the most vulnerable.

Throughout the implementation of these grants, using a successful model of partnership and community engagement, Plan International has leveraged its expertise in strengthening communities to meet key project objectives of reducing malaria morbidity and mortality. Partnerships with diverse stakeholders, including Country Coordinating Mechanisms, ministries of health, community health workers (CHWs), national/international NGOs, and community members, allow resources to be maximized, resulting in communities with increased capacities, and knowledge and awareness of malaria prevention and treatment which ultimately has led to more communities taking responsibility for preventing malaria amongst their most vulnerable populations.

Through partnerships with MOHSW, ChildFund, and two local organizations, 4300 CHWs and 1125 community members were trained by Plan Liberia, and 2 million people benefited from a bednet distribution campaign. In Guinea, Plan's partnership with ChildFund, CRS, MOH, and 3 local NGOs resulted in 2.4 million people receiving bednets and 167,400 home visits conducted to raise malaria awareness. In Senegal, as Sub-Recipient under Intrahealth and partnering with 30 CBOs, Plan trained 270 community relays in behaviour change communication and as a result 12,194 more people are aware of malaria impacts. While partnering with MOHCC (SR) and UNDP (PR), Plan Zimbabwe reached 1.2 million people through a bednet distribution campaign and 594,487 rooms through indoor residual spraying activities.

These partnerships at international, national, and local levels contributed to increased capacities in the communities which Plan serves resulting in decreases in the number of cases of malaria in children under 5. Learning from these partnerships can help improve their efficacy and allow for further successes in the future.

Symposia 4:

Chan, Ben

Division of Global Health, University of Toronto

Applying quality improvement science to global health challenges

Project Objective: discuss how quality improvement science can accelerate adoption of best practices in global health.

Why has progress been stalled in some key areas of the Millenium Development Goals? Why do successful initiatives in one place struggle to get adopted in another? Clinical best practices exist for all conditions affecting global health, such as maternal and child health, infectious diseases and chronic diseases. Yet, implementing these best practices is often challenging and frustrating.

Quality improvement science has the potential to address barriers to implementation, such as complex, bureaucratic or poorly designed processes; a lack of culture of quality; lack of data to know how well systems are actually performing; and top-down management styles that fail to engage and motivate front-line staff.

Quality improvement science is rooted in systems thinking. Rather than reprimanding individual workers for poor results, it draws on different techniques to identify the root causes of problems and prioritize which ones need to be addressed. It examines each step in the process of delivery of health care and systematically searches for redundancies, inconsistencies, poor handoffs and communication, or steps that add no value to the patient. Various techniques are used to streamline these processes. On implementation of change, QI science uses rapid-cycle improvement techniques with frequent tests of change using Plan-Do-Study-Act (PDSA) cycles to quickly identify what variations of an idea for improvement from elsewhere will work best under local conditions, where there may be different languages, human resources and skills, equipment, environmental factors or cultural sensitivities.

Target groups: Health system managers in low- and middle-income countries, at both a national and local level (e.g. individual primary care practices, hospitals or regional health systems).

Activities and deliverables: The lead presenter, Dr. Ben Chan, will provide an overview of the literature on attempts at using QI science in low- and middle-income countries and key elements of a national QI infrastructure that countries should consider putting into place to support best practice adoption.

Panelists will provide specific examples of activities to use QI science, including:

- A World Bank-funded initiative to support the establishment of QI in primary care and build QI infrastructure in the Republic of Georgia
- Development of a quality and patient safety framework for a rural hospital in Angola

- A CSIH initiative to support accreditation in Kazakhstan

Symposia 5:

Da Costa, Edith
Canadian Red Cross

Participation of men, empowerment of women and pregnancy outcomes in rural Honduras

The maternal mortality rate in Honduras in 2013 was 120 (per 100,000 live births) down from 290 in 1990. In 2013, 83% of Honduran women had an institutional birth attended by a health professional, but this is highly variable, with lower rates in poorer and more remote regions.

The REDES Project for Community Health was implemented from 2006-12 by Canadian Red Cross in partnership with Honduran Red Cross and Ministry of Health targeting 80,000 beneficiaries in 229 communities in Honduras. Among other goals, the project aimed to improve maternal-child health, especially increasing skilled attendance at all birth, which is considered the single most critical intervention for healthy birth outcomes.

Improved access, community demand for and utilization of basic health services was achieved through the development and training of a network of key stakeholders, strengthening linkages with the MoH, community mobilization and promoting the participation of local governments. Extensive training and education focused on key family practices and health-seeking behaviour change at the household level.

Most maternal health indicators improved, including an increase in institutional births from 44 to 63%. However, contrary to expectations and goals of REDES, the involvement of the partners decreased. Yet there was an interaction between the partners' scores and the maternal outcomes, with a larger increase in institutional births in women with least-involved partners.

Using the Lives Saved tool (LiST) the change in institutional birth is expected to decrease maternal mortality ratio (MMR) from 112 at baseline to 84 at endline. If the project were scaled up nationally, and achieved an MMR of 84, it would represent a 71% reduction since 1990 – very close to the MDG.

The manner in which the reduction was achieved was surprising. We anticipated that strengthening the involvement of the husbands/partners would lead to positive impacts, but their direct involvement was lower at endline, and was not related to level of institutional birth. Women with the least supportive husbands experienced the greatest improvements in institutional birth. Rather than the father/partner's involvement being key, it appears to have been secondary to other characteristics of the women. The project may have empowered women, through early identification of pregnancy, and strengthening social connections through home visits and pregnancy clubs so that even the women with unsupportive partners were able to make healthy choices and achieve higher rates of institutional births.

Workshop 5:

Kapiriri, Lydia

McMaster University

Jill Allison Kishor Wasan (On behalf of the Transdisciplinary working group, Canadian Coalition for Global Health Research)

Partnerships across disciplines to foster Global Health Research

Many disciplines such as Anthropology, Economics, Political Science, Law, Social Sciences, Basic science, Biotechnology and medicine contribute to the critical understanding and explaining the complex global health issues. Moreover, tackling complex problems in global health requires that stakeholders at multiple levels, from community to policy makers, be involved. Global health programming and research should thus be both interdisciplinary and transdisciplinary in its focus. Interdisciplinary research borrows theories, concepts and methods from the relevant disciplines and seeks to produce new knowledge through their integration. The knowledge produced through integrative processes is more comprehensive, and provides new meaning and cognitive advancements in relationship to any phenomena. From this understanding, global health research and practice will only achieve its critical goals by integrating approaches and concepts from different from a range of disciplines in addition to the traditional health sciences (Anderson, Hay, Patterson et al, 2013).

To date, however, traditional disciplines of Medicine and Public health have dominated global health research and practice to the extent that researchers and practitioners who are involved in the “non-traditional” global health research and practice (e.g. Engineering, Economics) are either marginalized or distance themselves from the field. In order to address the potential for a transdisciplinary lens, we begin with the role of interdisciplinary researchers in constituting the scope for this breadth of perspective.

Building on experiences from the interdisciplinary workshops at McMaster University, this session will bring together traditional and non-traditional Global health researchers (and practitioners) who are involved in interdisciplinary work to share their experiences with regards to how they developed and have fostered the culture of interdisciplinarity in Global health. The panel will include researchers from Basic Science (Robert Hancock); engineering (Sarah Dickson), law (Lisa Foreman), anthropology (Elysee Nuveete), Veterinary Medicine (Bonnie Buntain), Basic Science (Emmanuel Ho). After brief overviews from the panellists, they will facilitate discussions of both enablers and barriers to inter (and trans)disciplinary global health research and practice; and the importance of a community of practice that supports interdisciplinary research.

Symposia 6:

Jones, Andrew
THET

Institutional health partnerships: diverse approaches to capacity building

Project objective

THET (the Tropical Health and Education Trust) is a specialist global health organisation that educates, trains and supports health workers through partnerships; strengthening health systems and enabling people in low and middle income countries to access essential healthcare. THET currently supports about ninety capacity building projects run by institutional health partnerships through the Health Partnership Scheme, a \$55m CAD programme funded by the UK government.

Target groups : Institutional health partnerships are long-term relationships between UK health institutions and similar institutions in low and middle income countries. Partnerships take a collaborative approach in designing and implementing projects that build the capacity of individuals and health institutions at all levels of the health system from public health to tertiary care.

Activities (specifically related to the subject of this abstract) :

Under the broad heading of health worker education and training, partnerships take diverse approaches including:

- Formal, in-service training courses;
- Informal or on-the-ward teaching or mentoring;
- Curriculum development for pre-service training;
- Learning placements in the region or UK;
- Remote or online mentoring;
- Development of protocols, policies and systems at department and institution level;
- E-learning.

Health partnerships provide these kinds of support through direct relationships between two institutions, by offering training to health workers able to travel to a central location, by working through one or more professional associations, or by working through other programme and governance structures.

Deliverables :Evidence is beginning to emerge on the mechanisms, strengths and weaknesses of these approaches and how appropriate they are in specific contexts. The breadth of the ninety partnership projects that are currently supported gives THET a unique position to draw together the lessons learnt of capacity building projects, and what works within an institutional health partnership.

Symposia 7:

Hera, Jonathan

Grand Challenges Canada,

Ken Simiyu, Kristen Yee (Grand Challenges Canada); Charles P. Larson (Centre for International Child Health)

Role of Smart Partners in Scaling Up

Objective: Highlight Grand Challenges Canada's latest approaches to solving global health problems through innovation. We will provide an overview of our latest approaches to scaling and the role of partners, as well as provide examples and learnings from past/current projects.

Target groups: innovators looking for funding, innovators who have already achieved a proof of concept for a bold idea but need help scaling up their innovations to achieve maximum impact, other funders who are looking to learn about different approaches to solving global health topics

Deliverables: Provide attendees awareness of Grand Challenges Canada as a funding source for Canadian innovators and highlighting our program structure and how we work with innovators to address global health challenges. Provide a framework to assist innovators plan for building partnerships, scaling up, and sustainability.

Symposia 8:

Kapiriri, Lydia

McMaster University

Brendan Kwesiga (HealthNet, Uganda), Marie- Gloriose Ingabire (IDRC)

Partnerships to ensure Universal Health Coverage: Experiences from Ethiopia, Uganda and Zambia

As part of the growing international consensus and commitments reflected in the World Health Assembly Resolution 64.9 on sustainable health financing structures and universal coverage, and the 12 December 2012 Resolution of the UN General Assembly on universal health coverage, many countries, especially low and middle income countries, have embarked on the universal health coverage (UHC) journey to provide their populations adequate access to health care.

However, most of these countries still face significant challenges in order to make significant progress towards UHC. Most low and middle income countries still have insufficient and inadequate health financing as well as limited or lack of strong, meaningful and sustainable partnerships between local, national and international government and non-government stakeholders. . As such, UHC cannot be effectively realized in such conditions.

In 2013/14, with funding from Canada's International Development Research Centre (IDRC), researchers from Ethiopia, Uganda and Zambia have conducted case studies on UHC implementation in the three countries. In this organized session, their research results on the different strategies/ approaches for partnerships towards UHC will be shared and discussed. They range from donor harmonization, to decentralization and community engagement from the design to the implementation and evaluation of UHC policies. Limited adherence to the Paris declaration was observed and levels of community involvement vary from actual active agents of change to top-down approaches. Different reasons are given for the different strategies used in the three countries and these will be discussed.

The need for building meaningful partnerships in order to achieve UHC cannot be over emphasized. The three case studies identify context relevant lessons of good practice and challenges related to partnership building for UHC.

Symposia 9:

An Integrated Partnership to Achieve Greater Impact on Health in Haiti

Moderator: Dr. Jean-Claude Fournon (Centre hospitalier universitaire Sainte-Justine) Speakers: Isabel Gauthier, Mary Thompson (Canadian Red Cross); Dr. Dickens Saint-Vil (Centre hospitalier universitaire Sainte-Justine); Dr. Rose Francesse Pierre (Unité de santé internationale de l'Université de Montréal); Lucie Bédard (Direction de santé publique de Montréal) By the end of this session participants will have a better understanding of :

- The enabling/challenging elements of this partnership and the strategies used to address them.
- The links between those elements and project results to date (mid-way through the project).
- The influence this partnership, in such a complex setting as Haiti, has on all partners and their own institutions.

Haiti, almost 5 years after the earthquake, remains a country of focus for Canada and its largest aid beneficiary in the Americas. Canada's work in Haiti continues to maximize its aid effectiveness and improve access to health, especially for Haiti's mothers and children who demonstrate the worst health care statistics in the Americas. In support of this goal, in 2011, six partners: Croix Rouge Canadienne, Croix Rouge Haïtienne, Ministère de Sante Publique et de la Population, Centre hospitalier universitaire Sainte-Justine, Direction De La Santé Publique de Montréal, and l'Unité de santé internationale de la Université de Montréal began implementing an integrated health program in Haiti's South East department to improve the availability and use of health services and improve the quality and access to maternal, newborn and child health (MNCH) services.

Working at the community, primary and secondary levels of the health care system, partners collaborated to: strengthen health services functions for planning, management, and health information systems; train administrative, medical and technical staff; reconstruct the hospital and clinic facilities; and train Red Cross volunteers in effective health promotion and disease prevention messaging to reduce the incidence of disease.

At the mid-point of this partnership concrete results are emerging in both prevention and treatment areas across the different levels. Results to date include: an improved health information systems at the 3 levels, an enhanced epidemiologic surveillance tool piloted by 110 community volunteers in rural areas, human resources training on the management of high risk pregnancies/deliveries, an uptake in user ship at the reconstructed clinics and improved knowledge and behaviours in 4 communities resulting from health messaging delivered by the 600 trained Red Cross volunteers.

Panellists from Canadian implementing partners will discuss challenges and solutions of this partnership and identify elements that have facilitated/impeded results and the achievement of more equitable access to health, including those highlighted by representatives from the Haitian Red Cross and Haitian MOH in a short video. Partners will also reflect on how this partnership has been managed by their own institutions and the impact their internal learning as result of partnering in an integrated project in such a complex setting.

Workshop 6:

Katsivo, Melanie
Western University

Shawna O'Hearn - Dalhousie University; David Zakus - University of Alberta; Jill Allison - Memorial University of Newfoundland and Winniejoy Nkonge Gatwiri – Kenyatta University, Kenya

International global Health Partnerships: Policies, Risk Management, Sustainability and Coordination

Project Objective:

With the ever changing geo-political situations in the world and the Canadian response to those changes, Canadian universities have to re-evaluate the nature and degree of engagement with international partners for global health. There is no consensus on what international partnerships should look like in terms of process and expected short and long-term outcomes - both from Canadian and partner perspectives, with each university deciding to adopt its own policies and guidelines to govern its international engagement. This workshop will launch a conversation within the Canadian global health community that will lead to some general consensus around common goals. Influencing factors such as severe financial constraints, safety and risk management issues, sustainability of partnerships including reciprocity, ethics and collaboration with institutions across Canada will be examined, as we critically review contributions that Canadians can and do make towards ensuring healthier communities and more equitable healthcare systems wherever they engage in the world.

Activities and deliverables:

For the first 25 minutes, Memorial University of Newfoundland, Dalhousie University, University of Alberta, Kenyatta University and Western University will initiate this discourse by sharing experiences with the strategies used by each of them, to engage with the world.

Participants will then be divided into three groups and will be requested to discuss and record their views on:

1. International partnership selection criteria and risk management – 10 minutes
2. Partnership equity, reciprocity and collaboration within and outside Canada – 10 minutes
3. Social responsibility and ethical engagement – 10 minutes

Each of the 3 groups will take 5 minutes to share a summary of its discussions with all the participants.

This will be followed by a 20 minute general discussion and wrap up.

Workshop outcomes will be shared with the global health community and other interested parties through publications, presentations at open and closed fora and social media. Workshop outcomes will also be used to stimulate a continuation of this discourse.

Symposia 12:

Edwards, Beverly

Plan Canada

Marnie Davidson (CARE Canada), Susan Smandych (Plan Canada), Curtis LaFleur (World Vision Canada), Laila Salim (Save the Children Canada)

Building smart partnerships for effective and accountable maternal, newborn and child health

In 2012, four NGOs Care Canada, Save the Children Canada, World Vision Canada and Plan Canada established the Muskoka Initiative Consortium Knowledge Management Initiative (MIC-KMI) with two primary objectives: to demonstrate the value of cross-organizational partnership and collaboration in maternal, newborn and child health (MNCH), and to showcase the collective impact of the Canada's investment in MNCH. The four NGOs joined in partnership with the Hospital for Sick Children's Global Child Health Centre, University of Toronto to achieve the project objective.

The four NGOs implement a variety of maternal, newborn and child health context-based approaches and interventions to reach women of child bearing age and children under five in 10 project sites in Bangladesh, Ethiopia, Ghana, Mali, Pakistan, Tanzania and Zimbabwe. The main activities and deliverables of the MIC-KMI are to:

1. Establish a common framework for measurement of results and show collective and transparent impact measurement of Consortium Partners' results in the areas of health and nutrition for newborns, children under five and women of reproductive age.
2. Identify and implement opportunities and activities to increase cross-organizational learning, sharing and collaboration among Consortium organizations in Canada and in the field.
3. Conduct original, qualitative research on two MNCH topics.
4. Develop and implement knowledge management and transfer strategy and share results, research findings and best practices with Consortium members and MNCH Partners.

The objective of this presentation is to present a case study of one partnership among NGOs and academia and to discuss the challenges, key considerations and value of global health partnerships. The presentation offers unique lessons from a diverse partnership approach, including practical considerations in implementing joint research, defining a common set of indicators and establishing accountability measurements. The authors will examine the diverse institutional cultures, motivations and organizational context of NGOs and academic institutions and discuss the inherent value of such partnerships. The presentation will attempt to answer questions such as:

- How do health programming in NGOs and academic institutions differ?
- What are the real experiences, practical considerations and challenges in establishing an effective global health partnership, and how can these challenges be mitigated in a meaningful collaborative way involving institutions coming from diverse backgrounds?
- What can we achieve through these types of partnerships and how do they link to accountability and aid effectiveness?

Symposia 14:

Salewski, Tanya

Aga Khan Foundation Canada

Neelam Merchant (Aga Khan Foundation Canada)

Approaches to sustainable partnerships in improving health services for under served populations in Africa and Asia – the AKDN experience

Partnerships are integral to AKDN operations and successes. With over 100 years of experience building and working through partnerships to improve the health, welfare and prospects of some of the poorest and most underserved populations in Africa and Asia, AKDN uses a long-term, multi-input approach to improve the quality of life of vulnerable populations, particularly in communities where existing government services are weak.

This symposium will highlight the integral role of partnerships in the work of the AKDN, explore best practices and examine the diverse partnerships and collaborations that have helped AKDN improve access to quality health services. Speakers will include AKDN partners from the field, including Mali, Mozambique and Pakistan.

Health services in low-resource settings are often constrained by factors such as limited human resources, fragile infrastructure, poor road networks, inadequate health financing, weak health information systems, and limited capacity of health departments. AKDN's experience in the health sector has shown that partnerships must be informed by the relevant stakeholders and context of each geographical area. Supporting partnerships at the community, regional and national levels can increase access to quality services, optimize the use of resources, minimize duplication, and enhance sustainability through local involvement and ownership.

This symposium will explore AKDN's approach within the health sector, particularly through projects in Asia and Africa funded through DFATD and the Aga Khan Foundation Canada (AKFC). These efforts rely on building and sustaining effective partnerships with a range of stakeholders, including national and local health authorities and communities. Examples will be drawn from current AKDN programs. This includes health system strengthening through public-private partnerships to deliver services in Afghanistan and Pakistan; private sector partnerships to improve nutrition in Afghanistan; and community partnerships in Mali, Mozambique, Pakistan and Tanzania to increase the availability and capacity of facility and community based health workers to deliver quality services to vulnerable populations.

Symposia 15:

Said, Laaziz

Canadian Red Cross

Breaking new ground in Mother-Child Survival: Making the case for innovative iCCM partnerships with the Kenya, Liberia and Mali Red Cross Societies

As a strategic approach to close the equity gap for populations falling into the 5th quintile, integrated Community Case Management (iCCM) is positioned to be a key intervention in the Post-2015 Development agenda to reduce under-five mortality in Africa. With support from DFATD, in 2012 the Canadian Red Cross (CRC) entered into partnerships with National Red Cross Societies (NRCS) in Kenya, Liberia and Mali and their respective Ministries' of Health (MoH) to support the roll-out of the iCCM programs and improve maternal, newborn and child health covering a population of over 1 million. With one year to go, and nearly 200,000 children under-five with pneumonia, malaria and diarrhoea already having received timely life saving treatment, clear evidence of results is emerging as seen:

- In Liberia, the percentage of children aged 0 - 5 years diagnosed with pneumonia and treated with antibiotics increased on average by 44%
- In Mali, the percentage of children U5 with diarrhoea given ORS packets and zinc supplement increased by 94%.

While NRCS have always held the role of auxiliaries to their Governments , these iCCM projects mark a departure from their traditional role and demonstrate their potential to contribute to improved country level performances on key Commission on Information and Accountability for Women's and Children's Health indicators. Central to the NRCSs value as iCCM partners has been the fostering of community health committees (CHCs) as an intermediary structure between communities and first level health facilities. The CHCs, are essential to achieving sustainability, oversee strategies aimed at securing community engagement including providing food and housing for CHWs, creating community referral systems and extending the reach of CHWs through a wide network of community volunteers with immediate access to the household level.

Chaired by an expert from WHO, this symposium, with program implementers from Kenya, Mali, and Liberia will critically examine iCCM challenges and solutions across those three different contexts. A particular focus for the discussion will be the application of practical strategies in partnership with the MoH and communities to reduce supply side barriers, ensure effective supervision and increase community preparedness for service utilization.

The post-MDG focus on MNCH (and iCCM) means that different types of partnerships will need to emerge if anticipated results are to be achieved. Transformations in the way NRCS undertake their role in relationship to national iCCM programs could substantially influence this outcome.

Oral Presentation Abstracts

Abdullah, Boushra (University of Calgary)

Co-Authors: Gregor Wolbring (University of Calgary)

Analysis of newspaper coverage of active aging through the Lens of the 2002 world health organization active ageing report: A policy framework and the 2010 Toronto charter for physical activity: a global call for action

Objective: As populations continue to grow older, supporting the process of aging well is an important global goal. Various synonyms are used to cover aging well, such as active aging. The World Health Organization published in 2002 the report Active Ageing: A Policy Framework that according to the call for papers has brought active ageing to the fore front of international public health awareness. The 2010 Toronto Charter for Physical Activity: A Global Call for Action was singled out in the call for papers as a key document promoting physical activity one goal of the 2002 WHO active aging policy framework. Media are to report to the public topics of importance to them.

Methods: We investigated the newspaper coverage of aging well and synonymous terms such as active aging through the lens of the 2002 WHO active aging policy framework and the 2010 Toronto Charter for Physical Activity. As sources we used the following newspapers: China Daily, The Star (Malaysia), two UK newspapers (The Guardian, The Times), a database of 300 Canadian newspapers (Canadian Newsstand) and a US newspaper (The New York Times).

Results: The study generated data answering the following four research questions: (1) how often are the 2002 WHO active aging policy framework and the 2010 Toronto Charter for Physical Activity mentioned; (2) how often is the topic of active aging and terms conveying similar content (aging well, healthy aging, natural aging and successful aging) discussed; (3) which of the issues flagged as important in the 2002 WHO active aging policy framework and the 2010 Toronto Charter for Physical Activity are covered in the newspaper coverage of active aging and synonymous terms; (4) which social groups were mentioned in the newspapers covered

Discussion: The study found a total absence of mentioning of the two key documents and a low level of coverage of “active aging” and terms conveying similar content. It found further a lack of engagement with the issues raised in the two key documents and a low level of mentioning of socially disadvantaged groups.

ABOSEDE, OLAYINKA (COLLEGE OF MEDICINE, UNIV OF LAGOS, NIGERIA)

Co-Authors: ENIOLA ERINOSHO (LAGOS STATE MINISTRY OF HEALTH), OLUGBENGA SHOLEYE (OLABISI ONABANJO TEACHING HOSPITAL)

Restructuring the ward health system for sustainable people-centred primary health care services in south-west nigeria: challenges and lessons learned

ABSTRACT

The ward, the smallest geopolitical unit in Nigeria having a population of 30 to 50 thousand should be served by at least one standard primary health facility and a Ward Health/Development Committee. In spite of a comprehensive National Strategic Health Development Plan (2009-2015), turning knowledge into action to improve universal coverage of PHC has been fraught with various challenges because there cannot be sustainable and effective health reform without social reform. The failure of the first 3 attempts to establish a sustainable PHC system has been attributed especially to inadequate infrastructure and poor community participation hence lack of a sense of ownership.

Objective

The objective of this descriptive, interventional study is to highlight strategies used by the Lagos State Government to re-establish and revitalise PHC services.

Method

Baseline situation analysis of PHC facilities and preliminary activities for implementation of the guidelines of the state's Health Reform Law of 2006. Capacity building programmes were organised for community governing bodies, additional human resource for health was employed and staff redeployed. Challenges and lessons learned were documented.

Outcome

Community governing structures including the State PHC Board, 57 Local Government Health Authorities (LGHAs) and 376 Ward Health Committees (WHCs) were established or reconstituted and backed by an enabling law. Health Facility Management Teams were inaugurated for model, "flagship" PHC facilities in 57 LGs/LCDAs. One hundred and twelve (112) PHC facilities were upgraded /constructed, equipped and staffed. By 2011, there were 277 functional PHCs in 223 wards. Seventeen secondary facilities were upgraded as referral facilities and 57 LGs/LCDAs were supplied ambulances to link up with other tiers in a two-way referral scheme. PHC facility utilization increased significantly.

Discussion

The state's determination to strengthen PHC and commencement of the implementation of "PHC-Under-One-Roof" have yielded positive results. However, sustained political commitment and social reform are crucial to minimization of the challenges faced by community governing bodies.

Conclusion

Empowered communities complemented by infrastructure, appropriate equipment, health manpower and drugs are the key to sustainable, effective PHC.

Adler, Ellie (The Hospital for Sick Children)

Co-authors: Dr. Curt Bodkyn (University of the West Indies)

Bridging the Distance in Small Island Developing States: Telemedicine as a means to build capacity for care in paediatric cancer and blood disorders

Objective: Where a child lives plays a significant role in determining their chance of survival. Of all children and adolescents diagnosed with cancer each year, 80% live in countries with limited resources, accounting for more than 90% of deaths. Defined by the United Nations (UN) as small island developing states (SIDS), Caribbean countries face unique geopolitical challenges including small population size and accessibility that must be considered in the development of a sustainable capacity building initiative. Given the gap in survival between high and low- and middle-income countries, established paediatric cancer treatment centres, such as The Hospital for Sick Children (SickKids), are well positioned to provide management recommendations to their Caribbean counterparts. Through the SickKids Centre for Global Child Health the SickKids-Caribbean Initiative (SCI) was launched in March 2013 to build sustainable capacity and improve the outcomes of children with cancer and blood disorders in the Caribbean, partnering with hospitals in six English-speaking Caribbean countries including: The Bahamas, Barbados, Jamaica, St. Lucia, St. Vincent and the Grenadines and Trinidad and Tobago.

Methods: In order to establish educational partnerships, the SCI has established Clinical Case Consultations Review Rounds and Patient Care Education Rounds. These interprofessional sessions bring together healthcare providers to engage in “real-time” discussions on second-opinion management recommendations and various aspects of paediatric patient care, respectively. Leveraging a longstanding relationship with the University of the West Indies (UWI) Telehealth in Trinidad, SCI has begun establishing a standardized telemedicine network at participating partner sites.

Outcomes: Through this initiative, four new telemedicine facilities have been opened, with plans for two more. Through May 2014, SCI has facilitated the review of sixteen cases through telemedicine consultations, bringing together physicians from the participating sites and SickKids via telemedicine to deliver educational presentations, evaluation and recommendations for additional studies, such as pathology and diagnostic imaging. Both these series of rounds have been well attended with physicians, nurses and trainees.

Discussion: Utilizing telemedicine technology reduces the cost of international consultations, while expediting the review process and providing a forum for clinical education, thereby building capacity for patient management in the region. A mechanism for both clinical and non-clinical meetings, it enhances opportunities for inter-Caribbean consultation and collaboration. Early lessons include the importance of dedicated technical support and of evaluations from facilitators and participants. In order to continually improve the content of these sessions, next steps include collating evaluation data to assess the extent of participant satisfaction and how concepts can be applied in practice.

Conclusion: Serving as a forum for education, knowledge transfer and treatment recommendations, telemedicine involves the integration of technology, medicine, social systems and culture. It is a valuable tool to strengthen training by increasing the expertise of sub-specialists locally and promotes academic exchange in paediatric specialties.

Alam, Nazmul (The University of Montreal Hospital Research Centre (CRCHUM))

Mohammad Hajizadeh (Dalhousie University, Nova Scotia, Canada), Alexandre Dumont (Université Paris Descartes, Paris, France), Pierre Fournier (Université de Montréal, Quebec, Canada)

Inequalities in maternal health care utilization in sub-Saharan African countries: A multiyear and multi-country analysis

Objective: Sub-Saharan Africa (SSA) has the highest maternal mortality ratio (MMR) and responsible for more than half of maternal death worldwide. Maternal care services remained as important indicators to monitor progress in maternal mortality targets. This study aims to examine social inequalities in use of antenatal care (ANC), facility based delivery (FBD), and modern contraception (MC) in two contrasting groups of countries in SSA as per their achievement towards MDG 5 targets.

Methods: Six countries were included in this study, where three countries (Ethiopia, Madagascar, and Uganda) had <350 MMR in 2010 with >4.5% average annual reduction rate, while, another three countries (Cameroon, Zambia, and Zimbabwe) had >550 MMR in 2010 with only <1.5% average annual reduction rate. All of these countries had at least three rounds of Demographic and Health Surveys (DHS) before 2012.

Outcomes: We measured rate ratios and differences and relative and absolute concentration indices in order to examine within-country geographical and wealth-based inequalities in the utilization of ANC, FBD, and MC.

In countries with sufficient progress in reducing maternal mortality, Ethiopia, Madagascar and Uganda, ANC use increased by 8.7, 9.3 and 5.7 per cent point respectively while the utilization of FBD increased by 4.7, 0.7 and 20.2 percent point respectively, over the last decade. By contrast, utilization of these services either plateaued or decreased in countries did not make progress in reducing maternal mortality, with exception of Cameroon. Utilization of MC increased in all the six countries but remained very low, with highest at 40.5% in Zimbabwe and lowest at 16.1% in Cameroon as of 2011. In general, relative measures of inequalities, as measured by rate ratios and relative concentration index, were found to have declined overtime in countries making progress in reducing maternal mortality whereas, these indicators remained sustained or increased in countries with insufficient progress in maternal mortality reduction. Absolute measures for geographical and wealth-based inequalities, however, remained high invariably across the countries whether they made progress in reducing maternal mortality or not.

Discussion and Conclusion: Increasing trend in the utilization of maternal care services was found to have coincided with steady decline in maternal mortality ratios in SSA countries. Relative inequality declined overtime in countries making progress in reducing maternal mortality. Concerted efforts should be taken to increase maternal care services utilization and have better handle to address inequalities for those who are poor and live in rural areas.

Alladin-Karan, Bibi (Georgetown Public Hospital Corporation, Guyana)

Medication use in the management of acute gastroenteritis (AGE) in paediatric patients at Georgetown Public Hospital Corporation (GPHC), Guyana

Objectives: AGE is a common presenting paediatric illness in the emergency departments in Guyana and a frequent admitting diagnosis to the paediatric ward at GPHC. Objectives of this study were to describe patients admitted with the diagnosis of AGE in the paediatric ward of GPHC from January to December 2013 and determine the characteristics of those treated with medications including: antibiotics, antiemetics and antihistamines.

Methodology: A retrospective chart review of patients admitted to the paediatric ward of GPHC with the admitting and discharged diagnosis of AGE from January to December 2013. Data extracted included demographics, clinical presentation (including: history of fever, blood in stool, and hydration status), investigations (including: leukocytosis, stool and blood cultures) and management focusing on medication use.

Outcomes: Charts were secured for 117 patients (83% of study population). Mean age was 2.1 years (1mos-12yrs). 53% were males and 34% were Afro-Guyanese ethnicity, 20% were Indo-Guyanese, and majority (74%) were from Georgetown area. Mean length of hospital stay was 3 days (1-24 days). Majority presented with diarrhea (96%) and vomiting (85%), and 19% presented with bloody stool. Dehydration was documented in 81%, nearly half (49.4%) of these moderately dehydrated. 44% of patients had other co-morbidities such as febrile seizures, malnutrition, infections (URTI, pneumonias etc) diagnosed on initial presentation. 10% of patients had blood culture done with one positive result (gram negative cocci). 43% of patients had stool culture collected, with 2 positive samples for Aeromonas sp. Antibiotics were received by 49% (37% of these received two or more antibiotics). More than half (57%) were given broad spectrum antibiotic, 23% patients were treated with H2 blockers and 19% of patients received sedating antiemetics (i.e. diphenhydramine, metoclopramide). Patients who presented with vomiting ($p<0.01$) and dehydration (0.04), were least likely to receive antibiotics while those with bloody stools ($p<0.01$), and co-morbidities($p<0.01$), were more likely to receive antibiotics and have longer hospital stays. 95% of patients had at least one investigation ordered (most commonly complete blood count).

Conclusion: Medication use in AGE is common at GPHC, with nearly half of the admitted patients being treated with antibiotics, despite most investigations yielding normal results and current guidelines which does not support the use of medications in uncomplicated AGE. A protocol to improve evidence-based paediatric AGE management at GPHC was developed based on the findings of this study and includes the use of oral Zinc and ondansetron.

Allen-Scott, Lisa (University of Calgary)

Co-Authors: Sheri Bastien (University of Calgary), Mange Manyama (Catholic University of Health and Allied Sciences (CUHAS)), Jennifer Hatfield (University of Calgary)

Consideration of harmful unintended consequences during planning and implementation of Project SHINE in Tanzania: a case study.

Objective: Despite awareness of harmful unintended consequences (UC) associated with public health interventions (PHI), evidence-based conventions focus more on narrow measures of intervention effectiveness than on potential adverse events. This leads to incomplete or absent evaluation of harmful UC. We propose that public health professionals need to re-examine the way in which PHI are planned in order to incorporate the concept of harmful UC. Importantly, this includes including district, regional and community members in critical discussions. Here we present a case study of an innovative approach to identify and mitigate harmful UC through participatory engagement with both institutional and community partners.

Methods: Project SHINE (Sanitation & Hygiene INovation in Education) aims to utilize participatory school-based health promotion initiatives to prevent parasitic infection through empowerment of youth as change agents and to catalyze a process within the community for increased capacity to develop and sustain health promotion strategies. Project SHINE was evaluated for harmful UC in 5 typologies: physical, psychosocial, cultural, economic and environmental. Harmful UC underlying factors: limited knowledge, ignoring context, reductionism, false premises, basic values and immediate interest were examined through a transdisciplinary “think tank”. An adapted version of the WHO Systems thinking for health systems strengthening framework, which proposes 4 essential steps for applying a systems perspective in PHI planning was used to facilitate the process: (1) recruitment of participants for the transdisciplinary “think tank”; (2) collective brainstorming; (3) harmful UC conceptual mapping; and (4) adaptation and redesign.

Outcomes: An academic “think tank” including both Canadian and Tanzanian researchers and project leaders was used to pilot the discussion process. The regional, district and local community “think tank” involved key stakeholders, including: the district educational officer, headmaster, teachers, students, parents, traditional leaders, medical personnel and representatives from a local women’s group. These two “think tanks” identified contextual factors and harmful UC that may be associated with the Project SHINE approach and collaboratively developed strategies to minimize prioritized harmful UC.

Discussion: The strong and equitable partnership between the University of Calgary, Catholic University of Health and Allied Sciences (CUHAS) and the local community were essential to the success of this process. Principles of openness and trust are required identify unique cultural, social and environmental factors that may impact outcomes of the Project SHINE approach.

Conclusion: Transdisciplinary systems thinking together with explicit consideration of harmful UC during PHI planning assisted in efforts to minimize harmful UC of Project SHINE.

Allison, Jill (Faculty of Medicine, Memorial University of Newfoundland)

Co-Authors: Shambhu Upadhyay (Patan Academy of Health Sciences, Kathmandu, Nepal), Shree Mulay (Memorial University of Newfoundland)

InSIGHT: Collaboration and innovation in pre-clerkship global health education

Objective: Memorial University Faculty of Medicine, in collaboration with Patan Academy of Health Sciences (PAHS) in Kathmandu, has developed an innovative partnership that aims to introduce pre-clerkship and early clerkship students to comprehensive and coherent global health experiences. The International Summer Institute for Global Health Training (InSIGHT) Program was developed to: 1) foster critical analytical attention to the social determinants of health and approaches to health inequity in a low income country; 2) ensure supported and context informed clinical observerships; 3) provide a model of a collaborative approach in global health education.

Methods: Selected pre-clerkship students undertake language and background study on Nepal prior to spending one month in country. Two weeks are focused on social, cultural, political and systemic factors. Using Aloba et al.'s (2012) analytical framework for charity, development and social justice approaches, we explore opportunities for, and impact of social change. Seminars, games, residential rural field trips and lectures are combined with informal meetings and presentations with human rights activists, program managers, NGOs, gender specialists and primary health care providers. Opportunities to engage with local medical students and faculty at PAHS are incorporated. Students spend the final two weeks in a clinical observership with local practitioners at PAHS teaching hospital. Regular case discussions consolidate knowledge and encourage reflection.

Outcomes: Evaluation takes place through both written and oral reflection. A questionnaire invites students to evaluate their learning around the needs of underserved communities, the complexities of health inequity, and impact on CanMEDs roles. InSIGHT is highly rated by participants for its impact on the role of advocate, scholar, communicator and professional.

Discussion: Short term global health electives in under-resourced communities often mean that already over-extended health care providers must supervise, educate, and translate for Canadian medical students. InSIGHT helps students prepare with language and contextual information before and during their visit to Nepal and reduces the time demands on local practitioners. Providing tools for a critical analysis of the challenges in global health is a key to educating medical students about the complexity of health inequities. We also emphasize partnership, respect for local practitioners and an integrated approach.

Conclusion: InSIGHT offers an opportunity for pre-clerkship students to gain a deeper understanding of local social conditions and bring that experience into the clinical domain. It also combines grounded and theoretical perspectives to problem solving in a global health program and provides an example of international and inter-institutional collaboration.

Andermann, Anne (McGill University)

How frontline health workers can tackle the social determinants of health: A realist review

Objective: The purpose of this review was to identify what concrete actions frontline health care workers can use in their day-to-day practice to tackle the social determinants of health

Methods: A realist review was conducted including searching electronic databases such as MEDLINE, ISI Web of Knowledge, CINAHL and Cochrane library, as well as identifying the grey literature using Google Scholar, GreyNet and discussions with key informants. Over 50 documents were identified and a thematic analysis was used to synthesize the kinds of actions that frontline health workers can do.

Outcomes: At the patient level, frontline health workers can take a social history, map out the local referral resources, help patients access benefits, advocate for patient needs and create a shared management plan. At the practice level, health workers can provide integrated services that are culturally adapted and accessible to those in need. At the community level, health workers can raise awareness about the social determinants of health, get involved in community partnerships, advocate for more supportive environments and engage in participatory action research.

Discussion: Frontline health workers are trusted members of the community who are well-positioned to reach-out to disadvantaged populations, bear witness to the health impacts of the social determinants and begin to address important health needs and service gaps.

Conclusion: Promoting greater engagement of the health sector in tackling the social determinants of health requires greater emphasis on education and training for frontline health workers as well as incentive schemes, role-modeling and other organizational structures that support such involvement.

Astle, Barbara (Trinity Western University)

Co-Authors: Sheryl Reimer-Kirkham (Trinity Western University), Darlane Pankratz (Trinity Western University), Clare Kasapo Ntinda (Chickankata Mission Hospital, Zambia)

Nursing Students Partnering: A Zambian-Canadian Study

OBJECTIVE: This presentation reports on a research project that examined how Canadian and Zambian nursing students described partnering in the context of an international learning experience. Although many nursing programs are offering international placements for undergraduate nursing students, little is known about how a partnering relationship might foster learning between students from different countries. The literature suggests that students who experience an international immersion in a culture other than their own are likely to develop a transformational understanding of global health concerns and global citizenship compared to students who merely learn the concepts theoretically. Partnerships are now widely promoted as a way to foster global citizenship and engagement. However, little research has considered the dynamics of students partnering or the perspectives of host agencies for international learning experiences. A qualitative case study approach was used to explore the dynamics of partnering between Zambian and Canadian nursing students in the context of an international learning experience. Research questions were: How do students describe partnering? How is partnering facilitated? What do students learn through partnering? How does a student-to-student partnering model foster global citizenship? What implications does student partnering have for global nursing education?

METHODS: Focus groups were conducted with sixteen Zambian and Canadian nursing students, and four stakeholder interviews explored the implementation and local impact of this partnership for the Zambian community. Thematic analysis by the team of Canadian and Zambian investigators guided the interpretation of the data.

OUTCOMES/FINDINGS: In this presentation, we will discuss the findings of the study, organized by the themes of (i) the value of partnering; (ii) the processes of partnering; (iii) the learning outcomes of partnering, with a focus on global citizenship and equity; and (iv) the implications of and recommendations for partnering.

DISCUSSION: The findings provide important insight into how nursing students valued partnering, and how students moved toward global citizenship, particularly in their reflection on distribution of global wealth and health inequities. Partnering, though an aspiration, is not easy to achieve in the true sense of the word. Zambian students emphasized that they too would like the opportunity of learning in an international setting such as Canada.

CONCLUSION: Exchanges offering equitable opportunities are valued, as are ongoing connections between students. More research is needed to understand the perspectives of agencies that host international learning experiences and how to promote global citizenship.

Astle, Barbara (School of Nursing, Trinity Western University)

Setting a Global Educational Partnership in Nursing for Success: “Keeping it Going and Transitioning

Objectives; For many years, Nurses have been involved in various initiatives for supporting institutional capacity building, specifically with the promotion of the academic preparation of foreign nurses within their academic institutions. University global partnerships are viewed as one strategy to support achieving the goal of the promotion of health.

Method: A qualitative methodological framework was used to guide the research process, employing a case study approach and participatory action research (PAR) to explore an established global partnership between two academic institutions in Canada and Ghana. The sample consisted of 31 Individual interviews and four focus groups with Canadian and Ghanaian participants. This presentation will discuss how contextual features, such as values, attitudes, relational processes, and organizational structures contributed to the success of this global nursing partnership by keeping it going it going and transitioning.

Outcomes: Three primary themes emerged from the data of “Learning”, “Accommodating, and “Sustaining. Specifically, three components emerged from the data: “ease of communication”, “sharing of power”, and “focus on capacity building” which provided the framework for insight into the success of the partnering relationship between the global partners.

Discussion: An argument will be made about how long-standing cross-cultural friendships were a significant overarching dimension for the successful outcome of this global educational partnership.

Conclusion: Specific recommendations for the maintenance and sustainability a nursing education project as it relates to the partnership relationship are suggested.

Barimah, Kofi (Catholic University of Ghana)

Co-Authors: Richlove Berchie (The Centre for the Empowerment of the Vulnerable), Antwi Barimah (The Centre for the Empowerment of the Vulnerable), Charity Akotia (University of Ghana)

Traditional healers: So near to the people, yet so far away from basic health care in Ghana

So near to the people, yet so far away from basic health care delivery system in Ghana

Barimah, Kofi, Akotia Charity, Berchie Richlove & Barimah, Antwi Joseph

Introduction: This paper discusses the dilemma and the plight of Traditional Healers (THs) in Ghana who are so near to the health needs and aspirations of the majority of the people who live mostly in the rural areas, yet have been excluded from the basic health care delivery system. Even though over 70% of Ghanaians rely on TH for various reasons National Health Insurance Scheme (NHIS) does not cover the services of TH who are the gate-keepers of primary health care. Medical systems in Africa and around the globe have broad-ranging ties to the cosmology and the way of life of a people. However, in Ghana, colonialism and external orientation have had a negative effect on the development and practice of Traditional Medicine (TRM) which is based on the cultural values of the people. THs can be described as a marginalized group and yet their role in effective delivery of primary and mental health care cannot be overemphasized.

Objective: The main objective is to advocate for medical pluralism in Ghana; as well the inclusion of the former in the NHIS.

Methods: This paper is primarily based on secondary data and short interviews with healthcare stakeholders including Ghana Health Service, Ministry of Health and the National Health Insurance Authority. First, computerized search was conducted in electronic databases such as Social Science Citation Index, MED-LINE, and ERIC. Second, the Catholic University College of Ghana in active collaboration with the Ghana Federation of Traditional Medicine Practitioners and the Centre for the Empowerment of the Vulnerable have continued to advocate a role for TH in the NHIS to revive the spirit of "health for all".

Outcomes: The Traditional Medicine Practice Council (TMPC) has been established to regulate and set standards for the practice of TRM. THs are seriously being considered for an appropriate role in the NHIS.

Discussions: TRM is part of Ghanaian national heritage which no government or medical association can ban. Ironically, the government has been very slow in regulating and streamlining the activities of THs who are held in high esteem to be very knowledgeable in the potency of plants, herbs and animals in the treatment of various diseases.

Conclusion: Most health promotion programs designed in the Western Nations for the developing nations are not making any impact because the initiators neglected indigenous knowledge as part of the process. With the TMPC in place, there is the need to address the remaining challenge of developing TRM.

Barimah, Kofi (Catholic University of Ghana)

Co-Authors: Antwi Barimah (The Centre for the Empowerment of the Vulnerable), Richlove Berchie (The Centre for the Empowerment of the Vulnerable), Charity Akotia (University of Ghana)

Promotion of Traditional Medicine in Ghana through partnership between sectors

Introduction: This paper discusses the ongoing partnership between Catholic University of Ghana, University of Ghana, Sunyani Traditional Healers Co-operative, and The Centre for the Empowerment of the Vulnerable with funding from the BUSAC Fund toward medical pluralism in Ghana. Traditional Healers (THs) are so near to the health needs and aspirations of the majority of the people who live mostly in the rural areas, yet have been excluded from the basic health care delivery system. Even though over 70% of Ghanaians rely on TH for various reasons National Health Insurance Scheme (NHIS) does not cover the services of TH who are the gate-keepers of primary health care. Medical systems in Africa and around the globe have broad-ranging ties to the cosmology and the way of life of a people. However, in Ghana, colonialism and external orientation have had a negative effect on the development and practice of Traditional Medicine (TRM).

Objective: With funding from the BUSAC fund, the main objective is to advocate for medical pluralism in Ghana, as well the inclusion of traditional healers in the NHIS.

Methods: Through this partnership between the identified sectors, there is an ongoing engagement with the Ghana Health Service, Ministry of Health and the Traditional Medicine Practice Council (TMPC) toward medical pluralism in Ghana. Stakeholder meetings, presentations of research findings and workshops are the focus of the advocacy activities.

Outcomes: The TMPC has now been established to regulate and set standards for the practice of TRM. THs are seriously being considered for an appropriate role in the basic health care delivery system.

Discussions: TRM is part of Ghanaian national heritage which no government or medical association can ban. Ironically, the government has been very slow in regulating and streamlining the activities of THs who are held in high esteem to be very knowledgeable in the potency of plants, herbs and animals in the treatment of various diseases.

Conclusion: With the TMPC in place, the ongoing partnership involving NGOs, academia, professional associations and an advocacy funder is making adequate demands on the Ghanaian government toward the promotion and development of TRM. The challenge is how to move from establishment of TMPC to actual policy implementation of medical pluralism.

Beavis, Allana (University of Toronto)

Co-Authors: Ala Hojjati (University of Toronto), Daniel Choudhury (University of Toronto), Aly Kassam (University of Toronto), Michelle Fraser (Canadian Physiotherapy Association (CPA)), Renee Masching (Canadian Aboriginal AIDS Network (CAAN)), Stephanie Nixon (University of Toronto)

Postcolonialism and Healthcare Training: What Do All Canadian Students Need to Know?

Objective: Canadian health care providers (HCPs) face challenges to effectively address the needs of marginalized populations. Postcolonialism is an academic discipline that allows HCPs to understand how the legacies of colonialism intersect with the social determinants of health to produce disparities in health status within a society. The literature currently lacks guidance on how to incorporate postcolonialism relating to health into health care training programs. This study explores what content related to postcolonialism and health should be included in health care training programmes in Canada, and how this content should be delivered.

Methods: In this qualitative descriptive study, nineteen people across Canada with insight into postcolonialism and health in the Canadian context were interviewed. Participants included frontline HCPs, researchers, professors, advocacy or policy workers, people from Aboriginal communities and those with experience in the field of disability and rehabilitation. Thematic analysis using the DEPICT method was used to code and analyze the transcripts.

Outcomes: This study elicited the perspectives of those with insight into postcolonialism and health regarding what content relating to postcolonialism and health should be included in Canadian health care training programmes, who should teach it, when in the curriculum it should be taught and how it should be delivered.

Discussion: Participants believed education regarding postcolonialism and health can help HCPs address health disparities amongst certain Canadian populations. Postcolonial theory should be introduced from the outset of the program and integrated throughout. HCPs in training require knowledge regarding the colonial history of Canada and the provision of theoretical frameworks such as social justice. Participants indicated that several media are useful in delivering this content and emphasized the importance of experiential learning, tools to engage in self-reflection regarding their own social position and an understanding of the implications of colonialism in a global health context. A combination of people with lived experiences and an academic focus in the field of postcolonialism and health would be qualified to teach this content. Lastly, when designing curricula it is important to build partnerships with and capacity in marginalized communities in Canada.

Conclusion: This study provides support for the inclusion of postcolonialism in the curricula of Canadian health care training programs and recommendations for how this could effectively be accomplished. Further, applying a postcolonial lens in health will likely improve patients' access to and quality of care, by encouraging advocacy while reducing stereotypes and stigma.

Blanchet, Rosanne (University of Ottawa)

Co-Authors: Dia Sanou (University of Ottawa), Malek Batal (Université de Montréal), Isabelle Giroux* (University of Ottawa)

Strategies to recruit linguistic and/or visible minority mothers to study the diet and weight status of school-aged children in Ottawa

Background: Immigrants, visible minorities and individuals with low socioeconomic status are known to be harder to involve in research projects. At the same time, they are at higher risk of diet-related chronic conditions such as obesity, diabetes and cardiovascular diseases. Parents of young children are also less likely to participate in studies because of competing priorities. Due to this low participation and other difficulties, fewer research projects target minority groups and children, and even less target minority children, thus contributing to a lack of research-based information about their needs. Objective: To report on our experience in recruiting African and Caribbean-born (Anglophone or Francophone), and Canadian-born (Francophone) mothers for a study on children nutritional health determinants. Methods: We developed partnerships with two key organisations involved in immigrant settlement while planning the project; the research proposal was developed with their input. From the beginning of the recruitment phase, we established more partnerships and solicited support from several cultural associations and organisations offering services to immigrants or the target community. Many associations circulated our advertising email to their members. We gave interviews on community radio shows. Incentives for participants included: i) a grocery store gift certificate to compensate for their time and cost associated with transportation/parking; ii) a child nutrition assessment with individualised nutritional recommendations; and iii) knowledge-translation presentations for participants and the community. Also, we limited time demand to one appointment, met participants according to their availability and offered meeting at their home. Outcomes: From mid-January to mid-May 2014, we conducted 102 interviews. Mass media strategies (radio and emails) barely worked; after one month of recruitment, most participants had been recruited through personal networks of research team members or direct referrals. We felt mothers needed a direct contact to trust us and accept to participate. Consequently, we decided to be more involved in the community by attending religious and other community events to meet more mothers. Discussion: Meeting people in person, taking mothers' contact information on the spot, and word of mouth seemed to be the most effective strategies. Building community partnerships was crucial to enable these strategies. Meeting participants outside office hours at their home and offering a grocery store gift certificate seemed to have favored participation. Conclusion: One should not underestimate human and financial resources needed when planning projects involving minority parents with children. Time and cost of transportation, coordination with partners and participation in community activities can be considerable.

Bobbili, Sireesha (Centre for Addiction and Mental Health (CAMH))

Co-Authors: Pamela Kaduri (Muhimbili University of Health and Allied Sciences), Sirad Mohamoud (Ministry of Health and Long-Term Care (Ontario)), Akwatu Khenti (Centre for Addiction and Mental Health (CAMH))

Evolving global health partnerships: Developing a culturally relevant mental health approach through participatory action research in Tanzania

Objectives: This initiative originally aimed to address growing and unmet mental health and addiction (MH&A) problems in Tanzania by enhancing the competencies of primary health care (PHC) organizations, teams and professionals and fostering necessary health administrator support. This broad focus gradually transformed into a narrow emphasis on psychotherapy approaches suitable for Tanzania's unique cultural context and low-resourced PHC system. Over six years, the objective gradually shifted to culturally adapting motivational interviewing (CA-MI) for the Kiswahili speaking population in Tanzania.

Methods: Tanzania's Ministry of Health and Social Welfare (MOHSW) and Muhimbili University of Health and Allied Sciences (MUHAS), along with the Centre for Addiction and Mental Health (CAMH) in Canada began this multi-stage initiative by assessing Tanzania's MH&A training needs. A mixed methods approach comprising of focus groups, key informant interviews and site visits revealed the need and desire for MH&A and concurrent disorder training. Three training phases were developed based on the situational assessment, evaluations of the previous training phases and post-training focus groups. Phase I, delivered in 2009, focused on general information regarding MH&A. Phase II, administered in 2010, developed practical psychotherapy skills, including advanced motivational interviewing and methadone maintenance treatment. Phase III evolved from a mere training to pilot testing CA-MI for the Kiswahili speaking population.

Outcomes: Phase III was delivered in January 2014 to 20 health care professionals, the majority of whom attended both Phase I and II trainings and participated in post-training focus groups. CAMH and MUHAS are currently analyzing Phase III results and finalizing the CA-MI training package that will be disseminated across the country through MOHSW channels and possibly incorporated into the implementation plans of the National Mental Health Policy.

Discussion: As partnerships matured and original members changed, founding principles, including mutual respect, transparency and equity, provided a strong foundation as the trainings went through an iterative process. Participatory action research (PAR) allowed each phase to build on the last, not just in terms of developing MH&A competencies, but also in regards to developing an in-depth understanding of the nuances and context surrounding Tanzanian MH&A problems. This resulted in an innovative solution, responsive to the identified needs of the stakeholders.

Conclusion: Partnerships that allow for flexibility, but which share principles and goals, are necessary for successfully implementing PAR and the resulting actions and reflections. Partnerships with the ability to evolve have the potential to identify solutions with real world practice and policy implications.

Bobbili, Sireesha (Centre for Addiction and Mental Health (CAMH))

Co-Authors: Andres Herrera Rodriguez, Centro de Investigación en Demografía y Salud (Centre of Research on Demographics and Health), CIDS, & Full Professor Facultad de Ciencias Médicas (Faculty of Medical Sciences) Universidad Nacional Autónoma de Nicaragua – León (U

Building transformative global partnerships: Towards an emerging mental health Diploma and Master's degree in Nicaragua

Objective: This presentation will report on a five-year partnership between UNAN-Leon (Nicaragua) and CAMH (Toronto, Canada). A 2013 publication (Sapag et al.) analyzed the process of international partnership building. As an extension, we will highlight an important upshot: the emergence of a novel Diploma and Master's program that aims to strengthen inter-professional competencies for addressing mental health and addictions (MH&A) needs, with an emphasis on primary care in Nicaragua.

Methods: This partnership was based on a shared commitment to sustainability, cultural relevance, and systems change, and was grounded in clearly-defined objectives. An initial agreement to collaborate on a capacity building program evolved into the development of a Diploma and Master's program over a three-year, strategic planning period (2008 to 2012). The curriculum was tailored to context and demand, as informed by a comprehensive needs assessment, and emphasizes strengthening knowledge, attitude and skills of interprofessionals involved in MH&A care and leadership. Specifically, core topics include: MH&A disorders, domestic violence, stigma, discrimination, treatment, support, evaluation, and systems change. Students also receive training in how to prepare colleagues in similar fields. A comprehensive evaluation of the impact, replicability and sustainability of the program is underway.

Outcomes: Both the Diploma and Master's program were launched in 2012. The first Master's cohort graduated in 2014 with 28 students. Students included 10 (35.7%) males and 18 (64.3%) females, primarily from professions related to public health practice, planning, management, research, NGO work, and teaching. Though a formal evaluation has not yet been completed, the initial feedback in highly positive and anticipated impacts have strong potential, such as: improved capacity to address MH&A needs among health professionals, improved systems level competencies, enhanced quality of care for those seeking support for MH&A and in the long-term, reduced overall burden of MH&A issues.

Discussion: Developing strong collaborations can help to identify sustainable, needs-based approaches to mental health care. Through shared decision making, knowledge exchange, and respect, the two centres worked collectively and effectively to fill a gap in mental health service. The evaluation of this program will contribute to the development of important guidelines for long-term systemic change in the area of mental health and addictions care with strong potential to expand to other areas of Central America, and beyond.

Conclusion: An ongoing, five-year collaborative partnership led to the emergence of a transformative, culturally appropriate and sustainable Diploma and Master's program for improving MH&A care capacity in Nicaragua.

Brisbois, Ben (University of British Columbia, School of Population and Public Health)

Scientific discourse, civil society and big oil: Epidemiology in the legal battle over contamination of the Ecuadorian Amazon

Objective: For three decades, Texaco (now Chevron) explored and drilled for oil in the Amazon region of Ecuador, one of the most biodiverse regions of the world and home to numerous Indigenous groups. The toxic legacy of Texaco's activities has motivated an extraordinarily complex transnational set of legal proceedings, beginning in 1993 and culminating in 2011 when an Ecuadorian court ordered Chevron to pay \$18.2 billion in damages – a judgment that Chevron is still contesting. Previous analyses have highlighted the role of transnational environmental and Indigenous civil society linkages in the lawsuit, as well as the controversial role of epidemiologic evidence. The objective of this study was to relate this epidemiologic writing to the institutional imperatives of public health research in North-South interaction, in order to show how partnerships with epidemiologists can both enable and constrain efforts by civil society organizations to pursue health equity goals.

Methods: Discourse analysis was applied to English-language epidemiologic writing generated and applied in connection with the Chevron lawsuit. This included peer-reviewed epidemiology articles (primary research reports, commentaries and letters) and commissioned consultant reports. Analysis was carried out by hand and in Nvivo (V10), and focused on disciplinary identity in epidemiology and the relationship of public health science to social context.

Outcomes: Analysis revealed themes such as the tension between objectivity and advocacy in public health; widely divergent representations of Ecuador's Amazon region and its human and non-human inhabitants; and implied models of knowledge translation. The genres and other writing conventions of public health science played an important role in affecting both the conduct and public discussion of epidemiologic studies.

Discussion: The conduct and rhetorical-legal uses of epidemiology in relation to the suit against Chevron illustrate possibilities for well-designed epidemiologic studies to help civil society groups pursue health equity goals. Conversely, the Chevron case also demonstrates the constraints posed by public health's institutional imperatives when epidemiologists seek to help marginalized civil society partners.

Conclusion: With extractive industry ever more present in the territories of marginalized groups around the world, the lessons of the Chevron lawsuit can help epidemiologists and civil society organizations partner more effectively to achieve health equity. They also illustrate the limits of traditional approaches to knowledge translation in addressing globalized environmental health challenges.

Carney, Jason (Independent)

Promoting ethics when partnering with the private sector for development

Objectives/Background: Development actors across the globe are increasingly engaging in opportunities with the private sector to achieve development objectives such as reducing poverty, promoting health or protecting the environment. In working toward these objectives, development actors have certain expectations to act in an ethical manner as stewards to their constituents, and have an obligation to select and manage partners in a way that promotes widely accepted ethical principles. Accepting this premise, some questions remain: What ethical principles have been, or can be, applied to partnerships with the private sector for development? And, how do development actors around the world act to promote these ethical principles?

The research was conducted at the International Development Research Centre (IDRC), and had the purpose of providing reference and recommendations for IDRC to optimally and ethically engage with the private sector.

Methods: The sample is designed to include organizations that have a moral responsibility to act in congruence with the values and ethics of their constituents, and are stewards of funding meant to effectively and efficiently achieve development outcomes. Included are development agencies from OECD DAC member countries, United Nations organizations concerned with development, and the Canadian research granting councils.

The study is a qualitative document review of private sector partnership policies and websites from each development actor. Ethical principles described by Joseph Stiglitz (2000) and expanded by David Crocker (2005) provide a theoretical framework for identification and categorization of the terms and principles that emerge from the document review.

Outcomes: Development actors express their concern to maintain integrity and credibility; uphold impartiality and independence; act transparently and disclose conflicts of interest; place the development of people over profit motives; promote gender equality, environmental sustainability and human rights; and ensure equitable participation. To advance these ethical principles, development actors have policies in place to exclude certain industries from partnership, such as tobacco, alcohol and military; include socially responsible businesses; and carefully define accountability for roles and responsibilities in partnership agreements.

Discussion/Conclusions: This study presents which ethical principles are being considered, the terms and nature of these principles, and how actors take action to promote ethical partnership with the private sector for development. At the Canadian Conference for Global Health, a short explanation will be included about how the findings apply to global health organizations, and important considerations for facilitating optimal and ethical engagement with the private sector.

Cherniak, William (Bridge to Health Medical and Dental)

Co-authors: Romina Pace (McGill University), Ling Yuan Kong (McGill University), Isabelle Malhalme (McGill University), Sumeet Sodhi (University of Toronto), Michael Silverman (Western University), Geoffrey Anguyo (Kigezi Healthcare Foundation)

Improving uptake of antenatal services in rural Uganda through a novel intervention: community outreach, portable ultrasound and radio messaging

Objective: To determine if offering a free obstetric ultrasound through use of a portable ultrasound (pOBU) could increase the rates of women presenting for antenatal care (ANC) to mobile medical and dental outreach camps in rural Uganda.

Methods: A clustered randomized controlled trial was conducted by TO the WORLD in partnership with Kigezi Healthcare Foundation (KIHEFO) to determine the efficacy of pOBU in improving ANC in rural Uganda. The four-pronged approach of elimination of mother to child transmission of HIV was followed in the design of a structured maternal health camp (sMHC). Communities were randomized into receiving advertisements of pOBU or not in addition to word of mouth advertisement of ANC. The final three clinics were advertised by word of mouth and radio. Each cluster rotated through registration, pre-test counseling for HIV, routine ANC testing, family planning, pOBU and, for the women identified as being high risk, dental and/or medical services.

Results: In total 166 women presented to ANC over eight clusters. The first four clusters had an attendance of 59 patients (35%), while the last four (pOBU advertised) had an attendance of 107. Only 7 women attended clinic when sMHC was advertised via radio with no mention of pOBU.

Conclusions: By offering pOBU to women in rural Uganda those who typically deliver at home and are hesitant to engage in modern medicine were successfully encouraged to seek medical care and attend ANC. These women all received invaluable prenatal care in addition to receiving a pOBU. Barriers to health and education were broken through partnership and innovative health care strategies.

Cherrie Apang, Aleisha (University of Guelph)

Co-Authors: Helen Hambly Odame (University of Guelph), Nancy Muturi (Kansas State University)

Barriers and motivations for HIV testing among women in Trinidad and Tobago

Since the first case was confirmed in Trinidad and Tobago in 1983, HIV/AIDS continues to pose a significant threat to the government's vision for national development. Despite significant progress, many challenges exist including the feminization of the epidemic with women representing more than half of all new infections. The literature suggests that behaviour change is a critical component in the fight against new incidences of HIV infection (Fan, Conner, & Villarreal, 2007). Capacity development among women, especially in relation to HIV testing is considered a pivotal opportunity for behaviour change (UNAIDS, 2009). There is, however, a gap in the literature when it comes to the current barriers that affect Caribbean women specifically, and similarly, lack of empirical research on why women in the Caribbean decide to undergo an HIV test (or not). This paper discusses the barriers and motivational factors that impact behavioural change relating to HIV Voluntary Counselling and Testing (VCT) among women in Trinidad and Tobago.

Data were gathered through a combination of methods, which included a visual ranking survey with 241 respondents, semi-structured interviews with 31 key informants, and direct observation at 2 HIV testing sites and during 4 outreach activities in urban and rural Trinidad and Tobago.

The findings identified key barriers that women experience including fear, risk perception, partner related barriers, accessibility and confidentiality. Key motivations identified include: peace of mind, partner related motivations, risk perception, accessibility and cues to action. The barriers and motivations are highly interconnected and potentially create decision-making conflicts for women. The results of the study point to the importance of consistent, targeted "cues to action" clearly communicated and supported at the community level in the form of strong program partnerships between the government of Trinidad and Tobago, civil society organizations, and community led interventions. These external motivating factors enable women to progress through the behaviour change process and increase their likelihood of action and sense of self-efficacy.

The study concludes with its key contributions to the relevant literature and implications for HIV VCT program planning and implementation, not only in Trinidad and Tobago but potentially, in other countries that have high Caribbean immigrant populations.

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Davison, Colleen (Queen's University)

Co-Authors: Mark Hostetler (Queens University), Katrina Plamondon (Interior Health and CCGHR), Sandy Campbell (Independent Consultant), Ian Graham (University of Ottawa)

NGO-University Partnership for the development of global health KT skills

Objectives: (1) To highlight the CCGHR-Queen's University Summer Institute on KT for Global Health as a successful model of NGO-University partnership for global health capacity development and knowledge exchange.

Approach: Members of the Canadian Coalition for Global Health Research (CCGHR) and Queen's University Faculties of Health Science and Arts and Science created a training partnership and developed a five-day residential training "Summer Institute" including a two-day intense KT skills workshop. Summer institutes were delivered in 2013 and 2014.

Results: Each June, 25 participants have been engaged in the KT for Global Health Summer Institute curriculum that is problem based and skills focused. In 2014, a two-day intense skills workshop was added and delivered by the CCGHR. The partnership between Queen's faculty members and representatives from the CCGHR allowed for an effective mix of research and research-user experience to ground curriculum development and implementation. This workshop presentation will review the KT for global health curriculum that has been developed. Lessons learned from the NGO-University partnership will also be shared.

Conclusion: Knowledge translation skills are important competencies to build among global health researchers and practitioners, with this NGO-University partnership a successful model for KT for delivering global health training. Going forward, this model can be adapted and used in other settings to increase the quality and availability of global health KT capacity development activities overall.

Davison, Colleen (Queen's University)

Co-Authors: William Pickett (Queens University), Valerie Michaelson (Queens University)

Child Hunger in Canada: Current prevalence, promising partnerships and remaining challenges

Background and Objectives: Hunger is a significant public health concern in Canada and globally. Data from the Network of Food Banks Canada indicate that in 2013, more than 1.7 million Canadians accessed food banks and one third of those served were children. This symposium will (1) describe the scale and scope of the problem of hunger in Canadian children; (2) identify promising models of partnership for child hunger alleviation; and (3) articulate three remaining challenges with suggestions for future partnership and intervention developments.

Methods: First we will describe a national, cross-sectional, school-based study involving 26,047 young Canadians that we undertook to examine: (a) the prevalence of hunger in Canadian children and; (b) relations between hunger and a range of health outcomes. Then, we will highlight a school-community model of partnership, focusing on the Food Sharing Project of Eastern Ontario. Finally, we will articulate the three most important challenges that remain in the alleviation of child hunger in Canada and propose possibilities for future partnerships and intervention developments at home and globally.

Results: Hunger was reported by 25% of young Canadians, with 4% reporting this experience “often” or “always”. The consistency of hunger’s associations with health outcomes was remarkable. Partnerships to support school-based food programs are valuable because while they are not able to modify the full pathway that connects hunger with poor child health, they can address the immediate and sometimes urgent needs of children. Challenges do remain however.

Conclusions: Child hunger is not just a concern in low-or middle-income countries. Promising partnerships are helping to alleviate immediate child needs, however societal responses to hunger must also consider its root determinants and support the extension of partnerships into the fields of overall poverty reduction, family-based health promotion and child “c

Dharmaraj, Daisy (ACS Medical College Chennai, India)

Co-Authors: K.K.Dutta Gupta and Aadila Naz (ACS Medical College Chennai, India)

Privatized health services and Out-of-pocket expenditure towards health care impacting the economy and wellbeing of the people in India- a study in Chennai

The rapid growth of health expenditure has become a great concern for both households and Governments. Across the globe there are great variations on the amount countries spend on health. In high income countries per capita health expenditure is over USD 3000 on average, while in resource poor countries it is only USD 30 per capita. In 2008, there were 64 countries per capita health expenditure was less than USD 100. The issue of health financing has recently started to receive a good deal of attention among researchers and policy makers in India. Most of the studies on this subject note that India has one of the highly privatized health systems in the world where household OOPE direct payments account for almost three-quarters of the total health expenditure. These payments being uncertain in nature and magnitude often intimidate the subsistence requirements of several poor households and are detrimental to social welfare

A Cross sectional study was carried out on the Out-of-pocket expenditure (OOPE) incurred towards health care and reasons for underutilization of Government health services among 200 households in a semi-urban population in Chennai, India. It was seen that families spent around USD 42 per head and USD 18.6 per episode of illness. A total of 69 families have also incurred a debt of USD 4060.7 to meet the medical expenses with an average of USD 58.7 per family. Wage loss to the family due to illness was around 0.6%. The average OOPE per episode was USD 17.46 in 6 months.

Common reasons why people are not utilizing the Government services are long waiting time, lack of health care providers especially the doctor, the necessity to pay bribes in order to obtain the services, lack of adequate facilities.

India probably has the largest private health sector in the world and the share of the private health sector is between 4 to 5 percent of the Gross Domestic Product. The Government expenditure on health care though much less than many other countries is still a huge amount for a developing economy like India. If we are serious in enabling primary, secondary and tertiary health care to the people, the factors that dissuade the utilization of services of the Government health sector have to be set right. Empowering people with health information, advocacy and networking would pave way to access to healthcare and reduce the economic burden on the poor.

DiLiberto, Deborah (London School of Hygiene & Tropical Medicine, UK)

Co-Authors: Sarah Staedke (London School of Hygiene & Tropical Medicine, UK; Infectious Diseases Research Collaboration, Uganda), Catherine Maiteki-Sebuguzi (Infectious Diseases Research Collaboration, Uganda), Susan Naiga (Infectious Diseases Research Collaboration, Uganda)

Impacts beyond primary outcomes: A mixed-methods study exploring multiple perspectives of a health services intervention in Eastern Uganda

Objective

Interventions aiming to improve health services should engage people on the front lines of health care delivery. Evaluations of these interventions should focus on the multiple change processes and outcomes resulting from their implementation into dynamic social systems. The PRIME intervention was designed to build health workers' (HW) skills, self-awareness and motivation recognizing their challenging work environments with the goal of improving treatment and attracting patients to health centers (HC) in Eastern Uganda. We conducted a cluster-randomized trial (CRT) to evaluate the impact of PRIME on health outcomes in the community and a parallel mixed-methods study to examine the effect of PRIME from the perspective of HWs and patients enrolled in the trial.

Methods

Twenty HCs were enrolled in the CRT; 10 were randomized to the intervention with the primary endpoint of health outcomes measured in community-level clusters over two years. Mixed-methods included 306 HW communication assessments investigating the change in HW interpersonal skills with patients, 10 in-depth interviews exploring HWs interpretations and enactment of the intervention, 13 focus group discussions with community members discussing perceptions of change relating to PRIME, and 1200 patient exit interviews at HCs over three time points assessing patients' satisfaction with their treatment seeking experience.

Outcomes

Post PRIME implementation, mixed-methods evaluations revealed that interpersonal communication was rated 10% higher ($p < 0.008$) by patients consulting with HWs in intervention HCs. HWs revealed that improvement of technical skills and use of new technologies had a positive effect by increasing feelings of professionalism coupled with patients' positive feedback; however, HWs also felt unsupported in other aspects including increased workload, and lack of recognition, payment and supervision leading to demotivation. Patients reported increased satisfaction with certain aspects of the treatment seeking experience, but also highlighted other areas of HCs needing improvement.

Conclusion

CRTs of health services interventions focus on assessing the intended impact the intervention using a singular primary endpoint evaluation. Our results reveal that despite a lack of significant effect in the CRT primary health outcomes, the mixed-methods study demonstrated different impacts including benefits, consequences, motivations, and interpretations from the perspective of the people who are central to the health system dynamic in which PRIME was implemented. We will discuss what can and cannot be achieved and brought to light through a CRT model of evaluation of people-centered health services interventions and the implications for informing evaluations of health services interventions.

Druetz, Thomas (Université de Montréal, Centre de recherche du CHUM)

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Determinants of health-seeking behavior after the introduction of community case management of malaria in Burkina Faso

Objective. Malaria is holo-endemic in Burkina Faso and causes the death of approximately 40 000 individuals every year. In 2010, the health authorities scaled-up community case management of malaria. In every village a community health worker (CHW) was selected and trained to promptly administer treatments to febrile cases. The program was implemented under real-world conditions. The objective of the study is to evaluate the extent to which CHWs are used by caregivers of sick children and what determine their health-seeking behavior.

Methods. We conducted a panel study in two health districts of Burkina Faso, Kaya and Zorgho. We randomly selected 3000 households from the population living within a 20-kilometer radius of the cities of Kaya and Zorgho – the sampling was stratified to have an equal number of households between urban and rural areas. Each household was visited once a year during the season of high-transmission of malaria (August 2011, 2012 & 2013). Household surveys were administered and health-seeking practices of caregivers of children who had been sick in the last 14 days were documented. We used multi-level logistic regression to identify determinants of consulting a CHW.

Outcomes. The uptake of CHWs by children under five years of age was very low. In urban areas, less than 1% of sick children were brought to a CHW. In rural areas, the proportion has never exceeded 9% during the 3-year period of observation. The most frequent reasons for not visiting the CHW were the preference for the health center and the fact that the caregiver did not know the CHW. The use of CHWs significantly increases with the distance to the nearest health center and if the household had been visited by a CHW during the last 3 months ($p < 0.05$). Intra-class correlation coefficients show that 76% of the unexplained variance is attributable to the household level and 24% is attributable to the village level.

Discussion. The program is unsuccessful in the urban area. In rural areas the uptake of CHWs' services is low compared to other programs implemented in similar contexts. The distance to the nearest health center and visits paid by CHWs are statistically significant determinants of consulting a CHW, which confirms the potential of this strategy to reduce geographical inequities in health.

Fazal, Nadia (Dalla Lana School of Public Health, University of Toronto)

Co-author: Aubrey Graham (Department of Anthropology, Emory University)

Using photographic images to engage global health students and researchers: How can we visually represent what we stand for?

Background and Research Aim: Photographic images used to engage students and researchers in Global Health should reflect the values articulated by the Global Health academic field. Specifically, these values include: health equity, social justice, health as a human right, empowerment, sensitivity to the history of international health, collaboration with colleagues from different backgrounds, respect for cultural diversity, self-reflection on one's social location, and a focus on social determinants of health (Cole et al., 2011; Farmer, 2003; Walker et al., 2006). This study looks critically at the values communicated through the online Global Health marketing images used by academic institutions across North America, and contrasts them with the core values articulated by Global Health scholars.

Methods: Purposive sampling was used to identify a pool of 30 photographs used for Global Health marketing by the top 10 academic institutions for Global Health in North America (three photos per institution). Each selected academic institution offers an undergraduate or graduate program in International or Global Health. All images were visually coded and analyzed by two researchers (a Global Health Doctoral Candidate and a Photographer/Doctoral Candidate in Anthropology) to ensure inter-rater reliability. Images were categorized according to value themes and each theme was then qualitatively compared and contrasted with the core values in Global Health research.

Findings: The online marketing images used by North American academic institutions to recruit Global Health students and researchers highlight two important value themes of Global Health: (1) collaboration with colleagues from different backgrounds; and (2) a respect for cultural diversity. However, these images misrepresent values of health equity, social justice, and empowerment; and, they neglect to highlight health as a human right, the need for sensitivity to the history of international health, or the importance of critical self-reflection on one's social location. Overall, more visual contextual information could help to better articulate the Global Health values that are either misrepresented or not represented at all through these Global Health marketing images.

A Way Forward: It is important for Global Health students, researchers, and academic institutions to think more critically about the photographic images used to represent Global Health. The authors present a 'Visual Representation of Global Health Values Framework' that can be used to encourage critical thinking and more open dialogue about the use of photographic images in Global Health.

Fazal, Nadia (Dalla Lana School of Public Health, University of Toronto)

Exploring community resilience as a determinant of health and peace in Eastern Congo

Background: Individual, community, and societal health outcomes are severely threatened by violent conflict and war; likewise, peace is difficult to build in the face of conflict-related illness, disease and death. The complex mutual relationship between health and peace is well understood by communities living in war-torn settings; a better understanding of this relationship has the potential to play an important role in promoting health and peace. Moreover, community resilience – an asset typically neglected in humanitarian initiatives/services – has never been explored as a means through which to promote health and peace. My doctoral research seeks to explore the role of community resilience as a mutual determinant of health and peace (Abuelaish et al., 2013) in Goma, Democratic Republic of Congo (DRC).

Objectives - Field Research Phase I: The inclusion of this first phase of my field research is in accordance with a Community-Based Participatory Research (CBPR) approach (Minkler & Wallerstein, 2008). It aims to build and draw on local partnerships, relationships, and connections with community members, organizations, and academic individuals/groups/institutions to further refine and contextualize my final doctoral research study design.

Methods - Field Research Phase I: I conducted 12 semi-structured interviews with individuals aged 21-55 employed by local or international community-based organizations that focus on health promotion, peace-building, and/or community resilience. Participants were identified using a snowball sampling procedure. Qualitative interviews were focused on exploring context-specific information, such as: the perceived role for community resilience, strategies for its development, and existing obstacles and catalysts. Data was collected in Congolese French and coded using a qualitative content analysis process informed by Grounded Theory.

Findings - Field Research Phase I: Local perceptions about the role for community resilience as a determinant of health and peace were found to be supported by Nuwayhid's Community Resilience Model (2011), and were centred around three key themes: 1) cohesive communities; 2) social solidarity; and 3) connected political and spiritual leadership. Participants identified political, economic, and social multi-level obstacles and catalysts for building community resilience; and, community arts-based strategies (dance performances, film screenings, and live theater performances) were highlighted by participants as an important set of strategies that can be used to build community resilience.

Reflections and Next Steps: The findings from this first phase of my field research will help to shape my final doctoral research study design, and will allow me to work more effectively towards achieving sustainable and culturally relevant doctoral research findings.

Gautier, Lara (Institute of Public Health, University of Heidelberg)

Co-Authors: Mosa Moshabela (Department of Rural health, University of KwaZulu-Natal, Durban, South Africa),
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High-impact community-based interventions in maternal, neonatal and child health in nine countries of Sub-Saharan Africa: a scoping review

Methods

We conducted searches in English and French for the period January 2004 to May 2014 using Medline/Pubmed, Ebscohost, Science Direct and Web of Science databases. An additional two French-specific databases, CAIRN and Banque de Données en Santé Publique, were included. The keywords used were (Community) AND (Maternal OR Child OR neonatal) AND (Africa OR "country name"). The first researcher conducted a title search (922-E excluding duplicates), validated by the second researcher. After title screening, abstracts and full papers of preselected studies (119-E) were reviewed, and included studies (41-E) were subjected to analysis and coding using a data extraction form.

Outcomes

We included 32 English and 9 French articles, mostly from Ghana (11-E), Nigeria (7-E), and Senegal (7-E). The most common interventions were prevention or treatment of malaria (15-E), management of common child diseases (i.e. integrated management of childhood illnesses, and clinical management of acute respiratory infections, fever, and diarrhea) (11-E), nutrition interventions (4-E), and prevention of neonatal mortality (e.g. birth asphyxia) (3-E), family planning (3-E), and prevention of pregnancy complications (3-E). The most frequently adopted approaches were training (19-E), deployment (5-E) and clinical involvement (2-E) of community health workers. Information, education and communication for raising awareness in communities and facilities were also common methods for delivering interventions (7-E). Most studies used quantitative evaluation methods, and outcome measures were utilization or coverage, quality of care, morbidity and mortality.

Discussion

There is growing literature on CBI for MNCH in sub-Saharan Africa, but it is largely concentrated in a handful of countries. It also tends to present cross-sectional data on type and size of problems, as opposed to solutions. Evaluation of interventions focuses more often on what works, such as vitamin A supplementation and mosquito bednets, but less on how it works. In relation to the former, evidence shows that overall such community-based interventions have had a positive impact on MNCH-related outcomes (use of services, quality of care, mortality, morbidity).

Conclusion

Our literature review on CBI aiming at improving MNCH in IDRC's nine focus countries retrieved 41 papers. While CBI studies for MNCH generally show positive outcomes, the impact of such studies can benefit from an increased focus on the science of implementation.

Geddes, Alexa (University of British Columbia)

Co-Authors: Tim Krupa (University of British Columbia), Eugene Krupa (University of Alberta), Dr. Mark Holder (University of British Columbia Okanagan)

Psychological well-being of children living in Zambia: Are religiousness and spirituality useful predictors of happiness and life satisfaction?

Objective: Traditionally, research in psychology, neuroscience, and medicine has largely focused on the diagnosis and treatment of illness. Whereas, positive psychology seeks to identify factors that contribute to positive well-being, while improving quality of life. Despite parents' strong desire for their children's well-being and happiness, research on children's positive well-being is lacking, particularly in developing nations (Diener & Lucas, 2004; Mahon & Yarcheski, 2002). Factors contributing to happiness and life satisfaction, such as personality, social relationships, and genetics, have been identified among adults in the developed world (Lyubomirsky, 2008). However, there are other determinants (e.g., marriage and career) that do not apply to children such that additional research is needed to generate a greater understanding of children's well-being. Previous research looking at children's well-being found spirituality to be a useful predictor amongst children, whereas religiosity was not (Holder, Coleman & Wallace, 2010). However, amongst adults and adolescences, both spirituality and religiousness have been linked to increased happiness. In order to further explore this gap in our understanding, we wanted to enhance the understanding of children's psychological well-being in low income settings.

Method: In order to further explore this gap in our understanding, Zambian children and adolescents were asked to complete a self-report survey to measure their happiness, life satisfaction, and hope.

Outcomes: In total, 1365 youth aged 7-21 years participated in the current study during the summer of 2012. Four different populations from three areas of Zambia were sampled: a) urban impoverished from Lusaka; b) urban affluent from Lusaka; c) semi-rural impoverished from Senanga, Western Province; and d) semi-urban impoverished from Livingstone. Based on multivariate analyses, religiousness did not significantly predict variance in life satisfaction. However, church attendance did significantly predict happiness. As well, spirituality did significantly predict the variance in life satisfaction above and beyond other independent variables (e.g., age, gender, and school grade).

Discussion: These findings suggest that despite the trauma and hardship these children face in their daily lives, attending church and feeling connected to something greater in the universe may improve their happiness and life satisfaction.

Conclusion: As a result, this research may have applications in designing programs, practices, and policies to enhance the well-being of children and communities in Zambia and globally. Being among the first detailed projects to study children's well-being in Zambia and Sub-Saharan countries, these findings may serve as a baseline by identifying predictors to be considered in future studies to ultimately identify causality.

Ghannem, Hassen (Department of Epidemiology)

Effectiveness of Community based intervention program to prevent non communicable diseases risk factors in Tunisia

Background: Like most North African countries, Tunisia, is going through an epidemiologic transition with rising of life expectancy and adoption of new lifestyles that lead to Non communicable diseases (NCDs). We know that NCDs arises from three main risk factors—tobacco use, poor diet, and physical inactivity. The need for comprehensive intervention to reduce their risk factors is urgent.

Objective: to evaluate the feasibility and effectiveness of a 3 years community based intervention to prevent NCDs risk factors.

Methods: The study design was a quasi experimental design, intervention with pre post assessment and control group. The intervention group including different settings (schools, workplaces) was located in the delegation of Sousse Jawhara and Sousse Erriadh. The control group with the same settings was located in the delegation of Msaken from the region of Sousse.

Sample size calculation in the different settings was based on a significance level of $\alpha=0.05\%$, power of test $\beta=20\%$, two sided test of hypothesis and 6% change in risk factors levels (smoking, unhealthy diet and physical inactivity) giving a total sample needed of 4000 schoolchildren in school settings and 2000 workers in workplaces.

We used biometric measures (weight, height, blood pressure) and pretested questionnaire to evaluate knowledge of, attitudes towards and beliefs on the three risk factors for NCDs: unhealthy diet, physical inactivity and tobacco use.

Outcomes: In schools, fruits and vegetables consumption improved in intervention group but not in control group. In fact, the proportion of schoolchildren consuming vegetables daily increased from 28.4% to 32.4% ($p=0.008$) and consumption of fruits daily from 55.9% to 59.3% ($p=0.03$). We noticed a decrease of tobacco use in intervention group but not in control group. Physical activity didn't increase in the two groups.

In workplaces, tobacco use decreased but not significantly both in intervention and control group. Consumption of five fruits and vegetables daily and practice of recommended level of physical activity increased significantly in the two groups. The prevalence of hypertension decreased significantly from 16% to 12.3% ($p=0.02$) in intervention group but increased in control group from 14.2% to 22.5%.

Discussion: Targeting behavioral changes only through educative approach without environmental actions and community mobilization that facilitate healthy choices for individual is not enough.

Conclusion: More structural changes through multisectoral intervention are needed to improve the adoption of healthy lifestyle habits and reduce the burden on individuals.

Harding, Kimberly B. (Micronutrient Initiative)

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Socially marketing micronutrients: the development of a multi-channel communications campaign in Bolivia

Objective: To describe the process for developing a national multi-channel communications campaign, emphasizing mass media, to increase demand and utilization of micronutrient supplements for women and children in Bolivia as part of the national Programa Multisectorial Desnutrición Cero.

Methods: The design of campaign materials and messages was informed by a baseline knowledge, attitude, and practice (KAP) assessment (n=452), conducted in four departments. Findings were used, along with channel analysis, to develop a dissemination plan. Draft materials were field-tested using focus groups with target audiences and modified based on feedback. All activities were carried out in collaboration with the Ministry of Health and Sports.

Outcomes: The baseline KAP survey showed variation across different micronutrient supplements and departments, for example any knowledge of vitamin A ranged from 55-100% and any knowledge of therapeutic zinc for diarrhoea or stunting ranged from 10-30%. Television and radio were the preferred channels for receiving health and nutrition information, including on services available. Field-testing of draft materials found generally high acceptance and valuing of the materials; feedback led to modifications which increased emphasis on enablers for how to conduct the recommended practices. Final materials included television and radio advertisements, road-side billboards, health center banners, and calendars for caregivers.

Conclusion: A national multi-channel communications campaign to promote micronutrient supplementation was developed. After seven months of implementation, an endline survey will be conducted to assess the association between campaign exposure and KAP, which will allow us to understand the potential influence of each communication channel on coverage and utilization of micronutrient supplements.

Hasan, Khairul (Deputy Chief, Planning Wing, Ministry of Health & Family Welfare)

Co-Authors: AN Shamsuddin Azad Chowdhury¹, Sahjedul Hasan³, Shereen Khan⁴, Lubana Ahmed⁴, Stephen R Collens⁴

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Partnership between Bangladesh's Ministry of Health and national nursing services: 2013 application results of a new gender equality audit tool for selected human resource policies

Background: In Bangladesh, existing recruitment, deployment and promotion policies for Nurse-midwives have been less than fully compliant with standard gender equality provisions. The Gender Equality Audit Tool (GEAT) was developed by the Ministry of Health and Family Welfare (MOHFW) in partnership with the Directorate of Nursing Services (DNS), with technical support from the 2012-17 Human Resources for Health Project in Bangladesh. The GEAT was developed to indicatively measure the gender sensitivity of key human resource policy documentation relevant to public sector Nurse-midwives in Bangladesh.

Objective: To assess current and, where needed, develop new key human resources policy and procedure documents for Bangladesh's Nurse-midwives which reflect stronger gender equality compliance.

Methods: The GEAT analyzes the gender equality elements of human resource policy or procedure documentartion using an indicative qualitative measurement framework. It assesses the presence or absence of key gender sensitive provisions related to equity, equality, empowerment, workplace conditions, as applicable to a particular human resource document. It broadly estimates document-specific gender sensitivity within three scoring levels: "weakly gender sensitive" (1-40%); "moderately gender sensitive" (41-70%) and "highly gender sensitive" (71-100%).

Outcomes: Eleven human resource documents were gender equality audited in 2013. These included 3 strategy papers, 4 recruitment rules, 4 job descriptions, 1 code of conduct and 1 HR related administrative issues. In terms of gender sensitiveness, only one document scored "high" (73%), one "low" (15%) and the rest 9 documents scored "moderate" (from 44 to 67%).

Discussion: Description and analysis of a GEAT, or similar application, to relevant human resource documentation for public sector health workers is relatively absent in the literature. Other South-East Asian countries have used tools to audit gender responsiveness of development programs as a whole but not for exclusive application to human resource documentation, with the exception of a gender audit toolkit developed by Peking University (2008). The Bangladesh MOHFW GEAT framework and gender scoring was adapted from this toolkit.

Conclusion: Partnership between the Human Resources Management Unit of Bangladesh's MOHFW and the national Directorate of Nursing Services during GEAT application in 2013 has been effective in identifying where gender equality provisions in human resource policies for Nurse-midwives can be strengthened. This is expected to draw further government attention towards building more equitable working conditions for public sector Nurse-midwives to support improvements in health service delivery in Bangladesh.

Heidebrecht, Dave (Canadian Coalition for Global Health Research)

Co-Authors: Vic Neufeld (Canadian Coalition for Global Health Research), Roberta Lloyd (Canadian Coalition for Global Health Research), Mara OBrien (CARE Canada), Clarke Cole (McMaster University)

Using virtual platforms to foster global health research partnerships: tools for success

Objective: The creation and maintenance of virtual platforms for online communication, collaboration, and knowledge mobilization is a central challenge for international development organizations. Launched in July 2013, and funded by Canada's International Development Research Centre (IDRC), our Virtual Platform Laboratory (VPL) is exploring how focused dialogue, information sharing, and engagement can encourage better collaboration and partnership building both within Canada and between Canadian and low and middle-income country (LMIC) research partners.

Methods: Seven issue-specific platforms are being used to test how development organizations and project teams working on a global level can use easily-replicable, open-access technology to achieve better outcomes in their work. Platforms include:

- Cameroon Canada Research Partnership
- Zambia Canada Research Partnership
- Student Global Health Research Network
- Mining and Health Research Network
- McMaster-CCGHR Research Network
- University Advisory Council
- CCGHR's Membership Platform

A 2014 implementation phase is being used to test, evaluate, and adjust strategies based on the lessons of our platform coordinators and ongoing evaluation by our project team.

Outcomes: To date we have seen a major shift in our organizational culture and have experienced both success and challenges in fostering partnerships at various levels throughout the organization. Major outcomes to date include:

- A formal approach to regular "updates" to our partners
- Development of innovative partnership support tools for membership
- New research collaborations
- Increased social media activity and capacity at individual and institutional levels

Discussion & Conclusion: Through monitoring and evaluation some central themes have arisen. The following have been present in cases where our platforms have been successful in supporting partnership development and have been lacking in cases where our platforms face challenges:

- Individual vs. group follow-up: More success where time/resources are available to follow up individually, especially when launching a new platform.
- Teleconferences: Regular teleconferences are crucial to discuss challenges, develop plans, and get buy-in.
- Leadership: Having leaders of new partnerships not only on board but actively involved in using online tools is crucial.
- Consistency & Trust: Platforms are most used where interactions are occurring on a regular basis.
- Reflecting on Our Learning: Monthly monitoring and evaluation discussions have allowed our project leader and our Connectors (platform coordinators) to step back from the details, learn from each other, and look at the bigger picture.

At the end of 2014 our learnings will be captured in open access resources and toolkits that will be shared online to encourage best practices by others seeking to foster global health.

Henderson, Rita Isabel (University of Calgary)

Co-Authors: Sheri Bastien (University of Calgary), Jennifer Hatfield (University of Calgary), Susan Kutz (University of Calgary), Mange Manyama (Catholic University of Health and Allied Sciences-Bugando)

“You can’t get worms from cow dung”: reported knowledge of parasitism among pastoralist youth attending secondary school in the Ngorongoro Conservation Area, Tanzania

Objectives:

Maasai pastoralist adaptations to life in close proximity to livestock and to unreliable access to water raise important questions about experiences of and resiliency to parasitic infections. In this oral presentation, we ask how human parasitism is understood locally, and to what extent it is seen to impact the health of youth. We draw specifically on knowledge among secondary school youth who were targeted for a community-based, youth-driven water, sanitation and hygiene education intervention in their schools. Preliminary findings highlight what is known of so-called “neglected tropical diseases” (e.g. soil-transmitted helminths) among pastoralist communities in the Ngorongoro Conservation Area (NCA), Tanzania.

Methods:

In May 2014, qualitative discussion groups were conducted with 80 secondary school students and 10 teachers in two boarding schools located in the NCA. Participants were predominantly of Maasai origin, and single-sex discussion groups consisted of male and female students. We asked the students about their understandings of transmission routes, as well as existing water, sanitation and hygiene practices that may already prevent or diminish risk of parasitic infections. We also explored with youth medicinal treatment options available and preferred among their communities. In April 2014, a baseline survey was also conducted in the two schools (approximately 900 completed surveys returned). Data were analyzed thematically according to risk factors within the NCA, prevention, and treatment.

Outcomes:

This presentation emphasizes the key role played by local partners, in the hospital and in schools throughout the NCA, in building our understanding of the context surrounding the wellbeing of pastoralist youth. These partnerships have been foundational in the development of a culturally relevant water, sanitation and hygiene education intervention to be rolled out in the coming months, which aims to foster leadership and innovation among Maasai youth in health promotion affecting their communities.

Discussion:

Reported knowledge of parasitism among the youth was rooted in overlapping ways of knowing about cleanliness. These ways of knowing were grounded simultaneously in formal and informal spheres for learning about risk factors, treatment options, and modes of prevention.

Conclusion: While delayed and forestalled medical visits could pose significant risks for vulnerable youth, the discussion groups suggest that the negative impact of traditional medicinal practices is less clear, with underlying social, cultural, historical and economic reasons limiting uptake in medical services. The discussion groups revealed that use of traditional plants extends beyond medicinal purposes, to include anal cleansing and hand-washing, especially when no water is available.

Hunt, Matthew (McGill University)

Ethics review of disaster research conducted in low and middle income countries: perspectives of ethics review committee members

Background: Conducting research in situations of disaster raises a range of ethical and logistical challenges. Pragmatically, disaster research needs to be initiated quickly and demands adaptation in a context of rapidly changing circumstances. The heightened vulnerability of individuals affected by disaster and the unfamiliarity of non-local researchers with local regulations may compound the challenge of disaster-related research in low- and middle-income countries (LMICs).

Objective: To better understand the ethical implications of disaster research in LMICs and to identify innovative approaches for research ethics review.

Method: In this qualitative research study, we interviewed fourteen members of research ethics committees (RECs) with experience reviewing disaster research protocols. We focused our analysis on how RECs put ethical principles into practice and on the implementation of innovative procedural approaches for ethics review.

Outcomes: Participants were from East-Africa, South-East Asia, the Caribbean, Western Europe, the Middle East, and North America. They had experience with different types of RECs, including committees affiliated with universities, government agencies, intergovernmental and humanitarian organizations, and for-profit review committees. The main themes discussed by participants included the vulnerability of disaster-affected populations and measures to protect them; issues of data security; approaches for pre-approving protocols; and challenges associated with dual ethics review in the sponsoring institution and in the setting where the research will be conducted.

Discussion: Protection of vulnerable populations was unanimously seen as a critical component of the ethics review of disaster research protocols in LMICs, and REC members described measures that they had adopted to mitigate risks to populations (e.g., examining regulations to protect children and implementing changes to the protocol as a result). There was a stark contrast between participants from high-income countries and participants from LMICs in terms of perspectives on the process of dual review. Participants were divided on the importance of paying greater attention to data security, although no demographic pattern was associated with the opinions. Finally, we found significant variability in the experience between RECs regarding the pre-approval of protocols.

Conclusion: Our study illuminates the experiences of REC members regarding the review of research to be conducted in disaster settings. The findings support the development of innovative approaches for the review of research in such contexts, including the design of more nimble and adaptive procedures, and mechanisms that enhance appreciation of subjects' vulnerabilities. They also suggest the need for tailored resources to support REC members reviewing disaster research protocols.

Joseph, Serene A. (McGill University)

Co-Authors: Martin Casapia (Asociacion Civil Selva Amazonica), Theresa W. Gyorkos (McGill University)

Integration of a global health research project within existing health infrastructure: an example from a deworming trial in early preschool-age children in Peru

Objective: WHO recommends mass deworming in areas endemic for soil-transmitted helminths in low and middle income (LMIC) countries. In preschool-age children, deworming is often piggybacked onto routine childhood interventions including vaccination programs, which can be community or health systems-based. In designing a research project on deworming in early preschool-age children, the decision was made to integrate the project into existing health infrastructure. The benefits and challenges of this approach are discussed.

Methods: A randomized-controlled trial on the benefits of deworming in early preschool-age children was conducted in Iquitos, Peru, in collaboration with international partners from academia, government, and civil society. Children were recruited for the trial both at their homes and at government-run health centres at 12 months of age, and followed up for one year during routine growth and development (Crecimiento y Desarrollo, or CRED) clinic visits (similar to Well Baby clinics). Intervention allocation and outcome measurements were made by trained research assistants in the health centres. The children also received usual care interventions from health care personnel in parallel with trial procedures.

Outcomes: Several benefits to conducting the research project within the health systems were experienced. The affiliation with health centres provided the research team with a pre-designated cohort of children routinely attending health services. The connection with the health centres also provided a level of trust in the community. Health centre benefits included capacity-building and knowledge translation activities. These benefits were intrinsically built into the day-to-day collaboration, and were enhanced by frequent meetings and workshops between research and health centre personnel. There was also added benefit in maintaining a high level of CRED attendance in children who participated in the trial, which often declines after one year of age. Challenges included space limitations for accommodating the research team, and health personnel strikes which reduced health centre access at various times during the follow-up.

Discussion: Integrating the trial within the health system provided immediate benefit, including improved feasibility and efficiency of the trial, as well as increased potential for sustainability and scaling up of the deworming intervention by health personnel upon study completion. During the trial, having frequent meetings with health centre personnel ensured timely exchange between the research activity and routine health care activities.

Conclusion: This study demonstrates a mutually beneficial research partnership to provide evidence-based results which contributes to knowledge discovery and, at the same time, sets the stage for knowledge uptake.

Jull, Janet (Centre for Global Health)

Co-authors: Dawn Stacey, Audrey Giles, Yvonne Boyer, Minwaashin Lodge (The Aboriginal women's support centre)

Health decision-making with Aboriginal women: A qualitative study identifying needs, supports, and barriers to shared decision-making

Background/Objective: Aboriginal women are likely to experience health inequity. Shared decision-making promotes collaboration between care providers and clients in health decisions, and may narrow health equity gaps; little is known about shared decision-making interventions with Aboriginal Peoples. This study describes the experiences of Aboriginal women when making health decisions by identifying decision-making needs, supports, and barriers.

Methods: An interpretive descriptive qualitative study was conducted in collaboration with an advisory group and using a mutually agreed upon ethical framework. Participatory research principles incorporating postcolonial theory were utilized. Aboriginal women at Minwaashin Lodge were interviewed using a semi-structured guide; transcripts were read then coded using thematic analysis. Themes were developed with and validated by Minwaashin Lodge leadership.

Results: Thirteen women 20 to 70 years of age of Inuit, Métis, or First Nations descent participated. Shared decision-making needs are represented by four major themes and are presented in a Medicine Wheel framework: To be an active participant; To feel safe with care; Engagement in the decision process; and Personal beliefs and community values. Supports for each of the major themes focused on the relational nature of shared decision-making, including women's views and roles and perceptions of care providers' roles.

Conclusions: Participants identified the relational nature of shared decision-making and these features are presented in a Medicine Wheel framework. Our findings support the use of shared decision-making with Aboriginal women, and indicate that shared decision-making tools may need to be adapted to be relevant for these user groups.

Kaba, Alyshah (University of Calgary)

Co-Authors: Jennifer Hatfield (University of Calgary)

Portfolios and Twitter: Innovative Teaching and Assessment Strategies in Global Health Education

Objectives. The Bachelor of Health Sciences at the University of Calgary has developed an innovative program to build competencies in Global Health. Learners need to be exposed to myriad of teaching and assessment strategies that prepare them to develop strong communication, inquiry, problem solving and reflective practice skills; albeit the current global health education landscape does not target these imminent needs. Our objective was to design an education program integrating students' interest in social media, online-videos, blogs and emerging technologies (e.g. Prezi) thereby harnessing this familiarity into student engagement in global health. Students participated in two new curricular innovative learning opportunities, with the aim of better preparing them to work within the rapidly changing global landscape.

Methods. Pilot data evaluating the impact of these two new learning innovations: Twitter Discussion Boards and Portfolios were collect from 20 students enrolled in the BHSc Global Health course in January 2014.

Outcomes. Assessment data from the 3 instructors were triangulated for key themes to assess the potential afforded by Twitter Discussion Boards and Portfolios to increase the engagement of the students in the learning process, as they relate to their own personal learning objectives and core Global Health Competencies (Hatfield et al., 2009). The outcome of this program created a two transferable assessment tools that enabled educators to objectively assess student's learning and engagement in global health.

Discussion. The use of Twitter Discussion Boards and Portfolios as a teaching and assessment tool provides evidence that demonstrates increase student engagement, independent learning, quality of critical analysis and debate, and a strong ownership of global health knowledge as it pertained to their future careers in the field of Global Health. Case study examples of student Twitter Discussion Boards and Portfolios will be highlighted to demonstrate expression of creativity through the use of diaries, iBooks, photo art galleries, poems, websites, mind maps, online videos, collages and scrapbooks.

Conclusion. It is anticipated that the faculty developed standardize framework for assessment and evaluation for Twitter Discussion Boards and Portfolios will be presented to address the paucity of assessment tools used in global health education at both the undergraduate and graduate level. These robust and standardize assessment tools will be widely disseminated and shared to educators, researchers and scholars both nationally and internationally, with the aim of continuing to build the capacity and quality of education and training programs within the global health community.

Kane, Jennifer (Health for All Family Health Team)

Co-Authors: Megan Landes (Department of Family and Community Medicine, University of Toronto), Sumeet Sodhi (Department of Family and Community Medicine, University of Toronto)

Systematic review of models of care for non-communicable disease interventions in Sub-Saharan Africa

Objectives: Chronic diseases, primarily cardiovascular disease, respiratory disease, diabetes and cancer, are the leading cause of death and disability worldwide. In sub-Saharan Africa (SSA), where communicable disease prevalence still outweighs non-communicable diseases (NCDs), rates of NCDs are rapidly rising. Thus, there is a need for evidence for primary healthcare approaches for NCDs in resource poor settings.

Methods: A systematic review of the literature was conducted for primary care approaches for chronic disease in SSA via a 'best fit' framework synthesis. 'Best fit' framework synthesis allows a generic conceptual model of care to be built upon via primary research data for a relevant but different population. Thus, the analysis involves two literature reviews. First a search for conceptual models of care for NCDs in low- and middle-income countries (LMIC) using Medline, Embase and Global health databases and a thematic analysis to extract a priori themes from these models of care. Then, a second literature review focused on interventions for NCDs in SSA, the population of interest, using Embase, CINAHL, Medline and Global Health. Data from the second literature review was extracted and coded against the general a priori themes using framework analysis and new themes developed via an inductive approach. Incorporating both thematic and framework analysis a new conceptual model of care specific to SSA was developed.

Outcomes: The a priori framework literature search identified 5089 unique citations and three articles, which described a model for NCDs. The primary research literature search generated 3759 unique citations of which twelve were deemed to satisfy the inclusion criteria. Eleven studies were quantitative and one used mixed methods.

Discussion: Three higher-level themes of screening, prevention and management of disease were derived. For screening, there was a near-consensus that passive rather than active case finding approaches are suitable in resource-poor settings. In terms of prevention, modifying risk factors among existing patients through advice on diet and lifestyle was a common element of healthcare approaches. The priorities for disease management were identified as: availability of essential diagnostic tools and medications at local primary healthcare clinics; and use of standardized protocols for diagnosis, treatment, monitoring and referral to specialist care. These themes provide the basis for a new evidence-based conceptual model of care for priority NCDs in SSA.

Conclusions: Despite the limitations of the data, this review allowed a thematic analysis to develop a conceptual model of care for NCDs in SSA.

Kelly, Christine (Institute of Feminist and Gender Studies, University of Ottawa)

Accounting for globalized workers within Personal Support Worker education in Ontario

Objective: The province of Ontario, Canada is in the process of establishing a common education standard for Personal Support Workers (PSWs) who assist with activities of daily living in varied long-term and acute care settings. At present, the educational and examination requirements vary depending on the setting of the work. Local organizations, popular media and academics have raised concerns about the variability in PSW skills and responsibilities, especially in light of increasing complexity of the clients they serve. The education standard represents the policy response to these issues.

This paper is part of a larger project exploring the policy and social implications of establishing a common education standard. Drawing on critical disability and feminist scholarship, this paper explores if and how developing a common education standard addresses the gendered, racialized and globalized implications of PSW work. PSW training programs and jobs in Ontario and Canada attract a disproportionate number of immigrant women.

Methods: This project includes a public domain analysis that encompasses government websites, press releases, and publications by non-profit organizations as well as qualitative data in the form of interviews with key informants and focus groups with PSWs.

Outcomes: This study finds while income and gender are often taken into account in discussions of PSW education the globalized implications of this work are typically overlooked or indirectly acknowledged through discussions of communication skills.

Discussion: The globalized workforce represented in Ontario PSW workers presents unique challenges and opportunities to deliver culturally sensitive services. It is essential to prepare these workers for the complex nature of workplaces they will enter, which include a high propensity for abuse and even racialized, gendered violence.

Conclusion: The education standard must be situated within a socio-political climate that devalues PSWs and the work that they do, a context that differs greatly from social valorization that accompanies and characterizes more professionalized, credentialed health care workers.

Khan, Abdur Razzaque (Bangladesh Red Crescent Society)

Increasing women's resilience in Bangladesh: Intersectoral collaboration between health and disaster risk reduction to improve the odds of survival

Bangladesh, historically considered one of the world's most disaster prone countries, has been working to improve the odds of women's survival by training them in disaster preparedness and response. In support of this trend, in 2010, the Bangladesh Red Crescent Society (BDRCS) partnered its disaster risk reduction (DRR) and health sectors in a 3 year project targeting women already accessing the BDRCS's existing network of community-based mother and child health (MCH) centers. Selecting 6 of its 13 MCH centers, serving cyclone prone communities in which women were seen to have limited involvement in community decision-making, the project integrated its DRR training into MCH service delivery sites to empower women by improving their disaster preparedness knowledge and skills and potentially increasing survival odds for themselves and their families. Direct beneficiaries were 60,000 women within the catchment area.

The BDRCS upgraded 6 MCH centres to new community hubs for disaster management and DRR, while also reinforcing preventative and curative health services. In non-disaster periods, the hubs served as meeting places for women's groups and training and planning activities involving both DM/DRR and health. During and after disasters, the hubs were used for shelter, first aid and ongoing relief efforts. DRR plans were adjusted to include specific responses to the needs women and children during disasters and DRR training provided within communities promoted MCH center service utilization by women.

In 2013, the BDCRS carried out a survey to assess changes in women's knowledge and behaviours related to disaster response and health promotion messaging. Major findings demonstrated that knowledge of emergency warning signals went up 85% and women's participation in trainings and mock disaster drills improved 27% to 52% resulting in women taking increased initiatives for preparedness and safety of the family and assets. Health findings revealed a 19% increase in hand washing with soap before a meal and 52% after defecation; both of which were consistently scored higher for women than men.

Probable attributable factors included: pairing health services with relevant DRR or health messaging improved information retention; MCH centers (a place women perceived as a safe place to gather) served as a multi-purpose hub, encouraging regular attendance and thereby further reinforcing information. Sustainability strategies included: training MCH staff in DRR and creating a network of informed community volunteers. BDRCS anticipates expansion of this program to other disaster prone areas, as well as continued sectoral integration between the health and DRR departments.

Krupa, Eugene (University of Alberta)

Co-Authors: Pascalina Chanda (Zambia Ministry of Health)

Assessing Digital Devices for improving health services in rural/remote Zambia

This 1 year study in rural/remote Zambia, funded by Grand Challenges Canada, explored the feasibility and effect of using digital devices on key issues and needs identified by stakeholders from local to national level:

- motivation and retention of Community Health volunteers (CHV),
- communication among CHV & health centre staff, and supervision
- record / data management
- quality of community-level health services,
- health status,
- income generation for CHV
- system costs and sustainability.

We used a cluster randomized design, conducted cross-sectional surveys, and gathered both qualitative and quantitative data in 16 rural health centres (RHC) catchments. CHVs in the 8 control and 8 intervention received the same training for practice. The intervention group also learned about use of smart phones (for record keeping / transmission and communication) and solar chargers. All health facility supervisors were trained on using net books for data management and utilization in decision-making.

All CHVs and health facility staff learned to use the ICT devices and reporting platform (DHIS2). CHVs, health facility staff and community members found the devices acceptable and beneficial. The devices and “live maps” of records generated had a positive effect on services and decision-making, and major positive effects on communication and supervision, efficiency and effectiveness of CHV, and improving CHV motivation and retention. The early indicators showed that these factors are translating into improved health and reduced system costs. The solar chargers generally worked well for the phones, but were not useful for income generation.

This study built on previous experience with a single issue (malaria), and expanded the scope of application to all district health issues. It responded to stakeholder consensus about the barriers to address in improving health services (and health). With mobile and tablet technology and coverage improving each year, this is clearly a way forward for low-resource health systems and people serving rural/remote areas.

Legetic, Branka (Pan American Health Organization- World Health Organization)

Co-Authors: Anselm Hennis, (Pan American Health organization)

Building Capacity for non-communicable Disease Prevention, Control and Monitoring in Latin America and Caribbean

Collaborative Action for Risk factor reduction, management and Evaluation of NCDs” (CARMEN) Network of 32 Member States, other international networks several international institutions and non governmental organizations strives to promote collaboration to tackle the increasing burden of disease due to chronic non communicable diseases. CARMEN school is a special project that includes series of training and public health activities for strengthening public health response to Non communicable diseases (NCD) in LAC; fosters partnership between Schools or Departments of Public Health, Public Health Agencies and Ministries of Health (MOH) at the country level.

Since 2004 till 2010 CARMEN school has included 27 “face to face” courses in 14 countries participating over 800 professionals. In 2010 Network has performed a study on needs for capacity building among 156 professionals working as country NCD coordinators or collaborators from universities, Government sectors; consultants (response rate: 72%)

Their perceived gap is in following competences ranked by priority:

- Epidemiology of NCDs, bio statistics, Monitoring & Evaluation,
- Negotiations skills,
- Multi-sector collaboration;
- Program management;
- Social marketing;
- Communication,
- Use of informatics' technology

To improve those competences and diversify education modalities (as access to resources in the counties like basic software, access to internet, PC was reported 95% and to specialized software and videoconference over 60% the new syllabus for Long distance course was developed and promoted together with previous modalities, using platform of Virtual Campus of Pan American Health Organization. The following modules are offered:

- A. Evidence Based Public Health
- B. Non communicable Disease Surveillance
- C. Policy Analysis
- D. Social Marketing in Public Health
- E. Evidence Based Management

Besides this long distance course of 10 weeks, developed in English and Spanish, the self-learning courses are introduced in 2014 as part of continuous education of professionals working in the area of NCDs in the Americas. These courses are aimed to different audiences: program managers in MOH, NGOs or private sector, health professional working in the area of special programs like salt reduction, or diabetes management.

This project has already had a tremendous positive impact among persons working in the field of NCD management, and has converted in the a major PAHO continuous education training initiative re NCDs in the region.

Mauluka, Chancy (Johns Hopkins University Center for Communication Programs)

Co-Authors: Tobias Kunkumbira (Ministry of Health-Health Promotion Section), John Zoya (Ministry of Health-National Malaria Control Program)

Towards a One Stop Shop for Health-A Case of Partnership in Integration for Malawi

Moyo ndi Mpamba! (Life's Precious/Capital!) is a campaign which for the first time in Malawi is being implemented by the Ministry of Health to integrate all health promotion with a unified call to action. The campaign purports to promote normative behavior change in six health areas of the Essential Health Package (EHP) including malaria. Moyo ndi Mpamba (MnM) has community interventions targeting 15 districts, with more than 6 million adults and youths; and national interventions targeting a 14.8 million population with tailored messages and support services.

Working in collaboration with United Against Malaria Partnership and government, MnM has engaged national and international private sectors in malaria control to mobilize communities and provide services and products for prevention and treatment. To improve Social and Behavior Change pedagogy and practice Moyo ndi Mpamba has collaborated with the University of Malawi through fellowships and outreach programs. In addition, MnM, through government, partners with health and non-health sector departments, sports and culture units, as well as the Malawi Army. These are involved in creation and dissemination of messages as well as in leveraging resources for community mobilization. At community level MnM has revamped existing groups and community leaders to champion advocacy on prevention and management of illnesses and cases in EHP.

Resultantly, the partnership with academia has helped shape behavior change modules for concerned faculties. Besides contributing to a raised profile for action against malaria in southern Africa through Racing Against Malaria (RAM), national partnerships have made efforts to increase awareness and mobilize resources for strengthening systems. With partnership in integration, government and stakeholders have used resources more creatively and cost-effectively. For instance health and non-health sectors have participated in distribution of the first ever produced family health booklet which integrates EHP messages. Reaching over 30% of the targeted communities the booklet has been received with acclaim and is referred to as a Portable Counselor. Health facility staff qualitatively testifies the booklet is increasing health-seeking behavior.

Moyo ndi Mpamba portrays how various health programs can be successfully integrated without an overload or under-load of demands on both the community and service providers. It further justifies the importance of multi-leveled partnerships for effective implementation.

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Medical schools in fragile and conflict-affected states: A global, country-level analysis

Background: Fragile states are countries with severe development challenges due to weak institutional capacity, poor governance, political instability, and armed conflict. In 2012, the World Bank classified 32 states as fragile situations. Although many governments, non-governmental organizations, and relief operations assist fragile states in times of humanitarian crisis, very little is known about medical schools in times of fragility. Medical schools, however, have great potential to bring populations out of the long shadow of violent deterioration and conflict since they remain in country and help determine a state's longer-term health indicators.

Objective: To identify the determinants and relationships of health indicators with the number of medical schools in countries classified as "Fragile States," compared to non-fragile states, with the goal of improving the global knowledge of medical training and its challenges in fragile and conflict-affected situations.

Methods: Analyses were undertaken using data for 189 states sourced from the World Bank, World Health Organization, and the World Directory of Medical Schools. The most recent available year for health, economic, and demographic indicators was 2012.

Results: Fragile states were home to 107 registered medical schools in 2012, ranging from zero schools (5 states) to 26 schools (Sudan), and representing 4.5% of medical schools globally. Fragile states had fewer operational medical schools for the populations served (0.27 schools per million people versus 0.35 schools per million for non-fragile states). The average life expectancy in fragile states was 61 years, compared to an average life expectancy of 72 years in non-fragile states ($p < 0.001$). The average physician density was 0.36 per 1000 people, compared to 1.75 physicians per 1000 people in non-fragile states ($p < 0.05$).

Discussion and Conclusions: Our results provide foundational data on medical schools in fragile states, highlighting the low number of medical schools in fragile states globally. Since states in conflict often have a high exodus of health care workers to other countries during and after conflict, the dependence on medical schools is likely higher in fragile states than in other countries. In spite of these major strains on the health care system, the capacity to train new physicians is already low in fragile states and in some cases absent. Next steps include understanding the major determinants of medical school operations in fragile situations, including a focus on students, faculty, infrastructure, and quality of instruction at an in-country level.

Mianji, Fahimeh (McGill University)

Everyone is bipolar until proven otherwise: globalization of American Psychiatry in Iran

This study aims to explain the historical changes in the professional understanding and clinical practice of Bipolar Disorder (BD) in Iran. Using an oral history and ethnographic fieldwork we describe a contemporary phenomenon in Iran's psychiatric system—that is, a professional controversy about over-diagnosis of BD among Iran's psychiatrists. Understanding the emergence of this diagnosis and its inflation in Iran will have important implications for the ways in which psychiatry is practiced in the country.

Psychiatry education in Iran is extremely American-reference-based—that is, based mainly on Kaplan and Sadock's Synopsis of Psychiatry as well as their Comprehensive Textbook of Psychiatry. In addition, most psychiatrists in Iran also use the DSM which is used in educational hospitals, too. Within a few years after Hagop Akiskal, professor of the University of California, formulated the "bipolar spectrum" in the 1990s, the expanded boundaries of BD were quickly adopted by Iranian psychiatrists. In our study, Nasir Ghaemi, Iranian-American psychiatrist, Professor of Psychiatry and Pharmacology at Tufts Medical Center in Boston, was named by interviewees as one of the most influential advocates for this concept among Iranian psychiatrists. This study reports that up to 90% of psychiatric inpatients in psychiatric referral hospitals and up to 50% of outpatients in private clinics are diagnosed with BD and are prescribed mood stabilizers and atypical antipsychotics.

Looking at the factors that influence this over-diagnosis of BD in Iran, we found—despite the minor role of the pharmaceutical lobby—Iran embraces the concept of bipolar much faster than is desirable. Pathologizing the normal reactive emotions in a society that is experiencing a transition from one that is traditional, patriarchal, and religious to one that is modern and reformist can provide at least temporary comfort, suggesting that there is a simple medical solution to complex social problems!

Specific information derived from this project has important global mental health implications. At the health policy level, policy makers should address not only the ways in which BD is defined but also the structural and legal incentives driving over-diagnosis. At the medical education level, the development of a range of curriculums and information packages could help raise awareness about the risks of over-diagnosis in clinical practice. Finally, new diagnostic and therapeutic protocols could be developed to bring more caution in treating bipolar disorder.

Mumtaz, Zubia (School of Public Health, University of Alberta)

Co-Authors: Adrienne Levay (School of Public Health, University of Alberta), Afshan Bhatti (Real Medicine Foundation, Pakistan)

Secrets of Successful Community Midwives in Pakistan: an Asset-based approach

BACKGROUND: In 2008, the government of Pakistan launched a national Community Midwifery (CMW) program to increase skilled-birth attendant density in rural areas. Women from villages were trained and deployed back to their home villages where they were expected to establish private domiciliary maternity-care practices. Recent research suggests CMWs have yet to emerge as significant providers. Some reasons include recruitment of unsuitable candidates, poor training, CMWs' inability to garner community trust and geographic and gendered mobility restrictions that prevent them from providing domiciliary care. These deficits-based findings emerge when a needs-based approach is used and can inadvertently compromise progress rather than contribute to building upon talents and capacities already present. This research used a strengths-based approach to learn from the few CMWs who have managed to establish successful practices amidst numerous barriers and map what assets influenced their success.

METHODS: A 10-month qualitative study was conducted in districts Jhelum and Layyah in 2011/12. Using an institutional ethnographic approach, data were generated using in-depth interviews with 36 CMWs, 13 policymakers and program managers, and 27 other maternal health providers. CMW functioning was captured in 76 observation sessions. Of the 36 CMWs contacted, only eight had established, if only fledgling, practices. To tease out from the larger dataset why and how the small number of relatively successful CMWs were managing to work, we draw upon the cases of these eight women using an embedded case-study approach.

RESULTS: Household poverty emerged as a key motivation for successful CMWs to practice midwifery. Since they were the household breadwinners, their families were compelled to support them, which is essential for women's occupational success in this context. These CMWs exhibited professionalism and had an innate sense of what is required to establish a business. This included providing respectful and reliable care, building professional networks by connecting with existing health care providers, including dais (traditional birth attendants). Age and experience were more facilitative than being married.

DISCUSSION/CONCLUSION: The asset based approach identified factors that enabled CMWs to establish successful practices in a context hostile to working women. Such a focus provides program policy makers with solutions that work in the Pakistani context. These include fine-tuning the selection criteria to select the right candidates, thereby promoting greater CMW retention, provision of higher quality maternity care and overall program success.

Mumtaz, Zubia (School of Public Health, University of Alberta)

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Caste in Muslim Pakistan: A Structural Determinant of Maternal Health Inequities?

BACKGROUND: Pakistan will fail to meet its MDG-5 target. While some progress has been made, its goal of universal skilled birth attendance and facility deliveries also remains unattained. Vast disparities in access to crucial maternal health services continue to exist in Pakistan. One driver of these inequities in South Asia is the caste system. In Hindu India caste is associated with skilled birth attendance and facility deliveries. In Muslim Pakistan, however, the existence of the caste system is actively denied despite evidence that caste membership remains a key dimension of perceptions of social identity in Pakistan. While ethnographic evidence shows the caste system is a structural driver of poor women's limited access to maternal health services, there has been no attempt to quantitatively measure the association of caste with poverty and use of maternal health services.

METHODS: A cross-sectional, clustered and stratified survey was conducted in districts Jhelum and Layyah in 2011-2012. The study population consisted of 1457 women who had given birth in the two years prior to the survey. Bivariate and multivariate regression analysis were conducted to explore the relationships between self-reported caste, socioeconomic status and maternal health care use, type of provider, and place of delivery.

RESULTS: Low-caste women were significantly poorer compared to higher caste women (53% vs 17% categorized as "very poor"). They were less likely to report schooling (56% vs 32%). Home-births were more commonly reported among low-caste women (54% vs 37%). They were less likely to report birth attendance by physicians (22% vs 41%) and more likely to report birth attendance by a dai, (44% vs 26%). Caste emerged as an independent, significant predictor of type of birth-attendant and place of childbirth in the regression models. Controlled for woman's education, socio-economic status and other potential confounders, low caste women had three times higher odds of reporting birth attendance by a dai compared to a physician and were 54% more likely to deliver at home rather than a facility than high caste women.

DISCUSSION/CONCLUSION: Acknowledging that the caste system exists and is responsible for creating an inequitable society is a vital first step for action. This research has highlighted and measured the effect of caste as a social determinant of access to maternal health services in Muslim Pakistan. It suggests a focus on improving education and income levels, while necessary, may not be sufficient to improve maternal health in this context.

Mumtaz, Zubia (University of Alberta)

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Women and caesarean sections in rural Punjab Pakistan: is it a choice?

Background: As c-sections rates increase all over the world, what remains unclear is the extent women have a choice and are active partners in the decision to deliver by this procedure. In countries where c-section rates exceed 60%, a surprising majority of women, up to 78% report a preference for a vaginal delivery. This suggests medical control maybe overriding women's preferences. In Pakistan, where women are traditionally not central in the decision making process around childbirth, there is a concerning possibility that their preferences maybe disregarded. This study examined women's understanding of caesarean sections as a relatively new technology and how this procedure aligns with their worldview of childbirth.

Methods: This article drew from the qualitative data of a larger mixed methods study conducted over a nine month period in 2011-2012 in two districts, Jhelum and Layyah in Punjab, Pakistan. In-depth interviews were conducted with 78 women who had given birth in the last two years, 35 husbands, 23 mothers-in-law and 30 health care providers. Eighteen focus group discussions were also held separately with women and men and women.

Outcomes: Data revealed vaginal, home-based delivery was considered an ideal birth. It aligned with gendered norms of women's seclusion, symbolized motherhood and saved costs. Although young women were aware of the role of c-sections as a life-saving procedure, they were hesitant to undergo the procedure because they are expensive, painful, render a women unable to work and violates gendered norms of seclusion. Women are also blamed for 'wanting the procedure' and accused of avoiding childbirth pain. Women also questioned the genuineness of the medical need underlying the providers' recommendation for a c-section. While some of their skepticism was grounded in inconsistent provider advice (changing obstetric risk, physician-practice variability and multiple providers), some of it was the result of a belief that the advice was driven by physician's profit motives.

Discussion: Our data suggest women's knowledge of the importance of c-sections is not sufficient. If their families continue to denigrate women's need for c-sections and view physician's recommendations as profit driven, women who genuinely require this procedure may not receive it. This will lead to missed opportunities for saving lives.

Conclusion: There is a need for broader knowledge sharing initiatives around the needs and benefits of c-sections. Policymakers also need to institute regulations to prevent the provision of unnecessary c-sections.

Naz, Anila (McGill University)

Co-Authors: Anne Andermann (McGill University)

Pre-piloting the CLEAR toolkit to help frontline health workers tackle the social causes of poor health in an ethnically diverse inner city neighborhood

Objective: As part of a larger global health research programme, the aim of this study was to determine whether a training tool designed to help frontline health workers in low and middle income countries ask about and act upon social determinants of health could also be used locally in a high income country setting by a large family medicine practice serving a highly ethnically diverse inner city population.

Methods: A mixed methods study was carried out from July to September 2013 involving an online survey of frontline health workers in one of the largest family medicine academic training centres in Canada, as well as in-depth interviews with a purposive sample of key informants.

Outcomes: Of the 100 health workers surveyed, half responded to the questionnaire (RR 50%). The majority of respondents consider that it is the role of health workers to address the underlying social issues that are the root causes of their patient's health problems (88%, n=44/50). Moreover, 97.3% found the CLEAR toolkit easy to understand (n=36/37), 89.2% felt the toolkit was relevant to their work (n=33/37) and 86.5% consider that it can help them to address the social causes of poor health (n=32/37). Prior to having read the toolkit, fewer than one third of health workers (n=16/50) reported having specific ways of asking their patients about social issues such as poverty, racism, food insecurity and family violence. Importantly, those who had ways of asking were twice as likely to report having helped their patients with such issues (93.8%, n=15/16, vs. 54.8%, n=17/31; p=0.003).

Discussion: Health workers agree that it is part of their role to take action on the social determinants of health, but most are unsure how to go about it in practice. Those who know how to ask their patients about social vulnerability are more likely to be able to help their patients in addressing these issues.

Conclusion: The CLEAR toolkit is a training package developed through a global health research collaboration which also has the potential to make important contributions in addressing health disparities locally by training the frontline health workforce in Canada to ask about and address the social causes of poor health.

Noga, Jacqueline (University of Calgary)

Co-Authors: Gregor Wolbring (University of Calgary)

Views on water management from students of different faculties at the University of Calgary: partnerships in water management

Objective: Water can have a detrimental impact on human health, from a lack of water in times of drought or water contamination to natural disasters such as floods. Water management is critical to address these issues and public participation and partnerships with the public and private sectors provides greater understanding of the challenges to a community and often leads to greater uptake of any new policies. The objective of this research is to gain insight into the perceptions of water held by students at University of Calgary, and their beliefs about water management in Calgary.

Methods: Focus groups were conducted with students of the University of Calgary in Engineering, Medical Science, Environmental Science, and Economics, grouping students together with peers in the same degree. The focus groups were audio-recorded and transcribed verbatim; the transcriptions were coded, looking for different ideas in the discussion. The codes were then collapsed into themes that reveal the overarching ideas of the discussion within and amongst the focus groups.

Outcomes: A total of 37 students participated in 12 focus groups, three for each student group: eight Engineering students, 11 Medical Science students, nine Environmental Science students, and nine Economics students. In terms of the discussion about people and partnerships, the individual, society, or both, came up throughout the discussion in the groups. Making this distinction reveals that some students were more focused on a societal level of consumption while others were interested in the individual level. Two groups discussed whether making this distinction is beneficial. The different sectors and types of inputs were as follows: "Expert voice", "Academic voice", "Public voice", "Private sector", "Government", and "Neutral party". The idea of a multi-sectoral management team, meaning having a variety of all of the sectors discussed, was a common idea when asked about who should be in charge of the policy.

Discussion: The multi-sectoral approach was commonly discussed, including the voice of scientists, the public and the government, and sometimes the private sector. This approach was discussed for both the creation and management of the policy and for evaluation of the policy. This idea of public involvement and flexibility in water management falls under the adaptive management paradigm, which is cited as beneficial.

Conclusion: In a changing and fluctuating water cycle water management is critical, and these results show that there is interest in developing better partnerships for water management.

Oelke, Nelly (School of Nursing, University of British Columbia, Okanagan)

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Hypertension Among Zambian Adults: A Mixed Methods Study

Objective: The two-fold purpose of this study was to 1) examine relationships between two hypertension risk factors (anthropometrics, salt intake) and blood pressure; and 2) describe community perceptions and practices related to hypertension prevention and/or management in undiagnosed Zambian adults in Mongu District, Western Province. Hypertension is a major non-communicable health concern in sub-Saharan Africa. In low-income regions such as Zambia where obesity and increased salt intake are well documented, hypertension is poorly detected, treated and controlled. Zambian adults with undiagnosed hypertension are at high risk for serious consequences such as stroke.

Methods: A mixed methods design was used that combined survey and focus group methods. Community members (n=203) participated in an interview-administered survey, modified from the WHO Stepwise surveillance questionnaire; information about body mass index, waist circumference, diet and salt intake was obtained. Two focus groups (one rural, one urban) were conducted to understand the sociocultural context influencing hypertension and prevention practices.

Outcomes: Zambians consumed excessive amounts of salt, on average 9.33 grams daily, and 37% were overweight or obese. These two factors were associated with high normal or high blood pressure that was prevalent in 40% of participants. Five themes emerged from focus group discussions including i) a range of beliefs about the causes of hypertension; ii) the impact of high blood pressure on physical well-being and death; iii) a pervasive lack of education and understanding of high blood pressure; iv) barriers to obtaining treatment including access, wait times, limited resources and poor quality monitoring and medical care; and v) recommendations directed at the government related to the need for health facilities and public health initiatives, but importantly their personal agency in identifying solutions.

Discussion: Lifestyle factors were associated with high blood pressure in Zambian adult community members. They consumed four times the recommended daily salt intake (<2 gms/day or 1 teaspoon) and over one third were overweight. Participants desired to be active agents in identifying solutions and recognized that BP screening, treatment, ongoing monitoring, and education were often lacking.

Conclusion: Hypertension is a significant concern. Zambian adults consume salt well above recommended levels that put them at risk. Adding salt to food is a practice that enhances palatability thus making it challenging to control. Nevertheless, it has implications for policy development related to salt reduction. Governments, health facilities and communities play an important role in developing an effective public health strategy to prevent, detect, and manage hypertension.

O'Hearn, Shawna (Dalhousie University)

Co-Authors: Eniola Salama (University of Calgary), Hatfield Jennifer (University of Calgary), Jill Allison (Memorial University)

Global health influences internationalization priorities at Canadian universities

Background

Canadian universities are at a turning point with federal funding reductions, national enrolment numbers declining and private partnerships becoming a mandatory component to research and programming priorities. With these challenges, universities have turned to the international market focusing on enrolment and research funding as a potential answer to their financial challenges. The reality is that fee-paying international students will help budget constraints and provide an avenue for maintaining existing and enhancing additional resources of growth and diversification within institutions of higher education. The international market as only a 'financial' resource is a narrow view of globalization.

Historically global health was viewed as a health issue germane to vulnerable communities like many countries in Africa, regions in conflict and humanitarian disasters. Now global health issues are recognized as a domestic issue (e.g. aboriginal child mortality) and global health solutions learned in other countries are now being established within the Canadian health care system (e.g. community based rehabilitation). It is of mutual benefit and interest to have a common global health strategy and network upon which to learn together, share progress and celebrate improvement in health status globally.

Resources, partnerships and interest in global health continue to grow within the Canadian university environment. While the global health community is diverse, there is a common vision and set of principles based on social responsibility, ethical engagement and collaboration.

Global health has typically sat in the background of the internationalization priorities within Canadian universities. However, several universities recognize the need to bring global health into the dialogue and planning of internationalization. This paper will explore the opportunities for global health to influence a socially and fiscally responsible Canadian university.

Methods: This review and analysis highlights a summary of Canada's International Education Strategy as well as approved internationalization strategies at Canadian universities

Results: Internationalization strategies exclude global health at most universities. Two Canadian universities have demonstrated their commitment to developing global health principles into their internationalization and socially responsible mandates. Parallel to this work are global health networks mobilizing to strengthen this movement and ensure that global health principles are guiding university priorities.

Conclusions: Building a robust global health agenda for the training of talent, extension of relationships across multiple borders and the mobilization of new ideas among higher education institutions and partners is what will unquestionably benefit our domestic community and foster global stability. Approaching internationalization of higher education where sector issues, like global health are core is a much richer, more relevant and necessary approach to strategy development.

Paul, Marianne (McGill University)

The Determinants of Place of Delivery in Ghana

Objective: The Three Delay Model by Thaddeus and Maine (1995) is used as a theoretical framework to test the implications of cost delay and distance delay as co-mediators in place of birth. The goal of this study is to identify the barriers in health care access and how it predicts place of delivery in light of individual and demographic, socioeconomic factors in Ghana.

Methods: A secondary data analysis of the Ghana Demographic Health Survey (2008) was conducted. Women who had at least one live birth during the five-year period before the survey were included in the analysis (n=2,992). Univariate analysis was used to present demographic and descriptive analysis including frequencies and percentages. Bivariate chi-square analysis was used in order to compare statistical differences between homebirth and facility birth characteristics. Multivariate logistic analyses were used to predict place of delivery among the target sample.

Outcomes: The descriptive statistics revealed persistent inequalities that exist between women who birth at home compared to health facility births ($p < 0.001$). We see health distance is significant predictor to place of delivery ($p < 0.05$) and the odds decrease slightly when controlling for socioeconomic status (OR=1.33, CI: 1.07-1.67). However, when controlling for cost of treatment, distance to facility is no longer a significant predictor (OR=1.21, CI: .96, 1.52).

Discussion: The study results demonstrate that lack of financial resource as the main deterrent in accessing health care services for the birthing process. These results confirm that socio-demographic disparities continue to determine place of birth and barriers to essential maternal health services in rural Ghana.

Conclusion: Cultural and geographical location could have a greater impact on the likelihood of homebirths. Policy implications should be directed on the availability of maternal health care services at a community level. Further research should continue to measure the indirect barriers to health care access in Ghana.

Pauze, Elise (University of Ottawa)

Co-Authors: Malek Batal (University of Montreal), Yvens Phillizaire (Universite d'Etat d'Haiti), Akoi Koivogui (Medecin du Monde - France), Bernard Arcens (FAO - Haiti section), Jean Pierre Foschia (Medecin du Monde - France), Rosanne Blanchet (University of Ottawa), Dia Sanou (University of Ottawa)

Determinants of diet quality among households in the department of Grande Anse, Haiti

Background: In Haiti, nutrient deficiencies and stunting are widespread. These health problems are caused by, among other factors, poor access and consumption of nutrient rich foods. According to a national survey conducted in 2011, 77% of Haitian households had diets of insufficient quality. To date, few studies have explored diet quality determinants of Haitian households. Identifying these determinants could inform local interventions in targeting and supporting nutritionally vulnerable households.

Objective: To assess diet quality and identify its determinants among Haitian rural households.

Methods: Data was collected using a cross-sectional survey. Diet quality was assessed using the household dietary diversity score (HDDS) which represents the number of food groups consumed by at least one household member the day before the survey. The HDDS varies from 0 to 12; its determinants were identified using multiple linear regression analyses. Five hundred and twenty-nine households living in seven areas in Grande Anse, Haiti, participated in the study. Respondents were women responsible for child care.

Outcomes: The mean HDDS was 6.3 (± 2.27). Most households had consumed oil/fats, condiments/beverages/spices, roots/tubers, and cereals whereas few households consumed animal-based food groups such as meats/organs, dairy products and eggs. The number of adults, land ownership (y/n), practice of livestock rearing (y/n), the number of meals consumed by children the day before the survey, use of latrines (y/n) and dwelling location perceived as poorly accessible were all associated with higher HDDS. Household access to borrowed land (y/n) and the reported sufficiency of resources to meet food needs (y/n) were not significantly associated to HDDS. Among respondent specific variables, practice of income-generating activities and practice of agriculture as main occupation as well as education attainment were also associated with higher HDDS. Respondents' access to gardens for personal use and their ownership of livestock were not significantly associated with HDDS.

Discussion: Determinants of household diet quality are multidimensional and are influenced by various factors including eating habits (number of meals consumed), socioeconomic status (use of latrine, education attainment), rural development (practice of livestock rearing), gender (practice of income generating activities and agriculture by women), as well as enabling environment (land ownership, accessibility of dwelling location). Moreover, household diet quality is concurrently affected by household- and individual-level factors.

Conclusion: Our results suggest the need for multisectoral and multilevel interventions to improve household diet quality in Haiti.

Pringle, John (University of Toronto)

Charity medicine for the global poor: Humanitarian ethics and the Nigerian lead-poisoning outbreak

Objective: To examine the issues, challenges and frustrations in the international humanitarian response, based upon an inquiry in humanitarian ethics. Beginning in 2010, an unprecedented lead-poisoning outbreak in northern Nigeria has killed more than 700 children and endangered thousands more. The environmental public health disaster exemplified the intersection of global inequality, material poverty, economic globalization, and poverty-driven resource extraction. The international response raised profound ethical challenges relating to the role and limitations of contemporary international humanitarianism. I participated in the humanitarian response at the start of the outbreak as an MSF epidemiologist.

Methods: A qualitative study using data from (1) a media and document review and (2) twenty-one key informant interviews of key international responders. Analysis drew upon critical theory to reveal the context of the Nigerian lead-poisoning outbreak and the international humanitarian response, and to identify and analyze the ethical issues, challenges and frustrations.

Outcomes: The study framed the Nigerian lead-poisoning outbreak within neoliberal economic policies and the political economy of artisanal gold mining. International responders to the outbreak worked under adverse conditions and expressed frustration and dismay at broader societal forces surrounding the outbreak and the paucity of public health services in the northern region of Nigeria. Media accounts corresponded with organizations' public communications and advocacy campaigns. There were significant tensions surrounding state obligation to its citizens, poverty-driven resource extraction, the medicalization of crisis, and contemporary humanitarianism under global capitalism.

Discussion: The Nigerian lead-poisoning outbreak exemplified the workings and failings of a humanitarian response to an economy-generated environmental disaster in a post-colonial, neoliberal, lower middle income country. The humanitarian response was less the Dunant tradition of humanitarianism and more akin to charity medicine for the global poor. Charity medicine for the global poor flourishes under neoliberalism and its disasters, inadvertently supporting neoliberalism's policies and reshaping the contours of contemporary humanitarianism. The findings of the study provide operational and theoretical guidance for stakeholders in global health and workers and leaders in the international humanitarian enterprise.

Conclusion: The study established how the international response to the Nigerian lead-poisoning outbreak unfolded, and identified profound ethical issues and dilemmas in contemporary international humanitarianism. I argue for a humanitarian ethic beyond battlefield ethics and recommend an activist humanitarianism providing more than charity medicine for the global poor. The activist humanitarianism for which I argue has a solution-oriented approach. I set a bioethical foundation for the social enterprise and change in practice.

Rashid, Mary (Plan International)

Improving maternal and child health through effective partnerships among non-governmental organizations, government, and professional network agencies

Introduction: Plan has been implementing the Women and Their Children's Health project (WATCH) in Bangladesh since November 2011, which aims to reduce maternal, newborn and child mortality, and thereby contributes to the Millennium Development Goals 4 and 5. Plan is working in partnership with the Ministry of Health & Family Welfare (MoH&FW), local non-governmental organizations (NGOs), The Obstetrical and Gynecological Society of Bangladesh, and communities.

Objectives:

- Enhance capacity of health service providers to deliver quality gender-responsive maternal, newborn, and child health (MNCH) services.
- Equip and re-activate union level health facilities.
- Increase men and women's knowledge of gender-sensitive practices in MNCH.

Key activities:

- Advocate to MoH&FW to allocate staff to union level health facilities.
- Support and adhere to MoH&FW policies and priorities.
- Review and update national documents on MNCH interventions, and advocate for their adoption.
- Encourage partners' ownership and participation.
- Partner with institutions such as The Obstetrical and Gynecological Society of Bangladesh. (OGSB) on training and promotion of MNCH messages.
- Encourage community groups to utilize health facility services.

Results: Key 2013 outputs include: 24/7 safe delivery service activated at 47 Union Health & Family Welfare Centers; basic MNCH equipment and supplies provided to 196 facilities (including 149 Community Clinics); and 126 nurses trained on gender sensitive basic emergency obstetric and neonatal care and facility-integrated management of childhood illnesses.

As of September 2013, the percentage of women aged 15-49 who received antenatal care at least four times during pregnancy rose from 24.6% to 79.2% (with a closing of the gap between adolescents under 19 and women over 20); the percentage of mothers and babies who received postnatal visits within 72 hours of delivery increased from 53.8% to 72.4%; and the percentage of children vaccinated against measles increased from 55.3% to 84.5%, with no gender gap.

Discussion: Effective and committed partnerships have been instrumental in helping to strengthen the quality of health services and encourage communities to adopt positive health behaviors. For instance, OGSB provides technical trainings at the facility level, whereas local NGOs implement community activities. However, challenges resulted from the MoH&FW's complex procedures, and from working with various stakeholders. Nevertheless, the strong collaboration between Plan and its partners; partners' involvement and support; and the project's alignment with all parties' priorities were essential to the project's successes.

Conclusion: Effective multi-dimensional partnerships have been crucial in ensuring the successful implementation of the WATCH project.

Razuri, Hugo (Research Institute of the McGill University Health Centre)

Co-Authors: Hugo Rodriguez (Dirección Regional de Salud Loreto- Peru), Martín Casapía (Asociación Civil Selva Amazónica), Theresa W. Gyorkos (Research Institute of the McGill University Health Centre), Brittany Blouin (McGill University), Madeleine Montoya (Asociación Civil Selva Amazónica)

A government, NGO and academia research partnership to implement and monitor a school-based mass deworming program in Loreto, Peru (Chau Cuica)

Objective: Worm infections are ranked number one in terms of both prevalence and disease burden in Latin America. The Peruvian Amazon is highly endemic, with more than 80% of school-age children harboring worm infections. Malnutrition is exacerbated by worm infections and can lead to irreversible adverse effects on growth and cognition. WHO, UNICEF and the World Bank recommend that school-based mass deworming programs be implemented in highly worm-endemic areas.

Methods: In the Peruvian Amazon, a mass deworming program called “Chau Cuica” [Goodbye Worms] was initiated by the Regional Government of Loreto in its health and education sectors: the local Ministry of Health (DIRESA) and the local Ministry of Education (DREL), in July 2012, following receipt of a donation of one million deworming tablets from an international NGO. The program reaches approximately 330,000 children between 3 and 17 years of age attending 3,487 schools throughout the region, in urban cities and rural communities, three times a year. Building on an on-going research partnership between a local NGO and the Research Institute of the McGill University Health Centre (RI-MUHC), a monitoring and evaluation component was integrated into this deworming program to establish baseline and periodic impact assessments.

Outcomes: A sentinel surveillance system was designed such that two schools in each of the six provinces of Loreto, and four schools in the capital city of Iquitos, provide data for the impact assessments at each time point. Following WHO guidelines, the assessments include, as a minimum, measurements of: 1) prevalence and intensity of worm infections; 2) anthropometry for indicators of malnutrition; and 3) hemoglobin to assess anemia. In 2014 the management of the monitoring and evaluation activities was progressively transferred to the DIRESA, both in terms of costs and leadership, with full transfer of all surveillance activities by November 2014. The RI-MUHC will continue to provide technical advice, when requested.

Discussion/Conclusion: Implementation of successful and sustainable mass deworming programs requires both political will and solid technical assistance. Here we present an example of how collaboration between a local government health institution and an ongoing research partnership (between a local NGO and an academic institution) resulted in such a program. This collaboration has also provided the opportunity for technical exchange, capacity-building and access to resources that are usually outside of the reach of local governments in worm-endemic areas because of lack of knowledge, lack of access and language or other barriers.

Robinson, Nicole (SOGC)

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Opening the dialogue: Collaboration and consensus-building for culturally-safer care for Aboriginal women

In partnership with the National Aboriginal Health Organization (NAHO), the Society of Obstetricians and Gynaecologists of Canada (SOGC) published a new Consensus Guide for Health Professionals working with First Nations, Inuit and Métis peoples in Canada (2013). This ground-breaking document is designed to help health professionals access the knowledge and tools they need to deliver culturally-safe care to Aboriginal women. The guideline provides information about how to care for Aboriginal women in a way that is culturally safe, respectful, and with an awareness of how the patient's history might affect how care is received. Understanding these dynamics is critical to ensuring access to appropriate care.

Methods:

The evidence base for culturally-safe care is increasingly recognized and is key to quality health care in marginalized and indigenous populations across the world. This new Guide includes twenty-four evidence-based recommendations and fifteen summary statements. A companion piece and infographic containing key facts, clinical tips and case studies was also developed in accessible language for distribution to Aboriginal women, social services workers, health navigators, community health workers, cultural-liaison workers and other stakeholders. These supplemental pieces are key tools in our education and knowledge transfer strategy.

Consultation and collaboration via the SOGC's partnerships with key Aboriginal and non-Aboriginal health organizations were key to the process and production of this education piece. The Guide is authored by members of the SOGC's Aboriginal Health Initiative Committee (AHIC), which includes Aboriginal and non-Aboriginal obstetricians, gynaecologists, family doctors, nurses, midwives and allied health professionals. The working group also included eighteen special contributors, respected leaders in Aboriginal health.

Outcomes:

The Guideline is being disseminated at the conferences of major health organizations across Canada. As a result, awareness of the realities of health and well-being of Aboriginal women is improving and health professionals are gaining the skills and knowledge needed to delivery culturally-safer care.

Discussion:

The development of this guideline is characterized by a process of collaboration and consensus-building on each topic, helping ensure the relevance of our Guideline and its recommendations. The document speaks to a range of pertinent Aboriginal women's health issues and highlights the complexity of care and helped open the dialogue with our Aboriginal partners on many challenging issues. Among key lessons learned is the need for institutional investment in the work of partnership-building. The SOGC's Aboriginal Health Initiative regards its partnerships with Aboriginal organizations as foundational to our work.

Schlegelmilch, Michael (University of Alberta)

Impact evaluation of the Sombeza water and sanitation improvement program (SWASIP) in Kinango, Kenya

Background : The Sombeza Water and Sanitation Improvement Program (SWASIP) was a \$1.4 million USAID project, implemented in Coast Province, Kenya from 2007 to 2010. SWASIP was a multi-faceted water, sanitation and hygiene (WASH) intervention that constructed WASH infrastructure, delivered WASH education to communities and instituted Water User Associations (WUA). This evaluation assesses the sustainability of these WASH improvements in Kinango District, Coast Province.

Methods

- 1) Four roof water catchments, 19 latrine blocks, three small farm reservoirs, one public tap and seven hand hygiene stations were inspected.
- 2) Surveys from 250 households were collected from 25 different villages that were selected by probability proportional to size sampling from 67 villages in Kinango District.
- 3) Program staff were interviewed regarding the operation of the WUAs.

Indicators were compared against baseline data collected in 2007.

Ethics approval was obtained from the University of Alberta and Aga Khan University, Kenya.

Results

- 1) WASH infrastructure was commonly in disrepair and maintenance was rare.
- 2) At the household level:
 - There was a 19% increase in toilet facility coverage to 43%.
 - The mean time to collect water in dry season decreased from 149 minutes in 2007 to 95 minutes in 2013.
 - The percentage of respondents practicing hand hygiene at critical points decreased by 9% before preparing food, by 28% before feeding children, by 3% before eating, by 37% after changing a diaper but increased by 10% after defecation.
- 3) The WUAs likely did not provide any benefit to the community, though missing data limited the evaluation of WUAs.

Conclusions

The ongoing benefits of the SWASIP project are sporadic. Four conclusions can be drawn.

- 1) The infrastructure was in moderate disrepair, but is still benefiting the community.
- 2) Access to water and toilets improved significantly.
- 3) Healthy WASH behaviours were not uniformly improved.
- 4) WUAs, as constituted, had no utility.

Recommendations

This evaluation points to the poor success of WASH programs that do not have

follow-up to ensure sustainability.

- 1) Additional funding is needed for maintenance programs to bring the infrastructure to safe and reliable levels of operation.
- 2) A reinstatement of WASH programming is needed to build on the success seen in WASH behaviour improvements. It is essential that future WASH programming and education consider the financial constraints to healthy behavior.
- 3) Further research on the socio-economic barriers to healthy WASH practices and WUA operations is needed to inform future WASH interventions.

Sivananthajothy, Priatharsini (Tharsini) (School of Public Health, University of Alberta)

Co-authors: Yvonne Chiu, (Multicultural Health Brokers Co-operative), Dr. Jane Springett (School of Public Health, University of Alberta)

Understanding perceptions of community engagement held by stakeholders within the family care clinic planning process

Introduction

Recognizing the importance of health promotion, and prevention, Family Care Clinics (FCCs) were designed by Alberta Health to provide integrated, community based, comprehensive primary health care. Community engagement is a necessary tenet in the planning of FCCs however, it is not a definite process and perceptions vary. The objective of this research project was to explore how the voices of the community were represented within the development of FCCs.

Methods

A descriptive qualitative inquiry was conducted with snowball sampling utilized to recruit participants critical to the planning process within phase 1 and phase 2 FCCs. Nine in-depth interviews were conducted with participants from eight organizations either in person, or over the phone between the months of June - September 2014. A qualitative content analysis was conducted to inductively determine emerging themes. Weaknesses include: short timeline and small sample size.

Results

Two distinct phases of planning were identified as critical periods for community engagement: firstly the public forums held by Alberta Health to engage with interested community organizations to discuss the implementation of FCCs; secondly, the community working groups formed to develop the proposal. However, discrepancies within the definition of community, who was invited as stakeholders and who was not, were identified as challenges in both phases of community engagement. Participants acknowledged the lack of representation from grassroots organizations, and cited the extremely short timeline given during the summer months as critical barriers for engaging with the community.

Conclusion

Engagement was described as an opportunity to create trust and provide the “hand-holding” necessary to connect the unattached population to a primary health care provider. Further engagement with the local community and grassroots organizations is necessary to truly establish a trusting relationship necessary for uptake of FCC services by the vulnerable populations.

Sodhi, Sumeet (Dignitas International)

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Lessons learned from developing an operations research strategy for evaluating decentralized health services delivery in Malawi

Objective: Dignitas International (DI) is a Canadian medical and research NGO working with the Malawi Ministry of Health (MoH) since 2004 to decentralize HIV/AIDS services in Zomba District, Malawi, to health centres in primarily remote and rural areas. Developing an operations research (OR) strategy to support delivery of high quality services during antiretroviral treatment scale-up was a key element of DI's program.

Outcomes: Over time, DI created long-term relationships with frontline providers and district managers, which facilitated non-disruptive and synergistic interactions between research and program delivery. Similarly, sustained engagement with policymakers enabled feedback of research results into national policymaking and guideline development processes, aiming to increase relevance and uptake of research. As the HIV epidemic stabilized, the MoH demonstrated increased ownership of health sector activities, including aligning NGO partner plans to the MoH national sector strategy and research agenda, and exerting a greater degree of control over data collection and research activities. Weak data collection and data management systems presented major challenges to conducting OR required balancing competing priorities and short- and long-term objectives; decision making points have included whether or not to rely on existing (often sub-standard) systems, or develop parallel systems to meet study needs.

Discussion: By developing operations research partnerships, DI developed mechanisms to support production of policy-relevant research and evidence-informed policymaking. DI also supported local research capacity through forming partnerships with Malawian academic institutions and organizations, engaging MoH staff as co-investigators, and employing and developing the capacity of local research staff. However, capacity has lacked at the district and community levels to initiate, participate in, utilize and take ownership of research initiatives. DI has taken an inclusive approach but has not yet developed targeted strategies to develop this specific capacity as part of strengthening the decentralized health system.

Conclusions: An OR framework can be a successful tool in developing global health partnerships. OR methodology is appropriate for decentralized models of care in remote and rural settings when implemented with minimal disruption to frontline providers, and through a collaborative framework with demonstrated relevance to operational reality. Social accountability frameworks have universal application: successful implementation of OR is dependent on sustained engagement of stakeholders at multiple levels and responsiveness to local health priorities. Building research and data capacity in a decentralized health system is a long-term process that may, in the shorter-term, challenge priorities around quality and timeliness of research. Over the longer-term, OR can increase ownership, uptake and relevance of results.

Tomblin Murphy, Gail (WHO/PAHO Collaborating Centre on Health Workforce Planning and Research)

Co-Authors: Ivy Bourgeault (University of Ottawa), Ronald Labonté (University of Ottawa)

Health worker migration from South Africa, India, Jamaica and the Philippines: Causes, consequences and responses

Objective: The aim of this study is to better understand the drivers of health worker migration, its consequences, and the various strategies being employed to mitigate its negative impacts. The session will present the study's methods and preliminary findings, as well as some common themes emerging across countries.

Methods: The study was conducted in four countries – Jamaica, India, the Philippines, and South Africa – which have historically been ‘sources’ of health workers migrating to other countries. Data were collected through surveys of diverse categories of health workers including physicians, nurses, midwives, pharmacists, physiotherapists, dentists and dental auxiliaries, as well as key informant interviews, in each country. Quantitative data were analyzed descriptively and with regression models. Qualitative data were analyzed thematically. A workshop which brought together co-investigators from each of the participating countries was held to share preliminary results so as to begin to identify common themes emerging across countries.

Outcomes: Migration of health workers from each of these countries continues to be prevalent. The causes of this migration are numerous, long-standing, and systemic, and are largely based around differences in living and working conditions between these ‘source’ and ‘destination’ countries. There is minimal systematic tracking of health worker migration in these countries, making scientific analysis of its consequences difficult. Although there have been national and international efforts to manage and mitigate the negative impacts of migration on ‘source’ countries, there is little evidence of the implementation or effectiveness of such efforts.

Discussion: Although historically common, migration of health workers from these countries is poorly monitored and understood.

Conclusion: Effective management of health worker migration requires investment in information systems to monitor and study it as well as stronger collaboration between source and destination countries.

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Moving forward together: A collaborative approach in HRH policy synthesis and analysis for maternal and child health in rural Africa

Background: Most African countries are enduring a human resources for health (HRH) crisis and lack sufficient personnel to deliver basic health care to their populations, especially in rural areas. Maternal and child health (MCH) and HRH are at the forefront of many health planning discussions, Millennium Development Goal progress reports and post-2015 agendas. Resources for country-level policy makers to review and synthesize available policy information from different countries are limited, reducing capacity to create evidence-based policies. To inform policy processes and build HRH research capabilities in Africa, an IDRC-funded systematic review of evidence on training and deployment policies for doctors, nurses and midwives for MCH in rural Africa was undertaken by the WHO/PAHO Collaborating Centre on Health Workforce Planning & Research, in partnership with the University of Zambia School of Medicine and an international, African-centred Advisory Group (AG). Methods: A scoping review of 14 peer-reviewed literature databases was completed for all African countries with official languages of English, Portuguese or French. Non-peer-reviewed literature and policy documents were obtained through systematic searches of selected international organization and government websites with additional documents provided by the AG and Zambian researchers. Informed by an established policy analysis framework, an in-depth policy synthesis was conducted for a subset of countries: Ethiopia, Ghana, Mali, Mozambique, Niger, Tanzania, Uganda and Zambia. Outcomes: There was an overall paucity of evidence on relevant policies. Although information on policy context was noted in other documents, there was little documentation available on their actual development, implementation, or impacts. Discussion: The lack of documentation suggests a need for improved regional capacity for HRH policy knowledge transfer to effectively strengthen healthcare system and HRH planning; connecting evidence, policy, and service provision. Based on the synthesis, a number of cross-cutting political and socio-economic issues affecting HRH training and deployment policy were identified in the countries studied, such as fiscal and resource management, monitoring and evaluation, transparency, decentralization, and political stability. A key learning from the synthesis process is the need for collaborative partnerships between countries and agencies to inform knowledge development and exchange, advancing HRH policy and planning for MCH. Conclusions: The dissemination and expansion of this research, continued engagement of the AG, and collaboration with African policy-makers are critical mechanisms for addressing the identified issues and are essential to strengthen Africa's health systems and capacity for optimized gains in MCH post-2015 through the increased presence of trained HRH in rural areas.

Tomblin Murphy, Gail (WHO/PAHO Collaborating Centre on Health Workforce Planning and Research)

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Health worker migration from Jamaica: Causes, consequences, and responses

Objective: The aim of this study is to better understand the drivers of migration, its consequences, and the various strategies countries have employed to mitigate negative impacts of it. The study was conducted in four countries – Jamaica, India, the Philippines, and South Africa – which have historically been ‘sources’ of health workers migrating to other countries. This paper will present findings from Jamaica.

Methods: Data were collected using surveys of several categories of Jamaica’s health workers including generalist and specialist physicians, nurses, midwives, and dental auxiliaries, as well as structured interviews with key informants representing government ministries, members of professional associations, regional health authorities, health care facilities and educational institutions. Quantitative data were analyzed using descriptive statistics and regression models. Qualitative data were analyzed thematically. Multiple stakeholder engagement workshops were held across Jamaica to share and validate the study findings and discuss implications for the country.

Outcomes: Migration of health workers from Jamaica continues to be prevalent. Its causes are numerous, long-standing, and systemic, and are largely based around differences in living and working conditions between Jamaica and ‘destination’ countries. There is minimal formal tracking of health worker migration from Jamaica, making scientific analysis of its consequences difficult. Although there is evidence of numerous national and international efforts to manage and mitigate the negative impacts of migration, there is little evidence of the implementation or effectiveness of such efforts. Potential additional strategies for better managing the migration of Jamaica’s health workers include the use of information systems to formally monitor migration, updating the national cadre system for employment of health personnel, ensuring existing personnel management policies such as bonding are both clearly understood and equitably enforced, and providing greater formal and informal recognition of health personnel.

Discussion: Although historically common, migration of Jamaica’s health workers is poorly monitored and understood and, as a result, difficult to manage effectively. Several practical strategies have been identified to remedy this situation.

Conclusion: Better managing the migration of Jamaica’s health workers requires collaboration from stakeholders across multiple sectors. Participating stakeholders identified a wide range of potential strategies to better manage migration of Jamaica’s health workers. Implementation and testing of these has potential benefits to Jamaica as well as other ‘source’ countries.

Traore, Hawa (Plan International)

Comprehensive community-based interventions using traditional cultural approaches to improve maternal and child health in Mali

Introduction: Mali faces challenges in reducing maternal, neonatal and child mortality rates due to factors such as the lack of trained human resources and limited promotion of Maternal, Newborn and Children's Health (MNCH) at the household level. With under-5 mortality rates at 191 per 1,000 live births, and maternal mortality rates at 464 per 100,000 live births (WHO, 2006), Plan started implementing the Women And Their Children's Health (WATCH) project in Mali (November 2011). The goal is to reduce MNC mortality in 680 communities across three districts through high impact community-based interventions. WATCH relies on partnerships with community groups, local NGOs, health centres and community health associations.

Objectives:

- Build the capacity of women, men and community leaders to recognize maternal, neonatal and childhood diseases and barriers to prevention;
- Increase knowledge of and best practices in MNCH for healthier communities;
- Ensure active involvement of different groups within communities to improve the health of beneficiaries.

Methods:

1. Strengthen community-level health systems by building capacity of Community Health Workers (CHWs) to provide village level gender-responsive care;
2. Strengthen community capacities for social mobilization and promote essential gender-sensitive family practices in MNCH by engaging community support groups, leaders and volunteers;
3. Promote gender equality in the management of MNCH through trainings and awareness sessions.

Results: Key 2013 outputs include: 521 community sessions conducted on best MNCH practices; 6,892 community leaders (32.4% women) sensitized on MNCH issues and gender equality; 74 CHWs trained on managing childhood illnesses, referrals to health facilities, and family planning counseling. Male engagement is promoted in all interventions.

As of November 2013, the percentage of mothers who received postnatal care within 72 hours of delivery increased from 18.1% to 32.1%; the percentage of infants 0-6 months exclusively breastfed rose from 35.8% to 67.7% (girls: 67.9%; boys: 67.5%) and of vaccinations against measles from 37.6% to 42.7% (girls: 43.3%; boys: 42.0%).

Discussion: The communication strategy uses cultural streams such as Balani shows (traditional dance) and community awards. Women's associations, municipal counselors, religious leaders, chiefs and village counselors received comprehensive training to support changes in MNCH practices in their communities. Despite barriers to change prevalent socio-cultural and gender-related norms and practices, the project has achieved successful results through adequate community and cultural behavioral change communications.

Conclusions: The project is yielding successful results. Through an innovative approach, the project is using socio-cultural channels and recognition tools to improve partnerships with communities.

Wafula, Rose (Kenyan Ministry of Health)

Co-Authors: Nicole Fulton (mothers2mothers), Martin Sirengo (Ministry of Health, Kenya), Esca Scheepers (mothers2mothers), Emeka Okonji (mothers2mothers), Alisha Meyers (mothers2mothers), Kathrin Schmitz (mothers2mothers)

National scale-up of the Kenya Mentor Mother Program for eMTCT by 2015

Objective:

New global health policies emerge yearly, but often fail to translate into meaningful action at country level due to limited health system capacity, commitment and coordination. In 2011, 22 countries signed the UNAIDS Global Plan, committing to reduce mother-to-child transmission rates to below 5% by 2015 and placed PLHIV at the center of the response. This paper presents the Government of Kenya's (GOK) successful design and delivery of the Kenya Mentor Mother Program (KMMP) which focuses on putting women living with HIV at the center of the response, as a case study for the rapid translation of global policy into scalable programming through a partnership approach.

Outcomes:

The MOH, with support from key partners, created a strategic plan for national scale-up of the Mentor Mother model in 2011. A needs assessment identified best practices in PMTCT peer education and psychosocial support throughout Kenya. Lessons learned were shared in a consultative forum in October 2011; draft national guidelines for the KMMP were generated in early 2012 and launched by the MOH in November 2012. A comprehensive package of capacity building services was designed and delivered to 20 implementing partner organizations and sub-national MOH staff from June 2012 – present. Priority counties were sensitized to build KMMP capacity and champions across Kenya.

Discussion:

By the end of 2013, 291 regional MOH staff and 20 partner organizations were trained on KMMP implementation. A complete set of national materials was designed to support implementation, including national guidelines, pre-service curriculum and data collection tools and reporting systems. Leadership for the KMMP was built across the MOH. A total of 343 Mentor Mothers were trained, and 222 KMMP sites were opened (44% of the GOK's 2015 goal to reach half of the target population by 2015 at 500 high volume sites). A national, external economic evaluation of the KMMP was commissioned to create an advocacy tool for county governments, to promote long term sustainability of the KMMP through the direct employment of Mentor Mothers.

Conclusion:

The KMMP demonstrates a model for the successful translation of global guidance into a scalable national model through a partnership and capacity building approach. Similar strategies should be used in other Global Plan signatory countries to accelerate the attainment of elimination.

van der Meer, Frank (University of Calgary)

Co-Authors: Ashley Schroeder, Susan Kutz, Terrilynn Hughes, Jiselle Kohlmann, Alexandra Zamponi, Kaylynn Purdy, Sheri Bastien, Mange Manyama, Elias Charles, Evelyn Konge, Saningo Godwin, Karin Orsel, Kenneth Lukowiak, Jennifer Hatfield, Frank van der Meer

Mitigating parasitism amongst Maasai children and livestock in the Ngorongoro Conservation Area, Tanzania: A One Health community partnership approach

Objective: The goal of this research is to determine the baseline prevalence and intensity of gastrointestinal parasitism among the Maasai people and their livestock living in the Ngorongoro Conservation Area (NCA), Tanzania. This One Health approach was developed when community engagement with local health workers and Maasai traditional leaders revealed parallel concerns of parasitism in both children and livestock as important barriers to health in this region. The data collected on gastrointestinal parasitism in humans and livestock will enable the development of community-based educational interventions that are considerate of Maasai pastoralist culture.

Methods: A cross-sectional study was implemented to determine the baseline parasitism of Maasai children and livestock in the NCA. 6 primary schools and 9 bomas (traditional livestock premises) were identified for participation. 3 schools and 4 bomas were located in highland areas (2200m to 2650m altitude) and 3 schools and 5 bomas in lower, arid areas (1500m to 2175m altitude). Stool samples, age, height and weight were collected from 350 primary school children (age 8-10 years) and fecal samples, body condition score, and weights were obtained from 357 livestock (cattle, sheep, and goats). Fecal samples were analyzed for parasitic infection using 3 techniques: Kato Katz (children only), Wisconsin double centrifugation, and Baermann sedimentation.

Results: Analysis of fecal samples identified *Strongyloides stercoralis* and hookworm as the most common infections among primary school children. Infections with *Trichuris trichiura*, *Ascaris lumbricoides*, and *Taenia* spp were also identified in children. Fecal samples from livestock revealed strongyle and lungworm spp. as the most common findings. Based on initial analysis, *Trichuris trichiura*, *Ascaris lumbricoides* (children) and lungworm spp. (livestock) were positively correlated with elevation and precipitation.

Discussion: These findings confirm the community concern for parasitism in children and livestock. Both zoonotic and non-zoonotic parasitic infections are significant for the Maasai community living in the NCA, and regional differences in parasitic infection have health implications that warrant a targeted approach based on ecological region.

Conclusion: The baseline data on gastrointestinal parasite infections in children and livestock in the NCA will be used to develop a One Health community-based intervention strategy that combines veterinary and human health education messages. Among Maasai pastoralists, the importance of parasite management and prevention in humans will be communicated more readily through existing community knowledge on the impact of parasitism in livestock.

Poster Presentation Abstracts

Adams, Orvill (WHO Centre Knowledge Translation, Technology Assessment for Equity, Centre for Global Health, University of Ottawa)

Co-authors: Turdaleyeva, Botagoz; Altynbekova, Umitzhan; Sagyndykova, Zarina (S. Asfendiyarov Kazakh. National Medical University. Department of Policy and Health Care Management)

Build partnerships for equity in Primary Health Care in Kazakhstan

Objective: The Republic of Kazakhstan hosted the 35th Anniversary of the Declaration of Alma – Ata on Primary Health Care in 2013. Since the Declaration in 1978 countries have used many different approaches in their attempts to implement Primary Health Care (PHC) and improve the health of their populations. It is recognized that policy makers need to know how this focus on PHC is improving health and reducing inequities within the country. The Ministry of Health has called on its partners, the medical universities, to contribute to finding approaches to strengthen PHC.

Methods: Researchers from the Kazakh National Medical University named after S.D.Asfendiyarov, School of Public health named after Kh. Dosmukhamedov have engaged in a partnership with the University of Ottawa, Medical School, WHO Center Knowledge Translation, and Technology Assessment for Health Equity, Centre for Global Health and the Bruyere Research Institute. The partnership is building the capacity of Kazakh researchers in the understanding and measurement of equity.

Outcomes: The partnership has resulted in the creation of an Equity Team in the School of Public Health. The Team which consists of members, PhD candidates and professors have begun to learn methods of international equity research to take part in international teams and to apply the methods to PHC development in Kazakhstan.

Discussions: like other countries engaged in health sector reform Kazakhstan has made progress in improving the health of the population (as measured by progress in the Millennium Development Goals), but still has a long road ahead. Guided by the policy/programme “Salamatty Kazakhstan 2011 – 2015” PHC has received increased focus. Equity research will assist the policy makers to better focus their PHC initiatives. Targeted health promotion and disease prevention programmes have been increased to populations such as young mothers and people with diabetes. With strong support from the President of The Republic of Kazakhstan, 350 ambulatory clinics and rural centres are to be built, staffed and equipped by the end of 2015.

Conclusion: Through this partnership of Kazakh researchers working with Canadian researchers and researchers from other countries appropriate strategies/options for Kazakhstan are being identified. This type of research, new for Kazakhstan, will provide evidence from global health to inform local health policies and local interventions.

Adler, Ellie (The Hospital for Sick Children)

Co-authors: Bonnie Fleming-Carroll (The Hospital for Sick Children); Patricia Ingram-Martin (Bustamante Hospital for Children); Stephanie de Young (The Hospital for Sick Children); Pam Hubley (The Hospital for Sick Children). On behalf of the SickKids-Caribbean Initiative Nursing Working Group.

SickKids-Caribbean Initiative: A Focus on Strengthening Nursing Capacity in the Care for Children with Cancer and Blood Disorders

Objective: The Hospital for Sick Children in Toronto has embarked on a partnership with six Caribbean countries to improve the health outcomes of children with Cancer and blood disorders. A key focus of the international partnership is to advance pediatric nursing care in the specialty of oncology and haematology. This poster highlights a highly effectively stakeholder engagement strategy, current state assessment process, and the development of a nursing strategy road map with the sustainability goal of building capacity within each county.

Method: The engagement approach included a Nursing Strategy Retreat to mark the beginning of this new opportunity for nurses in 6 Caribbean countries to work together, share successes and strengthen further their approaches to care. Nursing leaders and clinical nurses were identified from each country to participate in the retreat that was hosted in The Bahamas on February 19, 2014. The retreat objectives were as follows:

- Strengthening nursing relationships across the islands and with SickKids;
- Exploring and understanding current state within each country;
- Setting direction and priorities to advance nursing practice;
- Developing an action plan;
- Learning from each other and taking this back to each country to share

Outcomes: Each site was invited to present an overview of their respective hospital structure, partners, haematology/oncology patient care activities, nursing model and resources, leadership structure, professional development, and top nursing priorities. Common themes emerged from the presentations based on the top priorities shared by each site. These themes included education & training, change leadership and collective oversight. A multi-year strategy road map was developed with early wins in delivering educational Patient Care Rounds via telemedicine technology.

Discussion: A nursing plan has been developed and is comprised of short-, medium- and long-term activities, prioritized based on discussions with Caribbean nursing leaders. These activities will integrate program building with the education of healthcare providers in the development of regional capacity.

AHMED, LUBANA (Cowater International Inc)

Co-authors: Co-authors: Shajedul Hassan (Joint Secretary & Deputy Chief, Human Resource Management Unit, Ministry of Health & Family Welfare), Taslima Begum (Director, Directorate of Nursing Services), Shereen Khan (Gender Specialist, Human Resources for Health Project, Cowater international Inc), Lubana Ahmed (Canadian Filed Manager, Human Resources for Health Project, Cowater international Inc), Stephen Collens (Canadian Project Director, Human Resources for Health Project, Cowater International Inc)

Canada-Bangladesh partnership towards improving human resource policies for public sector Nurse-midwives in Bangladesh

Background: Nurse-midwives in Bangladesh are facing a number of institutional policy issues and gender equality challenges which adversely affect their recruitment, deployment, promotion and retention. The 2012-17 Human Resources for Health Project in Bangladesh, a bilateral partnership initiative between the Bangladesh Government/Ministry of Health and Family Welfare (MOHFW) and the Canadian Department of Foreign Affairs, Trade and Development (DFATD) is making efforts towards developing and implementing higher quality gender sensitive human resource (HR) policies and rules for Nurse-midwives (NMs).

Objective: To review existing, and where needed develop new, key HR documents in support of public sector NMs in Bangladesh which are more consistent with sound global practice and gender sensitivity requirements.

Methods: Supporting a MOHFW “Gender Sensitive Human Resource Task Team” (GSHRTT) to reinforce the partnership with relevant departments under the MOHFW to effectively guide the HR document review process; development and application of new HR document audit tools and undertake reviews against HR best practices and gender responsiveness; revision/development of new HR policy documents as required.

Outcomes: In 2012-13 the GSHRTT was formed and two HR document audit tools, a general HR Document Audit Tool (HRDAT) and a Gender Equality Audit Tool (GEAT), were developed and implemented. Using these two tools, eleven MOHFW HR documents related employment terms and conditions for Nurse-midwives were reviewed and scored. Essential HR documentation compliance rates of these documents were: 1 “very high”, 6 “high” and 4 “moderate”. Gender sensitivity assessments of the same eleven documents were found to be 1 “high”, 9 “moderate” and 1 “low”. Gap analysis identified the need to revise three existing HR documents and develop four new ones relevant to Nurse-midwife recruitment and working conditions.

Discussion: This initiative to review and strengthen essential public sector HR documentation in support of Nurse-midwives has received relatively little attention within published HR global health literature. With a focus on Nurse-midwives, the largest cohort of essential health workers in any health system, Bangladesh’s MOHFW is aiming to address a central element of the global human resources for health crisis – essential and gender sensitive HR key documentation to support public sector NMs.

Conclusions: As part of the current 2011-16 health sector plan, Bangladesh’s MOHFW has recognized and is committed to improving the quality of essential human resources policy documentation for the public sector NMs.

Alibhai, Arif (University of Alberta)

Co-authors: Walter Kipp (University of Alberta), Judy Mill (University of Alberta), L. Duncan Saunders (University of Alberta), Tom Rubaale (Kabarole District Health Department), Wendy MacDonald (Grant MacEwan University), Joseph Konde-Lule (Makerere University)

Challenges faced by community health workers in a rural community-based antiretroviral treatment program in western Uganda

Objective: Increasingly, community health workers (CHWs) are being used to meet the need for health human resources for antiretroviral treatment (ART) programs in resource-limited areas of sub-Saharan Africa. Some studies have documented the challenges faced by CHWs in ART programs. However, very few have identified how CHWs cope with these challenges, especially as volunteers who receive only non-financial incentives. In 2006, we established a community-based ART program in a rural subcounty in western Uganda. This program engaged CHWs to support home-based delivery of drugs and patient monitoring. The aim of this qualitative study was to understand the types of challenges faced by volunteer CHWs in the first two years of this program, and how they coped with these challenges.

Methods: In 2008, we held four focus group discussions with 40 CHWs on a broad range of topics. We extracted, coded and analyzed these data to identify themes related to challenges faced by CHWs in their activities.

Outcomes: Community health workers mentioned facing several challenges. They had to learn new procedures and manage difficult tasks and complex monitoring schedules. Most had to travel long distances in difficult terrain to reach patients and clinics, which required an investment of time and their own money. Problems in communication and coordination of activities with the clinic staff led to some frustrations. Finally, CHWs had to deal with misconceptions and stigma in the community as well as patients with social behaviours such as substance abuse. Community health workers cited three important program features that helped them cope with these challenges. The first was a supportive management structure that provided them with opportunities to meet and discuss their issues. The second was a volunteer administrator who provided timely feedback and knowledge to manage difficult issues. The third factor was the incentives and resources they received from the program that helped them deal with practical problems like patient scheduling and travel in inclement weather.

Conclusion: While CHWs face innumerable challenges in their work, these can be mitigated against through strong program support. These findings can help ART programs that engage CHWs better prepare for the challenges community volunteers may face in these types of programs.

Alibhai, Arif (University of Alberta)

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Motivators for community health workers volunteering in a rural community-based antiretroviral treatment program in western Uganda

Background: Increasingly, community health workers (CHWs) are being used to meet the need for health human resources for antiretroviral treatment (ART) programs in resource-limited areas of sub-Saharan Africa. Not all CHWs can be paid by health systems in low-income countries. However, all volunteers need incentives to join and continue their engagement in a program or activity. In 2006, we established a community-based ART program in a rural subcounty in western Uganda. This program engaged CHWs to support home-based delivery of drugs and patient monitoring. These volunteers received no salary, but were provided with non-financial incentives. The purpose of this qualitative study was to look at what motivated CHWs to continue to volunteer in the program over a two-year period.

Methods: In 2008, we held four focus group discussions with 40 CHWs on a broad range of topics. We extracted, coded and analyzed these data to identify themes related to CHW motivators.

Results: Community health workers provided important insights into their motivation to volunteer and to stay with the ART program for two years despite personal challenge in volunteering. They mentioned four important motivators. The first was feeling appreciated and respected by patients, the community, and their own families. The second was being able to realize their personal obligations to serve others based on faith or personal beliefs, especially through their participation in activities that prolonged and increased the quality of lives of patients and their families. The third was the knowledge they gained that they believed could help keep them and their families healthy and free from HIV infection. The fourth was the material incentives that they felt were important symbols of the program's appreciation of their work.

Conclusion: Community health workers are motivated by a range of incentives that do not have to be monetary. Programs that cannot afford to pay CHWs can nonetheless recruit and retain CHWs if they are able to provide opportunities for CHWs to express their altruism and be recognized for their work.

Allen-Scott, Lisa (University of Calgary)

The evolution of a transdisciplinary One Health research-intensive field school in Tanzania: A case study

Objective: There is emerging evidence that the transdisciplinary approach, which is founded on the principles of equitable partnerships and knowledge exchange, has added value for the development of novel solutions for One Health issues. We propose that transdisciplinary One Health research and training programs are better able to respond to the changing priorities of communities and health care providers. A case example is presented that outlines the evolution of a One Health field school from 2008-2014 to illustrate the added value that transdisciplinary approaches provide.

Methods: At the University of Calgary, the Bachelor of Health Sciences is founded on the principles of inquiry based learning and transdisciplinarity. Part of this program is a global health field school based on a strong partnership with the Catholic University of Health and Allied Sciences (CUHAS) as well as the local community in Tanzania. Undergraduate, graduate, staff and faculty from the Faculties of Medicine and Veterinary Medicine together with local community leaders collaborate to develop and sustain this unique transdisciplinary training and research opportunity.

Outcomes: The approach to research development has been described previously and the resulting research initially focused on improving the accuracy of malaria microscopy at a local hospital and evaluating malaria rapid diagnostic tests. Using the transdisciplinary approach the research team was able to incorporate the changing goals, norms and visions of the local community as the proportion of those diagnosed with malaria began to decrease and the perceived importance of alternate infectious diseases became more prominent. The collaboration between medicine, veterinary medicine and the pastoralist community immediately brought Brucellosis as a potential misdiagnosed disease to the forefront of possibility. Furthermore, research on the role of zoonotic parasitic infections in the health of humans and animals, water quality and sanitation issues are now being investigated with a view to creating an integrated ecosystem approach.

Discussion: Without the equitable partnerships and a transdisciplinary approach, research questions and solutions would likely have been off the mark, stagnant and unable to adapt to the changing priorities of the community. This transdisciplinary research partnership is therefore uniquely poised to address the question of if it is not malaria, what is it?

Conclusion: This field school provides a rich learning environment for students and faculty to understand the importance of equitable partnerships and a transdisciplinary approach to guide evolving research priorities.

Ambe, Patience (University of Ottawa)

Co-authors: Dr. Sanni Yaya (University of Ottawa)

Global health programs and aid effectiveness in Sub Saharan Africa

In 2001 the United Nations assembled world powers to develop the Millennium Development Goals. The overarching goal was to elaborate guidelines that will address the world's pressing issues. Eight millennium development goals were initiated. This was a powerful mechanism to enable nations to pledge to commit themselves in solving these global problems. The eight goals are interwoven and all have ramifications on health. This action accelerated an out-pour of development assistance globally. However, this has not accelerated the progress in attaining the millennium development goals. Countries are still struggling to attain the goals including the health related goals and 2015 is fast approaching. It is absolutely necessary these goals are attained for global health to be ameliorated. To effectively coordinate the delivery of aid, the Paris Declaration was initiated to set guidelines for countries to change strategies and effectively manage global aid to attain the millennium development goals by the year 2015.

The presentation discusses the state of the art paradigm of aid effectiveness as it relates to global health. It examines the source of funding for global health. The presentation takes on a case study approach to investigate the governance of aid transactions. It compares programs that have successfully delivered global health aid in Sub Saharan African countries. The approaches used and methodology are recounted. Programs that are unsuccessful are analysed and a presentation of lessons learnt are done with best practice recommendations.

Anagnostopoulos, Lemonia (School of Public Health, University of Alberta; Amref Health Africa Kenya)

Co-authors: Peter Ofware (Amref Health Africa Kenya), Rosemary Kamanu (Amref Health Africa Kenya)

A community-based child protection program in Kenya: The Dagoretti Child in Need Project

Objective: UNICEF assessments have determined that approximately 300,000 Kenyan children live in the nation's streets (Embleton et al., 2012). Street children are exposed to numerous health risks - including sexual exploitation, child labour, substance use, and physical, psychological and emotional abuse – all of which inhibit their development processes. Amref Health Africa, an international NGO, identified the Dagoretti district of Nairobi as a priority area to address child protection issues. From this evolved the Dagoretti Child in Need Project (DCINP), a community-based approach working to improve the health and livelihood of street children in Dagoretti's slum settlements.

Method: Operating under Amref Health Africa Kenya, the DCINP emphasizes collaboration with partners at the local level to strengthen community child protection structures and the national level to provide evidence of best practices for policy change. The DCINP works within the 4R approach: rescue (street work to create a rapport, and develop intervention plans for vulnerable children), rehabilitation (fostering positive behavior change leading to improved overall wellbeing), reintegration (rebuilding relationships between children and their families), and resocialization (equipping children with the skills and competencies to function within societal norms).

Outcome: The DCINP focuses on mobilizing communities to raise awareness and build community capacity to develop a holistic child protection system. This child protection approach has been identified as a model for replication in other low-resource areas by UNICEF and the Government of Kenya; at present, we have finished conceptualizing the 4R model and have created an operational framework for review.

Discussion: By developing a model to address child protection issues in low-resource settings, we have been able to identify gaps within the model as well as areas for increased collaboration with local and national partners.

Conclusion: Sharing these insights will benefit other programs in resource-constrained settings that are looking to strengthen their child protection systems using a community-based intervention.

Anagnostopoulos, Lemonia (School of Public Health, University of Alberta)

Co-authors: Ali Assi (School of Public Health, University of Alberta), Shweta Dhawan (School of Public Health, University of Alberta), Tharsini Sivananthajothy (School of Public Health, University of Alberta)

UAlberta Jericho Project: Bringing mental wellbeing to the forefront of the student health agenda

Objective: Within the school framework, mental wellbeing of a student particularly alludes to institutional academic policies, academic stress, living conditions, personal attributes, and physical health (WHO Draft Comprehensive Mental Health Action Plan 2013-2020). The 2013 National College Health Assessment II conducted at the University of Alberta revealed that 86.9% of students felt overwhelmed, 54.7% felt overwhelming anxiety and 37.3% reported stress as a factor affecting academic performance (ACHA, 2013). The UAlberta Jericho project was inspired by the Healthy Minds/Health Campus initiative at Simon Fraser University through the Canadian Mental Health Association, BC Division.

The objectives are:

- 1) To reduce communication barriers between faculty, administration and students by creating spaces for dialogue around mental wellbeing
- 2) To create an environment that places attention on creating procedures, practices and policies that promote positive health and social settings

Methods: Jericho project consists of a pilot mental wellness intervention program and a research study employing a socio-ecological model at the School of Public Health (SPH). To achieve the first objective, we have developed videos profiling faculty, administrators and students relaying their experiences with mental health and fostering wellbeing in the learning environment. To achieve the latter, we are creating a Mental Wellbeing Working Group within SPH with a mandate to examine issues negatively impacting mental wellbeing and to implement mental health strategies.

Outcomes: Parallel to the intervention, a cross-sectional study design will be used to establish the baseline mental wellbeing levels within SPH, employing a qualitative survey in summer 2014 to determine mental health issues faced by students, faculty and administrators. Qualitative data analysis will take place in fall 2014 and be presented through a thematic analysis.

Discussion: Information regarding solutions to the mental health issues identified will be collected through focused group discussions. The findings will inform the actions of the Working Group and contribute towards strengthening SPH's policies and procedures to promote wellbeing. A year after the intervention, a second qualitative survey will be administered within SPH to assess any change in mental wellbeing levels.

Conclusion: With the high levels of anxiety and stress reported on campus, we hope our pilot intervention will lead to healthy policies and practices within SPH. If successful, we hope to replicate this intervention across other faculties on campus.

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Assi, Ali (Univeristy of Alberta)

Insights from an evaluability assessment of the Sexually Transmitted and Blood Borne Infections (STBBI) Prevention Program, FNIHB AB Region, Health Canada

Objective: The STBBI Prevention Program run by Health Canada's First Nations and Inuit Health Branch (FNIHB), partners with First Nations (FN) communities and organizations, Provincial agencies, National organizations and other Federal programs in Alberta. The goal of the Program is to lower the rates of STBBI, reduce their social and economic impact and improve quality of life among First Nations living on reserve. While the focus of the Program is to reduce the incidence of infections and improve the community health through prevention initiatives, the communities' expectations were not clearly documented. Meanwhile, STBBI rates remain high. It is not clear to what extent the continuing high rates reflect better detection through success in encouraging testing or whether the planned activities to prevent infections have been unsuccessful.

Method: An Evaluability Assessment (EA) was conducted to assess the Program's ability to measure the impact of its initiatives on the STBBI incidence among First Nations living on reserves.

Outcomes: Results showed that although the Program was achieving some of its goals like disseminating knowledge regarding the STBBI, providing funding and coordinating activities, the communities were concerned about the continuing high rates.

Discussion: Based on 30 interviews and informal discussions with various stakeholders including Elders, communities seemed to value treatment over prevention. Recognizing this fact is crucial for developing the Program's future interventions to meet the communities' expectations.

Conclusion: Consideration should be given to investing in promoting the importance of prevention to communities. Further qualitative research is needed to identify the communities' understanding of prevention, treatment and best possible approaches.

Les facteurs associés à l'utilisation des services de santé des indigents au Burkina Faso

Au Burkina Faso, les soins de santé sont payants pour les usagers. Ceci constitue un obstacle à l'accès aux soins pour les populations, et en particulier pour les indigents qui sont les personnes les plus démunies. Ces personnes sont pour la plupart très âgées et ont des besoins importants en matière de santé. L'aspect financier, même s'il paraît le plus évident, n'est pas le seul facteur qui freine l'utilisation des services de santé par les indigents. Une meilleure connaissance de ces facteurs permettrait de mettre en oeuvre des interventions adaptées pour améliorer l'utilisation des services de santé par les indigents et ainsi réduire les inégalités d'accès aux soins.

Cette étude vise à explorer les facteurs qui déterminent l'utilisation des services de santé par les indigents à Ouargaye d'une région rurale et pauvre du Burkina Faso.

A partir d'une étude transversale réalisée en octobre 2010, 1687 indigents ont été interrogés sur leur utilisation des services de santé dans les six mois précédents. Les variables recueillies sont celles qui déterminent l'utilisation des soins de santé selon le modèle d'Anderson et Newman (1969) : variables sociodémographiques, revenu, occupation, existence d'un recours à une aide financière, alimentaire ou instrumentale, présence de maladies chroniques et d'incapacités physiques telles que les limites de la vision, limites de la force musculaire et de la mobilité. Des analyses bivariées et une régression logistique ont été réalisées.

La proportion d'indigents qui utilisent les services de santé est de 45%. Ceux qui les utilisent le plus sont ceux qui souffrent de maladies chroniques (OR=2,9 IC 95% [2,3-3,7]) et ceux qui vivent avec des enfants de moins de 15 ans (OR=1.56 IC 95% [1,04-2,32]). Les indigents qui utilisent le moins les services de santé sont les veufs (OR=0,7 IC 95% [0,5-0,9]), ceux qui ne bénéficient d'aucune aide dans leurs tâches quotidiennes (OR=0,7 IC 95% [0,3-0,7]), ceux qui ont besoin d'avoir un recours à de l'aide financière pour accéder aux soins de santé (OR=0,7 IC 95% [0,5-0,9]) et ceux qui ont des troubles de la vision (OR=0,6 IC 95% [0,5-0,8]). L'utilisation des services de santé n'est pas associée au genre, à l'âge et à la force musculaire.

Les interventions qui ont pour but d'améliorer l'accès aux soins des indigents et de réduire les inégalités d'accès aux soins doivent prendre en compte, non seulement l'aspect financier, mais également les facteurs sociaux et les incapacités physiques des bénéficiaires

Barr, Vanessa (University of Calgary, Alberta)

Co-authors: Sheri Bastien (University of Calgary), Jennifer Hatfield (University of Calgary), Rita Henderson (University of Calgary), and Mange Manyama (Catholic University of Health and Allied Sciences)

Generational perspectives on sanitation, hygiene, and menstrual practices among pastoralist Maasai girls and women in the Ngorongoro Conservation Area, Tanzania

Objectives: Understanding competing daily pressures and priorities among marginalized females is essential for developing effective health promotion strategies. As part of a broader project focused on partnership establishment with schools and communities to develop culturally relevant and sustainable sanitation and hygiene strategies, this study sought to gain awareness of beliefs and practices among female Maasai pastoralists in the Ngorongoro Conservation Area (NCA), Tanzania.

Methods: We conducted seven group discussions, each lasting approximately two hours, with female secondary school students and a local women's group (40 participants). Questions concerning sanitation and hygiene practices investigated crosscutting concerns within access, safety, and privacy for girls and women. The issue of menstrual management was also explored to develop an understanding of past and current practices among pastoralists. Discussions with the women's group were combined with participatory activities presenting locally relevant strategies to improve sanitation and hygiene, using a BOPPPS (Bridge, Objectives, Pre-Assessment, Participatory, Post-Assessment, Summary) model for workshop delivery.

Outcomes: The availability of resources, as well as cultural beliefs and norms, affect daily sanitation and hygiene practises. Key factors include water scarcity, expense of products such as sanitary pads and soap, and heavy workloads expectant of females. Contrary to other literature, menstruation did not impede secondary school attendance in the NCA. Girls attending secondary school placed high importance on scientific information about sanitation and hygiene issues such as hand washing, sanitary pad use, urinary tract infections, and latrines. Elders expressed strong cultural beliefs, which restricted menstruating females from cutting vegetables or preparing alcohol.

Discussion: The first phase of this pilot study engaged community members in developing our understanding of female specific challenges and practises related to sanitation and hygiene. We noted generational differences with respect to traditional and current hygiene practises, in particular menstrual management. Peer mentorship among school girls originating from urban and rural areas streamlined practises of menstrual hygiene. Further research on generational perspectives of menstruation, sanitation and hygiene is needed to enhance our understanding of obstacles faced by pastoralist women.

Conclusion: A multitude of factors influence sanitation and hygiene practises among pastoralist females in the NCA. In addition to water and resource scarcity, there are also cultural and generational dimensions which affect sanitation and hygiene practises of females, in particular menstrual management.

Bastien, Sheri (University of Calgary)

Co-authors: Bastien, S., Hetherington, E., Hatfield, J., Schroeder, A., Kutz, S., Manyama, M.

Youth driven innovation in sanitation solutions for Maasai pastoralists in Tanzania: conceptual framework and project SHINE design.

Objective: The focus for this presentation is to showcase the conceptual framework for Project SHINE (Sanitation and Hygiene INnovation in Education), which utilizes a school-based participatory science education, empowerment and social entrepreneurship model of health promotion. Our approach aims to prevent parasitic infection through engaging youth as change agents to catalyze a process within the community to develop and sustain sanitation and hygiene health promotion strategies. This is of substantial public health importance given that open defecation, poor sanitation and hygiene are associated with transmission of diarrheal diseases, one of the leading causes of mortality in children under five in developing countries. The project was developed in partnership with local pastoralist communities of the Ngorongoro Conservation Area (NCA) who indicated this to be an area of concern.

Methods: The study takes place at two secondary schools attended primarily by Maasai pastoralists. A baseline survey was completed (~900 students) measuring student knowledge, attitudes and practices associated with sanitation and hygiene, science interest and valuation as well as participation in health promotion activities. This was followed by formative research and workshops for teachers and a local women's group. The intervention consists of community events and a sanitation science fair to sensitize and develop capacity among schools and communities. A follow-up survey will be conducted at six months. An adapted Intervention Mapping approach guided the development of the project.

Outcomes: Support for the project in this early phase has been high, with students, teachers and community members including traditional leaders and local government officials expressing enthusiasm and support for the study. Preliminary findings have deepened our understanding of how sanitation and hygiene practices differ according to a variety of factors, including by setting, for instance at school, in the home and whilst herding livestock. Our understanding of the relationship between traditional medicines and hospital treatment for parasitism is also being developed. These findings and continuous consultation with partners will generate important insights to guide the development of our intervention.

Discussion: Our conceptual framework aims to respectfully integrate culture specific norms and practices, including the fact that pastoralists tend to be semi-nomadic, as well as local constraints such as water scarcity.

Conclusion: We anticipate that Project SHINE will develop both our understanding of pastoralist norms and practices related to sanitation and hygiene, including prevention and treatment, and of the utility of Intervention Mapping to guide the development of interventions in similar communities.

Bhandal, Taq (Graduate Program in Health Policy & Equity, York University)

Working title: a post-colonial feminist investigation of racism as a risk to Canadian nurses

This oral presentation will examine racism, from the standpoint of Registered Nurses (RNs) in Ontario. The context and findings of the presentation are taken from a manuscript being prepared for the Nurses at Risk: Exploring Gender and Race in Workplace Illness, Injury, and Violence project, a project funded by SSHRC. The manuscript uses data collected from focus groups conducted with 62 nurses from various sites in Ontario. Using examples and broad themes found in the transcripts, this presentation will illustrate the kinds of racism nurses face, This form of violence contributes to inequitable divisions of labours and inequitable health outcomes for nurses from racialized groups. From a 'determinants of health' and global equity standpoint, this is particularly critical given the influx of racialized female nurses coming to Canada from countries in the Global South. The interviews suggest that when racialized nurses come to practice in Canada, they experience an hierarchal pattern of discrimination based on what Tania Das Gupta refers to as 'classist racial harassment'. Drawing on Anderson's position that 'there are no spaces that are not colonized', this presentation suggests a framework for thinking about these forms of violence. By exploring these forms of violence, the project contributes to efforts directed at achieving equity within a globally feminized nursing profession.

Chera, Rupinder (Centre for Global Child Health, the Hospital for Sick Children; Western University)

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Using change pathways to link activities to outcomes and inform knowledge translation to improve global child and maternal health programming

Objective:

Four Canadian non-governmental organizations (NGOs), CARE Canada, Plan Canada, Save the Children Canada and World Vision Canada, have partnered with the Centre for Global Child Health at the Hospital for Sick Children, and the Munk School of Global Affairs, University of Toronto, to form the Maternal, Newborn and Child Health (MNCH) Knowledge Management Initiative (KMI). Working in Bangladesh, Ethiopia, Ghana, Mali, Pakistan, Tanzania and Zimbabwe the KMI is intended to provide a combined analysis of baseline and end-line data collected over ten projects, from which we will identify lessons learned and best practices that can be shared to inform programming, monitoring, and implementation to impact the lives of mothers and their children in low and middle income countries. Using selected MNCH related indicators, we will examine some of the changes in the health of these communities from baseline to end-line; we have developed change pathways to assist in the interpretation of the results.

Methods:

A literature review on conceptual frameworks, change pathways and causal models was completed to understand the differences between various models and frameworks. Documents provided by the NGO's were reviewed, including their performance measurement frameworks (PMF's) and Logic Models (LM's) that provide information on the expected outcomes (ultimate, intermediate and immediate), outputs, and activities for each indicator measured.

Outcome:

A general framework was created and used to develop change pathways for those selected MNCH indicators that are common across projects. For each common indicator the change pathway is meant to trace specific activities that are expected to effect change in the indicators. The pathway identifies the mediators, effect modifiers and confounders for each indicator. In addition, the change pathway template itself will be shared via innovative knowledge translation methods as one way to build on new and existing partnerships and strengthen communication and collaboration among organizations and stakeholders.

Discussion and Conclusion:

Change pathways will assist in linking activities to outcomes across the common indicators. The change pathway framework will also help us tell the 'change' story to our many varied stakeholders. The change pathways also act as a KT tool that can be used by various organizations and stakeholders to determine the pathways of change at the individual and population level when developing programs and interventions for mothers and their children.

Chowdhury, Shamsuddin Azad (Ministry of Health & Family Welfare (MOHFW))

Interdepartmental partnership for measuring the quality of human resource documentation for public sector Nurse-midwives in Bangladesh

Background: The Human Resource Document Audit Tool (HRDAT), a new human resources (HR) document assessment instrument, was developed by the Human Resource Management Unit (HRMU) in partnership with the Directorate of Nursing Services (DNS) of the Ministry of Health and Family Welfare (MOHFW) in Bangladesh. The tool was developed in 2012 and initially applied in 2013 to assess essential HR documents for public sector Nurse-midwives (NMs). Canadian Department of Foreign Affairs Trade and Development (DFATD) funded Human Resources for Health (HRH) project in Bangladesh (2012-17) provided technical support in this intervention.

Objective: To develop a simple measuring tool to identify gaps and shortfalls in HR policies and service condition documentation for NMs in Bangladesh and determine an indicative, quantifiable score against HR management best practice.

Methods: Literature review, group work by MOHFW with HRH project technical support, and review/validation through interdepartmental partnership.

Outcomes: Development of a valid and reliable HR document audit tool through a consultative process. The HRDAT was applied to existing HR policy documents to assess strengths and weakness and to facilitate development of both revised and new HR policy documentation relevant to NMs. Using HRDAT in 2013 eleven HR documents were audited and scored. Essential HR documentation compliance rates found were: 1 very high, 6 high and 4 moderate.

Discussion: Published literature refers to a number of tools for review of HR management systems as a whole where essential HR documentation becomes a part of the review process. The resulting HRDAT developed in Bangladesh is a new tool specifically designed to assess the quality of essential HR documentation for public sector Nurse-midwives

Conclusion: The HRDAT, developed between departments within Bangladesh's MOHFW, has been useful to efficiently assess the completeness and strength of existing HR documents relevant to Nurse-midwives, the largest cadre within Bangladesh's public health care system. Such a tool, or similar as adapted to individual national requirements, may add value to strengthened human resource policy documentation relevant to Nurse-midwives for other ministries of health in the SE Asian region.

Cleaver, Shaun (University of Toronto, Graduate Department of Rehabilitation Science); Nadia Fazal (University of Toronto)

Revising the Doctoral Student Complementarity Approach (DSCA) from experience: It worked well, just differently than foreseen

Objective: Many doctoral students are involved in global health research in locations outside their respective national borders. The quality of this doctoral student research could be improved through stronger connections and partnerships with student colleagues in the countries where the research is conducted. These kinds of student-student ongoing relationships could benefit both visiting and host students during their doctoral research studies. Unfortunately, there are few existing structures to facilitate these student connections.

Methods: As pre-dissertation global health PhD students we conceptualized the Doctoral Student Complementarity Approach (DSCA) as a way to build connections and partnerships with student colleagues in the countries where we are conducting our dissertation research. While in the field we sought opportunities to practically apply the principles that we had collaboratively developed as part of the DSCA.

Outcomes: Our experiences connecting with other students in Zambia and the Democratic Republic of Congo were of a markedly different structure than we had conceptualized prior to engaging in fieldwork. Instead of one-on-one partnerships, we instead engaged in group activities. Some of these activities were already in place prior to our arrival (such as a journal club for doctoral students and student-driven workshops), whereas we were able to initiate other activities (such as a seminar series for graduate students and the extensive engagement of undergraduate students as research assistants). Regardless of the structure being different than what had been previously foreseen, many of the advantages were as we conceptualized, such as opportunities to share diverse perspectives in a more forgiving atmosphere, insights into local realities, and improved immersion into academic culture. Unforeseen advantages included the creation and strengthening of groups of student researchers.

Discussion: The idea of the DSCA was practically operationalized differently in our experiences as compared to our expectations. However, we experience many of the desired benefits of student networking and partnership-building despite the different format. We encourage other global health doctoral students to pursue opportunities to connect with student colleagues in their countries of research in reflective fashion in order to critically build upon this approach.

Crooks, Valorie (Simon Fraser University)

Co-authors: Jeremy Snyder (Simon Fraser University); Ronald Labonte (University of Ottawa); Rory Johnston (Simon Fraser University); Alejandro Ceron (University of Denver)

Health Equity Impacts of Medical Tourism: Preliminary Findings from Barbados and Guatemala

Objective: When patients opt to travel abroad for privately-purchased and arranged health care they are engaging in what has come to be known as medical tourism. Hospitals and clinics in countries around the world are increasingly looking to participate in the global medical tourism industry. In some cases, national and regional governments are creating incentives to encourage its development. Although there are many who support the development of medical tourism in destination countries, there are also critical voices that have raised pressing concerns about its negative impacts. One such negative impact pertains to concern for the ways in which the presence of medical tourism in a is ultimately creating or exacerbating health inequities.

Methods: In this exploratory comparative case study funded by a Canadian Institutes of Health Research Operating Grant we are examining the health equity impacts of medical tourism in specific destination countries. Barbados and Guatemala are two countries included in the study. They are both in the early stages of developing a medical tourism sector. We have undertaken media and policy reviews in both countries as well as a series of semi-structured interviews.

Outcomes: Based on the findings of 50 interviews conducted with key sector stakeholders in each country and the subsequent thematic analysis of these interviews, in this poster we provide an overview of our preliminary findings by showcasing 4 emerging analyses. These analyses examine the following: (1) the ways in which medical tourism is impacting on health human resources in Guatemala, with a focus on how it is transforming aspects of training and practice; (2) how in both Guatemala and Barbados supporters of medical tourism consistently cite a specific grouping of target or 'dream' patients, facilities, and inflows to justify sector development; (3) the ways in which system dysfunction, existing infrastructure, and lowering barriers to trade in health services collectively serve as drivers of the desire to develop medical tourism in both Guatemala and Barbados; and (4) how the development of medical tourism in Guatemala is both brought on by existing health inequities and health system limitations and also creates health inequities and health system limitations.

Discussion: These preliminary analyses highlight the complexity of attempting to capture the on-the-ground health equity impacts of the global medical tourism industry.

Conclusion: Medical tourism is a global health services industry and as such all countries have a stake in understanding the ways in which it is creating local impacts.

DAHAL, SHISHIR (MOH)

Tele Safemotherhood Pilot Project in Rolpa District of Nepal

Background: Rolpa district is one of the remote districts of Nepal, with a high maternal mortality rate (MMR) of 352 per 100,000 livebirths (The national MMR being 240 per 100,000 livebirths) . Although 54% of pregnant women attend hospitals for the first antenatal check-up, only 19% of the total number of pregnancies complete the 4th antenatal check-up. Institutional delivery is only 5%. Low antenatal care (ANC) during 3rd trimester and low institutional delivery are responsible for high maternal mortality in the district. As it is with other remote districts, the main reason behind the low institutional deliveries in Rolpa seems to be remoteness of health facilities and lack of health education among women.

Objective: Reduce maternal mortality by giving access of pregnant women to obstetric care using mobile technology.

Methodology: Female community health volunteers (FCHVs) use their cellphone to send information about pregnant women to the district hospital, and use template written in their own language to send information. The district hospital collects all the data and act to encourage pregnant women to have the last 4 ANC visits and institutional delivery. The district hospital sends health workers to pregnant women for antenatal check-up if she is not willing to come to hospital. The hospital divides pregnancies into normal and high-risk pregnancies. High-risk pregnancies are followed accordingly and, if necessary, are referred to maternity-care centre for better management.

Results: At least 90% of pregnant women will get 4 ANC visits. Institutional delivery will increase to 25% for adoption of the mobile-phone technology.

Conclusion: Incorporation of modern technology into health service-delivery system is highly recommended, especially in remote areas, to achieve the universal goal 'Healthcare for All'.

Keywords: Antenatal care; Maternal mortality; Mobile phone technology; Safe motherhood; Nepal

Davidson, Marnie (CARE)

Co-authors: Guenet Guebre Selassie (CARE)

Using public health ethics to examine coercive maternal health policies in Africa

Nearing the 2015 target date for the achievement of the Millennium Development Goals (MDGs), and the need by states to account on those targets, it seems that there is a general will by governments and authorities to push for an acceleration of progress on MDGs targets. Evidence from MNCH programming is showing that global and national pressures to meet MDG targets particularly the ones related to health service utilization (4 ante natal care visits and delivery by a skilled birth attendant) is leading to coercive policy responses at the health facility, district health authority, and national levels. These include fines or criminalization of traditional birth attendants who provide home delivery services, fines for pregnant women who do not attend ante natal care or deliver at home and preferential treatment of women who visit health facilities with their husband/partner.

To date there has been little or no studies examining the effect of coercive public health policy to increase health service utilization rates for pregnant women in resource constrained settings. This paper will examine coercive public health policies to reduce maternal mortality from the public health ethics and health equity perspectives including discussing issues of gender equality, marginalization and human right to health.

We argue that health promotion has to be implemented in the overall context of the Right to Health as articulated in the international treaties and agreements. Included in this paper will be specific case studies from Tabora, Tanzania, East/West Hararghe (Ethiopia), Zaka (Zimbabwe) and Rural Lilongwe Districts (Malawi) where these coercive policies have been adopted at different levels within the health system to improve utilization rates for ante natal care and health facility delivery.

The social justice embedded in the Millennium Declaration is based on Human Rights. However, the MDGs which are the “roadmap” for implementing the Millennium Declaration commitments do not reflect the many aspects of human rights on their targets and indicators. The outcome indicators do not show the policies and processes that could enable or assist the achievement of the proposed targets. The focus on those target indicators is what is leading to the use of coercive measures. If we do not include the Human Right to Health in the post-MDG discussion there will continue to be no check on potentially harmful policies and practices in a drive to meet targets.

Dharmaraj, Daisy; Thangaraj, Susila (ACS Medical College, India)

Feasibility and scope of contact tracing for tuberculosis through Public-Private Partnership in resource constrained, high tuberculosis burden settings

Background and objectives:

Progress towards elimination of tuberculosis in India requires strengthening the existing contact tracing activities under the Revised National Tuberculosis Control Program (RNTCP) in the form of Isoniazid Preventive Therapy (IPT) and expanding the scope of contact tracing in a phased manner.

Hence a pilot study is undertaken to explore the feasibility of involvement of academic institutions (medical colleges) in partnership with RNTCP in

1. Enhancing effectiveness and coverage of the existing IPT under RNTCP
2. Expanding the scope of contact tracing to other trigger-based situations such as geographical clustering of TB cases in an area etc.

Methods:

The study was carried out in two TUs in Thiruvallur district, Tamilnadu by ACS Medical College and Hospital (ACSMCH), a private medical college within the jurisdiction of those TU.

1. Strategies to strengthen coverage of IPT :

There were 213 registered sputum positive patients between July-September 2013 in the study site. At the end of 3 months, the eligible child contacts who were missed during routine RNTCP were identified through structured telephonic calls to all sputum positive patients

2. Expansion of scope of contact tracing:

During April 2014, 4 tuberculosis cases were reported in a single week from a single street in Porur TU. Using this as a trigger, ACSMCH undertook contact and source tracing exercise by concentric circle approach using snowball sampling method.

Outcome:

IPT strengthening strategies retrieved 33 missed child contacts increasing the yield of contacts by 42%. Simple strategies like standardization of the definition of "close contact" increased the yield of contacts by 34%.

Trigger-based contact tracing exercise identified the index case to be a chronic defaulter since 2005 who died recently. Ten secondary TB cases were traced from the index case the impact of which could have been mitigated by undertaking proactive contact tracing for the chronic defaulter.

Discussion:

Medical colleges in corresponding Tuberculosis Units (TU) in India have an untapped potential of expertise for organizing setting-specific pro-active contact tracing exercises. This could be positively utilized for strengthening the coverage of IPT and phased expansion to other trigger based situations like contact tracing in the presence of a chronic defaulter or MDR TB case in an area. In the process, a systematic guideline for pro-active contact tracing for Indian setting could be evolved.

Conclusion: There is potential for substantial strengthening of existing IPT in RNTCP and further extending the scope of contact tracing through the RNTCP-medical college partnership

Dhawan, Shweta (School of Public Health, University of Alberta; World Health Organization Western Pacific Regional Headquarters [WHO- WPRO] & Johns Hopkins Bloomberg School of Public Health [JHBSPH])

Co-authors: Yu, Dongbao (WHO- WPRO), Lo, Ying-Ru (WHO- WPRO) and Baral, Stefan (JHBSPH).

Monitoring the HIV treatment and services cascade in Asia and the Pacific: A metric framework analysis

Background: ‘Getting to Zero’, UNAIDS 2011-2015 strategy establishes an ambitious goal in the HIV pandemic response (UNAIDS, 2011). With sustained incidence and often increasing HIV prevalence among key populations (sex workers, men who have sex with men, and people who inject drugs), the adaptation of this strategy in the Asia and the Pacific necessitate characterization of country level health sector responses (WPRO, 2012). Examination of the HIV treatment cascade from diagnosis of infection to achievement of reduction in viral load hence demands comprehensive data collection, analysis and presentation through application of a public health approach.

Objectives: To examine the HIV epidemic, data gaps and retention of people along the continuum of care by employing metrics, a conceptual framework with 21 indicators measuring parameters from HIV treatment cascade, services in relation to TB/HIV co-infection and PMTCT (Prevention from mother-to-child-transmission), and aspects of service delivery.

Methods: We conducted an environmental scan of data reporting patterns by WHO and UNAIDS in relation to the HIV cascade and services. Recognizing gaps in existing practices, data corresponding to the metric framework was extracted from published and unpublished sources, and mapped for 8 priority countries in the region (Cambodia, China, Lao PDR, Malaysia, Mongolia, Papua New Guinea, Philippines and Vietnam), over five years from 2009 to 2013. Additionally, this mapping was integrated with TB/HIV co-infection and PMTCT services. The mapped data was used to construct cascade graphs to provide a visual snapshot of the epidemic and services.

Results: The results across 8 priority countries over 5 years suggest that indicators measuring number of people enrolled in care and those that achieve suppressed viral load (< 1000 copies/ mL) are under reported. Further more, time trend indicates that number of people on ART is well documented and is increasing across all countries. Results of services indicate that while PMTCT data showed inconsistencies and large data gaps, TB/HIV co-infection was well documented and studied in the region. Finally, all programme indicators measuring access and monitoring of HIV testing, treatment and prevention were poorly recorded and showed inconsistencies.

Significance/Conclusion: Results from mapping and generation of cascade graphs will help recognize underreported parameters in the HIV cascade, key indicators that should be prioritized and measure degree of “leakage” of people living with HIV along the continuum of care.

Dhiravani, Karna (University of Alberta)

Co-authors: Carl Ribble (Centre for Coastal Health), Tyler Stitt (Centre for Coastal Health), Andrijana Rajic (Food and Agriculture Organization of the United Nations).

Development of Early Warning and Rapid Alert (EWRA) for food safety events in East Africa

Mortality from the consumption of unsafe food has been increasing worldwide, however, impacts have been insufficiently measured in many regions. Growth in trade has increased the potential for food safety hazards to cross borders which has resulted in need for timely detection and response to food safety events to minimize their harm to human health. Early Warning and Rapid Alert (EWRA) will have the capacity to rapidly detect food safety events with serious consequences, and facilitate the rapid exchange of information among appropriate stakeholders to create a timely and effective response.

The project is a joint collaboration between “CCH” and “EMPRESS Food Safety unit of FAO of the United Nations”. The purpose of this project is to elaborate on the required action plans and the long term collaboration between FAO, AU-IBAR (African Union – Interafrican Bureau for Animal Resources), East African countries and potential stakeholders to develop EWRA system to prevent and control adverse food safety events in East Africa.

Due to the lack of data on how to set up, sustain and evaluate EWRA systems, the framework to establish EWRA system was derived from related fields and by considering opinions of experts in EWRA and food safety. The components needed for the system and the draft to promote long term collaboration was based on the previous FAO/CCH work including the previous collaborative technical workshops, literature review and experts opinions.

There is no ideal combination of individuals and organizations necessary to develop, run and use EWRA systems due to the differences between regions and countries. Support from international organizations is likely to be an important component of success of EWRA systems for food safety, as is encouraging collaboration between different countries and people working in various ministries and sectors, for whom the food production for export could be the incentive to support and promote the project. The best approaches to EWRA systems in different settings should be adapted to the needs, available infrastructure and established competencies of local agencies. New programs should be integrated within existing programs, and use of inter-agency and multi-disciplinary collaboration should be promoted to minimize the cost and efficiently run the system.

The development of a functional EWRA system in the current situation of Africa represents a long term commitment, therefore it is essential to promote long term collaboration between different stakeholders who are capable, responsible and have the authority for food safety in East Africa.

Diep, Lucy (University of Calgary)

Co-author: Wolbring, Gregor (University of Calgary)

Anticipatory advocacy and anticipatory governance of scientific research and technology development: What does this mean for health policy practice and research?

With innovation cycles of scientific research and technology development (SRTD) for health related products and applications becoming ever shorter, the gap between these advancements and the understanding of impact on health policy and practice is becoming wider especially if we look at health from a Global health perspective. As a result, there is a push for anticipatory governance practices. The concept of anticipation is identified as “building the capacity to respond to unpredicted and unpredictable risks” (Guston, 2008, p. 940) and the act of governance is about the engagement of the social sector, not ‘the government’ (Guston, 2009). That is, anticipatory governance seeks to address SRTD advancements and its potential impacts.

While anticipatory governance is establishing its importance in SRTD and in relation to health policy and practice, we posit that it poses problems for health related academics and practitioners and especially for people from socially disadvantaged social groups in the Global North and especially, the Global South. With anticipatory governance, discussions start even earlier in the life cycle of a SRTD to address potential implications of research designs, practical applications, and policy. This means that practitioners, non-government organizations, and especially people from socially disadvantaged social groups need to be part of the discourse around SRTD even earlier to influence the discourse. Practitioners and people from socially disadvantaged social groups have to engage in anticipatory advocacy to claim their stakeholder position in anticipatory governance practice of a given SRTD to prevent negatively impactful SRTD decisions.

We submit that our presentation fits the topic area, “Global health policy, practice and research” as anticipatory advocacy is needed to be part of anticipatory governance which in turn is to influence health policy, practice and research.

France, Timothy (Inis Communication)

How is social media being used by international health organizations?

Learning communities are the major source of expertise and knowledge essential to large-scale implementation of effective health interventions. Who better to advise a health programme in Sao Paulo than a similar organization in Chiang Mai or Kampala?

Until recently, established health intermediaries held and controlled the exclusive capability to connect people and places, and to identify, collate, compare and summarize health-related information. Despite efforts to provide globally adaptable blueprints, translation of such information into implementation knowledge can only occur through guidance and experience of others who have applied it to inform decision-making in comparable settings. Social media (SM) places these capabilities in the hands of affected communities. It is critical that the process is fully facilitated by international health organizations (IHO).

We observed anecdotally that SM use by IHOs has a largely inward focus. Despite large audiences, the primary aim of much SM activity appeared to be serving institutional communications interests.

The project was designed to challenge this working hypothesis, and explore to what extent current IHO use of one SM platform (Twitter) facilitates multi-stakeholder engagement and dialogue around health priorities. The primary purpose was to construct a semi-structured score-card/report and a set of related metrics to help organizations enhance their use of SM platforms.

The research was conducted over 50 days in late-December 2013, and monitored the daily use of the Twitter accounts of: Bill & Melinda Gates Foundation; GAVI Alliance; International HIV/AIDS Alliance; International Union Against TB and Lung Disease; Malaria No More; Management Sciences for Health; Population Action International; Roll Back Malaria Partnership; Stop-TB Partnership; The Global Fund; UNAIDS; UNITAID; US Centers for Disease Control; World Health Organization. An analytical framework was developed and applied to all tweet content over the study period.

A comparison of IHO performance, score-cards and over-arching conclusions will be presented.

Hamze, Hasan (Amref Health Africa , University of Alberta)

Co-authors: Asrat Mengiste, Jane Carter (Amref Health Africa)

The Impact and Cost-Effectiveness of the AMREF/Smile Train Program In Alleviating the Burden of Cleft Disease In Eastern Africa

Background: Cleft Lip with/or without Cleft Palate (CLP) is a congenital malformation that may cause difficulties in swallowing and speaking, as well as cultural rejection. Amref Health Africa partners with Smile Train to provide CLP surgeries in eastern and central Africa. Health policy makers require estimates of the economic benefit of treating CLP deformity to justify investment in CLP surgical interventions. The present study measured the economic benefit and cost-effectiveness of surgical treatment of CLP in eastern and central Africa.

Methods: We analysed anonymised data from the Smile Train database for 37,274 CLP patients operated between 2006 and 2014 in eastern and central Africa. Cases were analysed by age, sex, country and surgery type. The impact of cleft surgery was determined by measuring averted Disability-Adjusted Life Years (DALYs); delayed averted DALYs; cost-effectiveness; and economic benefit. Averted DALYs were estimated from Years Lived with Disability (YLD) using World Health Organization country-specific life expectancy tables and established disability weights. We used mean Smile Train costs to calculate cost-effectiveness. We calculated economic benefit using the human capital approach and Value of Statistical Life (VSL) method.

Outcomes: During 2006–2014 a total of 37,503 cleft operations were performed on 37,274 patients. The median age at the time of primary surgery was 5.4 years. A total of 207,879 DALYs were averted at a total estimated cost of US\$13.0 million. Mean averted DALYs per patient were 5.6, and mean cost per averted DALY was \$62.8. Total delayed burden of disease from late age at surgery was 36,352 DALYs. Surgical correction resulted in \$292 million in economic gain using the human capital approach, and \$2.4 billion using the VSL method.

Discussion: The median age (5.4 years) at surgery for CLP, which is ideally repaired soon after birth, may be used as a surrogate marker of “surgical backlog.” Cleft palate surgery accounted for only 9.5% of the total number of procedures, likely due to mortality associated with cleft palate at a young age. The cost per DALY averted (\$62.8) is comparable with other diseases commonly addressed by the global health community.

Conclusions: Cleft surgeries are cost-effective interventions to reduce the burden of disease. Dedicated programs that provide essential CLP surgery can produce substantial clinical and economic benefits. Further investment is justified to reduce the burden of disability in eastern and central Africa. Future challenges include increased collaboration and partnerships among cleft care providers and a focus on remote areas.

Hanson, Lori (University of Saskatchewan)

Co-authors: Navi Bal (University of Saskatchewan), David Plemel (University of Saskatchewan), Xochitl Hanson-Pastran (University of Saskatchewan), Jessica Figley (University of Saskatchewan), Isla Redhead (University of Saskatchewan), Kylie Riou (University of Saskatchewan)

De-colonization as an action on the social determinants of health

Objectives of these collaborative, exploratory workshops were: 1) to reflect on the process and effects of colonization in Nicaragua 2) to discuss the history of indigenous people 3) to begin to formulate ideas for processes of decolonization in agriculture, health and identity. Methods: A series of focus groups - workshop style, facilitated by Fundacion Entre Mujeres, and attended (as participant observers) by University of Saskatchewan students. Workshops were held in rural communities, with organized rural campesina women in northern Nicaragua. Outcomes/Discussion: Guided reflection on colonization and decolonization with community women revealed important insights on the importance of local and traditional knowledge on health and agriculture, including the importance of saving seeds, organic fertilizer and of recovering knowledge of natural medicinal plants. Participants saw harmful agricultural technologies and toxic medicines as linked to the loss of indigenous identity and linked to colonization efforts that continue to manifest as discrimination against rural farmers' ways of life. Discussion/conclusion: The campesinas' thoughtful ideas are contributing to FEM's ongoing work, and their conclusion that reflection on deep structural roots of inequity is a necessary step in advancing autonomous developmental work and challenging development 'norms' that re-colonize minds, hearts and the land. The University students propose that de-colonization should be a recognized Action on the SDH in Canada and elsewhere.

Harry, Rebecca (Save the Children Canada)

Co-authors: Laila Salim (Save the Children Canada), Bamody Diakité (Save the Children Mali), Drissa Sanogo (Save the Children Mali), Sekou Oumar Sidibé (Save the Children Mali)

Partnerships in an unstable context puts the spotlight on civil society

With the March 2012 coup in Mali, Save the Children's DFATD funded Improving Community Health project's aim to build the capacity of government to provide quality health services for children under five in rural areas was put on hold as international donors suspended all direct technical and financial support to the government. In order to continue to provide health care to communities in the program area, Save the Children, in the place of government, partnered with local civil society to implement the National Strategy for Soins Essentiel Communautaire. Using the Community Case Management approach, the National Strategy ensures that communities that lack easy access to health facilities have a Community Health Agent (CHA) posted in their community who is trained on how to diagnose, treat and refer children with the three most common causes of child mortality – diarrhoea, pneumonia and malaria. Following the coup, this civil society was tasked with providing strategic oversight, direct management of front-line health workers and support with their training and supervision. However, from the outset, the capacities of civil society to fulfill these responsibilities were quite limited and thus required significant investment of time and resources by project staff delaying the roll out. But once civil society received their initial orientation and training, the benefits of their involvement became evident, where with their active involvement there has been significant mobilization of community members to use the health services, communities have contributed substantially to the motivation of CHAs, and communities are meaningfully engaging in ensuring the sustainability of the National Strategy.

Jackson, Caity (Karolinska Institutet)

The growing trend of global health education: where are we now? Presentation and analysis of current landscape of Masters of Global/International Health programs

BACKGROUND: Global health education has grown parallel to the growth of the field, with exponentially growing investment in global health training across all health professions. Despite this enthusiasm, the community is unable to offer a common definition for the field and determine educational competencies. Data on educational programs, especially masters programs in global/international health, is lacking.

AIM: To illustrate the current landscape of masters programs in global health, establishing trends and themes from the differences and commonalities amongst programs and to identify program characteristics with practical applications in the field.

METHODS: Program information was collected from institutional websites and verified by program directors.

RESULTS: There are 57 programs in 48 universities offering Masters of Global/International Health programs. Of these, 36 are in Europe (64%), 11 in North America (19%), 6 in Australia (11%), and 4 found elsewhere in the world (7%). Three programs ('elsewhere' category) didn't respond to emails and lacked sufficient information on their websites and were therefore left out of further analysis (n=54 programs). The number of programs offered worldwide more than tripled in the last decade, from 15 in 2005 to 54 in 2014. Most (54%) programs are one year in length and fall under a global/international health department (43%). Almost all programs offer electives and require a thesis/dissertation (93%) and 35% offer specialization tracks.

DISCUSSION AND CONCLUSIONS: The findings pulled from the data make a strong case that global health education is on the rise, with institutions in the European region supplying the majority of the postgraduate nonclinical degrees despite the overrepresentation of North American research in literature. The terms used (global health vs. international health) show a regional preference and an adoption of 'global health' over time. Common courses collated from the data and compared to competencies suggested by the medical and public health field highlight the need for a multidisciplinary approach to global health curriculum, with programs covering medical, political, economic, social, environmental, and management fields.

Key words: global health, education, curriculum, competencies, definition

Jackson, Caity (Canadian Society for International Health (MentorNet program))

Co-authors: Shweta Dhawan (University of Alberta), Shanna Sunley (Public Health Agency of Canada), Katia Wong (George Brown College), Amanda Frain (Mamawetan Churchill River Health Region), Ceilidh MacPhail (McMaster University), Larissa Naidu (University of Saskatchewan)

CSIH MentorNet: Impact of National Global Health Mentorship Program on Students and Young Professionals

Objectives

In 2011, the Canadian Society of International Health (CSIH) created MentorNet, a national global health mentorship program aimed at connecting students and young professionals (SYPs) with experts in fields relevant to global health. With long standing commitment to creating the next generation of leaders in global health, the program aims to facilitate knowledge transfer between SYPs studying and working in global health, with experienced global health experts in Canada.

Methods

MentorNet is run by a volunteer Steering Committee of seven young global health students and professionals from across Canada. The Committee members manage all aspects of the program, including recruitment, selection and matching of SYPs with mentors. SYP admission is competitive and successful applicants are matched with a mentor based on their interests. Committee members also liaise SYP-mentor relationships, providing tailored monthly modules that prompt mentor-SYP pairs to critically engage in discussions on global health issues, reflect on career goals and expand their professional networks.

Results

Following a successful pilot year (2011-12) with 30 SYP-mentor pairs and a second cohort (2012-13) with 35 SYP-mentor pairs, the program has developed a repository of 25+ global health modules to date. Pre and post evaluation results from years 1, 2, and 3 (two start date cohorts) indicate that participants were highly satisfied with the program, with the majority of SYPs reporting improved understanding of global health issues, expanded professional networks and increased interest in pursuing a career in global health. Additionally, seventy percent of mentors indicated that they would reconsider participating in MentorNet again in the future.

Conclusions

Currently in its fourth year, MentorNet continues to garner interest from the global health community. The program has adapted to participant suggestions and a more active role in conference activities and social media, hoping to create a network outside and beyond the program structure. Evaluations of the program indicate that it has proven to be a valuable, low-cost and sustainable program model to build capacity in global health.

Jenkinson, Jesse (University of Toronto)

Healing, hearts & home: Research, observation and analysis of the support systems at Save A Child's Heart

Objective: The main objectives of this project were to, 1) understand if the psychosocial needs of intended beneficiaries change when medical interventions require that they be removed from their social support systems; 2) assess if medical humanitarian organizations meet the psychosocial needs of their beneficiaries. It uses Save A Child's Heart, a medical humanitarian organization in Israel, as a case study.

Methods: Participants: 16 children/youth and 6 caregivers from all over the world; Data collection: participant observation and semi-structured interviews; Analysis: Attride-Stirling's (2001) thematic network analysis and preconceived global themes. Thematic analysis elicited themes pointing to a disconnect between the psychosocial services provided by SACH and the actual needs of service users.

Outcomes: Recommendations: increased volunteer presence in the hospitals (implemented); a priority for each child to have a close relative/caregiver accompany them to Israel; for SACH to employ more than one psychosocial therapist to work with the children both inside the communal home and at the hospital.

Discussion: In paediatric medicine, studies have shown that pre-operative levels of anxiety and stress effect post-operative recovery. As invasive medical treatments, such as surgery, can cause heightened fear, children rely on support networks to employ a number of coping strategies in dealing with increased levels of stress and anxiety. In the context of international development, global health interventions usually occur in the natal country or familiar environment of children where they have access to social support systems. However, there is scant research showing how the psychosocial support needs of children change when surgical medical interventions take children out of their social support networks. This work shows that the needs of children undergoing surgery, and those of their caregivers change as they are removed from their social support systems.

Conclusion: Humanitarian health interventions need to provide more psychosocial support systems when service users have been removed from their support networks for the purposes of the intervention. The psychosocial needs of children undergoing surgery who are not in their natal country nor near their family/caregivers, and the psychosocial needs of those caregivers who do travel with these children, are very different when they are removed from their social support systems. Policies of NGO/humanitarian organizations need to reflect this reorientation towards provision of holistic patient care, and develop ways to provide support systems that reflect the needs of service users. One important way to do this is through developing partnerships with other organizations that provide these services

.Jesudian, Gnanaraj (SEESHA)

Innovations in Surgical Care for the Poor: Surgical Services Initiative

OBJECTIVE: Advances surgical care is not available to most of the people in rural areas because of reasons related to “Accessibility, Availability and Affordability”. We describe how the Surgical Services Initiative helped to address these problems and make advanced surgical care available to the poor and the needy over three decades in remote and rural areas of India.

METHODS: Diagnostic camps take all the diagnostic facilities available at the hospital to remote rural areas. They include Ultrasonography, cystoscopy, Gastrosocopy and the entire laboratory. They are arranged by local Churches and NGOs. Surgical camps are arranged in nearby mission or rural hospitals.

The Surgical Camp model takes the modern surgical facilities to remote areas and deals with the problem of accessibility. This is a self-sustaining cost effective model. These camps make highly specialized care available by taking experts and consultants in the field and use the opportunity to train local and other surgeons. Online training program with live streaming of surgical procedures and hands on training during surgical camps help many rural surgeons learn new techniques

Advances surgical care are made affordable with innovations like Gas less Lift Laparoscopic surgeries, low cost vacuum therapy. The research projects are carried out with the help of staff and students of Karunya University that has good engineering institutions.

OUTCOMES: The article about surgical camp model received the Barker Memorial prize by the Tropical Doctor in 1997. On an average about 1000 patients benefited from advanced surgical procedures in rural areas every year for the last two decades. Several innovative low cost procedures were published in national and International Journals.

In a study published in Australian New Zealand Journal of surgery [2007] it was found that in three district of Mizoram with one 3 to 4 diagnostic camps a year more than 50% of the estimated patients with Bladder outflow obstruction due to Benign Prostatic hyperplasia were evaluated and treated.

A study published in Indian Journal of Surgery in 2007 showed that it was possible to offer high quality surgical services charging only INR 1000 in addition to the patients paying for medicines and investigations. The analysis showed that it was a cost-effective model.

A study published in CHRISMED Journal of Health and Research in 2014 showed that it was possible to take a wide variety of advanced and modern surgeries to the poor and marginalized at a very affordable cost involving surgeons who come for working holidays.

Several publications in MD current India in 2013 and 2014 showed that a wide variety of innovative surgical methods came because of the needs that arose during these surgical camps. During the last decade, 3628 laparoscopic surgeries were carried out during the surgical camps and analysis of the data showed that parameters like surgical site infection, etc were comparable with the surgeries carried out at one center. None of these surgeries would have been possible had it not been for the surgical camps.

Lack of follow up with surgeons is a significant problem because most of them are visiting surgeons and this has contributed to increased morbidity in some patients.

DISCUSSION

It is a win – win situation for all concerned.

The rural patients are benefited from advanced and minimally invasive procedures

It is a cost effective and self sustaining model thus making the administrators happy

It helps consultants and specialists from all over the World train the rural surgeons who carry on the work

The innovations of equipment help the engineering students do useful projects while studying and help cut down costs dramatically

CONCLUSION: The Surgical Services initiative addresses the major problems of rural surgery and offers innovative means of training to surgeons from all over the World. It is a cost effective method.

Jull, Janet (Centre for Global Health)

Co-authors: James Crispo, Vivian Welch, Heather MacDonald, Simon Brascoupe, Yvonne Boyer, Dawn Stacey

Interventions for Indigenous People making health decisions: reporting on a systematic review process

Background/Objectives: Shared decision-making facilitates collaboration between care providers and consumers making preference sensitive health decisions. This poster reports on a study aimed at identifying shared decision-making interventions to support Indigenous people in making health decisions.

Methods: A systematic review was developed in dialogue with an advisory group which included Indigenous members, aligned with Ownership, Control, Access and Possession guideline criteria, and using the Cochrane Handbook. A comprehensive search was conducted of electronic databases including all dates to present. Two independent researchers screened and quality appraised included studies. Findings were analyzed descriptively and reported using guidelines for equity focused systematic reviews.

Results: Of 1,769 citations screened, 1 study was eligible for inclusion. This study was a randomized control trial rated as low quality for randomization and unclear for the other risk of bias criteria (allocation concealment, performance, detection, attrition, reporting bias). The study was conducted in the US with 44 students ages 11 to 13, and representative of Pueblo, Navajo, Hopi, and Jicarilla Apache Indian Nations. A culturally-relevant instrument assessed student decision-making skills pre and post intervention. Students demonstrated increased decision-making knowledge and were able to apply a four-step decision-making process to health situations.

Conclusions: There is a lack of studies evaluating shared decision-making among Indigenous Peoples. One study was found to demonstrate that a culturally-relevant approach improved knowledge and application of decision-making skills. Further studies are needed.

Kajeguka, Debora C. (Kilimanjaro Christian Medical University College)

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Innovative approaches to solve emerging global health challenges: mapping disease vectors to target malaria and arbovirus interventions in Tanzania

Malaria case management is difficult, particularly in areas such as Tanzania where there are other febrile illnesses of microbial or/and viral origin. Arboviruses (e.g., Dengue, Chikungunya) contribute greatly to malaria misdiagnosis and overtreatment, due to problems associated with lack of diagnostic tools and skilled personnel in health facilities. Given the limited resources in SSA including Tanzania, innovative approaches are needed for identification of malaria and arbovirus risk areas to target interventions. Southern – Northern partnerships are arguably most effective when the Southern partner identifies the problem, as they are best positioned to identify the most pressing research challenges, and the Northern partner assists by building research capacity and channeling resources to where they are needed.

Our project used a research project of interest to the partners at KCMUC and NIMR as a vehicle to transfer skills in GIS and species distribution modelling. The risk of transmission of malaria and arboviral infections is dependent upon the local availability of suitable habitat for their mosquito vectors (Anopheles and Aedes mosquitoes, respectively). Our aim was to improve capacity to predict and monitor changes in habitat for Anopheles mosquitoes relative to changes in habitat for Aedes mosquitoes. This knowledge is vital to the development of strategies to mitigate the impacts of malaria and arboviruses on the health of Tanzanians. A sound understanding of how each vector's habitat is likely to change with environmental changes is necessary to better predict hotspots for arbovirus relative to malaria risk. The key steps in this process were the development of maps of suitable vector habitat (Anopheles sp. and Aedes sp.) validated against independent data on vector occurrence and disease prevalence to confirm the key environmental factors that govern the distribution of suitable habitat and thereby disease prevalence and hotspots.

Canadian researchers led participative workshops for doctoral and postdoctoral researchers from Tanzania to provide advanced training in GIS, and species distribution modeling. They also introduced Tanzanian researchers to spatial statistical methods for hotspot detection and relating the habitat maps to malaria and arbovirus prevalence. As a team, we developed suitable habitat maps for Tanzania as well as small-scale maps for the districts of Muleba and Muheza, two areas with significant ecological differences in disease transmission.

Ongoing dengue epidemics in Tanzania highlight the need for innovative and multidisciplinary approaches to disease prevention and control. The research partnership contributes to increased capacity of Tanzanian researchers to address this challenge.

Katsivo, Melanie (Western University)

Engaging graduate students in international development research

Objective: In 2013, 16 graduate students from Schulich Medicine & Dentistry and 2 from the Technical University of Kenya participated in a CIDA - funded "Students for Development" research internships project with the overall development goal of developing simple, affordable and effective interventions for achieving healthy birth weight and infant growth trajectory in Kenya, Tanzania and Rwanda.

Specific objectives:

1. To develop probiotic strains specific to each country
2. To develop a portable and affordable non-invasive assessment tool for infant brain imaging
3. To examine public health policies for environmental toxins
4. To Internationalize curricula and campuses and to increase public awareness of Maternal, Newborn and Child health issues in developing countries; and to effectively engage Canadian and African policy makers, opinion leaders and communities in the project goals
5. Canadian students to collect thesis research data and gain international development experience
6. African students to develop thesis project proposals and procedures and to gain international experience.

Methods: After pre-departure training including an online course in International Development conducted in Canada, Canadian students were placed with African partners at the Medical Schools at the University of Rwanda, University of Nairobi and Egerton University in Kenya, the Technical University of Kenya (Polytechnic) in Nairobi, Kenya, the African Institute for Health and Development in Nairobi, Kenya and the National Institute for Medical Research in Mwanza, Tanzania. Orientation and finalization of tasks - including obtaining ethics approvals was undertaken with the supervisors in Africa and they were paired with interpreters that were mostly African students.

Orientation for the two students that came to Western University from the Technical University of Kenya was undertaken in Canada, and they were granted full access to all the necessary resources at Western, including auditing courses. Four Western faculty supervisors visited students and partners at the African institutions, and a postdoc accompanied one of the students for the entire duration of the internship. One African supervisor visited Canada. Students spent between 3 - 6 months on their internships.

Outcomes: Objectives of individual internships and the project goals were met well beyond expectations. They will be discussed in detail during the CCGH conference. Also to be discussed will be the challenges and immense opportunities that universities have to engage graduate students in development research, thus helping to develop, replenish and sustain a global work force. The project also demonstrated that much more can be achieved through respectful and equitable partnerships.

Khwaja, Raida (University of Calgary)

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Workshops on parasitism, sanitation and hygiene as a knowledge sharing and partnership development tool among pastoralists in Tanzania: Project SHINE as a case study

Objective: As part of a larger water, sanitation and hygiene research and education initiative in the Ngorongoro Conservation Area (NCA), we developed and delivered a series of three participatory workshops to secondary school biology and civics teachers. Our broad health promotion goal was to support teachers in the empowerment of youth to spearhead the development of innovative solutions to sanitation and hygiene challenges facing their communities. The first workshop aimed to enhance existing teacher knowledge on parasitic worm infections, their life cycles and common transmission routes. The second and third workshops introduced teachers to practical activities aligned with the Tanzanian curriculum with which to engage students in identifying locally relevant water sanitation, treatment, and hygiene options. Activities were adapted and presented to the local community through a women's group, to assess relevance, enhance our understanding of the local context and evaluate the feasibility of scaling up the intervention beyond schools.

Methods: The workshops focused on knowledge sharing to identify locally relevant and sustainable solutions to improve sanitation and hygiene. Pedagogical techniques, such as the BOPPPS model for lesson delivery (i.e. Bridge, Objective, Pre-Assessment, Participatory, Post Assessment, Summary) were employed, to model effective and interactive learning strategies. The activities were experiential and participatory in nature, focusing on developing understanding of the scientific process. The contents of the activities were adapted to the issue of water scarcity in the NCA and the semi-nomadic lifestyle of pastoralists.

Outcome: Feedback from the teachers through participatory evaluation strategies indicated that the workshop activities could complement the existing curriculum to make science meaningful in the lives of their predominantly Maasai student body.

Discussion: In this pilot study, we were able to effectively engage teachers of the two secondary schools in the NCA. For scale-up, community partners have consistently indicated that involvement of primary school teachers is paramount for improvement of health outcomes among youth in the NCA.

Conclusion: Partnerships with key stakeholders in communities are essential to the development of effective health promotion interventions. In the first phase of the study, we were able to establish rapport with key stakeholders including the District and Ward Education Officers, headmasters, and secondary school teachers. A teacher's manual is being developed to support the implementation of workshop activities in classrooms. In subsequent phases, we will continue to engage teachers and community stakeholders in the development of a locally relevant intervention to improve sanitation, hygiene and health in the NCA.

Kong, Ling Yuan (TO the World)

Findings from a mobile antenatal clinic in the Kigezi region of Uganda

Objective: To identify prenatal complications through screening for prenatal infections and the use of portable ultrasound (US) in the rural Kigezi region of Uganda.

Methods: An observational study was conducted in February 2014 as part of a randomized clinical trial to determine if US technology could improve attendance at antenatal clinics in eight communities within the Kigezi region of southwestern Uganda. Women presenting to the antenatal clinic provided informed consent through a translator and completed a questionnaire, which included demographic information, obstetrical history, and opinion on US technology. As part of the antenatal screening, the patients received HIV, syphilis, hemoglobin, and a free obstetric US by a local technician. The first 100 women also received testing for hepatitis B. When complications were identified standard local treatments or referrals to regional hospitals were provided.

Results: 158 women presented to the mobile clinics. 7 new HIV cases, 3 untreated syphilis infections, 2 cases of malaria and 1 new diagnosis of hepatitis B were detected. 10 women were found to be anemic with a haemoglobin below 12g/L. Of the 158 women who presented to the antenatal medical camps, 147 completed an obstetrical US. 19 US were abnormal. Twin pregnancy and polyhydramnios were the abnormalities most frequently observed. No congenital malformation, ectopic pregnancies or placenta previa were detected during our screening program. 72 women provided their opinion on the US exam. Overall the responses were positive with the predominate theme of "seeing the baby". 3 patients voiced fears that US could be dangerous for them and their baby.

Conclusion: The implementation of local mobile antenatal clinic including obstetrical US resulted in the identification of prenatal complications in 26.6% in women in the Kigezi region of southwestern Uganda. Whether increased detection results in improved outcomes needs further study.

MacDonald, Lisa (HealthBridge Foundation of Canada)

Co-authors: Prashant Missal (Evangelical Fellowship of India Commission on Relief (EFICOR)), Lisa MacDonald (HealthBridge Foundation of Canada)

Building community ownership for maternal and child health

Objective: The Pakur Mother and Child Survival Project aimed to increase utilization of essential maternal, newborn and child health services in Pakur district of Jharkhand state, India. Key barriers in this rural district included poor quality and inconsistent delivery of health services at the village level, and lack of care-seeking by the local population.

Methods: The three-year project worked to strengthen the availability of health services throughout the district, while also engaging communities to promote care-seeking behaviour. A key strategy involved capacity building of Village Health Sanitation and Nutrition Committees (VHSNCs), who are local supervisory bodies responsible for monitoring health services in their village and mobilizing their community to seek health care. In particular, VHSNCs hold the government accountable for providing the health services which are supposed to be available under the National Rural Health Mission. The project provided direct training to VHSNCs, mentorship meetings, exposure visits, and experiential learning through designing behavior change communication activities for their village.

Outcomes: 60% of VHSNCs in the district were trained and developed a Village Health Plan. Results from a district-wide mid-term assessment demonstrated a 19% increase in ante-natal care utilization, 34% increase in consumption of iron-folic acid supplements during pregnancy, 19% increase in skilled birth attendance, 28% increase in children with pneumonia receiving treatment from a skilled provider and 15% increase in children receiving three doses of the combined diphtheria, pertussis and tetanus vaccine.

Discussion: The improvements in the utilization of health care services achieved, thus far, by the project were a result of both (1) improved accessibility of health care services and (2) increased care-seeking by the local people. To remove barriers to accessing health care, mothers required support from their families and communities. Empowering local VHSNCs contributed to raising maternal and child health from the status of a “family issue” to the status of a “community issue”. This strengthened the level of support available for mothers and children and enhanced sustainability of the project results.

Conclusion: Community engagement is critical for sustainably increasing access to essential maternal and child health care services over the long-term. When communities feel ownership for maternal and child health, demand for health care increases and barriers to care-seeking are reduced.

MacDonald, Noni (MicroResearch Dalhousie University, IWK Health Centre)

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MicroResearch in East Africa: opportunities for addressing gender inequity

Introduction and Background: Gender equality, number 3 of 8 Millennium Development Goals, is a human right and implies a society in which women and men enjoy the same opportunities, outcomes, rights and obligations. Despite some progress since 2000, in many countries, including in Uganda, Tanzania and Kenya in East Africa, women and girls are often discriminated against in health, education and in the labour market leading to inequality of opportunity and poorer outcomes for communities both large and small. MicroResearch (MR), an innovative community focused research program in East Africa, nurtures interdisciplinary teams of health care professionals to find sustainable local solutions to local maternal child health problems through local research projects. Local community engagement is a key component. MR also aimed indirectly but not overtly to support gender equity with respect to access to MR training, research opportunities, MR project team leadership, MR research projects and MR teaching, review and coaching opportunities.

Objective: To review local MicroResearch gender equity outcomes in Uganda, Kenya and Tanzania 5 years into the program.

Methods: Assessment gender equality by analysis of participants in 15 MR workshops held between 2008-2013 in Uganda, Tanzania and Kenya, of principal investigators for MR teams, of 29 MR research proposals submitted for funding competition, of MR project topics and of communities engaged and of MR East African peer reviewers, facilitators, coaches and teachers.

Results: Of 391 workshop participants, 46% were female. Of 29 proposals submitted, 52% were lead by women. Of the 15 workshops, 13 of 15 had female and male not male only facilitators and 1/3 of East Africans involved in workshops as guest lecturers and/or as local coaches in these 5 years were women. Of the 6 East Africans who now teach and facilitate MR workshops, 3 are women. Of the 11 East Africans who have reviewed full MR proposals in collaboration with international academic reviewers, 7 were women. 4 of 7 MR projects completed by 2013 were lead by women. Of the 29 projects, 41% focused on maternal health, 34% on child health and 24% on maternal and child health.

Conclusions: The MicroResearch program in East Africa has nurtured gender equality with positive effect through the MR process including workshops, proposal development, teaching, coaching and projects selected. Local women have taken a major role in running projects and in supporting local MR growth and success.

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"Wellness in our own words": Partnering with Anishnaabe and Cree communities in Northeastern Ontario to explore the constructs of Indigenous health

Objectives: The purpose of this research was to engage Indigenous communities (Anishnaabe and Cree) in knowledge exchange partnerships to develop a more locally-engaged understanding of how these communities understand health and wellbeing "in their own words". These definitions can later be used to improve the accountability of future community-based Indigenous health research. This research was conducted to: 1) explore the ways in which Indigenous communities in Northeastern Ontario construct, perceive and define 'health and wellbeing' in their own words; 2) use these definitions to better understand perceived factors that foster and inhibit Indigenous health and wellbeing in Northeastern Ontario and; 3) use these basic definitions of health and wellbeing to improve the accountability of future research in Indigenous community health.

Methods: Semi-structured interviews were conducted with 16 participants from Anishnaabe and Cree communities in Northeastern Ontario. Participants were asked the question: "what does health and wellbeing mean to you?"

Outcomes: Eight themes emerged in how health and wellbeing was defined:

1. Spiritual, Mental, Emotional and Physical balance
2. Strengthening community relationships
3. Practicing tradition & culture
4. Self-determination
5. Learning and speaking Indigenous languages
6. Respecting and being respected
7. Understanding interconnectedness
8. (Re)connecting with the land

Discussion: All participants (16) expressed that health and wellbeing are tied to practicing tradition and culture, living in a balanced way, strengthening community relationships and becoming self-determining. In defining health and wellbeing, 10 participants cited the importance of understanding 'one's place in the web of interconnection', while living a land-based lifestyle and being respectful was connected to health and wellbeing by 7 participants. Notably, 15 participants related health and wellbeing to learning and speaking an Indigenous language, explaining that all other components of health are embedded in the process of language learning. Language learning connects youth to elders and thereby strengthens community relationships, enhances respect, promotes connection to tradition and culture and promotes self-determination, all of which were expressed as being intrinsically related to health and wellbeing.

Conclusion / Implications: The articulation of these definitions of health and wellness "in our own words" may help to improve the accountability of future community-based health research with Indigenous communities. It can provide a contextualized basis for the development of future research agendas, policies, and programs that can better empower and support Indigenous wellbeing. Ultimately, this research highlights the importance of developing ethical knowledge-exchange partnerships when conducting research with Indigenous communities both locally and internationally.

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Brazil's Bank of Prices in Health: Transparency and Accountability?

Pursuant to Article 196 of Brazil's 1988 Constitution, universal access to health services and basic medicines is constitutional right and provided through its universal public health system, the Sistema Unico de Saude (SUS). Still, 40% of medicines that are prescribed in public health care units are not readily available and 25.5% of medicine purchases made by households belonging to the lowest income quintile are paid for out of pocket. In an effort to improve transparency and accountability in the pharmaceutical system, Brazil's Federal Government implemented the Banco de Preços em Saúde (Bank of Health Prices, BPS) in 1998. The BPS is a transparency tool designed to facilitate the centralization of pricing information and ideally decrease the high cost of medicines and medical supplies. We examined how the BPS has affected the price of medicines in two socioeconomically different Brazilian states, Sao Paulo and Paraiba. Paraiba's average nominal monthly income per capita is R\$565 with 27.99% of Paraiba's households earning less than the state minimum wage, while Sao Paulo has an average nominal monthly income per capita that is double of Paraiba at R\$1,259.

Two time-trend regression analyses were conducted of 19 medicines on Brazil's national drug formulary from compulsory purchase reports of federal public institutions that were reported to the BPS over an eight-year time period. The simple linear regression model revealed that the unit price of 8 of the 19 medicines investigated changed significantly with time (4 decreased and 4 increased in price every year) in Paraiba only. The more complex mixed effects model revealed that 10 out of 19 medicines investigated changed significantly with time, with 2 increasing in Sao Paulo and the rest showing a change in price in Paraiba.

We found that the BPS does increase transparency and access to information on drug prices in Brazil. It remains inconclusive, however, if the BPS translates into a decrease in drug prices or improves access to essential medicines to the Brazilian population. Exploring the BPS's effectiveness in managing medicine health products market information and the degree to which excluding non-federal institutions in the mandatory reporting of purchasing information affects the information reported in the BPS needs to be further explored. It is also important to analyse the degree to which the BPS is known and used throughout Brazil, particularly in low-resource settings where Internet might not be readily accessible.

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Guyana Ottawa Family Medicine Redency Training Program and Partnership

Objectives: A descriptive analysis of the Guyana's inaugural family medicine residency training program.

Methods: A descriptive analysis of the stakeholder consultation, research questions, funding framework and curriculum development and implementation.

Outcomes & Discussion: Political advancement, funding obtained, research agenda, iterative curriculum development process and program to date (5 residents will have completed 2 months of training each in Nov 2014), and lessons learned will be discussed.

Conclusions: Partnering with a low income country to improve medical education has significant challenges and barriers which can be overcome to have fruitful and long-lasting partnerships. Future research and program evaluation is needed to determine the impact of this new program on physician retention and improved patient care outcomes.

Mesaroli, Giulia (University of Toronto)

Anne-Marie Bourgeois, Allison Condren, Ellen McCurry, Peter Petropanagos, Michelle Fraser, Stephanie Nixon

Enhanced patient-centred care: Perspectives of physiotherapists regarding the impact of international clinical internships on practice

OBJECTIVE: To explore the perspectives of physiotherapists who participated in an international clinical internship (ICI) in a low or middle-income country (LMIC) during their physiotherapy (PT) training at a Canadian PT program regarding its impact on their PT practice in Canada.

METHODS: Qualitative descriptive design utilized in-depth, semi-structured interviews. Data was organised using NVivo, and inductive and deductive coding was employed to analyze data and develop broader themes.

OUTCOMES: Thirteen practicing Canadian physiotherapists were interviewed. Participants did not feel their ICIs developed their hands-on skills but described three enhanced capacities: 1) critical reflection on culture, values and practice, 2) communication skills, and 3) creativity and resourcefulness. These capacities were perceived to transfer to Canadian practice by enhancing participants' ability to deliver patient-centered care, specifically through an enhanced understanding of patients' values and social determinants of health.

DISCUSSION: There has been a rise in the number of PT students seeking participation in ICIs in LMICs. There are both benefits and challenges associated with ICI participation. Less is known about the impact of ICIs on physiotherapists' future practice. The results of the study are novel in that participants described that ICIs enhanced their capacity to provide patient-centred care within their Canadian practice. Furthermore, that this capacity is not limited to resource-poor settings in Canada, but applies to all patient populations and settings. This is a departure from the focus of numerous authors to the relevance of ICIs to working in resource-poor settings within North America. Furthermore, the results of the study have practical implications for both PT students and PT departments. For PT students deciding whether or not to embark on an ICI, study results provide insight into the perceived impact of ICIs on Canadian PT practice. For PT departments, study results can be used to guide decisions regarding the extent of, and how to, invest in ICIs.

CONCLUSION: This study provides the perspectives of practicing Canadian physiotherapists regarding the impact of their ICI on their current Canadian practice. Specifically they reported developing three key capacities: enhanced reflection on culture, values, and practice, creativity and resourcefulness and the ability to communicate effectively. They perceived these capacities to have enhanced their ability to provide patient-centered care for patients within their Canadian practice.

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Strategies for recruiting women into a trial taking place in the early postpartum period

Objective:

To discuss the challenges of recruiting women - during gestation and following delivery - into a trial on maternal postpartum deworming.

Methods:

A randomized trial on maternal postpartum deworming (ClinicalTrials.gov: NCT01748929) is currently being conducted in Iquitos, Peru. Two strategies for recruiting mother-infant pairs are being used: 1) in women's homes in their third trimester of pregnancy; and 2) in the hospital following delivery. Trials conducted in Peru require informed consent (IC) of both the mother and father for the participation of children.

Discussion:

Recruitment during gestation. Pregnant women attending antenatal clinics or living in the hospital catchment area are visited in their homes by a research assistant (RA) in order to explain the study to them and to their partners.

IC is sought at this time. If the father is unavailable, RAs will return to explain the trial to him and ask for his IC.

During hospital admission for delivery, women have the opportunity to reconfirm their consent. Advantages of this strategy are that mothers are more available; there is more time to inform the couple of the study; and there are less external distractions during the IC process. The disadvantages are that fathers are usually unavailable during the day; finding the women's houses can be difficult; and the time between IC and treatment allocation may adversely affect retention of study information.

Recruitment following delivery. Mothers not contacted during gestation have an opportunity to undergo IC procedures following delivery in the hospital. At this time an RA will visit the mother and her partner at bedside to inform them of the study and ask for their IC. Advantages of this strategy are that fathers are more easily accessible; the time between IC and treatment allocation is shorter and therefore retention of study information may be better; and the process is more efficient since travel to the home is unnecessary. The disadvantages are that, immediately after delivery, women are usually tired and in pain so the IC process may take longer to allow for breaks; there are numerous distractions; it is often difficult for the mothers to sign the IC; and non-immediate family members may influence the decision to participate.

Conclusion: Both home-based and hospital-based strategies of IC for recruitment in the early postpartum period are important to obtain the required trial sample size in a timely manner. Daily oversight with effective field management can overcome anticipated and unexpected challenges.

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Educating school children on danger of inappropriate use of antibiotics – an Indian experience

Antimicrobial resistance has the potential reducing the effectiveness of antimicrobial medicines. Though the development of resistance is a natural process, inappropriate use of antimicrobials accelerate the process. Antimicrobial resistance has been accepted as one of the most serious public health issues. The problem is so serious that unless concerted action taken worldwide, the globe runs the risk of returning to pre-antibiotic era when many more children than now died of infectious diseases and the major surgery was impossible due to risk of infection. Though there are many other issues involved, the ready availability of antimicrobials over the counter in pharmacy leads to over use and the lack of buying capacity leads to under use.

The children are the active users of the medicines and they are often viewed as agents for change. Hence, it was attempted to educate the school children on danger of not using antimicrobials and what they should do. In this project, the schools were identified and obtained permission to address the children. The children were of 11th standard means of around 16 years of age. The children were given about 45 minute power point presentations on health, illness and antimicrobials. The presentations also included short stories and importance of hand hygiene practices. The presentations were followed by question – answer sessions of 30 to 45 minutes. In order to assess the impact of this campaign knowledge base of the children were determined prior to the campaign and immediately after campaign through questionnaires.

Under the campaign 11 schools covering 554 children (352 boys and 302 girls) were targeted in the education programme. The campaign has created awareness among the school children on the need of appropriate use of medicines especially antimicrobials and the need of health promotion. The children were motivated for practicing hand hygiene for reducing infection. The children are made as partners in the effort of saving the medicines for future.

Impact of this campaign was measured in terms of knowledge/understanding the concept. A pre-training and post training evaluation was done using mainly multiple choice questions. The

average marks in pre training evaluation were 28.89 % (Max. Marks: 66% & Min. Marks: 20%) while post training evaluation showed an average marks as 88% (Max. Marks: 77% & Min. Marks: 55%). This shows the campaign was effective at least in increasing the knowledge level of children on antimicrobial resistance and the need of using them appropriately. The children have been encouraged to contribute their bit and are sensitised that their contribution would go in a long way addressing the global issue of antimicrobial resistance.

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Drug Safety and Corporate Governance

Objectives: The objectives of this study were to: 1) investigate the relationship between corporate governance and pharmacovigilance by global pharmaceutical companies (GPCs) and their corporate subsidiaries in India and 2) analyze the level of integration of pharmacovigilance governance in each company studied. The implementation of pharmacovigilance in low and lower-middle income (LMI) countries is impeded by poverty and overburdened, under-resourced health care systems. The integration of pharmacovigilance into the corporate governance of GPCs could support postmarket drug safety in LMI countries.

Methods: Qualitative research methods were used. Data were collected from corporate annual reports, reports of corporate social responsibility, corporate websites and FDA filings. Documents were read iteratively and coded using an open coding process. Data were analyzed for pharmacovigilance framing, policies adopted, and actions taken by or against the corporations. Key themes that explain how post market drug safety is integrated into the corporate governance of GPCs were identified. A conceptual framework was developed to guide the comparative analysis of pharmacovigilance governance of GPCs and Indian subsidiaries.

Outcomes: Although all of the GPCs studied showed compliance with minimum regulatory requirements, we found differences in the level integration of pharmacovigilance into corporate governance between corporations and between parent company and their subsidiary in India. The GPCs with the least integration had the most outstanding drug safety actions.

Discussion: Corporate governance has implications for pharmacovigilance yet corporate responsibility to shareholders may impede a culture of pharmacovigilance. Findings reveal that pharmacovigilance is not fully integrated into the corporate governance of any of the GPCs or their Indian subsidiaries. Lack of integration has resulted in the perception that postmarket commitments are a threat rather than an opportunity to build value for the company. The lack of public information by GPC Indian subsidiaries also has implications for accountability for postmarket drug safety in India.

Conclusion: Our research suggests that GPCs are unlikely to lead efforts to strengthen pharmacovigilance in LMI countries. MDGs for access to medicines are insufficient to assure access to safe medicines. Policy incentives including: supranational standards for strengthen pharmacovigilance systems; rebates (or fines) for meeting (or not meeting) the highest pharmacovigilance standards; norms for withdrawal of marketed drug in developing countries when withdrawn from US, European and other major markets; and independent monitoring by drug regulatory authorities and global health institutions are needed. More research is needed to identify additional policy incentives to increase integration of pharmacovigilance into corporate governance.

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Global actors' influence on pharmacovigilance, regulatory governance, accountability and transparency in Brazil

Objective: This research examines the relationship between policy ideas promoted by global actors for regulatory governance, transparency, accountability and pharmacovigilance in Brazil. Despite being the 5th largest global pharmaceutical market in the 1990s, Brazil did not have national pharmacovigilance system. It was hypothesized that the establishment of ANVISA, its pharmacovigilance unit, and pattern of regulatory governance has been shaped by a groundswell of global and domestic discourse for pharmacovigilance in Latin America.

Methods: A systematic review of the literature was conducted to identify articles related to this research. Sixty-three search terms were entered into thirteen relevant databases were searched on November 17-18, 2013 pertaining to Brazil and pharmacovigilance, global institutions, pharmaceutical industry, civil society, and ANVISA governance and transparency. Publications written in English, Portuguese, and Spanish were included in the search. Fourteen studies met our criteria for inclusion in this study.

Outcomes: We found that ANVISA's role and current governance structure, as an independent regulatory agency, reflects a global reform agenda. Policy ideas regarding transparency and accountability were found in global actors' discourse on good governance and factor prominently in ANVISA's ongoing reforms. We also found that ANVISA has a dual accountability for protecting population health while assuring the competitiveness of Brazil's domestic industries. Conflicts of interest related to ANVISA's dual mandate have been reported that have implications for pharmacovigilance.

Discussion: In this systematic review of literature we found that policy norms promoted by global actors have been adapted and adopted in Brazil. Our findings show it is difficult to disaggregate the influence of global institutions policy ideas for pharmacovigilance governance from overall regulatory governance in Brazil. Nonetheless, as the national regulatory authority overseeing the implementation of the National Pharmaceutical Policy, registration of pharmaceuticals, and coordination of the national pharmacovigilance system, any regulatory reform in ANVISA has implications for pharmacovigilance and accountability for postmarket drug safety in Brazil.

Conclusion: An understanding of the relationship between ANVISA's governance, accountability and transparency is important given the agency's dual mandate over population health and economic development in Brazil. Our research finds ANVISA's reliance on social participation as a means to assure agency transparency and accountability may be insufficient. Findings suggest that disaggregation of ANVISA's regulatory authority over health from commercial regulatory oversight will eliminate conflicts of interest and better advance pharmacovigilance. More research is needed to better understand how global actors shape pharmacovigilance governance and the impact on postmarket drug safety.

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Paper and phone based monitoring and evaluation systems to support the community-based services, South Africa

Objective:

The study explored the practicality, accuracy and supervisory capability of the phone-based monitoring and evaluation (M&E) compared to that of the traditional paper based system to support the work of Community Health Workers (CHWs).

Methods:

The CHWs maintained both, the paper forms and mHealth system to record their services. A comparative analysis was done to calculate the correspondence between the paper and phone records. The comparison was also done for the daily visits and clinic referrals. Data accuracy and supervised visits were analysed for both paper and phone systems.

Results:

40% of the CHWs, showed a consistently high level of data transfer accuracy on paper. Overall, there was an improvement over time, and by January 2013, all CHWs achieved a correspondence of 90% or above between phone and paper data. The most common error that occurred was summing the total number of visits across the five Household activity indicators. Few supervised home visits were recorded and there was no evidence of the team leader following up of the automatic notifications received on their cell phones.

Conclusions:

The study emphasizes the need for regular supervision and rigorous and ongoing assessments of data quality. Real-time data availability offered by the mHealth system plays an important role in closing the gap between clients and health service providers and enables accurate tracking of referrals.

Neves Briard, Joel (IFMSA-Quebec)

Co-authors: Claudel P-Desrosiers (IFMSA-Quebec), David Alexandre Galiano (IFMSA-Quebec) and Yassen Tcholakov (IFMSA-Quebec)

Student involvement - Filling the gaps in Global Health Education

Objective

Interest in global health (GH) from the medical field has been increasing, with a growing students engagement in international activities and student organisations such as IFMSA-Quebec filling the gap in GH education. The objective of this study was to assess the impact of involvement in the leadership of IFMSA-Quebec, a student-run organization working on GH, on students' medical training based on CanMED core competencies.

Methods

Students enrolled as local coordinators in IFMSA-Quebec's standing committees were surveyed on two occasions 8 months apart in order to assess their competency in the thematic areas of the CanMEDS competencies: leadership, communication, management, professionalism, understanding of the global, cultural and social aspects of health, and perceived impact as health advocates. The survey consisted of a self-assessment in each area on a unit scale of 1 to 7.

Outcomes

41 responses were received upon the first survey administration, 34 upon the second, 31 of those responses were matched. The participating student's results indicated increases in perceived CanMEDs competencies. In fact, participants demonstrated the following levels of growth on the 7-point scale. Leadership: +0.61. Communication: +0.52. Team management: +0.65. Impact as health advocates: +0.74. Most importantly, students reported having increased their understanding of the global and social aspects of health, respectively, by a factor of +0.90 and of +0.94 points.

Discussion

This study illustrates that student engagement in extracurricular GH activities increases their perceived confidence in key areas of medical education. It is important to note that the survey was administered solely on a group of students not representative of the medical student population; given that the students were self-selected by having applied to have a GH leadership role in IFMSA-Québec. Additionally, we note the lack of control group, and given that students were attending medical school concurrently to their implication, we naturally expected some increase in CanMED competencies. This study demonstrates that GH oriented student-run programs contribute to the development of certain CanMED competencies that are challenging to implement and evaluate in medical curricula.

Conclusion

This study shows a quantitative increase in self-perceived competency among all seven of the CanMEDs competencies after 8 months involvement in IFMSA-Quebec. The results of this study are very encouraging and will prompt the authors to follow up with a case-control study matched for year of study and University comparing students engaged in leadership positions in IFMSA-Quebec and others that have not expressed such an interest in GH.

Oghagbon, Efosa (Benue State University, Nigeria)

Co-authors: Gimenez-Llort, Lydia (Autonomous University of Barcelona, Spain)

Sustaining increase in life expectancy in Africa requires active preventive measures against non-communicable diseases

INTRODUCTION:

It is projected that aged population (>60 years) will continue to increase globally, including in Africa, due to reduced population growth, decreased fecundity and improved medical interventions. While this is typical of developed countries, it is not the same for Africa and similar developing regions where a significant proportion of death is now due to non-communicable diseases (NCD's) and even projected to increase going forward. This work was done to identify factors that may reduce expected increase in life expectancy that is expected with increasing socio-economic indices and improved treatment and prevention of HIV/AIDS. By so doing, able to proffer solutions that could help to sustain projected increase in life expectancy in the region.

METHODOLOGY: A literature search on pubmed, Embase, web of knowledge and even google using the key word; life expectancy in developing countries, life expectancy in Africa, non-communicable diseases, prevention, community role and health system review, was done.

OUTCOME/DISCUSSION: Rising prevalence of NCD's is due mainly to western style diets and sedentary living, and is made worse by inadequate nutrition education, high prevalence of low birth weight, poor health services, lack of efficient tobacco control and deficient planning of built environment. To halt the reduction in life expectancy occasioned by NCD's, efforts by the community, health planners and governments in Africa to address relevant NCD's, must be put in place. Suggested measures are, nutrition education, regular community directed physical exercise, improved environmental planning and development. Others are review of present health service model, early detection, prevention and treatment of NCD's, including improved antenatal care to reduce low birth weights, and establishment of policies and measures that decrease access to tobacco especially by women of childbearing age.

CONCLUSION: Africa and similar developing regions cannot fund the health bill due to NCD's and their complications; hence it is important that wholesome preventive measures are applied to this scourge without delay. The import of this is emphasized by the potential decrease in life expectancy of Africans by this group of diseases.

Okechukwu, Raymond (Nnamdi Azikiwe University Teaching Hospital)

Incidence of Adverse Drug Reactions in Hospitalized Patients in a Nigerian Teaching Hospital Using Global Trigger Tool Methodology

Objectives: The main objectives of this study was to determine the incidence and severity of adverse drug reactions among hospitalized patients using global trigger tool methodology in the Nnamdi Azikiwe University Teaching Hospital, Nnewi Nigeria. Adverse drug reactions continue to present major challenges towards the attainment safe global health globally. There is need for innovative strategies for their effective detection and reporting to promote safe global health. The use of the trigger tools for adverse drugs reactions signal detection has been shown to be superior to the traditional pharmacovigilance system that rely on the direct observation and unfocused chart review by healthcare professionals. **Methods:** We carried out a descriptive cross-sectional study using retrospective medication chart review of hospitalized patients and questionnaire survey methodology of health care professionals employed in the teaching hospital. The chart review procedure was adapted from the method described in the global trigger tool methodology of the Institute of Health Improvements, (IHI).

Outcomes: A total of 120 patients' charts were randomly selected and reviewed; reflecting a total of 2173 patient-days of which 558 were for pediatrics. Over 473 triggers were identified of which 175 were confirmed to be adverse drugs reactions. The vital incidence measures calculated were: 145.8 adverse drugs reactions per 100 admissions and 80.5 adverse drugs reactions per 1000 patient-days. A total of 97 patients had at least one adverse drugs reactions during their hospitalization and the per cent of admissions with an adverse event was 80.8% Virtually all the survey respondents (94.4%) agreed that adverse drugs reactions should be identified and reported whenever they are encountered in patients. However, almost all of them (97.5 %) showed they did not know about the global trigger tool methodology for detecting and reporting of adverse drugs reactions.

Conclusion: There was high incidence of adverse drugs reactions among the hospitalized patients included in this study. The healthcare professionals who took part in the questionnaire survey showed low level of awareness about the trigger tool methodology and its use in the detection and reporting of adverse drugs reactions. This has implication for patients' safety and global health practices in our country. Further research is thus required to explore the strategies to create more awareness among healthcare professionals towards effective use of the global trigger tool methodology as part of their routine care of patients in order to promote patients safety and advance global health.

Olatunde, Oluwasayo (Society for Good Health, Sustainable Development and Environmental Awareness)

Co-authors: Olufemi, Olusola PHD , Ojo, Olajide MPH

Making global news requires safe planning

PROBLEM STATEMENT: To analyse the influence of sociocultural factors on information gathering on contraception use and sexually transmitted disease among market women in Nigeria.

APPROACH: A survey of market women in 3 major markets in Ibadan, south-western Nigeria.

FINDINGS: 67.3% of the women were married and 18.7% were single. A total 8.7% of the women had education of 1-6 years, 44.0% had an education of 7-12 years and 45.4% had post secondary school education. Overall, 98.0% had one form of education. A lower proportion (6.7 %|) was able to name at least 1 type of sexually transmitted infection with their knowledge highest for gonorrhoea. Majority of the market women obtained information on contraception from the media: radio/TV (50.7%) and newspaper (6.0%) while they ranked family and internet as the least source of information on family planning, 2.0% and 0.7% respectively. On the other hand the contraception awareness was 73.3%, 91.3% stating they often use a form of family planning method with about 82.0% stating that their husband did not consent to them using any form of family planning.

CONCLUSION: Contraception knowledge is improving in Nigeria and the media must be commended for their share of this positive move. Other religious groups can learn from this by incorporating information on contraception in their curriculum. The market women should be commended for recognising the importance of their health as a reason for choosing to use contraception.

Pringle, John (McGill University)

Co-authors: Renaud F Boulanger (McGill University), Catherine M Tansey (McGill University), James Anderson (Holland Bloorview Rehabilitation Hospital), Anant Bhan (Independent researcher, Pune, India), Lisa Eckenwiler (George Mason University), Lisa Schwartz (McMaster University), Matthew Hunt (McGill University)

Research conducted after natural disasters in low- and middle-income countries: Ethical considerations from a scoping review of published literature

Objective: To examine how ethical issues are addressed and reported in published accounts of natural disaster research in low- and middle-income countries. Natural disaster settings are characterized by a dynamic, evolving and often challenging environment, and research conducted in these settings leads to a unique set of ethical issues. Careful ethics deliberation is required throughout the research process to ensure the protection of vulnerable and often traumatized study populations.

Methods: A scoping review of published human subject research conducted within two years of natural disasters in low- and middle-income countries. From an initial set of more than ten thousand articles from over a ten-year period (2003-2012), over 800 articles were identified by two independent reviewers to fit the inclusion criteria. The analysis of the retained articles was an iterative process where important findings emerged and came into focus as the review progressed.

Outcomes: The scoping review highlighted the diversity of research conducted in the wake of disasters and the various approaches to presenting ethical issues arising in the research. Analysis of the articles elucidated associations between elements such as disaster type, country of disaster, research type, author affiliation, study population, and reporting of research ethics approval, consent process, funding source, and conflicts of interest. We identified a need to better consider and communicate in research publications ethical considerations including benefit and harm; free and informed consent; vulnerability and integrity; and equality, justice and equity.

Discussion: Research in the wake of natural disasters is both essential and problematic. While studies can inform disaster preparedness and response, they can also exploit situations of vulnerability and offer little in recompense. Although such issues can be addressed by research ethics committee oversight, our scoping review found that many research activities are conducted as operational research or quality improvement initiatives, precluding usual in-depth ethics review mechanisms. Our project further alerts researchers and ethics committee reviewers to some of the documented ethical challenges that can be anticipated when conducting disaster research in low-resource settings.

Conclusion: The scoping review shows how ethical components of research, such as informed consent and the protection of vulnerable study populations, are conveyed in published accounts of natural disaster health research in low- and middle-income countries. The authors argue for explicit and transparent ethical research approaches and methods, and for improved communication of ethical challenges arising in natural disaster health research.

Redden, Kara (McGill Interprofessional Global Health Course (Faculty of Medicine, McGill))

Global health perspectives: a comparison among students from health and allied health disciplines through the lens of a 10-week introductory global health course

Objective: Students from five departments in the Faculty of Medicine at McGill University participated in a 10-week Interprofessional Global Health Course, wherein they were exposed to a wide range of topics concerning global health and were given opportunities to work within interprofessional teams to participate in case studies and various activities. In order to complete the course, students were required to submit a final reflective assignment expressing their understanding of global health by the end of the 10th week.

Methods: The format of the assignment was not pre-determined. Students were encouraged to select any medium that would allow them to express what global health meant to them, and how participation in the course had contributed to this understanding. We subsequently analyzed the reflective assignments as qualitative data and identified themes among the works that were created.

Outcomes: There were 65 students who completed the course at the end of 10 weeks comprising of 22 students from medicine, 7 students from dentistry, 13 students from nursing, 8 from occupational therapy and physiotherapy, 12 from dietetics and nutrition, and 3 from other disciplines outside the Faculty of Medicine including Institute for Health and Social Policy, Masters of Science in Applied Nutrition as well as Environment. The final reflective assignments included essays, narratives, poems, visual artwork and multimedia pieces.

Discussion: Three main themes were identified. First, the works produced by the students reflected the importance to understand health disparities between nations and the factors that drive and shape inequalities. Second, they emphasized the need to engage with, understand and practice ethics when working and volunteering in low resource settings. Third, some students were able to express their feelings and frustrations about the barriers that exist when trying to access and deliver care to those in low resource settings.

Conclusions: While students from the different disciplines had individually varying interpretations of what global health meant to them, a unified understanding of what it means to be a health care professional working in global health was apparent in the themes that emerged. Using any medium to complete the final assignment was a novel way to evaluate effectiveness of the course material in presenting key facets of global health.

Rehbein, Brie (Dalhousie University, Global Health Office)

Community Partnerships Strengthen Student Leadership in Global Health at Home

Objective: Medical students are afforded few curriculum and clinical opportunities to learn about global health in their home communities. Given the diverse population and health issues in Canada, it is important for students to understand the link between international health and health at home. In 2010, Dalhousie University's Global Health Office and Medical Humanities facilitated the development of a clinical experience that provides medical students exposure to the social determinants of health in Halifax.

Methods: A literature review examined best practices in building a partnership within community organizations as well as evidence based models for service learning. Semi-structured interviews were conducted with community organizations as part of the environmental scan. An evidence-informed framework for service learning and evaluation was developed with input from health care professionals, faculty, students and local community health organizations. A qualitative review was completed after each elective session with mentors, preceptors, partner organizations and students.

Outcomes: A clinical elective for first and second year medical students was developed with support from students. The elective provides community-based health and social services experience, a broad understanding of the determinants of health, and skills in communicating with and treating marginalized populations. Students complete rotations in health and social service organizations, as well as in family medicine with at-risk communities. The program was expanded to include the Saint John campus in 2012. More than 10 partnerships were developed with local health service providers as a result of this initiative.

Discussion: For over four years, local organizations have benefited from the direct involvement of medical students and they have been able to play a valuable role in training future physicians to be more responsive to the needs of marginalized groups.

Conclusion: An overview of the project components will be presented along with key findings and recommendations for future partnerships in local and global health.

Rodney, Ruth (University of Toronto)

Violence, gender, and culture as determinants of adolescent health

Objective: Violence is an inescapable experience within the human lifespan. In Canada, being exposed to stories of interpersonal violence or violence against women is inevitable. Internationally, there is an increased awareness and concern with the impact of violence on health, human rights, and its persistence within many societies; for this reason it has been deemed a public health issue. The goal of this poster is to display the significant impact that dating violence and gender have on adolescent health with a consideration for how culture is being conceptualized within current research.

Approach: Canadian and American studies account for mixed rates of adolescents' experiences with violence within dating relationships as either perpetrators or victims, varying from ten to over forty percent. Unlike violence in adult relationships, adolescent dating violence tends to be reciprocal between boys and girls with the reason, severity, and type of abuse related to the developmental stage as well as gender. Regardless, we know that adolescents are dating and experiencing violence at unsettling rates, but many do not recognize these violent incidents as abuse within a dating relationship. Culture is often cited as the cause of dating violence by an acceptance of traditional gender roles, however, only for marginalized populations such as African-American or Hispanic communities.

Outcomes: North American studies indicate that dating violence leads to poor health outcomes, affecting the social determinants of health for both perpetrator and victim regardless of gender, race, or class. Smoking, alcohol, illicit drug, and eating disorders are some of the substances and practices that have been documented in relation to dating violence. There is also greater chance of experiencing mental health illnesses from dating violence, and girls are 4 to 6 times more likely to become pregnant as compared to girls who have not been abused. Therefore, the relationship between dating violence and negative health outcomes is clear.

Conclusions: Countries that have high rates of health issues (mental health, teen pregnancies, substance abuse) among adolescence, but have not considered dating violence as a contributing factor, may be missing a potentially key area that could improve health outcomes for adolescents. Culture as a cause of violence requires critical examination to decrease racial stereotyping of dating violence.

Sarrazin, Amanda (The Red Elephant)

Partnerships in global health: leveraging the capacities of small charitable organizations

Menstruation is not a problem per se, though it becomes one in low-resource settings where menstrual management mechanisms are unavailable or inaccessible. The inaccessibility of sanitary materials forces girls and women to seek other means of managing their menstrual flow and these means often threaten the health and well-being of those using them. The disempowerment of girls and women that comes with the powerlessness of being unable to manage menstruation leads many girls and women to experience disruptions to their education, ultimately culminating in their decision to drop out of school entirely.

The Red Elephant's mandate is to "empower women in low-resource settings by removing and/or overcoming the barriers that they face during, and as a result of, menstruation by establishing and supporting projects that seek to positively impact the local population". This mandate operates under three core tenets: engaging the local population in a public dialogue about menstruation, educating the local population about the effects of menstruation and how to produce the pads; and empowering the local population with the skills to manufacture their own reusable sanitary pads. Not only will this endeavor benefit the women in the community by providing for an unmet need, but it will also benefit those involved in the simple production process by serving as an income generating opportunity.

The poster presentation will focus on the development of The Red Elephant's program model, which uses innovative approaches in global health and partnerships to leverage the capacities of small non-profits and charitable organizations to be able to spread programming and effect change in communities where it matters most.

Due to The Red Elephant's limited capacity, both in terms of human and financial resources, projects are implemented in partnership with other registered Canadian charities who have functioning and thriving projects 'on the ground' in locations throughout the world. After disbursing the necessary financial resources to its partners, The Red Elephant then works with its partners to implement and adapt the projects to be reflective of, and responsive to, community needs.

Not only does this reliance on partnerships allow The Red Elephant to maximize the effectiveness of available resources, but it also carries greater promise for project sustainability. The Red Elephant's program model is a testament to what can be realistically achieved when small charitable organizations work together in partnership, with attention to maximizing their potential and leveraging their unique skills and assets.

Sharma, Leeza (Micronutrient Initiative)

Co-authors: Marion Roche (Micronutrient Initiative)

Comparing community based delivery vs facility based delivery of first dose of Iron & Folic Acid supplements from a risk management based decision making perspective

Objective: Nepal led a 9 year national scale-up of Iron Intensification Program to address maternal anemia, utilizing an integrated delivery-platform that extended distribution from facilities of Iron Folic Acid (IFA) through peer-selected female community health volunteers (FCHVs). The study's purpose, as a sub-component of a larger-study was to compare the risks of community-based delivery vs facility-based delivery of first dose of IFA and reviewing it from a risk management based decision making lens.

Methods: Twelve districts were purposively selected to represent Nepal's diverse ecological-zones (Mountain, Hills and Terai) and exposure to the intervention. Focus group discussions (FGD) with 6-10 mothers were conducted in each district (n=96); and face to face interviews were conducted with central decision makers (n=10). All of the interviews were conducted in Nepali, transcribed verbatim then translated to English. The transcripts were then analysed following the Risk Management Decision-Making Framework which looks at an integrated approach of identifying: 1) issue and its context, 2) assessment of the risks and benefits, 3) identifying and analysing the options; 4) selecting strategies and implementing them 5) monitor and evaluate results.

Outcomes: Review of the mothers' group and central decision makers' interviews with a risk framework lens clearly indicated that in remote areas with least access to healthcare facilities, community-based delivery mechanism of IFA through the FCHVs' impacted adherence significantly as most women highly regarded the advice provided by FCHVs for antenatal care. However, in the peri-urban areas, mothers mostly preferred a facility-based care and delivery of IFA directly through health professionals. In those areas, mothers were not convinced of the care received through CBDM and viewed low-literacy rates amongst FCHVs as risky for entrusting their health.

Discussion: The key issue, as expressed by central decision makers, is the relative effectiveness and appropriateness of facility vs community-based delivery of IFA supplements for pregnant women in supporting adherence and coverage. From a risk mitigation point, and to increase adherence to IFA amongst mothers, a collaborative approach integrating both community-based care plus facility-based care intervention is more effective than each mechanism alone.

Conclusion: Whereas community outreach overcomes geographic and cultural barriers in rural settings, peri-urban women value facility based care. Integration of both delivery platforms will help with increasing equitable access for people from different communities and socio-economic backgrounds within Nepal, provide a more convenient and satisfying service for a more effective IFA program as part of national efforts to improve maternal health.

Sivananthajothy, Priatharsini (Tharsini) (School of Public Health, University of Alberta)

Co-authors: Yvonne Chiu, (Multicultural Health Brokers Co-operative), Dr. Jane Springett (School of Public Health, University of Alberta)

Understanding Perceptions of Community Engagement held by stakeholders within the Family Care Clinic Planning Process

Introduction

Recognizing the importance of health promotion, and prevention, Family Care Clinics (FCCs) were designed by Alberta Health to provide integrated, community based, comprehensive primary health care. Community engagement is a necessary tenet in the planning of FCCs however, it is not a definite process and perceptions vary. The objective of this research project was to explore how the voices of the community were represented within the development of FCCs.

Methods

A descriptive qualitative inquiry was conducted with snowball sampling utilized to recruit participants critical to the planning process within phase 1 and phase 2 FCCs. Nine in-depth interviews were conducted with participants from eight organizations either in person, or over the phone between the months of June - September 2014. A qualitative content analysis was conducted to inductively determine emerging themes. Weaknesses include: short timeline and small sample size.

Results

Two distinct phases of planning were identified as critical periods for community engagement: firstly the public forums held by Alberta Health to engage with interested community organizations to discuss the implementation of FCCs; secondly, the community working groups formed to develop the proposal. However, discrepancies within the definition of community, who was invited as stakeholders and who was not, were identified as challenges in both phases of community engagement. Participants acknowledged the lack of representation from grassroots organizations, and cited the extremely short timeline given during the summer months as critical barriers for engaging with the community.

Conclusion

Engagement was described as an opportunity to create trust and provide the “hand-holding” necessary to connect the unattached population to a primary health care provider. Further engagement with the local community and grassroots organizations is necessary to truly establish a trusting relationship necessary for uptake of FCC services by the vulnerable populations.

Sovani, Lina (University of Alberta)

Positive Deviance/Hearth: A literature Review on the Effectiveness of a Childhood Malnutrition Approach in Developing Countries

Objective: Childhood malnutrition is a global health issue. Current interventions have made progress to meet the Millennium Development Goal 1 target for childhood malnutrition. However many children, especially in developing countries are malnourished especially in poor communities. Positive Deviance/Hearth (PD/Hearth) is a childhood malnutrition approach used in developing countries. It has three objectives: rehabilitating malnourished children under five years old, increasing community capacity and preventing the prevalence of future malnourished children. This approach works towards decreasing childhood malnutrition in developing countries through its community based approach.

Methods: A scoping literature review was used to assess the effectiveness of PD/Hearth based on its first two objectives. In addition, factors associated with the success and failure of the PD/Hearth approach was identified. Five databases and twelve Grey Literature sources were used. An inclusion criteria was used to screen study titles, abstracts and content. A single reviewer assessed study relevance and selected final studies used in the literature review. Selected studies were synthesized and appraised.

Results: The literature review reports on eleven studies. Three studies were peer reviewed and eight were Grey Literature reports. Seven of the eleven studies indicated that the PD/Hearth approach effectively rehabilitated childhood malnutrition while three studies indicated that the PD/Hearth approach was ineffective and one study showed mixed results. However the common thread with all the eleven studies was that PD/Hearth was effective in building community capacity. The main factors that led to the success in the PD/Hearth's approach were: integrating PD/Hearth with existing programs, encouraging family involvement and encouraging community participation during the problem identification phase.

Conclusion: PD/Hearth can be one effective approach to rehabilitating childhood malnutrition and building community capacity in rural areas in developing countries. However, its success depends on certain commonalities found within the studies. It is recommended that this approach be used for a wider applicability in public health, particularly with a focus on community capacity building. From a public health perspective it can have greater utility for other public health programs, such as HIV/AIDS programs and immunization programs that require greater community engagement and behavioural change.

Sultana, Anjum (Dalla Lana School of Public Health, University of Toronto)

Co-authors: Caroline Barakat-Haddad (University of Toronto, University of Ontario Institute of Technology)

Knowledge, Attitudes and Perceptions of Sexual and Reproductive Health in Second Generation South Asian Women in Toronto

Objective: To describe and document the lived experiences of post secondary educated second-generation South Asian women living in Toronto, Canada with respect to knowledge, attitudes, perceptions and practices of sexual and reproductive health and other related topics concerning health seeking experiences.

Methods: This was a qualitative study that consisted of semi-structured interviews using a phenomenological framework. A total of twenty participants were interviewed that were between the ages of 18-25, were either born or immigrated to Canada before the age of 12, had ancestral roots in South Asia, and also were either studying or have previously studied at a post-secondary institution in Toronto.

Discussion: Many of the South Asian women interviewed described the symptoms of the patriarchal culture that they must contend with. It varied in intensity from restrictive monitoring from family and external parties as well as the double burden faced by women with respect to dedication to both studies and domestic responsibilities. Great emphasis was placed on education and relationships were seen as an unnecessary distraction. Cultural norms prevented discussions of puberty, reproduction, intimate relations and contraception in the home environment and most knowledge about these topics was found out through school, friends, popular media and the Internet. Reputation management is critical tool for social survival for many young South Asian women in dealing with issues related to intimacy, sexuality, socializing and relationships from a peer, family and community perspective.

Conclusion: It would be useful for this line of study to aid in the development of informational literature discussing the stress related to sexual and reproductive health from a perspective looking at the tension between dual identities. Research concerning determinants of health, specifically race and ethnicity, has primarily ignored the nuanced influence of second-generation status in immigrant and racialized health research and discourse. The cultural and social barriers that arise in second-generation communities of South Asian cultures as well as other racialized and marginalized position is a research area of interest in a growing multilingual, multicultural society in Canada and can be carried over to other large states with diverse populations, ethnicities and ancestries.

Webber, Gail (Bruyere Research Institute, University of Ottawa)

Co-authors: Bwire Chirangi (Shirati District Hospital, Tanzania), Jean Goerzen (Canadian Physicians for Aid and Relief)

An NGO and academic partnership to reduce maternal mortality in Tanzania

Objective: To distribute birth kits with misoprostol to rural Tanzanian women who do not access health facilities for delivery, in order to reduce maternal mortality, and to demonstrate that this project could be scaled up to Mara Region.

Outcomes: In collaboration with Canadian Physicians for Aid and Relief, Tanzania, we trained dispensary nurses and community health workers to distribute birth kits with misoprostol in several villages in Rorya and Bunda Districts. Women were surveyed after delivery and focus groups were held with women, dispensary nurses and community health workers to assess the feasibility and challenges of this pilot project.

Discussion: Our project is on-going, however, the focus of the discussion will be on the complementary roles that NGOs and researchers can play in global health programming and research using our project as a case study.

Conclusions: A partnership between researchers and an NGO providing the programming builds on the strengths of both. In times of constrained funding such alliances are important. On-going partnerships with academics and NGOs should be encouraged.

Marie Merline Maurice, MD, MSc, PhD ; Hachimi Sanni Yaya, PhD (Université d'Ottawa)

Utilisation des Agents de Santé Communautaire (ASC) pour adresser les problèmes de dénutrition infantile en Haïti

Dans le cadre d'un accord tripartite Brésil-Cuba-Haïti signé en 2012 pour une période de trois ans, le gouvernement haïtien vise à pourvoir les dix départements géographiques du pays de 10.414 Agents de Santé Communautaire Polyvalents (ASCP), soit 1 pour 200 familles. Avec un taux de dénutrition infantile de 11.4 % et des disparités dans la prévalence de la maladie selon les lieux de résidence, la dénutrition infantile demeure un problème de santé publique en Haïti qui requiert l'effort conjugué de tous les acteurs, spécialement des ASCP qui auront à intervenir auprès des communautés marginalisées.

Notre objectif consiste à examiner le rôle des agents de santé communautaire dans la lutte contre la dénutrition infantile en Haïti. La méthodologie utilisée est une revue critique de littérature d'études pertinentes à travers des bases de données (Medline, PubMed Cinahl).

Cette présentation traite des barrières et difficultés rencontrées par les ASC dans le cadre de leur travail. Elle met en relief des innovations réalisées dans d'autres pays qui pourraient servir à renforcer le travail des ASCP dans le contexte haïtien. Les enseignements tirés permettront d'analyser les défis auxquels Haïti doit faire face pour maintenir en poste les ASCP et assurer l'efficacité de leurs interventions.

Young, Justin (Princess Margaret Cancer Centre)

Impacting the Global Health Agenda: Engaging in Partnerships to Enable Local Capacity Building

The University Health Network (UHN) is Canada's largest academic health science centre. The Princess Margaret Cancer Centre (PM-UHN) is one of four hospitals within the UHN umbrella. PM-UHN's vision centres on "Achieving Global Impact." PM-UHN contributes to this vision by achieving medical breakthroughs, pioneering care models that are adopted in other jurisdictions across the world, and training hundreds of international medical students every year. Entering into formal collaborations with other global health systems is also seen as a key avenue for the organization to realize achievement of its vision.

PM-UHN's international strategy rests on three pillars of activity – i) consulting contracts; ii) academic partnerships and; iii) global capacity building philanthropic initiatives. The basis of our strategy is enabling and encouraging local capacity building within other global jurisdictions. This is in contrast to many international hospital partnerships that are based on direct hospital management or consulting advice. Our model involves long-term partnerships with a small number of partners who are dedicated to building local capacity to improve health outcomes for their populations.

PM-UHN currently has a partnership with the Kuwait Cancer Control centre (KCCC) that is in its fourth year of a five year term. In line with our philosophy of local capacity building, the project involves knowledge transfer (sharing of clinical guidelines and best practices), quality improvement, strategic program planning and assistance with implementation, modeling interactions (multi-disciplinary and inter-professional care), formal clinical medical training, and, where appropriate teaching through hands on, patient care at the bedside. PM-UHN also has academic partnerships in Italy, Jordan and India, and philanthropic outreach programs in Kenya and Ethiopia.

These partnerships are supported by a philosophy that centres on ensuring sustainability, respecting local context, and demonstrating impact.

As the 21st Century unfolds, the rest of the world is increasingly looking at Canada's publically funded health care system for guidance on how to effectively use limited resources in innovative and collaborative ways while achieving world class results. The Canadian system is able to do this through its commitment to capacity building; research and development; data driven decision-making to improve quality and safety; and functional governance and accountability. These strengths can be leveraged to help other countries achieve their health goals and further the global health agenda through collaborative partnerships.

Young, Shannon (Institute for International Health and Development)

Sexual and reproductive health access for internally displaced women: the experience of humanitarian aid workers providing care in post-conflict settings

Background

This research aims to assess what systematic and institutional barriers Internally Displaced (IDP) women experience accessing sexual and reproductive health (SRH) care during post-conflict situations. This was accomplished by focusing on humanitarian aid workers (HAW) experiences' as providers of SRH care to IDP women. Northern Uganda, which experienced a conflict spanning over two decades, was used to understand the SRH needs of IDP women during this time. The objective was to understand where, if any, these challenges are and why they persist in the region. Due to the length of displacement combined with the high level of unmet SRH needs in the region, understanding where the gaps and challenges are found is an important research topic in order to improve the overall SRH statues of women and their communities as well as to ensure the relevance of the HAW in the region.

Methods

Field research was undertaken and the investigation asked HAW to highlight the barriers and opportunities in SRH care that hinders or facilitates meeting the SRH needs of this population in Northern Uganda. In total 13 semi-structured interviews took place in Uganda, six in Kampala and seven in Gulu.

Results

The results illustrated that the main challenges experienced by HAW in the field were service delivery issues, funding constraints; medicines and supplies access issues, workforce and human resources barriers and finally social-cultural issues relating to the cultural normalization of SRH care.

Discussion

While the results illuminated several problematic areas, the social-cultural issues were deemed to be the area that yielded the most challenges. Within this section, HAW found that the success of their programs depended on their ability to effectively meet, and engaging with, the specific needs of each community. This was not always an option for larger HAO because of the top-down donor-focused programming style and as such, these HAO had a harder time over coming the social-cultural challenges then local and national HAO experienced.

Conclusions

The research showed that while all of these factors contributed to the challenges experienced, the socio-cultural drivers that shaped the norms of how SRH was viewed and experienced within these communities, continues to be the most significant barrier to SRH access and care provision by HAW. Without adequately addressing this factor, HAW continue to face many challenges in providing SRH care and implementing programs aimed at improving the overall SRH of displaced women in Northern Uganda.

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The use of a novel method for defining health facility catchment areas in a low income country

Objective

The catchment area of a health-care facility is used to assess health service utilization and calculate population-based rates of disease. Current approaches for catchment definition have significant limitations such as being based solely on distance from the facility or using an arbitrary threshold for inclusion. We propose a simple statistical method, the cumulative case ratio, for defining a catchment area from surveillance data.

Methods

The catchment areas of six health-care facilities in Uganda were determined using the cumulative case ratio: the ratio of the observed to expected utilization of a facility for a particular condition by patients from small administrative areas. The cumulative case ratio for malaria-related visits to these facilities was determined using data from the Uganda Malaria Surveillance Project. Catchment areas were also derived other methods such as the straight line and road network distances from the facility. Subsequently, the 1-year cumulative malaria case rate (the total number of cases during one year) was calculated for each catchment area, with at-risk populations estimate from catchment areas determined using the cumulative case ratio, the straight-line distance, and the road network distance.?

Outcomes

The 1-year cumulative malaria case rate varied considerably with the method used to define the catchment areas. With the cumulative case ratio approach, the catchment area could include noncontiguous areas. With the distance approaches, the denominator increased substantially with distance, whereas the numerator increased only slightly. The largest cumulative case rate per 1000 population was for the Kamwezi facility: 234.9 (95% confidence interval, CI: 226.2–243.8) for a straight-line distance of 5 km, 193.1 (95% CI: 186.8–199.6) for the cumulative case ratio approach and 156.1 (95% CI: 150.9–161.4) for a road network distance of 5 km.?

Discussion

The variation in estimates of the cumulative rate of confirmed malaria cases was attributable to the differential change in the numerator and denominator of the case rate calculation as a function of the distance used to define the catchment area. An erroneous view of the catchment area can lead to inefficient and inadequate services, misspecification of the catchment population and potentially flawed decision-making on other facilities, such as deciding where to locate a new facility.

Conclusion

Our approach is simple, reproducible, and is based on a statistical measure to decide which administrative units should be included in catchment areas.