

Canadian Conference on Global Health . Conférence canadienne sur la santé mondiale

2012 Abstracts . Abréges

Global Health in the Shifting World Economy . Santé internationale dans une économie mondiale en
mouvance

Plenary/Symposia abstracts

Please note that not all plenary and symposia presented submitted an abstract

Plenary 2: Harnessing Multistakeholder Action to Combat Chronic Disease in the Americas

Dr. Irene Klinger, Senior Advisor, Partnerships and Multi-Sector Collaboration, Pan American Health Organization / World Health Organization

Today, non-communicable diseases (NCDs) including cancer, diabetes, cardiovascular disease, and chronic respiratory disease are the leading causes of death in the Americas. Three out of four people in the region suffer from one or more NCDs, and 4.5 million people die from them each year, 1.5 million before age 70. The number of deaths is projected to increase by 53% by the year 2030. The human suffering and economic cost will be enormous, yet it is almost entirely preventable through multisector action.

Risk factors such as tobacco use, unhealthy diet, physical inactivity, and harmful use of alcohol affect entire populations, and obesity is increasing among adults, children and adolescents. Such risk factors are deeply embedded in the fabric of our society, and determined by causes that lie largely outside the health sector, such as the way we live and work and a combination of public policies, private sector forces, civil society, and environmental factors.

To respond to this reality, the **Pan American Forum for Action on Noncommunicable Diseases (PAFNCD)** is an initiative of the Pan American Health Organization/World Health Organization (PAHO/WHO) that confronts the NCD epidemic in the Americas by mobilizing different interest groups to work together to carry out interventions to act on the risk factors and determinants, and to prevent and control chronic diseases.

Through the PAFNCD we look forward to supporting PAHO's Member States in their efforts by engaging all society forces, and leveraging their comparative advantages and capacities. This new way of doing business that PAHO is leading, following on the mandate of the UNHLM on NCD of September 2011, will require a paradigm shift and a translation of the Declaration demanding a "whole of government" and "whole of society" approach into real action at regional and country level, engaging those that can make a difference, including the business community, the public sector, academia, and civil society.

The Role of the SUN Movement in Increasing Multi-Stakeholder Efforts to Improve Nutrition

Mark Fryars, Vice-President, Programs and Technical Services, Micronutrient Initiative

One of the challenges facing those of us working to improve the nutrition in the global south is the gap between its importance to people and the importance paid to it their governments. As no country has a Ministry of Nutrition, but each country deals with the varied effects of undernutrition, it was recognized that a major change was required – one that was large in scale and involved the participation of multiple sectors in-country and globally.

It was from this need that the Scaling Up Nutrition (SUN) Movement was born. Created from research and the pressing need of countries dealing with the effects of undernutrition, the SUN Movement seeks to find a new way to deal with hidden hunger. Using a multi-stakeholder framework that includes governments, private sector, civil society, donors and the United Nations, the SUN Movement is country-led with the support of these networks to implement and maintain cross-cutting nutrition programming in the nearly 30 SUN countries. Complex, with many moving parts, SUN is being lauded as a new model for confronting the chronic undernutrition which has plagued so many countries for far too long.

Mark Fryars, Vice-President of Programs and Technical Services at the Micronutrient Initiative – a SUN member – will discuss SUN as an example of multi-stakeholder efforts in increasing support and implementation of nutrition programs, and what is required for them to move forward.

Symposia 7: The new economy, migration and occupational health

Oscar Feo, ALAMES (the Latin American Social Medicine Association); Pat Armstrong, York University; Hodan Mohamed, Ottawa University

Canada is a country of immigrants. Immigration and refugee laws have been used by governments over the years to promote certain policies; to fill perceived human resource gaps and to avoid protective legislation covering Canadian citizens. Canadians are often shocked when they learn of the abuses faced by immigrants and refugees in work places. The "new" "more competitive" economy has increased migration world-wide, and accelerated the search for profitability by keeping labour cheap. It has also accelerated use of foreign migrant workers who have no legal protection and benefits under labor laws. How do migrants fare in Canada? Why do they come? What social problems forced them to leave their countries and what new problems are created in their home countries by their leaving?

This session will examine some of the issues around the economics of migration; of the south-north brain drain; immigration law fairness; working and health conditions for immigrant or refugee workers. And working and health conditions for workers in Canadian industries abroad.

Symposia 8: Health systems in humanitarian crisis: Transitioning from emergency response to health systems strengthening

Jason Nickerson, University of Ottawa; Hossam Elsharkawi, Director, Emergencies and Recovery, International operations, Canadian Red Cross; Thierno Balde, Head of delegation, Haiti program, Canadian Red Cross

Project Objectives: Humanitarian emergencies are characterized by a large demand for curative care and interventions to prevent illness and injury in affected populations, which often overwhelms existing health systems. Reducing morbidity and mortality associated with natural disasters and armed conflict is clearly a priority of international humanitarian actors, achieved through the mobilization of resources to respond to the needs of crisis-affected populations. However, the relationship between emergency humanitarian health actors and existing health systems remains tenuous: On the one hand, humanitarian relief clearly supplement needed health services that may otherwise be absent or overwhelmed. On the other, humanitarian actors may further disrupt local health systems through the creation of parallel, temporary health systems that undermine, rather than strengthen, existing health systems and services. Responding to emergency health needs, while supporting the long-term recovery and strengthening of the existing health system clearly needs to be a priority of emergency relief, maximizing the efficient and effective use of resources to achieve sustainable long-term development objectives.

This symposium will discuss critical questions related to health systems and humanitarian health assistance: How can humanitarian relief contribute to long-term health systems strengthening and recovery from the outset of emergency response? What kinds of information and data are needed by Ministries of Health, non-governmental organizations (NGOs), and multilateral organizations such as the World Health Organization (WHO) to make informed decisions about priority setting and health systems strengthening during emergencies? What lessons have we learned from recent emergencies about the role of humanitarian actors in health systems strengthening?

Target Groups: This symposium is geared toward researchers, NGOs, policy makers, and donors who are involved in emergency humanitarian assistance, post-conflict health systems strengthening, and health services delivery in fragile states. The symposium will present collected evidence and stimulate discussion highlighting current challenges in health systems strengthening in humanitarian emergencies, of relevance to a broad audience, from field-level staff to senior decision-makers.

Activities and Deliverables: This symposia brings together a panel of experts in the area of humanitarian health assistance to present findings from recent field deployments and operational research in major humanitarian emergencies. Panelists will include experts from the Canadian Red Cross, the International Federation of the Red Cross/Red crescent, and the University of Ottawa, who will respond to the above research questions, drawing on programmatic and operational experience and data in the field. The symposia will consist of four panelists who will present for 15 minutes each, moderated by a colleague, and a 30 minute discussion with the audience.

Symposium 10: Access to Healthcare and Medicines in the Shifting Global Economy

Kofi Barimah, Catholic University College of Ghana; Professor Joseph Mensah, York University; Dr. Jeffrey Turnbull, The Ottawa Hospital; Orvill Adams, Orvill Adams & Associates

The World Health Report (2010) focused on Health Financing for Universal Coverage in the midst of the current global financial crisis. This follows the adoption of a resolution by the World Health Organization (WHO) member states in 2005 for Universal health coverage. At the time, there was ample evidence that a majority of people especially in low and middle income countries (LMICs) are prevented from seeking necessary health care due to 'out-of-pocket' expenditures, while those who do seek health care also incur a tremendous financial burden.

WHO (2010) defines Universal Coverage as ensuring that population access to needed health services without the risk of financial catastrophe or impoverishment associated with health care services. Universal Coverage implies two (2) key features a) Equity of access; b) Financial Risk protection. The following questions should be considered:

- 1) How are countries ensuring that their citizens have access to equitable, efficient, sustainable and affordable healthcare and essential medicines?
- 2) What factors have assisted or hindered the development of universal financial risk protection in low and middle income countries (LMIC)?

The symposium aims to explore and compare country-specific experiences in developing and implementing access to healthcare services and medicines with a focus on the factors that have either helped or hindered the expansion of financial protection mechanism in this shifting global economy.

Symposium 11: Retention of health workers in sub-Saharan Africa: Research to inform policy

Gail Tomblin Murphy, Dalhousie University ; Cheick Oumar Bagayoko, Centre d'expertise et de recherche en télémédecine et E-santé; Hastings Banda, REACH Trust Malawi; Fastone Goma, University of Zambia; Séni Kouanda, Institut supérieur des sciences de la population Sumeet Sodhi, Dignitas International

Background: Community Health Worker (CHW) programmes have a long history –including China's "barefoot doctors" in the 1950s". Interest in CHWs peaked in the 1980's after the Alma-Ata declaration but waned in the 1990s. In recent years because of the shortage of health workers in LMICs, particularly in rural and remote areas, interest in CHWs has been rekindled. We will use the definition proposed in 1980 by a WHO Study Group: CHWs "...should be members of the communities where they work, should be selected by the communities, should be answerable to the communities for their activities, should be supported by the health system but not necessarily a part of its organization, and have shorter training than professional workers..."

Issues: Some countries have opted to standardize CHW programs (e.g. Uganda with its National Policy of Village Health Teams). In other countries, one finds a proliferation of CHW systems, with great variations in the roles, training and incentives provided to CHWs. All seek ways to improve impact on health, effectiveness of health workers, retention, and system sustainability

Objectives of Workshop: Participants should come away from the session with:

- 1) increased knowledge of different SSA CHW models
- 2) insight into the challenges associated with effectiveness and sustainability of CHWs especially around recruitment, roles, training, incentives and supervision
- 3) practices and policies that may enhance effectiveness and sustainability – via recruitment, training, supervision, incentives and retention of CHWs.

Target Groups: Persons engaged in making policies and implementing CHW programs and persons supervising and working with CHWs

Activities: A brief outline of current CHW policies and practices in SSA (with particular reference to Uganda and Zambia) will be presented. Workshop participants will discuss challenges relating to CHW recruitment, roles, training, incentives and retention and experiences in dealing with these challenges with the goal of identifying useful practices.

Symposia 12: Innovations in TB Product Development and Program Management

Madhu Pai , McGill University & Montreal Chest Institute; I.D. Rusen; The International Union Against TB and Lung Disease and the University of Toronto; Nathalie Garon, Canadian International Development Agency; David Greeley, TB Alliance

Despite advances in expanding access to treatment, TB continues to kill almost 1.5 million people each year and is second only to HIV as the leading infectious killer of adults worldwide. Ninety-four percent of all TB cases and ninety-eight percent of TB deaths occur in the developing world where the disease takes an enormous economic and social toll.

The response to this devastating disease is further complicated by the old and inadequate tools to diagnose, prevent and treat TB. Developed more than 40 years ago, the current treatment for TB requires six months of treatment for drug-susceptible TB and as many as 30 months of treatment for drug-resistant strains. The Bacille Calmette-Guérin (BCG) vaccine, created in 1921, provides some protection against severe forms of pediatric TB but is unreliable against adult pulmonary TB, which accounts for most of the disease burden worldwide. Sputum microscopy, the one hundred-year-old diagnostic widely available in low-resource settings, cannot detect the majority of TB cases, and is particularly ineffective for diagnosis of TB in children and HIV-positive individuals.

Thanks to investments from public and philanthropic donors, as well as renewed interest from the private sector, significant advances have been made in regenerating product pipelines. Panelists from product development partnerships and public institutes will discuss research efforts underway to produce and deliver shorter, simpler TB treatments, a safe and effective vaccine, and a more sensitive and specific diagnostic.

At the same time, new ways of managing treatment, strengthening TB programs and increasing detection of TB cases are improving access to quality TB care. The Canadian International Development Agency launched the TB REACH program, together with the Stop TB Partnership, which has awarded 75 grants in 36 countries to national TB control programs, NGOs and CBOs to develop creative approaches for detecting TB cases in underserved populations. Additionally, operational research to evaluate new diagnostic tools, improve MDR-TB treatment, and provide practical solutions for TB control are stimulating changes in international standards and practice in ways that serve country needs.

Panelists will discuss how these innovations work across the research-delivery spectrum to strengthen the detection and control programs and provide new knowledge and technologies to improve the delivery of TB care.

Symposia 14: Does the right to health exist for the 99%?

Should we worry, even in settings with a long or recent history of state and collective social well-being policies?

Maija Kagis, Peoples Health Movement (PHM); Oscar Feo, of PHM and ALAMES (the Latin American Social Medicine Association); María Hamlin Zúniga, PHM Latin America; Anil Naidoo, Blue Planet project at Council of Canadians; Baijayanta Mukhopadhyay, Family physician working in northern Ontario in First Nations communities

The new economy has sidelined more and more people in both north and south. Recent “occupy movements” and protests around the world have questioned the new economic order and the skewed distribution of inequities and benefits it generates.

The People's Health movement is involved in both examining some of the underlying causes of ill health and inequities in health, offering sharp critiques, and in showing the kinds of activism and positive examples of community organizing and education around the world that aimed at improving the Health of All.

This symposium will highlight the problems around inequity and the many active solutions that have emerged in Latin America, and in Canada's north, and try to find and encourage ways of local and national organizing.

Symposia 15: Human Resources for Health and Service Delivery

Gail Tomblin Murphy, Dalhousie University; Ivy Lynn Bourgeault, University of Ottawa and the Canadian Institutes of Health Research Chair in Health Human Resource Policy; John Philpott, CanAM Physician Recruiting Inc.

The investment required by governments to develop and maintain health human resources is significant. For some health systems, the salaries of health professionals are the largest component of the health budget and many educational and training programs are heavily subsidized by government resources. This session will explore issues regarding cost effective and ethical development of a health work force that meets the needs of people and health systems.

The session will highlight the following:

- Innovative projects underway which are attempting to match human resources with the needs of health systems.
- The impact and future of health workforce migration on health systems in Canada and globally
- The impact of the shifting economy of health workforce development
- The role of the private sector in the development of a health workforce
- How do we access the information needed to make equitable and informed decisions of health workforce development, training, education and recruitment.
- How do we balance an individual's right to a choice of where to work and live; and to be fairly compensated for their education and training; with the needs of health systems to ensure people have equitable access to quality health care?

Symposia 17: Sustainable community based health programming; an example from Central America

Christopher J. Drasbek, Pan American Health Organization/World Health Organization; Elaine Hernandez, Canadian Red Cross - Delegate to Honduras; Karla Garcia Vivas, Nicaraguan Red Cross; Jacqueline Bell, International Federation of the Red Cross and Red Crescent Societies

Learning objectives:

1. To identify key factors which contribute to sustaining a community based health program.
2. To analyze the design of MNCH programs which promote effective MOH and community stakeholders coordination.
3. To identify factors required to engage men in improving maternal and child health.

The poorest countries in Latin America and the Caribbean have demonstrated improved national maternal and child mortality, yet within these populations there is significant inequity in health outcomes: children from rural households and those from the poorest households are still at a disadvantage. Data shows that children from the poorest 20% of households are three times more likely to die before reaching their fifth birthday than those in the richest 20% of households. With the recent economic crises, inequity is expected to further widen. It is critical to have a model of service delivery that reaches the most rural vulnerable communities which is effective and sustainable.

The Canadian Red Cross (CRC), with funding from CIDA, supported the Nicaraguan Red Cross and the Nicaraguan Ministry of Health (MoH) to implement community-based MNCH strategies in 224 hard-to-reach communities in 12 municipalities. The project expanded and strengthened coordination and support between Community Health Volunteers (CHVs) and local health services provided by the MoH. Community-based interventions by Red Cross volunteers included: distribution of contraceptives; Oral Rehydration Salts; promotion of Birth Plans; child nutrition; early stimulation; and, growth monitoring. Project interventions in gender equality focused on engaging men in the health of women and children and to increase family access to health services. Red Cross branches contributed to increase the quality and coverage of MNCH at the local level, developing business plans to sustain community-based MNCH interventions.

Project end line results demonstrated: 60% improvement in exclusive breast feeding; 21% increase in contraceptive use; 90% of women gave birth in health facilities staffed by skilled birth attendants; and 28% of men participated in the preparation of birth plans. At the end of the project 5 local branches implemented a business to generate income for MNCH activities in the communities. Project results clearly demonstrate that a community-based approach with a provision for technical support, management and motivation of the community volunteers, can lead to significant gains to reduce inequity in terms of access and quality of health services.

Panellists from CRC, local implementers from Nicaragua and PAHO will discuss outcome of the project and its implications for the sustainable MNCH programs in resource poor setting.

Symposia 18: Mentorship in global health research: experience of university-based Canadian Coalition for Global Health Research (CCGHR) pilot programs

Lesley Beagrie, York University; Vic Neufeld, Canadian Coalition for Global Health Research (CCGHR); Jennifer Hatfield, University of Calgary; Sheila Harms, McMaster University; Donald Cole, University of Toronto

In a world of globalized research networks, CCGHR works as a network of volunteers based in “home” institutions across Canada and LMICs. The CCGHR Board of Directors identified leadership development as one of its priorities in its current five year strategic plan.

‘Project’ objective – To nurture “institutional global health research (GHR) leadership teams” through mentorship programs in pilot Canadian universities.

Target groups – Varied across pilots but included some of graduate students, clinical and post-doctoral fellows, new faculty and more senior faculty engaged in global health research for the first time.

Activities – Some pilots conducted needs assessments among the potential participants (mentees) and resources/skill-sets held by potential resource people (mentors). Most programs consisted of a series of sessions (usually 5-6) approximately one per month, moderated by at least one senior mentor. Session topics included: networking (university specific and more generally), partnerships, research funding sources and development and submission of funding applications, implementing research and the particular challenges across countries and in limited resource settings, writing up and moving research to action, navigating careers, and leadership dialogues with accomplished global health researchers. Some pilots included virtual participation, both of mentors and of mentees, usually via Skype, and/or used web-based tools to share documentation and presentations e.g. Dropbox. In some pilots, participants engage in a change project around GHR, including resources for global health education within academe; integrating research and evaluation in global clinical work; persuading clinical disciplines to include global health as weighted contributions for career progression requirements.

Deliverables – We sought feedback following each session from participants using both informal and formal methods. Each pilot team agreed to write-up a summary of the experience to share with other universities or research institutes interested in developing GHR mentorship programs. Initial reports indicate the heterogeneity across pilots, implying the need to be adaptive when designing mentorship-leadership programs in GHR. Some initial lessons are that sharing logistical e.g. transferring funds between countries, practical e.g. hiring staff in other countries, and honest experiences in global health research was a real asset. Our panel will reflect upon our experiences in light of current literature and invite participants to share their experiences and ideas for institution-based programs to mentor leaders in GHR.

Symposia 19: Regulating health systems to ensure equitable, accessible and quality maternal health care in Vietnam, India and China: Experiences from the HESVIC project

Dr. Sumit Kane, Royal Tropical Institute, Amsterdam; Dr. Xiaohua Ying, Fudan University, Shanghai; Dr. Arima Mishra, Institute of Public Health, Bangalore, India; Dr. Bui Thi Ha, Hanoi School of Public Health, Vietnam

Shifts in the social, economic and political environment are posing challenges to health governance in developing countries: costs are escalating; patient expectations are rising; and public health systems are in crises. This symposium presents findings on governance of maternal health in three Asian countries experiencing rapid economic, social and political changes. The findings are from a multidisciplinary case study based research project titled “Health System Stewardship and Regulation in Vietnam, India and China” (HESVIC). HESVIC studied the effects of selected regulations in maternal health: Emergency Obstetric & Gynecological Care, Antenatal care including abortion, and Grievance Redressal.

Symposia 20: Toward an integrative framework in global mental health

Duncan Pedersen, Douglas Institute – McGill University; Laurence Kirmayer, McGill University; Jaswant Guzder, McGill University; Rob Whitley, McGill University; Paula Godoy, CAMH, Toronto; Clare Pain, University of Toronto; Nicole D’souza, Douglas Institute, McGill University

The emerging field of global mental health aims to address the enormous disparities in mental health within and between rich and poor countries around the world. A growing body of epidemiological research has established mental health as a priority for global health research and intervention. Significant advances have been made in identifying targets and strategies for intervention. However, there continues to be controversy and debate about the knowledge base and the appropriate methods for establishing priorities, research themes and approaches, and modes of developing and/or adapting interventions in global mental health to the local realities.

In an effort to develop effective interventions that can be widely implemented and scaled up, global mental health advocates have been lined up along a continuum with two main polarities. Toward one end, priorities for action and global mental health interventions are grounded on a biomedical framework, universal taxonomies and evidence-based practices (largely produced and driven by wealthy countries in the West) and its practitioners emphasize the transportability of current best practices. On the other end, a community-based approach acknowledges the importance of contextual forces at play and the social determinants of mental health, and postulate global mental health interventions driven by locally defined priorities and taxonomies, empowerment of local resources, and search for endogenous forms of helping, healing and social integration that may contribute to positive outcomes and recovery.

The symposium discusses the main trends in global mental health as an emergent concept, the changes occurring in the global health paradigm, and the need to shift to an “equity and social justice” framework in developing horizontal and integrative interventions (across sectors and disciplines) in global mental health. We expect that the proposed symposium will highlight the importance of a balanced global mental health agenda for the future, but also on the social, political, and economic determinants within which mental illness occurs. The ultimate goal of this symposium is to outline a balanced critical perspective on global mental health as a new field of enquiry and practice, that moves beyond the listing of mental disorders and the global burden of disease to acknowledge the growing importance of the political, economic and social determinants of health and the interplay between the social and the cultural with the biological dimensions of mental health.

Workshop abstracts

Workshop 1: Community health workers: Increasing effectiveness, retention and system sustainability

Duncan Saunders, University of Alberta, Pascalina Chanda-Kapata (Zambia Ministry of Health), Arif Alibhai (University of Alberta), Gene Krupa (University of Alberta)

Background: Community Health Worker (CHW) programmes have a long history –including China’s “barefoot doctors’ in the 1950s”. Interest in CHWs peaked in the 1980’s after the Alma-Ata declaration but waned in the 1990s. In recent years because of the shortage of health workers in LMICs, particularly in rural and remote areas, interest in CHWs has been rekindled. We will use the definition proposed in 1980 by a WHO Study Group: CHWs “...should be members of the communities where they work, should be selected by the communities, should be answerable to the communities for their activities, should be supported by the health system but not necessarily a part of its organization, and have shorter training than professional workers...”

Issues: Some countries have opted to standardize CHW programs (e.g. Uganda with its National Policy of Village Health Teams). In other countries, one finds a proliferation of CHW systems, with great variations in the roles, training and incentives provided to CHWs. All seek ways to improve impact on health, effectiveness of health workers, retention, and system sustainability

Objectives of Workshop: Participants should come away from the session with

- 1) increased knowledge of different SSA CHW models
- 2) insight into the challenges associated with effectiveness and sustainability of CHWs especially around recruitment, roles, training, incentives and supervision
- 3) practices and policies that may enhance effectiveness and sustainability – via recruitment, training, supervision, incentives and retention of CHWs.

Target Groups: Persons engaged in making policies and implementing CHW programs and persons supervising and working with CHWs

Activities: A brief outline of current CHW policies and practices in SSA (with particular reference to Uganda and Zambia) will be presented. Workshop participants will discuss challenges relating to CHW recruitment, roles, training, incentives and retention and experiences in dealing with these challenges with the goal of identifying useful practices.

Workshop 2: Beyond the Scoop: How to explain HIV prevention trial results

Shayna Buhler, Marc-André LeBlanc, Interagency Coalition on AIDS and Development

Project Objectives: There are a number of global efforts underway to develop new technologies to prevent HIV. HIV prevention advocates, front line HIV service providers and media representatives face significant challenges in communicating accurate and comprehensible information about the successes and failures of clinical trials for new HIV prevention technologies (NPTs). Effective communication is critical to maintaining support for NPT research, without generating false optimism.

The objectives of this project are to promote the meaningful engagement of community representatives in NPT efforts in Canada, Nigeria and Southern Africa, and to better equip media representatives to report accurately on NPT research and development efforts, including trial results.

Activities: The Interagency Coalition on AIDS and Development (Canada), the Southern African AIDS Trust (South Africa) and the New HIV Vaccines and Microbicides Advocacy Society (Nigeria) developed an educational toolkit adaptable for use within the Canadian, Nigerian and Southern African socio-cultural contexts. Twelve workshops were delivered across Canada, Nigeria and Southern Africa. The workshop is designed as a set of modules that can be adapted to suit the country context, workshop audience, and timeframe available.

This workshop will cover trial literacy (how to interpret trial results and their implications, introduction of terminology); critical analysis (review media coverage demonstrating sensationalist discourse, biased and misleading reporting); preparedness and scenario planning (develop core messages about NPT trials which provide a balanced perspective for various trial result scenarios)

The workshop will combine presentation, case study exercises, small group and plenary discussion, and debate.

Workshop 3: Global disparities in maternal care and a model solution to prevent obstetrical complications

Yasmin Majeed, University of Calgary; Syed Iftikhar, Derby Hospitals NHS Foundation Trust; Dr. Sarah Makhdoom, University of Calgary

Half a million women die each year due to pregnancy related complications and 95% of them come from the developing world. The lifetime risk of a woman dying of pregnancy related causes in developing countries is 1:40 as compared to 1:3600 in developed world. In a developed country like Canada, we have skilled medical care for pregnancy and delivery. Pakistan presents a completely different situation. Pregnancy there often results in death—typically from preventable causes.

According to national statistics, roughly one out of every 89 women in Pakistan dies of maternal causes. The maternal mortality ratio in rural areas is almost twice that of urban areas. More than half of women in the country give birth without professional help.

Obstetric fistula—a painful and usually ostracizing condition that can result from prolonged obstructed labor and cause incontinence, infections and even paralysis—occurs most frequently among poor, vulnerable women in developing countries.

There are many medical and social consequences to living with fistula: physical and emotional isolation; abandonment, shame and estrangement from the community.

This presentation primarily aims to shed light on the attempts to develop a unified model of approaching global disparities in healthcare, namely in regards to relatively basic surgical procedures urgently needed in developing countries. This model involves a two tiered approach: an immediate medical response to the present day needs of neglected patients, as well as a long-term commitment to train, educate, and outfit these communities with the necessary tools to eliminate festering health issues, specifically the prevention and repair of genital tract fistulas amongst women living in poverty.

Firsthand experience with these conditions is contributed by foreign and local general surgeons, family physicians, urologists, used together to provide a comprehensive overall picture of the diseased population. Courses are offered in basic surgery and laparoscopy are arranged to train local doctors in the techniques such as knot tying, bowel anastomosis and basic laparoscopic manoeuvring on simulators.

Hundreds of women arrive at the fistula center for treatment, not only for the acute condition, but also for psychological counseling, accommodation, and support.

The prohibitive cost of treatment and medications required post-surgery, make the focus on the prevention of fistulas an urgent priority. To that end, educating rural communities on fistula development is vital, and must be conducted in a manner sensitive to local customs and cultures. Providing training to local healthcare professionals is crucial.

Workshop 4

Pre-departure training for medical students: online and in-person methods to enhance learning

Andrea Hunter, Tim O'Shea - McMaster University; Angela Daym, Dalhousie University

Canadian medical students are increasingly participating in clinical electives abroad, particularly in low-resource settings. This has prompted many universities to offer formal and informal preparation or pre-departure training for students with significant heterogeneity of experience across the country. Students often have lofty motivations for these experiences, but often need some support and mentorship to optimize their educational experience, satisfy their need to contribute meaningfully while away, and reintegrate upon their return. Pre-Departure Training can serve to Universities often struggle with the conflicting interests of optimizing their students learning opportunities while attempting to manage the potential risks and unanticipated situations that may arise during these experiences. The AFMC/CFMS guidelines published in 2008 offer a national template for such pre-departure training for medical students, outlining five key subject areas to be included: personal health, travel safety, cultural competency, language competencies, and ethical considerations. The most challenging of these to implement meaningfully, and arguably the most important from a professionalism perspective, are cultural/language competencies and ethical considerations.

This workshop will provide an overview of the current guidelines, a discussion of the current models of implementation (including a focus on online models) and guidance around future directions for curriculum development in these challenging areas. This will draw on the facilitators' collective experience in implementing structured, mandatory pre-departure training programs for internationally-bound medical students on clinical electives at both McMaster and Dalhousie University. Existing guidelines for preparing medical students for electives in low-resource settings will be reviewed by the facilitators, with an outline of recent evidence-based approaches to implementation. Participants will then be encouraged to discuss and design strategies for curricular implementation of each of the five topic domains in small groups followed by a large group plenary discussion for key recommendations and next steps in potential collaborations and future directions.

Workshop 5 : L'utilisation des Technologies de l'Information et de la Communication (TIC) pour la santé en Afrique/ The Use of Information and Communication Technology (ICT) in Health in Africa

Marie Hélène Chomienne, Montfort Hospital

Contexte: Pour l'Organisation mondiale de la santé (OMS), la télémédecine « permet d'apporter des services de santé, là où la distance, l'isolement, sont un facteur critique, utilisant les TICs à des fins diagnostiques, de traitement, de prévention, de recherche et de formation continue » et tout pays devrait évaluer ses priorités dans le domaine de la télémédecine afin de l'inclure dans ses stratégies nationales de santé.

Objectifs: L'atelier proposé dans le cadre de cette conférence aura pour objectif d'enrichir les connaissances des participants en ce qui a trait à l'utilisation et l'intégration des TICs dans un contexte particulier, le milieu rural d'un pays en voie de développement. Les auteurs travaillent au Bénin depuis près de 10 ans, notamment à mettre sur pied un projet de formation à l'intention des intervenants en santé et des habitants de zones rurales du Bénin en misant sur l'utilisation de textos (SMS), de baladodiffusions et d'applications Web. Les téléphones mobiles et les tablettes tactiles permettront l'accès à la formation en santé.

Groupe cible: L'atelier s'adresse à toute personne, professionnel de la santé ou pas, intéressée par la formation en santé internationale dans les pays en voie de développement et aux technologies de l'information qui se déploient aisément dans un tel milieu.

Activités et ses produits livrables: Nous proposons de coordonner une activité en trois étapes :

a) Guy Vincent Jourdan: expert en TIC nous fera part des avancées actuelles sur l'utilisation de la téléphonie mobile et autres technologies de l'information avec notamment l'exemple de l'utilisation des tablettes tactiles pour tester l'ouïe des enfants au Canada.

b) Alizera Jalali : médecin passionné par l'intégration des technologies comme soutien à l'apprentissage (la baladodiffusion, les wikis et les blogues), nous fera le point sur l'utilisation des TICs dans la pédagogie médicale dans les pays à faible revenu.

c) Un montage vidéo sur les grandes innovations télé-médicales réalisées jusqu'à présent dans le secteur de la santé en Afrique subsaharienne ainsi que des outils de formation en ligne développés par la Faculté de médecine de l'Université d'Ottawa qui pourraient être adaptés au milieu décrit ci-haut.

2- Après cette séance plénière, les participants seront invités à travailler en groupe, sur des vignettes préétablies. Chaque groupe de travail sera assisté par un expert en santé mondiale et un expert en informatique.

3- Les travaux de groupes seront présentés puis discutés.

Oral Presentations

(listed alphabetically by presenter)

Addo Ofosu, Henry
Catholic University College of Ghana, Sunyani
Christaller Ofori (Catholic University College of Ghana)
Access to healthcare and medicines

An assessment of the fee exemption policy on maternal delivery care in improving maternal health in Ghana.

Introduction: Maternal morbidity and mortality are highly associated with access and quality of obstetric care. Millennium Development Goal 5 sets a target of reducing maternal mortality ratios by three-quarters between 1990 and 2015. General situation analyses indicate that financial barriers are important barriers to service uptake (along with distance, transport, cultural barriers and other factors). Health financing in Ghana has relied heavily on user fees to cover recurrent costs at health facility level in Ghana. The Government of Ghana developed a policy called the fee exemption policy which was implemented that aimed to improve access to health services for the poor and the vulnerable, by putting into place universal exemption from payment of user fees for all delivery care. It was expected that the policy would remove financial barriers to accessing these services, allow an increase in professionally attended deliveries and thus a reduction in maternal and perinatal mortality.

Objectives: This study analyzed the role of the fee exemption policy on maternal delivery care in improving maternal health by giving a special attention to the level of patronage of the maternal health service by expecting mothers in relation to the user cost payment, the level of service delivery at the Ante-Natal Care and Post-Natal Care clinics.

Methods: This study looked at primary data in terms of focus group discussions among the service providers and standardized questionnaires for the women. Health institutions for the study were clustered into three which were public health facilities, private hospitals and maternity homes.

Results: It was found that there was a significant association between the level of income and the preference of full user cost recovery ($\chi^2 (1, n=130) = 0.385, p=0.0005, \phi=0.389$). There was a significant increase in the Health Facility Attendance prior to the policy and after the introduction ($M=1.73, SD=0.700$ before and $M=1.92, SD=0.702$ after, $t(96) = 2.680, p<0.009$ (2 tailed). Mean increase was 0.186 with a 95% confidence interval ranging from 0.048 to 0.323. There was however no significant difference in the Overall Rating of Service scores before and after the policy ($M= 2.68, SD=0.061$ before and $M= 2.69, SD= 0.70$ after, $t(96) = 1.91, p<0.0849$).

Conclusion: The introduction of the exemption policy has significantly improved upon maternal health and had allowed most women access to safe and equitable healthcare.

Ahmed, Irfan

Plan International Pakistan, Islamabad

Bernabe Yameogo (Plan International Canada Inc)

Shifting demographics and the disease burden

Empowered Adolescents: Investing in Adolescents Development is the Right Choice in Pakistan

Background and objectives: Pakistan has the fourth largest adolescent population in the world, exceeding 41-million today. In Pakistan, with 24% of population is living below the poverty line. Current gloomy local and global economic, political and security conditions have further increased chances of adolescents being exposed to discrimination, abuse, drug use, sexually transmitted infections, HIV and countless health related problems and often forced school dropout and enter into child-labour. Plan Pakistan developed the Reproductive Health Initiative with Adolescents-RHIA in 2007 with 2 objectives: 1) To increase sensitivity among community gate-keepers and adolescents about Adolescent Sexual and Reproductive Health Rights (ASRHR) issues and their importance by improving access to information and services for ASRHR. 2) To increase awareness among parliamentarians and policy-makers on the importance of ASRHR legislation and implementation.

Target group and activities: The project was implementing in 9 districts across Pakistan, reaching more than 30,000 adolescents. It focused on adolescent empowerment through: 1) Community Based model of Life Skills Education for adolescents. 2) Adolescent Sexual Reproductive Health Rights focused capacity Building for parents, schoolteachers, government officials, media, health-care service providers and Civil Society Organizations.

RHIA is a Right-based project aims to provide an alternative community-based platform for adolescents and young people in the form of Adolescent Friendly Centers-AFC. AFC ensures access of services and information related to adolescent development. This includes indoor and outdoor sport; books and literature on health, nutrition and ASRH, computer interactive games; platform to initiate co-curriculum competitions, role plays, poster competitions, singing, poetry and a whole lot more. AFC's truly are a platform for channelizing young energies in a healthier environment in a productive way.

Results: Despite initial resistance, community gate-keepers(2006) now have a positive attitude towards the programs. Parents are happy that their children now have safe places to learn life skills and enjoy their adolescent years. Media, especially young journalists, have been engaged to raise awareness of masses about ASRHR issues. Educational and promotional material to educate adolescents and parents on key issues related to ASRHR is being developed for television, and other social Medias.

Conclusions:

- AFC are now accepted as a platform of healthier activates.
- Drug-Abuse common among young has markedly decreased;
- Internet-café (a source of pornography) has disappeared from project areas;
- Government, UN bodies, CSOs engaged led to National Adolescents Development Policy Framework has been drafted and being now shared with parliamentarians for adaptation in provincial policies.

Sanni Yaya (University of Ottawa)

Al Dweik, Rania

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Healthcare research

Comparing international policies to enhance the utilisation of generic medications

Background: In a time of constrained health care resources, and with increasing interest in expanding drug coverage in public and private insurance programs, the economic and clinical aspects of inappropriate prescribing become even more acute.

Drug expenditure has been one of the main concerns of health care managers; thus, its containment is one of the primary goals of health care authorities. The need to improve the availability of affordable medicines is the target of all countries. Access to essential medicines in developing countries is not adequate. With expensive drugs which increase healthcare costs, generic medicines have a critical role in the international market.

Generics are widely regarded as the best method to allow access to safe, effective and high-quality drugs at affordable prices to a vast majority of patients. They also play a vital role in the development of sustainable healthcare models by imposing a direct influence on pharmaceutical spending. On average, generic medicines are sold at prices from 20% to 90% less than the originator product. The rate of difference varies considerably due to different pricing and reimbursement systems between countries, and the varying prices of originator products. While there are a number of factors (high cost, insufficient production, and lack of research and development) which have contributed to denying equitable access to drugs to millions in developing countries, it is the international trade regulations arising from globalisation that may prove to be the biggest obstacle to such access. The recent failure of many countries and organizations to resolve the outstanding issue to ensure production and export of generic medicines to countries that do not produce may even indicate that the optimism shared by advocates for improving access to drugs in low income countries is premature. In fact, despite a lot of media attention and international promises, little has changed in the past 20 years.

Objectives: This paper focuses on few countries that have recently put in place licensing policies that would increase access in poor nations. We examine these in the context of WTO and TRIPS Agreement and assess their meaning for access to drugs. We discuss new and existing barriers, as well as possible solutions, to provide policy-makers with lessons learned from these countries experiences.

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Walter Kipp (University of Alberta), L. Duncan Saunders (University of Alberta), Joseph Konde-Lule (Makerere University School of Public Health), Tom Rubaale (Kabarole District Health Department)

Training, service delivery and health human resources

The performance of community volunteers in activities to support a community-based antiretroviral treatment program in western Uganda

Objectives: Community-based antiretroviral treatment (CBART) programs allow treatment to be accessible to underserved HIV-positive individuals living in rural areas of sub-Saharan Africa. Successful CBART programs require the engagement of local community volunteers to support treatment activities such as the delivery of drugs, adherence and adverse effects monitoring and treatment and prevention counselling. The purpose of this study is to assess the ability of the community volunteers in a CBART program in western Uganda to undertake the activities necessary for a CBART program

Methods: We used a mixed methods approach that used questionnaires, focus group discussions and program document reviews to look at the performance of 41 community volunteers in a CBART program over a period of 2 years. Descriptive statistics were generated from the quantitative data while themes were extracted from coded qualitative data.

Results: After two years of treatment, 120 (65.7%) patients were found to have achieved viral suppression; a positive treatment outcome that was similar to a comparison group of hospital patients in a more urban setting. Volunteers maintained a good schedule of visits to patients (73% missed less than 20% of visits they were supposed to have made) with most missed visits occurring in the early stages of the program. Adherence counselling improved over time with instances of patients missing their doses dropping after the first six months on treatment. Most (88%) volunteers indicated that it was easy for them to identify the adverse effects they had to monitor, though they tended to over diagnose adverse effects when compared to clinic chart records. Attendance at volunteer meetings was high with no monthly meetings with less than 85% attendance. The time spent with patients decreased from a mean of 44 minutes during the first six months to 17 minutes between months 19-24. Challenges mentioned by volunteers included counting tablets and filling out logs, navigating difficult geographical terrains, difficulties in finding patients at home as their health improved, dealing with community misinformation, delays in patient seeking clinical care when referred, difficulties dealing with patient expectations, patient stigma and patient substance abuse.

Conclusions: Community volunteers were found to have maintained necessary activities over a six month period. Some activities may require additional support or re-evaluation in light of challenges experienced by volunteers, especially if these activities need to be maintained over the life-long duration of antiretroviral treatment.

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Healthcare research

Conceptualizing clinical practice guidelines as population health interventions: Insights into classification criteria for addressing complex health issues.

Background: Millennium Development Goal 6, aimed at combating HIV/AIDS, malaria and other diseases, seeks to reverse the incidence of malaria through the integration of population and individual level approaches (WHO 2012). Together, these and other aligned initiatives constitute the Roll Back Malaria (RBM) Partnership, which relies on both Clinical Practice Guidelines (CPG) and Population Health Interventions (PHI) to improve malaria-associated health in various domains (RBM 2005). The synergistic application of these interventions is essential for improved identification and treatment of high-risk individuals and for the reduction in malaria incidence and prevalence at the population level.

Project Objectives: To identify criteria that would enable a CPG such as the WHO presumptive diagnosis and treatment of malaria CPG (PDTM-CPG) that has proven effective at the individual level to be utilized in such a way that it positively impacts population health.

Methods: We begin with a juxtaposition of individual and population health intervention theory and approaches. This provides the foundations for the identification and application of a set of PHI criteria that may be used to conceptualize if a CPG can be classified as a PHI. Three scenarios are proposed for the examination of these PHI criteria and the possibility of conceptualizing the PDTM-CPG as a PHI.

Results: The PDTM-CPG was successfully conceptualized as a PHI using the classification criteria when there was a shift of focus to community capacity, an important determinant of health and therefore a component of population health. The third scenario provided an interesting link between the high-risk approach and population health as evidence indicates that the PDTM-CPG targeted at individual treatment and health restoration may actually have impact on population health outcomes, such as malaria transmission and incidence.

Conclusions: We anticipate the PHI classification criteria will be utilized by health professionals to address complex health issues by providing concise guidance on what constitutes a PHI, as well as mechanisms that may lead to synergistic health impact at the individual and population level.

References:

RBM. 2005. Roll Back Malaria Global Strategic Plan 2005-2015. edited by World Health Organization. Geneva.

WHO. 2012. MDG6: combat HIV/AIDS, malaria and other diseases 2012 [cited March 23 2012]. Available from: http://www.who.int/topics/millennium_development_goals/diseases/en/.

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Training, service delivery and health human resources

Creating Agents of Change: Life skills education enabling Adolescents to prevent Child Marriage in Bangladesh

Objectives: To enable adolescents to make informed decisions regarding their sexual and reproductive health and to avail services in a friendly environment.

Target Groups: 1) The project directly addresses adolescent girls and boys. 2) The project indirectly involves community members such as parents, elderly people, community leaders, religious leaders, school teachers, and government health care providers (both government and non-government).

Activities: In northern Bangladesh where the project is working, the mean age of girls at marriage is 15 years. To address this situation in the project intervention area, adolescent girl and boy peer groups (20-25 adolescents in each group) were formed. The peer groups were provided with two-day training on life skills. The training covered: negotiation skills and risks of child marriage and early pregnancy. Adolescents who received training joined Child Protection Groups in their communities and played an active role in reporting and preventing cases of child marriage, with the help of community leaders and local government representatives.

Results and Conclusions: Evidence suggests that a high level of awareness was created among adolescents on child marriage. During the midterm evaluation, it was found 98% of girls and 95% of boys believed that the child marriage should be prevented. They suggested ways to prevent child marriage, including creating awareness among parents and the public, and discouraging child marriages in society. FGDs revealed adolescents had participated in activities to prevent child marriages e.g. discussions with the parents of the girl child about to be married. Adolescents also mentioned that when they could not make the parents understand the negative impact of a child marriage, they went to community leaders for advice and support. Case studies collected from the intervention areas show that in many cases adolescents were able to protect themselves and their friends from child marriage with the help of community leaders and local government officials. Since the project also worked on raising awareness among mothers, fathers, teachers and local government representatives on impact of child marriage, they were receptive to discussions with adolescents, and played an active role in preventing child marriage.

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Access to healthcare and medicines

Access to Emergency Obstetric Care in rural Mali: catastrophic spending and its impoverishing effect on households.

Background: Ensuring access to emergency obstetric care (EmOC) to all women is a strategy proven to reduce maternal mortality. However, several studies have shown that EmOC in sub-Saharan Africa can be extremely costly as opposed to a normal delivery and can generate 'catastrophic' expenses that may push households into poverty or further impoverishment. Yet, although several studies have been made on the incidence of catastrophic health payments in sub-Saharan Africa, very few were carried out in the context of maternal health. This study investigates the prevalence of, and the factors associated with, catastrophic EmOC expenditures in the rural region of Kayes, Mali. It also aims to identify the coping mechanisms used by households and the wellbeing consequences of high EmOC expenses.

Methods: Data on 484 women having received emergency obstetric care between 2008 and 2011 were collected. The incidence of catastrophic spending was investigated using three thresholds: 5, 10 and 15% of household annual income. Three logistic models were developed to predict the probability of catastrophic spending for EmOC. A second interview was carried out in a subset of 56 households to identify the consequences of EmOC expenditure.

Results: The results showed that between 20.7% and 53.5% of the women who received EmOC faced catastrophic expenditure. The logistic regressions showed that women with no education, living in rural areas, at 40km or more from the nearest health centre, and who had suffered from postpartum infection were more likely to incur catastrophic spending. Most families in the sub-sample had to borrow or sell assets to obtain the money needed and 64.3% of them faced consequences such as food shortages, lower agricultural productivity, forced migration or children removed from school. At the time of the interview (10 months to 2 and a half years after the event), 23% were still indebted and as many as 32% did not eat enough. The lower the socioeconomic status, the higher the severity and number of consequences the households faced.

Conclusions: This study has implications for maternal health financing decisions. To make emergency obstetric care accessible to all women and therefore to reduce maternal mortality, it must be affordable to households. Yet, many of them still face catastrophic expenses when trying to access EmOC and these have consequences on their physical, social and economic well being. As long as the financial obstacles to EmOC aren't reduced for the poorest households, we cannot expect great progress in maternal mortality reduction.

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Access to healthcare and medicines

Social Health Insurance In Ghana: Insights From Above and Below

Background: The under-funding of healthcare is a growing problem the world over. However, the situation is worse in sub-Saharan African countries, such as Ghana, where the dearth of financial resources remains an enduring problem. In the immediate post-independence era, Ghana had a healthcare system that provided ‘free’ medical services in public health institutions to all citizens. However, by the early 1980s, persistent budgetary constraints and massive emigration of healthcare practitioners had compelled the government to implement a cost recovery regime, or cash-and-carry system of payment, as part of its IMF- and World Bank-sponsored Structural Adjustment Programs. The present Ghana National Health Insurance Scheme (NHIS) was established in 2003 as part of the nation’s poverty reduction strategy to make health care more affordable. It is envisaged that the NHIS will eventually replace the existing cash-and-carry system.

Objectives: The present paper examines the views of NHIS administrators, enrollees, and health care providers on how the Scheme operates on the ground, paying particular attention to how it is able to address the healthcare needs of women. This is part of a larger evaluation project on Ghana’s NHIS, sponsored by the Gates Foundation and Global Development Network from 2007 to 2009 research.

Methods: This paper relies primarily on qualitative data of the larger study by way of a Focus Group Discussion among a carefully selected group of eleven participants, including NHIS members, non-members, health providers, and NHIS administrators from the Brong Ahafo and Upper East Regions of Ghana, and facilitated by the two co-authors. “Carefully selected” is emphasized here to hint of the attention paid to power dynamics, socio-economic differences, and issues of positionality in bringing such a wide range of people together for a group discussion of a public issue.

Results: We found that women who are enrolled in the NHIS are more likely to give birth in hospitals, have their births attended by trained professionals, receive prenatal care, have fewer birth complications, and experience fewer infant deaths. However, we also found that the NHIS has some challenges concerning fraud, impersonation, limited access to prescription drugs which need to be addressed if the Scheme is to remain useful and sustainable.

Conclusions: Ghana’s social health insurance scheme is a valuable health financing mechanism worthy of national and international support for its long term sustainability.

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Maternal/child health

Child Rights Education for Health Professionals: The Short and Long-term Benefits of a Child Rights Approach in a Shifting World Economy

The United Nations Convention on the Rights of the Child, a Human Rights treaty for children, represents global consensus on what is needed to promote children's optimal physical, emotional and psychological health and well-being. Clearly there is a principled and legislative case for respecting and promoting those rights, and an economic perspective where children are an investment for achieving the best outcomes for children, and consequently, ensuring their greatest possible long term contribution to society. In times of economic fragility, with increased vulnerability of children, it is even more important to retain a vision of the value of sustained commitment to children's rights.

Translating children's rights into practice can dramatically improve the treatment and long-term well-being of our most vulnerable children, and the life's work satisfaction of health professionals. It is of particular importance that infusion of a child rights approach in the didactic, simulation and guided practical experiences of preparatory medical education should be further solidified and augmented through the residency period.

Child Rights Education for Professionals ("CRED-PRO") is an international initiative endorsed by the United Nations Office of the High Commissioner for Human Rights and the United Nations Committee on the Rights of the Child (CRC). The CRC emphasizes the important role of professionals in building sustained cultural change towards rights-respecting environments.

Active on four continents and in eleven countries to date, CRED-PRO develops and provides educational programs on the human rights of children to professionals working with and for children in partnership with professional associations and other key organizations.

Child Rights curricula have been developed for Health Professionals in Latin America and South Africa, Early Childhood Educators in Tanzania and School Psychologists in the US. Curricula under development target Canadian Pediatricians and Social Workers and American Educators.

CRED-PRO is developing and implementing a rigorous program of measurement and evaluation to assure its accountability to its goal and objectives. This is being achieved by progressively framing, exploring, testing, applying and refining an accountability design and strategies to measure and evaluate status and progress. To date, programs have undergone evaluation in Chile, Argentina and Tanzania.

Health professionals have A huge influence over children's lives. If they are to fulfill their responsibilities towards those children, they need to be fully conversant with the human rights of children and how to ensure their incorporation into all levels of day to day practice, policy and advocacy.

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Access to healthcare

SMS Diabetes: changing Diabetes, one SMS at a time -a mobile health project for diabetic patients in Gabon

Background: The SMS Diabetes project aims to address the challenge of Non-Communicable Diseases (NCDs), and the difficulty to manage them in low-resource settings, with limited means available to care for a large scope of conditions. SMS Diabetes is an education and support platform carried through SMS, providing information and a reliable channel for patients to ask questions about diabetes. The penetrance of mobile phones is of 90%, making SMS very practical.

Objectives: The project objectives are to provide diabetic patients with education about diabetes and a possibility of asking their questions between visits, as well as to allow physicians following diabetics to be in regular contact with them.

Methods: The target group is patients with diabetes in Gabon, with a focus on diabetes type 2. Patients with gestational diabetes and diabetes type 1 are still welcome, but only represent 9% of registered patients. There are an estimated 75 000 diabetics in Gabon, but only 6 physicians follow diabetic patients. With high literacy rates, Gabon was a good setting for this project.

Activities: The SMS platform allows physicians to access patients' messages in a database. The educational messages are pre-recorded and sent with a pre-defined calendar. Patients receive information via SMS 3 times a week and are invited to a quiz weekly. Questions can be sent anytime to a SMS short-code, and addressed daily. When workshops are organized on diabetes, invitations are also sent. Patients are classified in groups based on their week of entry and the messages received differ according to the duration of enrolment, with messages becoming gradually more complex.

Results: The reach of the program is currently of 5035 patients, registered in just over a year. It is harder to quantify the knowledge gained or support received by patients, but a short survey carried on a sample of 127 patients indicates that acceptance is high (95% indicated the education was useful, and 70% requested more information). Patients seem to welcome the initiative and the possibility of accessing information on diabetes.

Conclusions: Further evaluation needs to be done about the project, but it remains that thousands of patients with virtually no access to information about diabetes are now provided with quality information on a regularly.

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Jillian Clare Kohler (University of Toronto), James Orbinski (University of Toronto), Andrew Howard (University of Toronto)

Healthcare research

Corruption in the health care sector: A barrier to access of orthopaedic care and medical devices in Uganda

Background: Globally, injuries cause approximately as many deaths per year as HIV/AIDS, tuberculosis and malaria combined, and 90% of injury deaths occur in low- and middle-income countries. Given not all injuries kill, the disability burden, particularly from orthopaedic injuries, is much higher but is poorly measured at present. The orthopaedic services and orthopaedic medical devices needed to manage the injury burden are frequently unavailable in these countries. Corruption is known to be a major barrier to access of health care, but its effects on access to orthopaedic services is still unknown. This paper aims to explore the impact of corruption on delivery of orthopaedic care in low-income countries, focusing on Uganda as a case study.

Methods: A qualitative case study of 45 open-ended interviews was conducted to investigate the access to orthopaedic health services and orthopaedic medical devices in Uganda. Participants included orthopaedic surgeons, related healthcare professionals, industry and government representatives, and patients. Participants' experiences in accessing orthopaedic medical devices were explored. Thematic analysis was used to analyze and code the transcripts.

Results: Analysis of the interview data identified poor leadership in government and corruption as major barriers to access of orthopaedic care and orthopaedic medical devices. Corruption was perceived to occur at the worker, hospital and government levels in the forms of misappropriation of funds, theft of equipment, resale of drugs and medical devices, absenteeism and fraud. Other barriers elicited included insufficient health infrastructure and human resources, and high costs of orthopaedic equipment and poverty.

Conclusions: This study identified perceived corruption as a significant barrier to access of orthopaedic care and orthopaedic medical devices in Uganda. As the burden of injury continues to grow, the need to combat corruption and ensure access to orthopaedic services is imperative. Anti-corruption strategies such as transparency and accountability measures, codes of conduct, whistleblower protection, and higher wages and benefits for workers could be important and initial steps in improving access orthopaedic care and OMDs, and managing the global injury burden.

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Shifting demographics and the disease burden

A precarious balance - do global shifts hinder or help Millennium Development Goal progress?

Objectives: MDG markers are the most detailed indicators we have about improvements in global health. With 3 years left, it's clear that most MDG indicators will be achieved on time or almost on time. MDG1, to decrease extreme poverty and hunger by 50%, is "already achieved". However, the number of hungry persons in extreme poverty decreased only marginally. How can we plan the future when similar paradoxes cloud other indicators of progress?

Methods: In re-analyzing selected health indicators to take into account economic and demographic shifts, we explore the nature of progress and the road ahead.

Results: Interpretation is clearer when we substitute absolute progress for some relative MDG indicators which see "success" as percentage of poverty not increasing to match population growth. Looking at the longer term, we often neglect the socio-economic impact of changes in fertility. Within a decade, humans will only just be replacing themselves. Three decades later before population declines, absolute and relative numbers will agree.

Real global economic growth has major impacts. For most nations, 0.7% of GDP is now double what it was in 2000. Percentage growth of GDP in poorer countries increasingly outpaces the rich while their demographics favour further growth. This is good and bad news for development aid. Future planning must assume that North American contributions will fall below 0.2% of GDP. Encouragingly, the EU now contributes more than twice as much as the US, often exceeding 0.7%. Beyond the aid model, we explore four longer term trends:

1. Social or "fairly-traded health" enterprises including Grameen enterprises;
2. Evidence-based interventions including Millennium Village projects;
3. New models of private philanthropy including the billionaire's Giving Pledge;
4. Knowledge and technological innovations (drip irrigation, sub-optimal irrigation, ready to use foods, rehydration solutes, and the internet in disseminating innovation).

Many of these trends blur the boundaries between "aid" and "profit," creating a perfect storm for sustainable health. In particular, the Grameen and Gates foundations include many "for-benefit" enterprises that have spectacularly taken root in the communities in which the seeds were sown.

Conclusions: When global shifts are included, trends allow great optimism over the medium and long term horizons. However, this doesn't help the 15000 children born each day who for lack of food will not reach their 5th birthday. Frustration and impatience must empower and energize future efforts.

Data, charts, references: www.sfu.ca/global-nutrition/csih/

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Global health research

Effectiveness of post-campaign hang-up intervention to increase LLIN utilization in Togo: a cluster randomized control trial

Objectives: The distribution of long-lasting insecticidal nets (LLINs) has been recognized as an important tool in reducing malaria morbidity and mortality. Despite gains made in scaling up coverage of LLINs, a gap between ownership and utilization remains. Hang-Up campaigns, which are door-to-door visits performed by community volunteers to provide educational messages and to physically assist beneficiaries with the hanging of nets, are currently being evaluated as means to increase installation and use of LLINs following mass distribution campaigns. Given the significant financial and human resource costs of this intervention, evidence is needed on the effectiveness of these visits to increase LLIN utilization by target groups.

Methods: A cluster randomized, controlled study was designed to assess the effectiveness of a Hang-Up Campaign in the Plateaux Region of Togo. The study consisted of three arms: control, Intervention A who received a Hang Up visit shortly after the distribution campaign, and Intervention B, who received the Hang Up visit plus additional visits two and seven months post-campaign. The distribution campaign took place in October 2011 and outcomes were evaluated by three cross-sectional surveys, conducted one, three and eight months post-campaign. LLIN use was evaluated for children under five years of age (U5s), for women of reproductive age (WRA), and for individuals of all ages grouped together (ALL).

Results: In the first survey, levels of LLIN use in Intervention A and B households (received a Hang-Up visit) were similar to Control households (ALL: 74.7% vs. 69.2%, $p=0.12$; U5s: 82.1% vs. 80.1%, $p=0.55$; WRA: 78.1% vs. 71.1%, $p=0.08$). In the second survey, it was observed that net use increased for Intervention A households that received a Hang-Up visit compared to Control groups for ALL (75.0% vs. 66.3%, $p=0.05$), but not U5s (81.3 vs. 74.6, $p=0.15$) or WRA (76.3% vs. 69.4%, $p=0.21$). Higher levels of use were found among ALL (81.5% vs. 66.3%, $p=0.005$), U5s (90.2% vs. 74.6%, $p=0.06$) and WRA (83.8% vs. 69.4%, $p=0.07$) in Intervention B households which had an additional door-to-door visit compared to Control households.

Conclusions: We observed an increase in LLIN use in the general population as the study progressed, indicating not only the potential benefit of household visits but also their sustained impact on net use. The increase in net use with additional visits suggests that repetition of key messages and reinforcement of the necessity for net use are important for closing the gap between ownership and use.

Sanni Yaya (University of Ottawa)

Deboué, Rodrigue

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Accès aux soins de santé et aux médicaments

Access to healthcare and medicines in the shifting world economy

Background: The World Health Organization estimates that one third of the world lacks regular access to essential medicines, defined as those drugs and diagnostics necessary for a basic health care system. Failure to use medicines when they are needed has led to preventable morbidity and mortality, catastrophic episodes of illness that increase impoverishment in many countries. The health care sector has multiple actors determining access to medication. Government regulators, suppliers, payers, health care providers and patients are key actors with differing interests and an asymmetric information flow among each other. The efforts of governments to improve access to drugs have been compromised by general economic problems during the past years and the low level of economic activity in the West has led governments to reduce their expenses. In fact, many countries face high demands on their health care systems and a limited budget to meet these demands. Rich countries have played a critical role in access to medicines efforts; yet, their support and response to this issue has been weaker than needed and, in some cases, counterproductive in the policy measures taken. Foreign assistance appears to be stalled amid the global economic downturn and changing global-health investment priorities.

Discussion: This presentation discusses the impact of the shifting world economy on the access to healthcare and medicines. The impact will be studied both in developed countries and third world countries, as the realities are different. In developed countries experiencing very slow growth rates and heavy budget cuts, how is the healthcare coverage affected? For example in Greece, the healthcare system is collapsing due to the economic crisis which caused hospital budgets to drop by 40% between 2007 and 2009, say the Lancet authors. What about suppliers? How the reduction of healthcare programs affects the health of the population in general? Third world countries have received in the past a lot of assistance for healthcare from Western countries and international organizations in which Western countries had always been the main contributors. Would these countries and organizations be able to continue providing the support to these third world countries? Are new emerging countries interested in financing health programs in poorer countries? Would these new emerging countries provide new alternatives to third world countries in term of access to healthcare and medicines?

Conclusion: Our presentation will cover these issues and help us understand better the new world economy geography in relation to access to healthcare and medicines.

Dorman, Katie

McMaster University, Hamilton

Miliard Derbew (Addis Ababa University, Ethiopia), Fekadesilassie Henok (Addis Ababa University, Ethiopia), Dawit Desalegn (Addis Ababa University, Ethiopia), Adam Dubrowski (University of Toronto, Canada), Lisa Satterthwaite (University of Toronto, Canada), Richard Pittini (University of Toronto, Canada), Tania Tajirian (University of Toronto, Canada), Roger Kneebone (Imperial College, UK), Fernando Bello (Imperial College, UK), Niall Byrne (University of Toronto, Canada)

Training, service delivery and health human resources

A Training Cascade for Interprofessional Surgical and Obstetrical Care in Ethiopia

Objectives: Health care in Ethiopia is challenged by a critical shortage of health professionals. According to the World Health Organization, there is approximately 1 physician per 500,000 individuals in Ethiopia, compared to 100 physicians per 500,000 individuals in Canada. This contributes to the high burden of disease and infant and maternal mortality in the country. In an effort to address these gaps, Addis Ababa University, University of Toronto, and Imperial College collaborated in creating a 3-year capacity building project focused on health professional faculty development in interprofessional education and teaching of technical skills.

Methods: The collaborating Universities conducted a needs assessment and planned the project based on input from local health professionals. Canadian educators initially trained Ethiopian faculty members from the departments of surgery, obstetrics and gynecology, nursing, and midwifery in interprofessional education and simulation-based teaching of technical skills. The trained cohort subsequently delivered this content to health professionals at other Ethiopian medical schools. Evaluation of the program was achieved through questionnaires (Likert scale and open-ended questions) and guided interviews.

Results: An initial faculty development program led by educators from the University of Toronto, prepared 12 Addis Ababa University faculty members to deliver subsequent courses on interprofessional education and teaching of technical skills to Ethiopian health providers. The trained cohort replicated the course content, training an additional 62 health professionals from five Ethiopian medical schools. Formalized evaluation of the program showed increased acceptance of simulation, a capacity to create and replicate surgical training simulators, knowledge and skills required to teach other faculty, and collaboration between medical schools in Ethiopia and internationally. Formalized feedback from participants also provided insight into concerns about sustainability and ideas for future programs.

Conclusions: A coordinated educational undertaking between 3 international universities and 5 Ethiopian medical schools produced positive effects in faculty capacity building, curriculum development, and institutional acceptance in nursing, midwifery, obstetrics and gynecology, and surgery. Questions concerning sustainability depend on continued commitment to collaboration and resource allocation.

Sanni Yaya, (Université d'Ottawa)

Mohamed Doumbouya

Université d'Ottawa

Changements démographiques et fardeau de la maladie au Canada

Le vieillissement accéléré de la population dans les pays de l'OCDE est devenu un thème récurrent dans les débats publics. Les projections démographiques à l'horizon 2050 soulignent le caractère exceptionnel de cette tendance qui est le fait d'une baisse à la fois des taux de natalité et de mortalité et de l'allongement de l'espérance de vie et c'est un euphémisme que de dire que ces changements représenteront l'un de défis de notre époque.

Au Canada, cette situation se traduit par une inquiétante évolution de l'âge médian qui passe de 27,2 ans en 1956, à 39,6 ans en 2006 pour atteindre 46,9 ans en 2056. Quant à l'espérance de vie, elle est passée respectivement de 67,7 et 73, 0 ans chez les hommes et les femmes en 1956 à 78,3 et 83,0 ans en 2007. Cette évolution démographique s'accompagne aussi d'une recrudescence de pathologies aux sources plus ou moins identifiées car le vieillissement a souvent pour effet d'augmenter la prévalence de maladies chroniques et des incapacités qui se manifestent plus tard au cours de la vie.

Mais si la prévalence de certaines maladies s'accroît avec l'âge, de nombreuses évidences scientifiques suggèrent que les maladies les plus mortelles de nos jours sont de source environnementale. En fait, on estime que de 25 à 33 % du fardeau global de la maladie au niveau mondial résulteraient de facteurs environnementaux. S'il est essentiel de reconnaître que la charge de morbidité des pathologies non transmissibles et chroniques (diabète, cancer, etc.) augmentera du fait du vieillissement de la population, il est important de ne pas surestimer ses effets.

Au cours des dernières, l'OMS a mis au point une méthode d'évaluation largement utilisée qui permet quantifier l'état de santé d'une population et faciliter la détermination des priorités d'action en santé publique. Le fardeau environnemental de la maladie est un indicateur composite qui permet d'estimer la part de l'environnement dans l'état de santé d'une population de façon générale et celle attribuable à chaque catégorie de maladie de façon spécifique.

Cette communication vise deux objectifs :

1. Évaluer la pertinence des outils de mesure du fardeau environnemental de la maladie;
2. Proposer des pistes de solutions pouvant permettre de réduire le fardeau des maladies de sources environnementales ou non.

D'souza, Nicole

student/ McGill University, Montreal

Global health research

Understanding the long term effects of war trauma: Mapping trajectories of illness and resilience in highland Peru

Background: Peru, now classified as a middle-income country, has emerged as one of the world's fastest growing economies in the past five years. Nevertheless, this economic growth has not benefited its population equally, and marked regional disparities remain. Much of the country's poverty remains concentrated in the Andean highlands. This highland region was also the hub of Shining Path, a radical Maoist guerrilla movement that started in the 1980's and lasted for almost a decade (1980-1992). This period of protracted political violence among the highland's Quechua populations has contributed to the burden of disease and disability in the region. In 2000, a collaborative research project was initiated between a Peruvian non-governmental organization (IPAZ) and the Douglas Mental Health University Institute. The goal of the project was to understand the effects of political violence on the mental health of the population in the Andean region. The study revealed that of all respondents who had been exposed to violence, one in four (n=92) reported symptoms compatible with the DSM-III-R diagnosis of PTSD. However, due to the absence of mental health services in the province, it was virtually impossible to refer those cases for treatment. A follow-up survey was conducted in 2011, and tracked the same PTSD positive cases from 2000. Informants were re-interviewed to understand the culturally specific patterns of recovery and coping they utilize in the absence of formal health services.

Methods: The study was conducted in Ayacucho, Peru in four rural communities, and one urban dwelling. Semi-structured interviews were carried out with a subsample (n=17) of the original population of PTSD positive cases (n=93) to elicit narratives on the experiences of distress, mental illness, coping and resilience.

Results: Although the severity of trauma experienced during the time of violence continues to trouble the people of the highland region to different extents today, individuals express more distress about the tremendous difficulties of surviving in the present day than about the massacres of the war, and the symptoms of PTSD. The findings suggest that changes in religion, social networks, and accessibility to health care are greater influencing factors affecting patterns of recovery and coping, than the absence of PTSD symptoms.

Conclusions: The data reveals that postwar psychosocial health cannot be separated from the broader political and economic context, and that recovery of individuals in the face of war-related violence does not occur without the reconstruction of the social world.

Ettarh, Remare

African Population and Health Research Center (APHRC), Nairobi

Catherine Kyobutungi (African Population and Health Research Center (APHRC)), Samuel Oti (African Population and Health Research Center (APHRC)), Steven Van de Vijver (African Population and Health Research Center (APHRC))

Training, service delivery and health human resources

Improving management of cardiovascular risk in urban slums in Kenya by strengthening primary health care systems

Objectives: The rapidly growing burden of cardiovascular diseases in sub-Saharan Africa requires adaptation of health systems to meet the needs for chronic care especially among the urban poor. The African Population and Health Research Center (APHRC) is implementing and evaluating what it hopes will be a cost-effective, sustainable and scalable primary health care model for the management of cardiovascular risk for slum residents in Nairobi, Kenya.

Methods: The model involves strengthening different components of the system of health care provision within two Nairobi slums. In the initial phase, three clinics were established within existing local health facilities for screening, diagnosis, and management of hypertension and diabetes. The focus was on capacity building for health workers, provision of diagnostic equipment, engagement of expert patients, and a mechanism for medications procurement at low cost. Preliminary results from this phase have been used to guide the development of aspects of the model. In the next phase, key components include engagement of community health workers to enhance awareness creation, home screening, patient counseling and compliance. An evaluation of the feasibility, scalability and health impact of the model will be conducted at the end of intervention period.

Results: Under the initiative, 117 health care workers from 15 health facilities were trained on diagnosis and management of hypertension and diabetes. Between 2009 and 2011, over 6,000 adults aged 18 years or above were screened in outreach camps, and a total of 1,533 patients were registered in the three clinics. Opportunities for strengthening the partnership between the public and private health care systems have been identified and utilized with the inclusion of six health facilities that benefited from the training in the Rapid Results Initiative (RRI) of the Nairobi City Council for rapid diagnosis and management of diabetes. The impact of this model on clinical outcomes will be evaluated in the next phase of the initiative and used to guide the scale-up of the model in other low-resource settings.

Conclusions: Primary health care systems can be restructured to provide accessible, acceptable and affordable care for poor patients at high risk of cardiovascular disease. This initiative should be applied to primary level health facilities in similar settings, as part of innovative strategies against the high burden of cardiovascular diseases in low- and middle-income countries.

Gagnon, Anita

McGill University and McGill University Health Centres, Montreal

Lisa Merry (McGill University), Kristen Haase (McGill University)

Human Rights and Migrant health

Predictors of Emergency Caesarean Birth Among International Migrant Women

Background: Many migrant women in industrialized countries have harmful health outcomes during pregnancy and birth. Internationally, caesarean birth rates are over 25% and are known to sometimes be associated with harmful health outcomes for mothers or infants.

Objectives and Methods: To determine the predictors of emergency caesarean among international migrant women, we recruited 1025 migrants post-birth in 1 of 12 hospitals in the 3 largest migrant-receiving Canadian cities. Logistic regression was used to model social, migration, health service, and bio-medical factors predictive of emergency caesarean.

Results: Fourteen percent of international migrant women gave birth by emergency caesarean. A woman was at greatest risk if: this was her first birth [OR= 5.4 (95% CI = 3.0, 9.8)]; the newborn weighed >4000 grams [4.0 (2.2, 7.1)]; she was not covered by government-sponsored health insurance [2.8 (1.3, 6.0)]; she gave birth on a Friday [2.0 (1.2, 3.4)]; her labour had been induced [1.7 (1.1, 2.6)]; or her family income was <\$30,000 CDN/yr [1.6 (1.1, 2.6)]. Conversely, being an asylum-seeker was protective against emergency caesarean sections when compared to being in the immigrant class [0.3 (0.2, 0.6)] and those in the refugee class also tended toward a decreased risk [0.5 (0.2, 1.0)]. Those from countries classified by the UN as having low gender equality tended towards higher risks [1.9 (1.0, 3.7)].

Conclusions: Migration status as well as bio-medical, social and health service factors are associated with emergency caesarean birth among international migrant women. Public health responses to address healthcare access and poverty among migrants may reduce risk of emergency caesarean among this group. The protective effect of being an asylum-seeker warrants further investigation.

Gaitan, Deivi

McGill University, Montreal

Dr. Anita Gagnon (McGill University, MUHC, Canada), Dr. Valerie Daw Tin Shwe (International Organization for Migration (IOM) - Thailand), Lisa Merry (McGill University, Canada)

Human Rights and Migrant health

Prevalence of alcohol use disorders and patterns of drinking among Burmese male migrant workers in Mae Sot, Thailand

Background: There are over one million Burmese migrants in Thailand and given their often traumatic experiences, economic hardships and poor working conditions, they may be at higher risk for mental health disorders including alcohol use disorders (AUD). Through the McGill School of Nursing, International Organization for Migration, and Thailand partnership, a survey was administered to 512 participants between November to December 2011. The aim was to answer the questions: 1) What is the prevalence of AUD among Burmese male migrant workers aged 15 years and older living in the Thai-Burmese border town of Mae Sot? And 2) What are the patterns of drinking in this population?

Methods and Results: AUD were measured with WHO's Alcohol Use Disorders Identification Test (AUDIT) and patterns of drinking were measured using the Patterns of Drinking Table developed by the student researcher using the seven most commonly consumed alcoholic beverages among Burmese migrants. Results showed that 66% (95% CI 62.1-70.3) of respondents consume alcohol; 19% (95% CI 14.7-23.3) were considered heavy drinkers and the AUD prevalence rate was 12.3% (95% CI 9.5-15.2). This rate is closer to the host country, Thailand (10.2%), than the source country, Myanmar (1.5%). These results suggest there is a need for appropriate intervention development tailored to the Burmese migrant population.

Islam, Wahidul

Sightsavers, Dhaka-1212

Training, service delivery and health human resources

Restoring sights for the poor : GO-NGO partnership experience from Bangladesh

Objectives: The main objective is to reduce avoidable blindness by eliminating cataract backlog from one division (four districts) of Bangladesh by the year 2013 through GO-NGO collaboration.

Background: In Bangladesh over 750,000 people are blind and of them 650,000 due to cataract which can be easily treated (ref: Bangladesh National Blindness & Low vision survey 2002). Eye health scenario in the country continue to remain bleak due less demand as well as inadequate service delivery resulting high cataract backlog. More than 85% eye care services are provided by NGO and private sector. Primary eye care is yet to be integrated with government's primary health care system.

Activities: Sightsavers, working with government and local NGOs for decades on eye health undertook a collaborative effort to eliminate cataract backlog from one highly underserved division (four districts) of the country. This is a partnership project (2011-2013) between Sightsavers, BRAC (one of the largest non-government development organization), government (National Eye Care, MOH) and local NGO hospitals. The intervention targeting the most vulnerable population included i) mass awareness raising for eye care services particularly for cataract using innovative communication materials like posters leaflets, "miking" (use of loud-speaker for publicity); ii) dissemination of messages by BRAC and government field staff through community meetings, health forum and home visits ; iii) joint planning at different level including formation of a functional Vision2020 committee at the district level involving multiple stakeholders; iv) training of the government field workers, medical officers, ophthalmologists and NGO hospital staff ; v) provision of quality eye care services with high volume cataract surgery by the NGO hospital partners.

Results: The results found to be highly encouraging. A total 3,31,848 poor patients received treatment against the yearly target of 3,00,000, a total of 38,549 sight restoring cataract surgeries were performed against the yearly target of 30,000 and more than 3000 community health workers and volunteers from BRAC and government were trained in primary eye care. Screening centers (Eye Corner) were established. A patient referral chain from community up to district level has been developed.

Conclusions: Initial experience reveals that this collaborative model is effective in eliminating cataract backlog and health system strengthening. Government has shown keen interest to replicate this collaborative model in other un-served and underserved areas of the country committing more resources.

Jones, Amanda

International Development Research Centre, Ottawa

Robert Geneau (International Development Research Centre)

Global health research

Using concept mapping to identify research priorities for non-communicable disease prevention in developing countries

Background: The recent Political Declaration of the United Nations High-Level Meeting on non-communicable disease (NCD) recognizes both the value of research and the need for further evidence to inform strategies for the prevention and control of NCDs. In the global context of constrained financial and human resources, areas of NCD disease research must be prioritized. Building on previous prioritization efforts and focusing on the aspect of prevention, this study aimed to produce a clearer understanding of the research priorities around the primary prevention of NCDs in low- and middle-income countries (LMICs).

Objectives: To contribute to the global discussion on NCD research priorities by engaging LMIC stakeholders in identifying what research efforts should focus on to advance action for NCD prevention.

Methods: Guided by a concept mapping methodology, participants used a web-based tool to brainstorm ideas on NCD prevention research priorities, rate the statements according to their relative urgency and to sort the statements to generate a conceptual understanding of how they relate. Emphasizing individuals from LMICs, over 850 researchers, advocates and decision-makers from a variety of health-related backgrounds were invited to participate. Particularly during the rating and sorting phases, participants were contacted so as to achieve a balance in geographic regions and expertise. Participants provided basic background information and gave informed consent.

Results: 200 individuals (86% from LMICs) brainstormed 440 statements. Redundant or out-of-scope statements were removed, leaving 87 statements. 99 individuals (84% from LMICs; 60% based in a university or research institution) rated these statements. Higher rated statements were those broadly supporting generation of national data, evidence on intervention effectiveness and development of policy-based strategies. Of the four major NCD risk factors, research on unhealthy diets was of greatest urgency. Research on understanding food industry practices and preventing industry influence ranked higher than engagement with the food industry. Sorting of statements is currently ongoing.

Conclusions: Findings from this study suggest that there is still a tension between describing the NCD problem and engaging in intervention research. Also, the high priority given to investigating commercial influence reflects the growing concerns that the food and beverage industries may be following the tobacco industry's playbook in fighting government regulations. There were contrasting research priorities across regions; this study highlights that implementation of any research prioritization agenda must take into account country-specific needs.

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Non-communicable diseases in African fragile countries

Objectives: To describe 1) The non-communicable diseases(NCDs)-related mortality profile in African fragile countries (AFC) and 2) The difference between African fragile countries and other AFC with regards to NCDs-related mortality rates

Methods : The data used were extracted from the WHO Noncommunicable Diseases Country Profiles 2011. Mean age-standardized NCDs-related mortality and percentage of death rates occurred before the age of 60 years old as a percentage of total NCDs-related death are reported for each AFC. Their means were computed for AFC, low-income countries (LIC), lower middle income (LMIC) countries and upper middle income countries (UMIC). Countries were assigned to income group according to their classification in the WHO Non-communicable Diseases Country Profiles 2011. Sixteen African countries were considered as fragile based on the World Bank Harmonized list of fragile situations.

Results : We found that in AFC 1) NCDs were responsible for a heavy toll of deaths 2) globally men were the most afflicted by NCDs 3) deaths due to NCDs occurred in a larger proportion of younger men than women 4) women are more likely to die from cardiovascular disease and diabetes than men 5) men are more likely to die from chronic respiratory diseases than women. Moreover 6) Death rates in AFC are closer to African LIC' although slightly higher in women in AFC 7) chronic diseases and diabetes death rates were higher in AFC and 8) women in AFC had the highest mortality rate due to chronic respiratory diseases.

Conclusions: NCDs are important causes of mortality in African fragile states. The negative effect of NCDs on development has been demonstrated and organizations such as the NCD Alliance suggest the inclusion of NCDs in the successor of the Millennium Development Goals. These are encouraging signs of changes towards further consideration of NCDs in health and development agendas in developing countries. However, unless political, social and economic factors specific to AFC are taken into account, NCDs epidemic in AFC will not benefit from these changes

Kelton, Gaylen

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Javier Sevilla-Martir, MD (Indiana University School of Medicine)

Human Rights and Migrant health

An Academic Medical Center's Approach to Migrant Health Care in the context of Global Health.

Background: As migrants start to become integrated into new communities, Academic Medical Centers can respond to their healthcare needs either reactively or proactively. The Indiana University School of Medicine (IUSOM), Department of Family Medicine (DFM), developed a proactive approach to caring for Indianapolis' fast-growing Hispanic/Latino community that has doubled during the last decade.

Methods: A survey conducted by the DFM revealed that the most common barriers to health care among the migrant population are: cost of services (52.4%); lack of health insurance (44%); language (37.7%); fear of system (27.8%); transportation (7.9%); lack of knowledge of available services (5.2%). Partnering with community organizations, and a community health centers network, IUSOM established programs to assist in eliminating barriers and provide culturally-appropriate clinical services. Health education improvements included smoking cessation training in Spanish, a bilingual health directory, multiple health fairs, and four annual state health summits.

Activities and Results: At the medical school level, curricular components were developed to provide students with specific clinical skills and cultural awareness needed to care for this population. Innovative curricular change is evident in the Spanish Language section of the required "Introduction to Clinical Medicine" course. Each year over 10% of incoming medical students vie for placement in this section, which accommodates 8 students. Students participate in a 2-month language and cultural immersion experience at the end of year one and continue learning history taking and physical exam in second year in a bilingual fashion. During third year students have the option to apply for the Family Medicine Clerkship locally with bilingual providers at sites with high numbers of Spanish speaking patients or abroad in Honduras through an approved international experience. Students are required to enroll in a mandatory workshop to learn how to appropriately use medical interpreters. Fourth year students are offered a local elective entitled "Care for the Underserved", with emphasis in cultural competence, quality of care and the Hispanic/ Latino community, and a Global health elective that allows two months in Honduras to complete a four year continuum with experiences that help them understand the needs of immigrants from Latin America and better served their local communities. Another well received initiative has been the very successful student run Outreach clinic, which meets the need of interprofessional clinical care for underserved populations.

Conclusions: In summary, Academic Medical Centers are uniquely positioned to address students' interest in global health while preparing them to better serve a migrant population here at home.

Kiros, Yazezew

Mekelle University, Mekelle

Hagos Abrha Teka Teka (Mekelle University), Getachew Feleke Feleke (I-TECH Ethiopia), Endalkachew Melese

Melese (I-TECH Ethiopia), Eskinder Tesfaye Tesfaye (I-TECH Ethiopia)

Training, service delivery and health human resources

Diagnostic upper gastrointestinal endoscopy by non-gastroenterologist

Background: Mekelle university hospital is the only tertiary referral hospital in Tigray region and serves a catchment area of close to five million people. I-TECH has been working closely with the university to improve quality of health service delivery and to build local capacity based on mutually identified gaps for the past couple of years. Dyspeptic symptoms account for 20% of outpatient department visits and yet the hospital had no endoscopy service. Patients used to be referred to the capital, Addis Ababa, located 780 km away; however most of the patients decline to do so for economic and travel associated problems.

Methods: The hospital established an endoscopy unit with the help of a gastroenterologist and a trained nurse and then onsite training was conducted by three gastroenterologists from Addis. Five faculty members (three internists, one surgeon and one pediatrician) were trained using didactic lectures, simulations, observation and hands-on patient sessions over a period of three weeks. Each of the trainees had a chance to perform an average of 16 upper GI endoscopies under supervision before the trainers considered them fit to perform independently.

Results: A total of 333 patients have undergone upper GI endoscopy examination, 87 during the training and 246 in the 4 months following the training. There were no complications. The findings were 37% gastritis, 21% gastric ulcer, 12 % duodenal ulcer, 9% esophageal varices, 11% bile reflux disease, 7% normal, 2% masses and in 3% of patients diagnosis was uncertain. This is equivalent to an estimated direct procedure related cost of 250 USD and ten working days saved per patient. The leadership of the university also feels increased staff satisfaction was a side benefit.

Conclusions: We found that onsite training of non-gastroenterologists on diagnostic UGI endoscopy is safe in our setting and may reduce referrals and associated cost and time. However, further study is required to assure standards and quality as the number of endoscopies performed under-supervision by each trainee is well below the standard.

Kirsch, David

University of Toronto,

Global health research

Improving results and reducing costs through greater accountability

Background: Accountability can be defined as a relationship where one party is answerable to another for meeting pre-defined objectives. As world-wide economic pressures increase, internal economic pressures can decrease the amount of discretionary funds for development assistance.

Objectives and Methods: This study sought to determine if accountability could reduce costs while improving results, by using a mixed methods approach including: a literature review to gain an understanding of accountability, organizational behaviour and under-5 mortality; key informant interviews to gain an understanding of funders, charities and the global health sector; a survey to gather the information required to answer the research questions; and a multi-case study to gather additional information.

Results: The research identified the 240 registered Canadian charities that were believed to be working to reduce under-5 mortality and surveyed them, investigating: accountability to whom, for what and why; the accountability mechanisms used and why; the standards used; the perceived effects of accountability on organizational behaviour, costs and results; the relationship between accountability and the size and type of charity, areas where they work, funding sources and how they fund their work; and finally the relationship between these, organizational behaviour, results and costs. The survey found that: charities use accountability because it is a good management practice that improves organizational behaviour, reduces risks and improves program effectiveness; charities are accountable to their management teams, staff and their boards, and to a lesser extent, volunteers; small charities are just as likely as large ones to be very accountable; small charities are less likely to have a complaints process; and most frequently, accountability is used to address internal rather than external pressures. Following the survey, a multi-case study was undertaken in order to gather detailed accountability information from a small, medium and large charity.

Conclusions: The case study confirmed the survey results and was consistent with much of what could be found in the academic literature. The study provides a Canadian perspective on accountability. It shows that accountability can reduce costs while improving results. As internal economic burdens increase, increased accountability can lead to improved results even with fewer dollars.

Kohler, Jillian Clare

University of Toronto, Toronto

Enrico Pavignani (School of Population Health, University of Queensland), Markus Michael (Consultant for Public Health and Humanitarian Aid), Natalia Ovtcharenko (Initiative for Drug Equity and Access, University of Toronto), Maurizio Murru (Public Health Consultant), Peter S. Hill (School of Population Health, University of Queensland)

Access to healthcare and medicines

An examination of pharmaceutical systems in severely disrupted healthcare systems

Objectives: Interventions in severely disrupted healthcare arenas are often focused on thin capacity building, vertical and disease-specific interventions, primarily within the public sector. Yet little is known about the role of informal pharmaceutical markets, though they are a key part of citizens' healthcare. This study aims to describe the informal pharmaceutical markets in the pharmaceutical systems of four severely disrupted countries. It also identifies areas where further investigation is needed within the framework of a recently proposed research agenda on the functioning of healthcare systems in these countries.

Approach: This research bases its findings on recently published academic papers, policy and grey literature, and field studies in Somalia, Afghanistan, the Democratic Republic of Congo and Haiti which included site visits and extensive interviews. The topic was approached by first identifying the place of informal pharmaceutical markets within the broader healthcare arena. Then the consequences on the rational use of medicines and trade networks for counterfeit medicines were considered.

Results: The public sector in all the countries was characterized by a weak Ministry of Health, strongly dependent on outside aid. Numerous factors, including a distinct lack of coordination between donors, have resulted in little change in its stable dysfunction. This has led to the proliferation of informal markets. Medicines coming from a range of legitimate and illegitimate providers are sold in market stalls and unregulated pharmacies, often accompanied by unqualified medical advice. The healthcare arena as a whole has also facilitated the development of strong trade networks for counterfeit and sub-standard medicines. However, little information was available for these networks which extend across many countries.

Conclusions: The study recognizes that all of the identified issues are deeply entrenched in the structure of severely disrupted states. The complexity of the role of informal markets is clear as pharmacies are often a key source of income yet they may present significant risks through promotion of irrational medicine use. There is a strong need for further research on these markets and their position in the healthcare arena within different communities and countries. To determine possible pathways for future interventions, the roles of all actors must be understood. Recognizing that the state of governance in severely disrupted states is unlikely to change, interventions must work with existing networks and stakeholders to attain any improvements in the safe use of medicines.

Main, Barbara

World Vision Canada, Mississauga

Apsara Rai (World Vision Nepal), Krishna Giri (World Vision Nepal), Miriam Chang (World Vision Canada), Kapil Gautam (World Vision Nepal), Dhurba Raj (World Vision Nepal)

Global health research

Open source mobile phone-based data collection software contributes to cost savings, improved data quality and efficiency of household survey in Nepal

Objectives and target groups: World Vision Nepal (WVN) and World Vision Canada (WVC) collaborated in a maternal and child health and nutrition (MCHN) project in Butwal, Nepal. The project goal is to reduce under-nutrition in children under 5 years and pregnant and lactating women. To assess key indicators, a household survey was conducted in March 2012 using simple random sampling. Sample size was 1200 children under 5 (U5).

Activities: Instead of traditional paper-based questionnaires – subjected to missed skip patterns, delays in data entry, transcription errors, and limited data entry quality control, 3 electronic questionnaires were created using open-source software found at www.episurveyor.org (Datadyne Group LLC). The questionnaires were then downloaded to Nokia mobile phones. Enumerators visited rural households and recorded responses to 150 questions. Data collected was uploaded by enumerators to the server immediately after completing each questionnaire or at the end of each day. Supervisors monitored enumerators as they interviewed mothers and measured/weighed the U5s and entered data. In Canada, the technical specialist retrieved the data set online each day to further check data quality.

Results: Further to obtaining the desired baseline dataset, use of electronic surveys offer several benefits. First; Cost savings from data collection on paper and data entry (estimated 10-20%), even after the initial purchase of mobile phones. This savings is multiplied as the phones can be used repeatedly for other surveys. Second; Improved data quality – pre-programmed data range limits, prompts and skip patterns at point of data collection contributed to fewer questionnaires/data points being excluded due to error. In addition, daily checking of data online allows for timely correction of errors. Third; Real-time access to dataset for multiple stakeholders as data is uploaded daily. This helps managers make timely programming decisions and share data for communication and advocacy purposes. Unfortunately, mapping of households proved problematic as only 7% of households had identified GPS coordinates. This was due to the 30 minute time frame for the phone to synchronise coordinates.

Conclusions: Appropriate, open-source data collection software for use with mobile phones is a promising tool to improve project monitoring and evaluation in resource-poor settings through enhancing data quality, providing program managers and decision makers timely access to survey data, while saving costs associated with data transcription, coding and entry.

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Global health research

La culture de rente comme déterminant de l'insécurité alimentaire : perspectives des producteurs de coton et acteurs de la communauté au Burkina Faso

Introduction : L'intensification des cultures de rente a été identifiée comme solution au double problème de la pauvreté et de la malnutrition rurales dans les années 1970. Toutefois, des recherches ont montré que les effets de ces cultures sur la santé et la nutrition étaient ambigus. Au Burkina Faso, grand producteur de coton, cette activité a impulsé la croissance économique nationale. Cependant, 83% de la population a souffert d'insécurité alimentaire en 2009 et les taux de malnutrition infantile n'ont pas baissé. Il est donc important de tenir compte du point de vue des agriculteurs pour comprendre comment la culture de coton peut influencer la sécurité alimentaire et la nutrition des ménages.

Objectif: Documenter la perception des producteurs de coton, de leurs femmes et des acteurs de la communauté quant à la dynamique existant entre le rôle de la femme, la culture de coton et l'insécurité alimentaire.

Méthodes: Douze groupes de discussion ont été conduits en décembre 2011 dans quatre villages et donc 39 acteurs de la communauté, 44 agriculteurs et 40 femmes d'agriculteurs y ont participé.

Résultats: Selon la perception des participants, les revenus provenant de la production de coton ont favorisé le développement socio-économique de la région et des ménages. Ces économies seraient toutefois rarement investies dans l'alimentation des familles puisque c'est l'homme qui gère l'argent. En effet, les hommes alloueraient seulement 2,5% de leur argent aux besoins alimentaires de la famille et 4% à la santé, alors que les femmes investiraient au moins 50% de leurs revenus dans les besoins alimentaires et sociaux de leurs enfants. Cependant, à cause du déséquilibre dans le processus de décision dans ce contexte culturel, les femmes ne participent pas souvent aux décisions sociales concernant le ménage et, par conséquent, ne contrôlent pas ou très peu les ressources financières issues du coton. Puisque récolter du coton prend plus de temps que les cultures vivrières, les femmes ont moins de temps pour participer aux activités de promotion de santé et de nutrition incluant les programmes de survie et de développement du jeune enfant. Cette charge de travail augmentée diminuerait alors la capacité des femmes à prendre soins de leurs enfants, augmentant ainsi les risques de malnutrition infantile.

Conclusion: Selon les participants, bien que la production de coton augmente le revenu des ménages, cette culture de rente engendre bien souvent un «cercle vicieux» où certains ménages deviennent plus vulnérables à l'insécurité alimentaire et à la malnutrition infantile.

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Global health research

Knowledge Translation and the Social determinants of Dengue Fever in Machala, Ecuador: A Participatory Approach to Scaling-up Local Success

Objectives: There is an international movement toward increasingly participatory and community-based dengue prevention and control programs across Latin America and the Caribbean, but focus on practical knowledge translation (KT) strategies for scale-up and policy change is historically weak. Participatory development of a KT strategy based on existing patterns of information flow, perceptions of stakeholder groups and inter-institutional bridges and barriers should reinforce existing intersectoral spaces for collaboration, create new intersectoral spaces and promote more equitable power-sharing between communities, policy makers, practitioners and researchers in the scale-up and policy change process. Equitable power-sharing between stakeholder groups should be a priority.

Approach: As part of a 7-country study on the Eco-Bio-Social Determinants of Dengue in the LAC region, 20 neighbourhoods in Machala, Ecuador are involved in the scaling-up of an innovative and participatory dengue prevention program piloted in the same city in 2009. Stakeholder analyses and Full-Relational Social Network Mapping based on 26 semi-structured and key informant interviews, 14 focus groups and 80 community meetings identified three main stakeholder groups, Community, Government and Research actors and socio-political dynamics that govern their cooperation in scale-up efforts and policy development. Power-sharing models for policy change were constructed from 120 priority-setting surveys administered across all stakeholder groups ranking 58 identified dengue prevention program elements.

Results: Perceptions particular to stakeholder groups and sub-groups influence the acceptability and sustainability of community-based strategies uniquely in different neighbourhoods. Of particular interest is how the dynamic of perceived “Quemeimportismo” (feelings of apathy or futility toward preventive health strategy) in the community and “Resentimiento Social y Paternalismo” (a perception of a lack of government interest/acknowledgment of social problems coupled with paternalistic health programs) affects the understanding and definition of the “problem of Dengue” and agreement on which groups are responsible for developing viable solutions.

Conclusions: A context-specific KT strategy that proposes to strengthen existing communication/collaboration bridges, diffuse barriers to whatever extent possible and create new opportunities for intersectoral cooperation in the scaling up and policy development processes must include elements to work within this dynamic rather than subvert it. Power-sharing models for KT and policy change increase the perceived applicability and practicality of participatory KT and scale-up techniques for the stakeholders in Machala with regards to dengue prevention and control.

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Training, service delivery and health human resources

A qualitative review of child abuse and neglect among orphaned children and youth living in extended families in sub-Saharan Africa

Background: There are 56 million orphans living in Sub-Saharan Africa. The majority of these orphans are being cared for by extended families. The extended family network is being overstretched because of limited resources and the sheer numbers of orphans in need of care. Researchers and international aid organizations have reported that orphans in sub-Saharan Africa are particularly vulnerable to abuse and neglect. Given that child abuse and neglect are related to caregiver stress and poverty, this vulnerability to maltreatment is likely to increase if socioeconomic conditions worsen.

Objectives: We reviewed qualitative studies that address experiences of maltreatment among orphaned children and youth living in extended families in sub-Saharan Africa. We sought to inform policy and programming by providing a better understanding of the types and impact of maltreatment encountered, perceived risk factors, role of poverty, consequences for mental health, and coping mechanisms.

Methods: A literature search was carried out using Google, Pubmed, Scholar's Portal Search and Scopus. Searches of relevant bibliographies and publications of authors were also undertaken. Studies from peer-reviewed journals and the grey literature were reviewed for relevance and quality. Eligible studies had to include orphans living with extended family in sub-Saharan Africa as participants, explore their maltreatment experiences, and employ a sound qualitative methodology. Findings were coded, extracted, compared and synthesized.

Results: Twenty articles, representing 15 studies, were identified. These studies, from diverse sub-Saharan African countries, reported similar forms of maltreatment among orphaned children and youth: experiences of intra-household discrimination; material and educational neglect; excessive child labour; exploitation by family members; and psychological, sexual and physical abuse. The perceived risk factors were poverty, living with a non-biological caregiver, stigma, and alcohol abuse. In fact, poverty was described as underlying much of the maltreatment experience. Throughout the included studies, limited resources were thought to contribute to intra-household discrimination, exploitation by family members, child labour demands, and stress that resulted in abuse and neglect. The impact of maltreatment on participants included mental health problems, social isolation, and a sense of hopelessness. The coping mechanisms described involved social support and education.

Conclusions: Our findings suggest that awareness, prevention and intervention initiatives aimed to curb child abuse and neglect within communities in sub-Saharan Africa are needed. Nevertheless, they are unlikely to succeed unless they are coupled with efforts to promote education, tackle stigma, and above all, reduce poverty.

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Training, service delivery and health human resources

The Role of Social Geography on Lady Health Workers' Mobility and Effectiveness in Pakistan

Objectives: The Pakistan Lady Health Worker (LHW) program is cited as one of the more successful programs providing doorstep reproductive health services to women in a context where patriarchal norms of seclusion prevent women from travelling to static healthcare facilities. The program has not, however, achieved optimal functioning. One reason, we argue, may be that the LHWs face the same gender barriers to women's mobility that necessitated their appointment in the first place. One aspect of women's seclusion is that their social interaction is limited to biradari members. A biradari is a group of households related by blood. Irrespective of physical location, the presence of a biradari or non-biradari member transforms a space into socially acceptable *andar* (inside) or unacceptable *baar* (outside), respectively. This study aims to understand how these cultural norms affect LHWs' home-visit rates and the quality of services delivered.

Methods: A mix of quantitative and qualitative data were collected. Twenty-three LHWs drew social maps of their catchments areas, which were then used to survey 841 women of reproductive age. The survey data was linked with the maps using ArcView to visually delineate the LHWs social geography. In addition, the LHWs and 27 community members were interviewed in-depth to elicit information about issues and constraints of the LHWs' workplace.

Results: Thirty-nine percent of women reported their LHW was a member of their biradari. Women who reported the LHW was their biradari member had 75% higher odds of being visited than respondents who did not have a biradari relationship with their LHW. They were also twice as likely to be satisfied with their supply of contraceptives. The maps showed this relationship visually. Qualitative data showed that the LHWs job is a low-status job, primarily because of its mobility and home-visit requirements. Therefore, only poor, low caste women took up the opportunity. These characteristics compromised the LHWs' professionalism in the eyes of the richer and higher caste community members, who then did not accept their services.

Conclusions: Our results suggest the LHWs are more comfortable visiting their biradari members, supporting the ethnographic finding that biradari households constitute their acceptable social geography. However, based on the finding that LHWs are usually poor, low-caste women (and on the assumption their biradari members are similar), it can be concluded that the LHW program may be inadvertently providing healthcare services to the poor, and otherwise socially excluded people.

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Training, service delivery and health human resources

Examining access to HIV-related health services for persons with disabilities (PWD) in Zambia: Toward a participatory accessibility assessment tool

Objectives: To explore the perceptions of (a) people with disabilities who are HIV-positive and (b) key informants who work in HIV and disability, regarding provision of HIV-related health services for people with disabilities in Lusaka, Zambia.

Methods: In-depth semi-structured interviews were conducted with 32 participants: (a) 21 people (12 women, 9 men, aged 29-61) with disabilities (impairments: 12 mobility, 4 visual, 3 hearing, 2 intellectual) who are HIV-positive and living in Lusaka, and (b) 11 key informants working in related fields. Data were analyzed using descriptive and thematic analysis techniques. Ethics approvals were received from the University of Zambia, University of KwaZulu-Natal and University of Toronto.

Results: Participants described their experiences and perceptions of accessing HIV prevention (including voluntary counseling and testing), ART, and other forms of HIV care and support for PWD. Reported barriers to access were widespread and linked to disability-related stigma among other factors. PWD were often perceived as not needing HIV-related health services because of (1) inaccurate assumptions about PWD being asexual, and (2) lack of knowledge about the elevated rates of sexual exploitation and abuse faced by PWD (especially women and girls) compared to able-bodied peers. As a result, participants reported PWD as being intentionally excluded from services and rituals that provide sex education. PWD were also excluded from HIV-related health services due to physical barriers (e.g., unable to access a building) and communication barriers (e.g., lack of sign language interpretation). Participants reported PWD being treated differently than able-bodied peers when found to be HIV-positive, including compromised confidentiality and health workers choosing not to disclose the diagnosis to the PWD her/himself. Women with disabilities described discovering their HIV+ status after delivering children, thereby being excluded from PMTCT for their babies. Positive responses to these challenges were also reported, such as sign language interpreters being trained in VCT counseling.

Conclusions: Results call urgently for strategies to enhance accessibility of HIV-related health services for persons with disabilities in Zambia. One response is the development of a tool to assess accessibility in clinics and hospital settings. A core component of the tool could be the inclusion of PWD as co-implementers of the assessment in partnership with HIV health workers. Collaborative prioritization of actions could serve to not only identify the most relevant and high-impact accessibility solutions, but also break down barriers related to disability stigma by engaging the expertise of PWD throughout the process.

Noga, Jacqueline

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Gregor Wolbring (University of Calgary)

Global health research

A Cost-Benefit Analysis of Providing People with Disabilities Accessible Clean Water and Sanitation

Objectives: The aim of the research was to perform a cost-benefit analysis of providing accessible clean water and sanitation to people with disabilities, thus examining the issue of inaccessible water infrastructure using a novel angle

Methods: Using existing data on prices of accessible infrastructure, the current condition of the economy based on the exclusion of people with disabilities, and the economic and social benefits of providing universally accessible water sources, this study has generated a comprehensive cost-benefit analysis of providing access to clean water and sanitation, including the social benefits, looking at both developing and industrialized nations.

Results: We found that the cost of providing access to clean water and sanitation ranges from US\$ 33.09 for handrails to US\$ 8000 for automatic doors. The economic benefits include a regain in the GDP lost due to an inefficient labour market and a poor and unhealthy population; the amount of GDP regained varies with each country. The economic benefit stems from improved health, employment and education. The social benefits include a step towards achieving the Millennium Development Goals (MDGs) and the possibility of receiving foreign investments on a large scale, and increased subjective, psychological, and economic wellbeing and a gain in time and education for the individual. These benefits are a result of improving current policies to be more inclusive of people with disabilities, and are not all directly related to water policies, the increased ability to work, or increased productivity.

Conclusions: In order to give another impetus for covering the access to water and sanitation for people with disabilities the authors present the benefits for countries, for society and for people with disabilities alike that is linked to providing access to water and sanitation. It is demonstrated that the benefits are greater than the cost. The approach taken and the data presented may provide another angle in the repertoire for people asking for access to clean water and sanitation, and might be used by global health initiatives, with other academic fields and non-academic policy institutes and NGO's and people with disabilities globally.

In accordance with Sarah Brown's discussion with my supervisor Dr. Gregor Wolbring, we were told to indicate that the oral presentation will be via mp3 file or youtube channel, as physical attendance is not feasible due to lack of travel funds for the students.

Olabiya, Olayemi

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Global health research

The Role of Remittances in Reducing Food Insecurity during the Global Food Price Crisis of 2006-2008

Background: The global food price crisis of 2006-08 had a deleterious effect on the purchasing power of consumers in low- and middle-income countries (LMIC), especially the poor in Low-Income Food Deficit Countries. Lack of social programs in these countries increases the importance of external financial assistance by way of remittances in tackling food insecurity. Remittances in turn do not incur country indebtedness, do not reduce a country's competitiveness, have a greater likelihood of reaching the target group, and are less likely to be suddenly withdrawn than other external aid sources. This paper tested the hypothesis that remittances had a relatively higher significant effect on LMIC food insecurity during versus before the global food price crisis of 2006-08.

Methods: We analyzed unbalanced data from the Global Market Information Database and the World Development Indicators Report for fifty-four LMICs in Sub-Saharan Africa, Latin America, South Asia, the Middle East and North Africa over a nineteen year period (1990-2008) using dynamic panel regression. The dependent variable was food insecurity measured as the ratio of total food exports to total food imports. A high ratio suggests a country is less vulnerable to fluctuations in global food prices and thus experiences high food security. The ratio of remittances to GDP (the main outcome variable), food prices, per capita GDP, domestic inflation, and population growth were included in our regression analysis.

Results: The effect of remittance flows on reducing food insecurity was significant in both time periods but doubled during the global food price spike [i.e., ($\beta=0.071$ ($p=0.000$) before versus ($\beta=0.150$ ($p=0.000$) during]. We found that a 10 percent increase in remittance flows lessened the negative consequences of food prices on food insecurity by 0.8 percent, all else constant.

Conclusions: Remittances are a source of reliable external financial assistance capable of dousing the negative effect of global food price spikes in LMICs. Future research is needed to investigate host country factors that facilitated remittances during the food price crisis of 2006-08; and the potential reach of remittance opportunities among emigrant donors and non-migrating recipients.

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Shifting demographics and the disease burden

Do remittance flows differ by health conditions? Evidence from Sub-Saharan Africa

Background: Although a significant relationship exists between improved child health and higher remittance flows (i.e. transfer of funds from emigrant relatives) in Sub-Saharan Africa (SSA), little is known about how differences in adult health conditions are associated with remittance flows in the region. This study investigated the association between: adult HIV prevalence rates and tuberculosis prevalence rates among HIV-negative persons and remittance flows in Sub-Saharan Africa as a whole and by low-income and middle-income country status.

Methods: This study analyzed unbalanced annual data from the World Development Indicators Report, the WHO, Polity IV Project, and UNAIDS for thirty-four SSA countries over an eighteen year period (1990-2007). Twenty-one of these countries, were categorized as low-income. The hypothesis that remittance flows differed by health condition was tested by considering the adult (aged 15-49years) HIV prevalence rate as the main explanatory (outcome) variable when important confounders were controlled for including the income differential between host (USA) and home country of emigrant remittance provider; depreciation of the home relative to the host country's currency; tuberculosis prevalence rates among HIV-negative persons per 100,000 population; and a measure of corruption in the provision of public services. Static and dynamic panel regressions were used to examine how health conditions as well as political and economic factors influenced remittance flows into Sub-Saharan African countries.

Results: Both static and dynamic regressions, after controlling for economic and political factors, revealed that adult HIV prevalence ($\beta = 0.037$, $p=0.001$) was negatively associated with remittance flows in Sub-Saharan Africa. The magnitude of the negative relationship was significantly greater in low-income ($\beta=0.092$, $p=0.001$) than in middle-income Sub-Saharan African countries ($\beta=0.032$, $p=0.001$). Conversely, tuberculosis among HIV-negative population was positively associated with remittance flows in low-income ($\beta=0.003$, $p=0.043$), middle-income ($\beta=0.006$, $p=0.045$), and Sub-Saharan Africa region as a whole ($\beta=0.004$, $p=0.001$).

Conclusions: Remittance flows appear to vary by the home country's income level as well as by health conditions prevalence in SSA. Populations with more tuberculosis among HIV-negative persons received proportionately more remittances than those with high prevalence rates of adult HIV. Reasons for this disparity should be further investigated.

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Healthcare research

The healthcare reform in Quebec: Has equity improved in the provision of primary healthcare (PHC) among Immigrants between 2005 and 2010?

Objectives: In the early 2000's, Quebec initiated major changes in its healthcare system, creating Family Medicine Groups (FMG) and Health and Social Service Centers (HSSC). These were established partly to improve accessibility to PHC services among vulnerable populations. Immigrants fall into this category. Our goal is to compare the level of equity in access to services for immigrants between both years.

Methods: Data were collected from a population-based telephone survey conducted in 2005 in two regions of the province of Quebec, Montreal and Montérégie (n = 9208). The survey was repeated in 2010 (n =9180). Comparisons between 2005 and 2010 were established with indicators relating to utilization of emergency room (ER) services, utilization of primary care facilities and affiliation to a family physician. Multivariate analyses were performed using utilization variables as dependent variables, and length of stay in Canada as the principal independent variable.

We controlled for age, sex, income, education and morbidity level.

Results: 1) In 2005, people who have been living in Canada for 1-2 years are twice as likely (OR=2) to have a family physician than newly arrived immigrants (less than one year); people living in Canada for more than 10 years are 5 times as likely (OR=5) than the newly arrived to have a family physician. In 2010, these ORs have increased to 3 and 8 respectively. 2) In 2005, the likeliness of having visited a primary care facility is 5 times greater for people living in Canada for 1-2 years and 8 times greater for people in Canada more than 10 years, when comparing to newly arrived immigrants. The situation in 2010 is unchanged. 3) In 2005, anyone who has been in Canada for more than one year is 3 to 4 times more likely to have visited an emergency room, when compared with newly arrived immigrants. The same applies to 2010.

Conclusions: Improvement in accessibility is unevenly shared by sub-groups of the population. Newly arrived immigrants are much less likely to use primary care facilities and ER services, as well as to have a family physician, than other groups, even when need is taken into account. The lower likeliness of use of primary care services in the newly arrived group is not offset by higher use of ER services. No change has been detected between 2005 and 2010, suggesting that existing inequities still need to be addressed.

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Global health research

Advancing health equity through a qualitative exploration of roles and challenges of nurses working within rural and Northern Aboriginal communities

Objectives: The purpose of the study is to: explore what are the roles and challenges of nurses working within rural and Northern Aboriginal communities; and, what resources can help support or impede nurses' efforts in working towards addressing health inequities within these vulnerable communities.

Methods: Semi-structured interviews were conducted with 25 participants including front-line nurses and key informants within a rural community-based hospital and nursing stations in Northern Saskatchewan. Participants described their skills, knowledge, and experiences of providing primary health care throughout their practice within rural and remote contexts.

Results: Many participants spoke about the responsibility and value of providing preventive care to a population where various chronic and communicable diseases are preventable. Participants also offered that the responsibility of primary health care delivery falls within their scope of practice including areas of: emergency, acute care, home care, community health, public health, and mental health nursing. Suggested recommendations include strengthening relationships across programs and jurisdictions in working towards health promotion and prevention of illnesses.

Conclusions: Chronic diseases and illnesses among Aboriginal people is a growing concern at a national to global level that is leaning towards crisis health intervention. Health care policies which identify nurses' roles and challenges will have relevance across populations, and will promote a high standard of health care delivery services tailored to meeting community health and cultural needs at a localized level of care within rural Northern Aboriginal communities with global applicability.

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Marie-Hélène Chomienne (University of Ottawa - Montfort Hospital)
Global health research

Assessing health needs amongst women in the rural community of Colli, Benin: a community-participatory approach.

Background: Since 2003, University of Ottawa family physicians, residents and medical students, as part of an international medical rotation in Benin have delivered care annually in the rural village of Colli. Until now, limited work had been done to formerly assess health needs in the community.

Objectives: (1) To determine women's perception on priority health needs, as well as identify attitudes, knowledge, and practices relating to these health priorities. (2) For participants themselves to identify potential solutions addressing health needs, and empowering them to take active steps towards improving their health.

Methods: We conducted 4 focus groups – groups were equally composed of “young women” (15-24 yrs) and “mature women” (25-55 yrs) to allow inter-generational transmission of information - and semi-structured interviews with six key health informants.

Results: Lack of family planning and thus complications of multiparity as well as poor access to healthcare were cited as the main health priorities. Most women did not practice family planning, and cited their husband's negative perceptions of birth control as the main reasons they did not. Older women were more knowledgeable about different contraception methods than younger women and encouraged younger women to practice family planning. Poor access to local healthcare was blamed on distance to the nearest health center and cost of traveling and medical consultation. Because of these barriers, women often initially seek traditional treatments, and wait until they deteriorate clinically to consult at the health center.

Solutions identified by participants involved: organizing regular education sessions with the trusted local female health agent and creating small-groups to disseminate new learnt information; teaching of healthy sexuality and family planning by older women at the local high school; putting funds in common to help cover the cost of travel and consultation for women who are ill. Key health informants cited that in addition to increasing the education of girls and women, it is important to inform, educate and sensitize men, particularly regarding family planning.

Conclusions: To better respond to women's health needs in Colli in a sustainable manner, it is essential to work in partnership with the community and increase the health education component of the medical mission. Educational sessions should involve community leaders and not only target women, but also men to help change their perceptions regarding family planning. Community-members can find solutions rooted in the community to help address their health needs.

Silva, Erika

COHRED - Council on Health Research for Development, Geneva

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Global health research

Time to engage society in health research: maximizing the role of Civil Society organizations in Global Health Research

Background: The attainment of better health will only be possible with the participation of all disciplines and institutions involved in health and development, especially of civil society organizations (CSOs). Through their direct contact with communities and because of their independence from governments and the market, their flexibility, multidisciplinary, capacity to tap private initiatives, CSOs are well positioned to be an important partner in health research and development, and yet their role in health research is not widely known or recognized, and their research findings might not be utilized beyond their local context.

Objectives: In response to the Bamako call for action, and with the firm belief that involving CSOs in the research arena would reduce health inequalities, the COHRED Group has been working towards visualizing the role of CSOs in research for health and innovation and to facilitate the strengthening of their research capacities.

Approach: An online platform for Civil Society Organizations has been developed— cso.healthresearchweb.org— where CSOs active in research and innovation can input their information and share best practices, stories and tools. A critical component is a discussion platform where CSOs can identify areas where they are having impact and where they need strengthening in addition to engaging in discussion of issues of common interests. At the 2012 Global Forum for health Research, CSOs were an important constituency and their inputs and involvement in health research was also considered for the present work

Results: Information of more than 300 global and local CSOs working in health research has been obtained and analysis of their research activities is being conducted. In general, CSOs are covering all aspects of research from the generation of new knowledge to influencing policies to knowledge utilization. Often by addressing the community's research for health needs are dramatically improving the health outcomes of the population they serve or represent. In addition, many of them are involved in improving research capacities of governmental human resources and others are linking with universities and research institutions. Publishing in scientific journals, accessing funding from traditional research organizations and analyzing of data are areas they recognized as in need of strengthening.

Conclusions: Civil Society Organizations are finding solutions to relevant local and global problems and are bringing innovative approaches to development. To achieve faster and widespread health impacts they need to be considered as important partners in research for health and development by governments, funders and the scientific community alike.

Strasser, Roger

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Training, service delivery and health human resources

Health Human Resources for the Underserved in the Shifting Economy: Canada's Northern Ontario School of Medicine

Background: Northern Ontario is geographically vast with a volatile resource based economy and socio-economic characteristics that differ from the south of the province. 40% of the Northern Ontario population live in rural and remote areas where there are diverse communities and cultural groups, most notably Aboriginal and Francophone peoples. The health status of people in the region is worse than the province as a whole, and there is a chronic shortage of doctors and other health professionals.

The Northern Ontario School of Medicine (NOSM), a joint initiative of Laurentian University, Sudbury and Lakehead University, Thunder Bay, is a rural distributed community based school which has a social accountability mandate to contribute to improving the health of the people and communities of Northern Ontario. In addition to the MD program since 2005 and residency programs since 2007, NOSM established the Northern Ontario Dietetic Internship Program (NODIP) in 2007 and a collaborative province-wide Physician Assistant (PA) program in 2010. All of these programs recruit students from Northern Ontario or similar backgrounds and provide education in over 70 clinical and community settings located in the region.

Methods: NOSM and the Centre for Rural and Northern Health Research (CRaNHR) used mixed methods studies to track NOSM medical learners and dietetic interns, and to assess the socio-economic impact of NOSM.

Results: 91% of all MD students come from Northern Ontario with substantial inclusion of Aboriginal (7%) and Francophone (22%) students. 63% of MD graduates have chosen family practice (predominantly rural) training. 29% of PA graduates and 80% of the NODIP graduates are practising in Northern Ontario. The socio-economic impact of NOSM included: new economic activity, more than double the School's budget; enhanced retention and recruitment for the universities and hospitals/health services; and a sense of empowerment among community participants attributable in large part to NOSM.

Conclusions: After seven years of recruiting applicants from an underserved health human resource region, there are signs that NOSM is successful in graduating health professionals who have the skills and the desire to provide healthcare in rural/remote underserved communities. Overall, there is evidence that NOSM's rural distributed community based health professional education programs are having a pervasive, extensive and constructive influence on this underserved region. This successful model is transferrable to underserved areas around the world.

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Global health research

Maximizing the impact of school-based deworming programs against absenteeism and parasitic infections through health education

Objectives: Soil-transmitted helminth (STH) infections are the most important cluster of neglected tropical diseases in the world; over two billion people are currently infected with the parasitic worms *Ascaris*, *Trichuris* and hookworms. School-age children experience higher STH infection prevalence and intensity than any other age group. Furthermore, infected children are at increased risk of physical and intellectual growth impairments, and of school absenteeism. It is thus recommended that children in worm-endemic regions be treated as part of school-based deworming interventions. However, the impact of such interventions is usually short-lived; although deworming drugs are successful at clearing STH infections, re-infection rates following deworming are very high. It is thought that enhanced health education programs could increase the effectiveness and sustainability of deworming interventions, by modifying the unhygienic behaviours associated with re-infection in children. This study evaluated the impact of enhanced health education on absenteeism in Grade 5 children in Loreto, Peru, following a deworming intervention.

Methods: A randomized controlled trial was conducted in Belén, a community of extreme poverty in the Peruvian Amazon. Grade 5 children from 18 elementary schools were dewormed. Immediately after the deworming intervention, an enhanced health education program was implemented in 9 randomly selected schools, while the other 9 schools followed the standard curriculum. After four months follow-up, a questionnaire was administered to the children to assess STH infection knowledge. Stool specimens were collected to measure re-infection, and schoolteachers provided daily absenteeism data. Complete data are available for 1,158 children.

Results: Hookworm re-infection was associated with a 4.11% increase in absenteeism (95% CI: 1.96, 6.30); *Trichuris* re-infection was associated with a 2.64% increase in absenteeism (95% CI: 1.62, 3.67); and *Ascaris* re-infection was associated with a 1.13% increase in absenteeism (95% CI: 0.06, 2.20). Although the enhanced health education program was associated with significant increases in STH infection knowledge, children in intervention schools had only a 0.08% decrease in absenteeism (95% CI: -1.08, 0.93).

Conclusions: Increased absenteeism was associated with STH re-infection, an association that was apparent after only four months post-deworming. Over the academic life of a child, cumulative absenteeism can negatively affect school performance and limit future employment opportunities, thus perpetuating a vicious cycle of poverty. Future research is needed to understand the dynamic interplay between health education, STH re-infection and absenteeism, so that deworming interventions can attain their maximum long-term impact.

Thompson, Pamela

Global Village Consulting, BC, Canada

Training, service delivery and health human resources

**Building Capacity for Strategic and Operational Planning in the Ministry of Public Health (Afghanistan):
Strategies and Lessons Learned**

Background and Objectives: In spite of major achievements in the health sector in recent years, Afghanistan still lags behind countries in the region with respect to key health outcomes; particularly in the areas of maternal, infant and child health.

Based on the identified need for an overall organizing framework for the Ministry of Public health (MoPH) and in anticipation of movement toward a Sector Wide Approach (SWAp) in the health sector in Afghanistan, the Ministry committed to developing its first Strategic Plan for 2011-2015 with a Performance Measurement Framework, and a new operational planning process.

Strategic and operational plans are critical in today's shifting world economy. Without a strategic plan government departments lack priorities and a focus for their activities. Such plans enable departments to see how they "fit" into the larger organization and how they contribute toward a common mission and vision. In addition, managers and staff need to understand the value of planning, have a standardized process for annual workplanning, have the capacity to plan and focus on results in their operational plans.

Methods: This presentation will describe a Canadian consultant's experience living and working in Kabul as a Technical Advisor, from mid-October 2010 to mid-November 2011 and providing virtual support during 2012. In particular it will focus on strategies used to build the capacity of a designated non-English speaking team in the MoPH and the lessons learned. The lessons can, not only be applied to Ministry's of Health in conflict zones, but to other Ministries and organizations in both the developed and developing world.

Conclusions: The experience demonstrated how a number of methods including onsite coaching and mentoring, actively engaging senior management in the process, using participatory processes, equipping a designated team with tools and skills to provide support and feedback to colleagues, and putting in place a monitoring and reporting system with clearly defined roles and responsibilities, are critical to building planning capacity and maintaining it in the longer term.

Edilene Mendonça Bernardes (University of São Paulo at Ribeirão Preto College of Nursing)

Ventura, Carla

University of São Paulo at Ribeirão Preto College of Nursing, Ribeirão Preto

Human Rights and Migrant health

The Inter-American Commission on Human Rights and Cases of Violation of the Right to Health involving Brazil in the period from 2003 to 2010

Background: Requirements for democratization and ethics are increasing in this shifting world, especially through the mediation of some international organizations, such as the Inter-American Commission on Human Rights and the Inter-American Court on Human Rights, enabling the access of citizens to these supranational entities in order to present petitions regarding violations from governments which did not respect human rights.

Objectives: In this context, this study aimed at identifying complaints of violations of the right to health by the Brazilian government filed to the Inter-American Commission from 2003 to 2010.

Methods: Data were collected at the Commission site through the Commission Reports. Results showed that the demand of Brazilian citizens referred mainly to violations of the right to life with complaints involving homicides, tortures, workers' injuries, people living in the streets, executions and fights for the occupation of land involving rural workers and the indigenous population. The petitions regarding the right to health were related to government's negligence on the consolidation of the right to health in the country, resulting in deaths.

Results: From the total of cases analyzed (five from the reports sent to the Court by the Commission and fifty eight from the Annual Commission reports), only three were related to health. One of them was judged by the Court and condemned Brazil for the violation of articles 01, 04, 05, 08 and 25 of the Inter-American Human Rights Convention, due to the death of a psychiatric patient hospitalized in the state of Ceará. Another case presented in the annual report of 2008 was related to the death of ten newborn infants due to medical malpractice in a Clinic in the state of Rio de Janeiro. The Commission admitted the petition agreeing about the violation of articles 1.1; 4.1; 5.1; 8.1; 19 and 25 of the Inter-American Convention. The third case was found in the 2010 report and is about medical malpractice that caused physical and mental problems to a five years old child in the state of Manaus. This case was archived because the Supreme Court in Brazil had decided about it.

Conclusions: Therefore, although the access to the Inter-American Commission is possible to Brazilian citizens, there are still only a few cases related to violations of the right to health in the country. This situation must occur because the information about the access to the Commission is still not disseminated among the population.

Ventura, Carla

University of São Paulo at Ribeirão Preto College of Nursing, Ribeirão Preto

Isabel Mendes (University of São Paulo at Ribeirão Preto College of Nursing), Maria Auxiliadora Trevizan (University of São Paulo at Ribeirão Preto College of Nursing)

Human Rights and Migrant health

Health care and the human rights of people with mental disorders and drug users: the perception of health professionals

Background: Human rights represent the rights of all human beings. They are built in a process of constant historical changes and had a progressive transformation after the creation of the United Nations in 1945. The right to health is a social human right which requires a positive action from each country, with the development and implementation of laws and public policies. In Brazil, these rules were established with the Federal Constitution in 1988. Also, in 2001, within the movement of psychiatric reform, the Law 10.216 established a new network for psychiatric care based on the respect of the rights of patients with psychiatric disorders.

Objectives: This study aimed at comparing the perception of mental health services professionals from a city in the state of São Paulo, Brazil, about users' human rights and how their rights are being respected during health care.

Methods: This was a qualitative study. In order to collect data, authors used semi-structured interviews with 17 professionals from the Psychosocial Care Center (CAPS) and the Psychosocial Care Center for Drug Users (CAPS-AD) of an inner city in Brazil. Data were analyzed using Thematic Analysis.

Results: Professionals showed different conceptions on human rights and lack of knowledge regarding the definition and concretization of these rights involving access to service, number of professionals, adequate space and patients' autonomy. Results demonstrated that human rights are not totally respected, mainly when we consider persons with mental disorders and drug users.

Conclusions: It is necessary to increase professionals' awareness about human rights meaning and importance.

Weinger, Sandra

Pan American Health Organization/World Health Organization (PAHO/WHO), Washington, D.C.

Mariana Crespo (Organización Panamericana de la Salud/Organización Mundial de la Salud (OPS/OMS) - Buenos Aires, Argentina)

Training, service delivery and health human resources

Policy and program exchange between two geographically extreme communities

Background: This project arose from a visit to Iqaluit, by Dr. Mirta Roses Periago, Director of the Pan American Health Organization (PAHO) and Minister Leona Aglukkaq in April 2008 to participate in the 10th anniversary of the establishment of Nunavut. The project set the stage for a model of Pan American cooperation (Panamericanism) and solidarity between the most northern and most southern geographic areas of the hemisphere. Similar demographic trends and health risks affect these two regions - Argentina's Tierra del Fuego (TDF) province and Canada's territory of Nunavut. Collaboration and cooperation among the countries of the Region has become an essential tool to establish and develop strategic areas and approaches to find common themes, in order to reduce inequities in the Region and within countries. The project provided an opportunity to exchange experiences and sharing on the lessons learned in TDF and Nunavut in tackling health issues of common concern (i.e. culturally appropriate human resources for health, including indigenous health workers and managers; innovative approaches to the delivery of primary care services in remote locations, including the use of telehealth; prevention and control of communicable diseases such as tuberculosis; health promotion including nutrition, food security, diet and physical exercise and mental health well being, sexually-transmitted infections, drug and alcohol abuse).

The partners engaged in this project included:

- PAHO
- The Ministry of Health in Buenos Aires, Argentina;
- The Ministry of Health of Tierra del Fuego Province;
- The Health and Social Services Department, Nunavut, Canada;
- Health Canada.

Objectives: 1) Build on the existing relationship between Canada and PAHO and strengthen capacity among Indigenous and Inuit health leaders in the region of the Americas. 2) Foster information exchanges on health and issues of mutual interest through the exchange of experiences and lessons learned among the health authorities of Nunavut and TDF, and the Ministries of Health of Argentina and Canada. 3) Increase knowledge and awareness of common health challenges impacting the health of the population groups through heightened Pan American solidarity by highlighting best practices and lessons learned on strategies to: (i) address the principal health problems and their determinants of the target populations, (ii) provide training for appropriate health care services for populations in both territories, and (iii) organize preventive and promotion primary health care services.

Activities: 1) A Canadian delegation composed of Inuit health authorities from Canada and the Territory of Nunavut visited TDF. 2) An Argentine delegation composed of national and provincial health authorities visited Nunavut.

Results: 1) A brochure printed in Spanish, English, French and Inuktitut, outlining the principal outcomes and new expertise resulting from this exchange and disseminated among the countries of the Region. 2) A website to publish the main results of this exchange to provide guidance for project participants and others interested in similar projects. <http://new.paho.org/nortesur/?lang=en>. 3) Virtual exchange of information using Elluminate technology to provide participants a forum for future technical exchange of best practices, experiences, and data.

Zakus, David

Faculty of Medicine and Dentistry, University of Alberta, Edmonton

Global health research

Where for Global Health Systems Research

The world is changing at such a pace, but commensurate policies and programs can't keep pace. As a global community we are experiencing: population increase, ecological destruction and change, heightened levels of consumption, high dependency on non-renewable energy sources, overwhelming global poverty, growing inequities in health and social structure, frequently stalemated and self-interested political bodies, ever prevalent economic problems and growing economic crises, widespread corruption and ineffective aid, changing poles of power, women's rights violations, children's rights violations, billions of people denied dignity, trapped in poverty and despair.

These are all current global issues. Day after day some things, globally, get worse and worse. While some macro health indicators show positive gains others remain dismal and more and more people get less and less.

From a global perspective on process, structure and outcome, health systems research will be situated where it can be most effective in making positive contributions to the attainment of health. It will be examined from a community to global health forum level. Health systems research will be placed in a historical then future oriented perspective. The audience will be challenged to consider what next with global health research, how to move forward and where to make commitment.

Poster Presentations

(listed alphabetically by presenter)

Ahmad, Aria

University of Toronto, Toronto

Co Authors: Peter Pennefather (University of Toronto), Jillian C. Kohler (University of Toronto)

Addressing Variability in Drug Quality: Finding The Right “Quality” Framework(s)

Objectives: Access to safe and effective medicines is recognized as a major challenge, particularly in health systems of many low- and middle-income countries. Medicines of poor or variable quality can have serious public health consequences, ranging from therapeutic inconsistency, exacerbated burdens of disease, the promotion of drug resistance, and may ultimately cause unnecessary death and suffering. Here, the issues that exacerbate the prevalence of the trade and consumption of poor and variable quality medicines are examined. In addition to exploring the literature for the scale and scope of the problem, the appropriate and affected stakeholders are identified, and their roles and responses assessed. Distinctions in the vulnerabilities between pharmaceutical supply chains of higher and lower income countries are furthermore analyzed.

Methods: Using a analytic triangulation methodology, a synthesis of publicly available literature suggests that law enforcement and supply chain security strategies that are effective in limiting the sale and consumption of poor quality medicines in high-income countries with highly structured economic environments often fail in settings with less structured economic and regulatory environments.

Results: The proposition that greater access to information vis-à-vis drug quality, provenance and composition can assist health professionals and patients make safer choices in consuming and dispensing medicines promoting greater trust between the community and the health system will furthermore be interrogated. It is suggested that this will require, in the first instance, a revision in how the problem is framed. Present conceptualizations that address "counterfeit" medicines, it is argued, may be inappropriate in countries where poor regulatory capacity and a proliferation of informal markets.

Conclusions: Three distinct quality frameworks are ultimately presented to address variability in drug quality: quality-by-enforcement, quality-by-regulation, and quality-by-evaluation. Rather than promote a single framework, it is argued for context-specific strategies that incorporate all three quality frameworks.

Ahmed, Irfan

Plan International Pakistan, Islamabad

Co Authors: Bernabe Yameogo (Plan International Canada Inc)

Strengthening Maternal, Newborn and Child Health (MNCH) in 36 districts through Mother and Child Health Weeks in Pakistan

Objectives: High maternal mortality (260/100,000 live births) and infant mortality rates (63/1000 live births) in Pakistan and global Millennium Development Goals (MDGs) commitments have compelled the government to reach poor, marginalized segments of Pakistan's 190 million population. In Punjab province, Plan Pakistan, UNICEF and provincial National Program of Primary Health Care joined hands to implement a "Mother and Child Health Weeks"-MCHW campaign to reach Pakistan's goal for MDGs 4 and 5. Slow progress on IMR in the decade, with the main causes being neonatal 57%, Pneumonia 13% and Diarrhea 11%. The fully immunized coverage rate is at a low 47% & pregnant women Tetanus Toxoid (TT) vaccination is at 32%.

Methods: MCHW, designed campaign is celebrated twice a year in all 36 districts of Punjab province involving 49,126 Lady Health Workers (LHWs), reaching an estimated 74,986,500 people, 100% of the LHWs covered population. The activities include provision of iron-folate tablets and TT vaccination for all pregnant women; full immunization of children under 2 years and de-worming of children age 2-5 years; social mobilization and advocacy campaign walks/family health festivals; community sessions to promote significance of immunization, awareness about targeted diseases and local preventive measures; including safe delivery practices, exclusive breast feeding and nutrition

Results: By November 2011 targets achieved with 846,460 pregnant women: 22,955,575 iron and folate tablets distributed; 146,531 women received TT 1 and 2; 0- 2 year Children: 123,924 vaccinated with BCG-Polio; diarrhea rotavirus vaccinations (100,522 with penta-valent-1-(PV1), 84,579 with PV2, 78,206 with PV3; 88,303 vaccinated with measles 1 and 2; mebendazole de-worm 2-5 years age 5,900,01; community sessions with 3,315,383 women

Conclusions: Government ownership, resource availability, measurable results, emphasis on building partnerships and strong coordination has enabled the progress achieved despite low coverage of LHWs and Community Based Organization (CBOs) partners in some districts; security concerns threatening progress. High awareness levels are achieved immediately after the week but mechanisms need to be in place for reinforcing the messages in-between the biannual activity. Immunization follow-up, TT vaccination of the pregnant and facility management of pneumonia & diarrhea are weak and requires regular activities. Maintaining such high coverage during just a week every six months is a challenge, requiring system attention. Scaling-up is possible with serious commitments and active engagement of CBOs

Amodu, Oluwakemi Elizabeth
Amore Health Foundation, Lagos

Drug/Alcohol abuse among sex workers in Nigeria: Increased vulnerability to HIV and Viral Hepatitis infections

Objectives: Alcohol and drug abuse are prevalent in the population of HIV infected adults and this presents a direct assault to the liver in person affected with or without Viral hepatitis. The objective of this study is to evaluate the possibilities of HIV, HBV, HCV co-infection and mono-infection among FSWs in Nigeria. Multiple studies show that HBV co-infection represents the most significant cause of liver diseases in HIV infected persons and a major cause of death in AIDS.

Methods: Individual FSWs were interviewed during HIV prevention activities targeting Most at Risk Population (MARPs) in Lagos Nigeria under Abdjan-Lagos Corridor Organization Project funded by Global Fund. Brothel based FSWs responded to behavioural and biological assessment data collected during HIV counseling and testing services provided for them. The report of follow up activities on FSWs referred for ART, TB and STIs also form part of this study.

Results: 260 FSWs were tested for HIV after the interview, 55% were less than 25 years of age, 40% had experience forced or violent sex, 60% had anal sex and clients refusing condom was high. 56% uses drug orally, all the respondents takes alcohol and smoke cigarette. 65% had drug users clients. 17 people who tested positive to HIV were referred for ART, 29 of them were referred for STIs and 7 for TB services. 3 people referred for ART also tested positive to HBV, this was discovered during the follow up process.

Conclusions: Drug abuse/alcohol, anal sex, STIs, TB, high rate of clients rejecting condom can make FSWs vulnerable to HIV, HBV and HCV co-infections and mono-infection. Therefore, HIV prevention intervention targeting this at risk group should also include screening of viral hepatitis to prevent further spread and reduce morbidity rate since both of the has the same route of transmission.

Arsenault, Catherine

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Co Authors: Aline Philibert (Axe de Santé Mondiale, Centre de recherche du CHUM (CRCHUM)), Valery Ridde (Axe de Santé Mondiale, Centre de recherche du CHUM (CRCHUM)), Aristide Bado (Institut de Recherche en Sciences de la Santé (IRSS) et Centre National de la Recherche Scientifique et Technologique (CNRST), Ouagadougou), Catherine Arsenault (Axe de Santé Mondiale, Centre de recherche du CHUM (CRCHUM)), Pierre Fournier (Axe de Santé Mondiale, Centre de recherche du CHUM (CRCHUM))

Total fee exemption did not affect the perceived quality of delivery care in Burkina Faso

Background: A pilot intervention that was launched in 2008 in the Sahel region of Burkina Faso by the NGO HELP, gave access to totally free birth delivery care for all women attending health facilities by introducing a supplementary care subsidy (20%) to the existing national one (which covered 80% of the cost of a normal delivery at the point of use).

Objectives: The study aimed to assess whether the patient's perceptions of quality of delivery care was maintained after total fee exemption. A quasi-experimental design with both intervention and control health districts was carried out.

Methods: A total of 870 women who delivered in one of the selected primary health care facilities (CSPS) were interviewed after their visit in a range of 60 days. A principal component analysis was carried out to determine indices of satisfaction. A varimax rotation revealed that the items of women's perception for quality of care loaded satisfactorily on a three-dimension PCA. The first dimension was as an indicator of quality in care provider-patient interaction screening particularly staff attitudes and behaviors, the second dimension as relating to the quality of nursing care services, and the third dimension as an indicator of birth delivery environment.

Results and Conclusions: Regardless the intervention process, the great majority of women interviewed, were very satisfied with the care received during their visit to the CSPS. They were less positive in the explanation of the delivery process and the attention given at the time of breastfeeding. More than a quarter of women were dissatisfied with the fact that the presence of a family member during childbirth was not tolerated. Our main results showed that total fee exemption nor reduced average satisfaction on delivery care among any women neither deepen the inequality between very poor and wealthy women. On the contrary, it seemed women who paid fees for delivery care, and notably the wealthiest ones, were less positive than the other women. Finally, the level of satisfaction with delivery care was high in intervention and control health districts. Total fee exemption did not affect the perceived quality of delivery care that benefited fairly to all categories of women without reinforcing inequalities between very poor and wealthy women.

Ayesu, Kwabena, MD, MSC

Orlando Health, Florida

Co Author: Percy Adonteng-Boateng, TQMH - Tetteh Quuarshie Memorial Hospital, Mampong Akuapem

To improve patient adherence and compliance to treatment using "Ask me 3" and Teach Back

Aim: To improve patient compliance with treatment regimens including lifestyle modifications with a simple health literacy tool – “Ask me 3” with “Teach Back”

Background: The incidence of HTN and diabetes had been increasing in Ghana over the past decade. Several factors have been responsible for these changes including lifestyle modifications by adapting westernized diet and lack of exercise. Adherence to treatment regimens were noted to be affected by lack of and affordability of medicines, existence of imitation/spurious drugs on the West African market and substantial percentage of low health illiteracy amongst the population.

Methods: Using a PDSA cycle, nonrandomized chart review to select patients with HTN – SBP > 170 recorded over the previous 6 months.

Over a 3 week period, patients visiting TQMH outpatient department were taught 3 questions to ask their health care provider during weekly consultation.

In the 1st week ---

1. What is my main problem? 2. What do I need to do? 3. Why is it important to do this?

At the two subsequent visits –they were evaluated by teach back to assess their understanding of the disease process.

At each visit- Blood pressure readings were recorded, and adherence / compliance to prescribed medical regimen including lifestyle modifications were evaluated.

Results: 30 patients were selected with SBP > 170 (170 – 205; mean 180). 18 female and 12 male patients.

Age range (18 - 89), Education level: 10 Elementary; 5 High School and 5 no education.

6 had diagnosis of both DM and HTN. 4 had complaints of generalized aches and waist pain.

At week 3, 23 out of 30 patients had a firm understanding of their disease process and had taken steps to decrease dietary salt intake. 18 patients had 15 point decrease in SBP and 5 had 8 point decrease. 5 had no change in BP; 1 had 20 point decrease in SBP and 2 were lost to the follow up.

Conclusion: This inexpensive health literacy tool appears to have contributed to the improvement of patients' understanding of the disease process, compliance, adherence and increased participation in their health care process. A randomized control trial may be needed to further confirm the above findings.

Ball, Natalie
University of Calgary, Calgary

Health Promotion through an Ableism Lens

Objectives: Health promotion practitioners strive to enable, mediate, and advocate. However, what it actually means to accomplish these three tasks may be unclear. The presenters sought to conduct a scoping literature review of recent health promotion literature in order to determine which abilities are expected of health promotion practitioners in order to accomplish their goals successfully.

Methods: A scoping literature review was conducted to complete this project. Due to time limitations, the presenters chose to limit articles to theory, method and review papers; therefore, health promotion interventions or programs were excluded. The phrases “health promotion theory,” “health promotion framework,” “future of health promotion,” “vision for health promotion,” and “health promotion method” were used to collect articles using the Google Scholar database. In order to be included, articles must have been available in full-text English, published in a peer-reviewed journal, and the article must actually be addressing health promotion. Once collected, articles underwent in-depth thematic analysis to determine what abilities are being expected of health promotion practitioners. Articles were analyzed by two different coders to increase reliability.

Results: Once inclusion and exclusion criteria were applied, a total of fifty-four articles were collected. We found that a large number of diverse abilities were expected of health promotion practitioners, ranging from being able to influence individual’s behaviour to knowing how to provide and synthesize evidence to having a deep understanding of all of the relevant contextual factors in a given population.

Conclusions: Having such a wide-ranging set of abilities expected for health care practitioners has important implications for training, education and division of labour within the health promotion sector. Firstly, such a large set of expected abilities demonstrates the need for many health promotion practitioners in a number of different settings, with a wide variety of backgrounds, as it would be incredibly difficult for one person to hone all of the abilities identified within the literature. Secondly, this literature review demonstrates that an evaluation of current health promotion education may be warranted in order to ensure that the abilities that are identified as being essential are actually being addressed in the training of practitioners.

In accordance with Sarah Brown’s discussion with my supervisor Dr. Gregor Wolbring, we were told to indicate that the oral presentation will be via mp3 file or youtube channel, as physical attendance is not feasible due to lack of travel funds for the students.

Ball, Natalie
University of Calgary, Calgary

Looking at Neuroenhancement Globally

Objectives: The objective of this project is to explore the recent discourse surrounding neuroenhancement—the use of pharmaceuticals, surgical intervention, certain substances and internal/external devices intended to increase cognitive capacities to a level higher than what is considered to be ‘normal functioning’. Specifically, the researchers of this study sought to identify what research was being put forward by various countries and if the ethical concerns, number of clinical trials for neuroenhancements and the number of overall literature being produced from different countries differed.

Methods: The presenters collected articles from JSTOR, ScienceDirect, PubMed, EBSCO, Web of Science and Scopus using KnowledgeShare (software developed by Dean Yergens-- <http://people.ucalgary.ca/~dyergens/ksv2.htm>). These articles were found using the terms “neuroenhancement” or “cognitive enhancement.” For inclusion, articles must have been available in full-text English, and must address neuro/cognitive enhancements in a non-rehabilitative fashion. If included, articles underwent content analysis using Atlas.ti software. These articles were coded for their country of origin, for the envisioned and appearing applications, concerns, perceived risk and visions offered with respect to neuroenhancement.

Results: We found that the majority of authors came from the USA, UK and Germany with very few articles from non Western countries. This might be partly due to that people publish in their non-English mother tongue, but may reflect a lack of coverage of the topic outside of a few countries. We also found that within academic articles about Neuroenhancement terms such as “low income”, “global health”, “developing countries”, “developing countries” were not present. As for cognitive enhancement, no articles had the term “global health” although cognitive enhancers are seen to be also an issue outside of Western countries.

Conclusions: Neuroenhancements have the potential to exacerbate already existing inequities between certain groups or nations. Neuroenhancements may only be available to those who already possess a great deal of wealth. Increasing cognitive abilities could further advantage such people—thereby further marginalizing those with few resources. For this reason, neuroenhancement is a global issue, and must be considered globally. We found the amount that neuroenhancement is being discussed is sharply different between countries. The presenters submit that neuroenhancement must be addressed globally and greater discussion is needed, particularly in developing nations where possible consequences of neuroenhancement may be magnified.

In accordance with Sarah Brown’s discussion with my supervisor Dr. Gregor Wolbring, we were told to indicate that the oral presentation will be via mp3 file or youtube channel, as physical attendance is not feasible due to lack of travel funds for the students.

Bana, Rabia
University of Alberta, Edmonton

Factors determining utilization of obstetric services in rural Western Kenya

Objectives: To identify necessary and sufficient conditions for ensuring high quality provision and usage of obstetric services in rural Kenya. The project will identify enabling factors and barriers – in terms of the medical and human resources available/required, social and environmental issues, and family/community needs, values and beliefs – to ultimately facilitate improvement of obstetric services and increased usage of these services in Western Province Kenya. For the purposes of this project, obstetric care refers to the care of women during pregnancy, childbirth, and the recovery period following delivery.

Methods: Interviews and focus groups will be conducted with the following groups of people: traditional birth attendants and midwives; Ministry of Health staff; maternity ward and clinic staff; traditional birth attendants; pregnant women and mothers; husbands, mothers-in-law, and older women (past childbearing age).

Interviews and focus groups will be recorded though audio tapes with the use of translation services when participants cannot communicate in English. Participants will be recruited through snowball sampling. Initial participants will be identified through recommendations from contacts at the Ministry of Health, local clinics and community leaders. These initial participants will then be asked to recommend other potential participants.

Field visits to rural clinics at four sites in Western Province (Inyali, Munoywa, Likindu, Nadania) will be conducted to observe the facilities and resources available. The maternity ward at Inyali will be evaluated with respect to its function and effectiveness in delivering obstetric care based on international standards.

Clinic and Ministry of Health records will be analyzed for health service delivery data including reported inpatient births, total births in the district, maternal and child health outcomes after delivery, and equipment and human resources available.

Expected Short-term Results: An improved understanding of the following aspects of maternal health in Western Province, Kenya:

- specific enabling factors and barriers to accessing obstetric services in the formal health system;
- obstetric service infrastructure and quality in rural communities;
- community beliefs around pregnancy and child birth

Data will be collected from June – August 2012 and final results will be available by September 2012.

Conclusions: This research will allow for the development of targeted advocacy initiatives and interventions to reduce maternal and child mortality in this region. It will also create an evidence base for collaborating with the community and local government to set priorities for maternal and child health.

Barker, Jessica

University of British Columbia-Okanagan, Kelowna

Co Authors: Fay Karp (University of British Columbia-Okanagan), Dr. Fastone Goma (University of Zambia)

'Understanding hypertension as experienced by Zambian adults and their Health Care Professionals: A health promotion approach to changing health and treatment behaviors in Mongu, Zambia'

Objectives: Hypertension, and other Non-Communicable Diseases (NCDs), have lately been a cause for concern in Sub-Saharan Africa. To gain further understanding, a multidisciplinary approach was used to describe the cultural contexts, health beliefs and experiences of hypertension among patients, health care professionals and traditional healers in Mongu district, Western Province, Zambia.

Methods: Qualitative in-depth interviews were conducted with both patients experiencing hypertension, and health care professionals and traditional healers treating hypertension. Patients came for treatment of hypertension to the out-patient department at Lewanika General Hospital (LGH), small rural health centers within Mongu District, and/or occasionally visited traditional healers. Health care professionals worked at LGH or rural health centers, and traditional healers were from communities within Mongu district. The data was analysed for central themes, validated, and reviewed by two focus groups (one for patients and one for health care professionals). The focus groups enhanced the analysis of interview data and generated ideas for improving management of hypertension.

Results: Patients lacked knowledge of the effects of hypertension on their bodies, how their prescribed medications worked, and how lifestyle affected blood pressure. The patients were able to identify that diet, specifically salt and cooking oil use might influence hypertension; but they did not know how to implement healthy changes in their diets. Health care professionals expressed the inability to adequately manage hypertension in their patients. Barriers to providing/receiving effective treatment included: a lack of hypertension education among health care professionals and patients; limited human resources; unreliable drug supply; and lack of equipment to measure blood pressure. Findings also demonstrated a disconnect between medical health care workers and traditional healers, as there was little communication between the different practitioners.

Conclusions: This study highlights some of the challenges faced by patients and health care professionals treating hypertension in Mongu District. A public health approach must be undertaken to direct health promotion education, enhance screening, and improve treatment protocols for hypertension. In addition, health care professionals with improved treatment knowledge, tools, and infrastructure could contribute to more effective treatment of hypertension in Western Province, Zambia.

Bartfay, Emma

University of Ontario Institute of Technology, Oshawa

Co Authors: Wally Bartfay (University of Ontario Institute of Technology), Terry Wu (University of Ontario Institute of Technology)

Impact of global economic crisis on the health and well-being of laid-off automobile industry workers in Durham, Canada.

Objectives: The City of Oshawa and its surrounding areas in Durham, Canada is a major manufacturing hub for automotive production in North America. In 2008 and 2009, we witnessed an unprecedented economic crisis not seen since the great depression. A record number of automobile industry workers lost their jobs as a result. Little is known about how these lay-offs affected the health and well-being of the workers and their families. This exploratory study examined the impact of being laid-off on the emotional, physical, social and financial health of auto-workers who experienced job loss.

Methods: A mixed-research design was utilized. We employed a purposeful sampling method to recruit unemployed autoworkers in Durham from two locations: (i) the CAW Community Action Centre and, (ii) a Service Fair organized by the Durham Region Local Training Board. Participants were asked to complete an in-depth demographic and health questionnaire, and to partake in a focus group discussion session. The qualitative aspect of the study consisted of a phenomenological component comprised of semi-structured interviews that lasted between two to two-and-a-half hours. Narrative responses were recorded, coded and thematically analyzed.

Results: A total of 36 laid-off workers were interviewed between September and November, 2009. The mean age was 45 (SD=6, range=30-61), and the average length of time since laid-off was 13 months (SD=8, range=1-36). The total number of years employed ranged from 2 to 31.7 (mean=15, SD=8). Many participants reported high levels of stress, anxiety, depression, increased physical pain and discomfort, alterations to weight and other social functions, such as feelings of social abandonment, financial hardships including inability to fill prescription medications and loss of homes. Half of our participants also reported feelings of burden to others and a loss of social status, and 75% reported a loss of identity and pride. With regard to the self-rated health and well-being status on a scale of 1 (very poor) to 5 (excellent) since being laid-off, our participants reported mid-level physical health (score=3.12), but relatively poor emotional health (score=2.59), social health (score=2.5) and financial health (score=1.97).

Conclusions: Our findings indicate that job loss has a wide range of negative and immediate effects on auto-workers and their families involving a complex entanglement of emotional, physical, social and financial health. We observe that resources available to individuals after job loss were often limited. Our study also provides a better understanding of financial constraints and individuals' perceived health care and services needs.

Besada, Hany
North-South Institute, Ottawa

Moving Peoples' Health and Sovereignty in Africa

Edited by: Andrew Cooper, John Kirton, Franklyn Lisk and Hany Besada

This book began as a follow-on to a project, inspired by the 2003 outbreak of severe acute respiratory syndrome (SARS), on Innovation on Global Health Governance. That project developed and tested a framework of “challenge-response-innovation” for analyzing global health governance, and published the results in two volumes: *Global Health Governance: Challenge, Response, Innovation*, edited by Andrew F. Cooper, John Kirton and Ted Schrecker and *Innovation in Global Health Governance: Critical Cases*, edited by Andrew F. Cooper and John Kirton.

These works sparked a broader reflection on how the core concepts and institutions of the state-centric Westphalian world were adapting to save human lives in the face of fast-moving, free-flowing disease that so easily penetrated rational boundaries on a global scale. Nowhere were these dynamics more advanced than in sub-Saharan Africa, where people dealt with the equivalent of a SARS outbreak every day, where transborder populations movements were massive, where state capacity was often slight, and where the toll of disease and death was huge. Thus this new project on Moving Health Sovereignty in Africa was launched, under the auspices of The Centre for International Governance Innovation (CIGI) in Waterloo, Canada, the University of Toronto's Munk School of Global Affairs, and Warwick University's Centre for the Study of Globalization and Regionalization.

The authors assembled for an international workshop on “Moving Health Sovereignty: Global Challenge: African Perspective” in Stellenbosch, South Africa, on 21–22 November 2008. Such was the popularity of the project and the quality of the contributions that the editors decided to report the results in two separate volumes. The first volume, *Moving Health Sovereignty in Africa*, presents the general problématique, concepts, and applications in ways that flow from the earlier framework on challenge, response, and innovation. This second volume, *Moving People's Health and Sovereignty in Africa*, focusses on the particular problem of moving people, as distinct from pathogens, both within and outside Africa, applying concepts of sovereignty to the migration of the healthcare workforce in particular.

The book will be published in late 2012 by Ashgate in the UK.

Billawala, Alshaba

University of Calgary, Calgary

Co Authors: Jenna Galloway (University of Calgary), Gregor Wolbring (University of Calgary)

Impact of perception on global health: Example of Autism discourse in the New York Times.

Objectives: The numbers of autism in the USA are 1 in 88 and 1 in 38 in Korea (1). Autism in India and China are seen to surpass one million (2). When describing autism two main narratives have emerged: the medical perspective and the neurodiversity perspective. How people with autism are portrayed impacts how their problems are described and what solutions are sought to their medical and social health needs. The objective of this study was to investigate the coverage of autism in the New York Times given that newspapers are influential and shape opinions of its readers. Furthermore, this study aimed to look at what ability expectations are highlighted within the autism coverage.

Methods: The historical New York Times (NYT) and NYT late edition (East Coast) ProQuest databases were used as one source. The keyword 'autism' in the title was used as a search strategy to limit the number of articles. All 198 articles which had autism in the title with the first one being from 1973 underwent frequency, content and thematic analyses whereby ability expectation was one theme that was identified. Furthermore we analyzed 34 autism diagnostic tests developed in the UK and the USA from 1986-2011 to look at what abilities or lack thereof they tested for.

Results: In the NYT, 24% of articles discussed lack of abilities of individuals labeled as autistic. 19% positive abilities. 49% of all articles discussed the symptoms and behaviors associated with autism, 43% discussed statistics of autism (medical aspect), 37% focused on providing descriptions of autism, 24% focused on describing treatments (medications, therapy other). Only 12% discussed the neurodiversity perspective. Only 6% looked at discrimination issues and only 2% of articles discussed rights issues. No articles provided statistics on the social aspects of individuals with autism such as for example: how many autistic individual are employed, how many autistic individuals attend university etc.

Conclusions: The NYT coverage of autism is slanted heavily towards a medical narrative under-representing the neurodiversity and social justice narrative. Both the NYT and the autism tests exhibit certain ability expectations. cursory coverage of some Asian newspapers also shows that the same bias (medical over neurodiversity perspective). We postulate that the bias in the coverage of autism influences how problems associated with autism are defined and what solutions are thought.

*In accordance with Sarah Brown's discussion with our supervisor Dr. Gregor Wolbring, we were told to indicate that the oral presentation will be via mp3 file or youtube channel, as physical attendance is not feasible due to lack of travel funds for the students.

Boco, Adebiji Germain

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Public attitudes toward health care in sub-Saharan Africa in a shifting world economy

Background: Health care systems worldwide face challenges in a shifting global economy. Knowledge of public attitudes is vital for the development of effective policy. Meager evidence, however, exists on what factors influence attitudes toward health care. This is particularly true in lower-income countries. Here, the focus is on the influence of individual- and national-level factors on public attitudes toward health care in 20 sub-Saharan African countries.

Methods: Data are from the fourth cycle of the Afrobarometer survey, a publicly available dataset that includes information on public attitudes on democracy, governance, economic performance, satisfaction with health care services, and quality of life.

Multilevel multivariate regression analysis is used taking into account the nested nature of the data. Data were pooled to obtain a nationally representative sample of 27,713 respondents aged 18 +.

Results: Findings were that socio-economic contexts are strongly associated with increases in public confidence in basic health services. The likelihood of perceiving states as handling health care well is less clear for women than for men. Findings reveal that individual-level characteristics, such as exposure to media (radio news), selectivity (demographics and socio-economic characteristics), and adaptation (personal experience with medical care), as well as national-level characteristics including health care expenditures, availability of healthcare, literacy, official language, are important in explaining the differentials.

Conclusions: Both individual demographic characteristics and socio-economic status and the country-level factors have played an important role in shaping perception that the government is doing well in improving health care in Sub-Saharan African countries.

Bookhalter, Sharon; Coulson, Irene

Grant MacEwan University, Robbins Health Learning Centre, Edmonton

MacEwan University, Faculty of Health and Community Studies, Canada-Russia Initiative in Nursing: (CRIN)

Facilitating development of updated professional nursing practice competencies and nursing education standards in Russia

Objectives: The Canadian International Development Agency (CIDA), sponsored CRIN (2005-2010) to assist the Russian Ministry of Health and Social Development (MoHSD) and the Russian Nurses Association (RNA) to promote and enhance the role of the nurse as a key element of the country's health care restructuring strategy by facilitating development of updated professional nursing practice competencies and nursing education standards. Spearheaded by MacEwan University, CRIN partnered with the Canadian Nurses Association (CNA) and Edmonton's regional health authority Capital Health (Alberta Health Services) to design new competencies and standards to assist in transforming the nursing profession in Russia for the 21st century.

Background: CRIN built on the success of the Health Education Link Project (HELP), which was implemented by MacEwan in the Tyumen region of Russia during 2000-2004. CRIN comprised several interrelated activities that included workshops on topics relevant to the country's health care reform. Combined audiences of about 6000 nursing leaders and educators in 17 localities throughout Russia from St. Petersburg to Vladivostok were introduced to elements of the MacEwan BScN program, that facilitated a new model of cumulative continuous nursing education credits approved by MoHSD and RNA.

Results and Conclusions: CRIN developed a wide range of learning materials for use in Russia, including the translation and publication of a three volume nursing theory, practice and health promotion textbook. In 2009, a four-day Moscow workshop, facilitated by nursing faculty from MacEwan University, presented to over one hundred nurse educators and deans/directors from across Russia with materials to facilitate the redesign of the Russian nursing curricula using contemporary strategies. The workshop explored competency-based nursing education, curriculum development principles, the use of technology and teaching in the laboratory setting. According to MoHSD and the RNA, project outcomes will continue to influence the Russian health care system for many years to come and will help to accelerate better health outcomes for the country's population.

Bozinoff, Nikki

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Host country perspectives on international medical electives: Strengths, challenges, and visions for improved collaboration

Objectives: As the world economy has become more globalized, medical students from Northern, higher-income countries have travelled to Southern, lower-income countries to engage in international medical electives (IMEs) in ever-increasing numbers. The impact of these electives from the perspective of host country supervisors is largely absent in the literature. In the current study, we sought to better understand, through the eyes of the hosting supervisor, the impact of McMaster University medical students on host communities. Hosting supervisors' motivations to accept Canadian medical students were explored in order to guide the future development and improvement of international elective programs.

Methods: Questionnaires were distributed to all physicians supervising medical students from McMaster University during pre-clerkship IMEs. All responses remained confidential and were returned in sealed, signed envelopes or mailed directly to the University. Forty questionnaires were distributed and twenty were returned. Responses were analyzed qualitatively utilizing a grounded theory approach, generating repeating ideas and themes.

Results: The responses generated several themes, which provided insight into three main areas: (1) a perception of mutual benefit, (2) careful consideration of negative impacts, and (3) ideas to improve future collaboration. It was identified that while there may be benefits of IMEs to Canadian medical students, host supervisors, and participating institutions, these electives may strain resources in host countries and pose risks for Canadian students. The respondents offered valuable ideas for strengthening international collaboration and better preparing Canadian medical students for ethical, mutually beneficial international experiences. Foremost among host-country supervisors' suggestions for improved collaboration was a desire for reciprocity and formalized North-South and South-North exchange partnerships.

Conclusions: To the best of our knowledge, this study is the first to consider host-country supervisors' perspectives in the evaluation of IMEs. The themes identified in the host supervisor feedback provide valuable insight into how mutually beneficial, reciprocal relationships can be developed between Canadian Universities and international medical institutions, and how Canada can partner with lower income countries for improved global health education. Future research in this area will help ground IMEs within a framework of ethical and just partnerships.

Brann, Claudia
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Mediation services - a time efficient and inexpensive way to help families and communities maintain their health and resiliency

Objectives: To promote mediation services in settings and situations where it is not currently offered with the aim of promoting health, improving resilience and reducing the costs of healthcare and litigation to individuals and society.

Professional mediation services are underutilized in support of families and communities to maintain their health and resiliency. Mediation is a voluntary and confidential process that can help people resolve a variety of issues related to health, relationships and change. Mediation helps preserve family and community relationships by encouraging communication, fostering understanding and reducing the conflict between parties before more expensive or severe consequences occur.

Conflict can have a positive role in promoting change. When mediated professionally and successfully, individuals and communities benefit from addressing and resolving conflict. The discussion expands people's awareness and understanding of the situation, raises the individual's self-knowledge and increases the cohesion in the community. A mediated settlement is one where the parties determine the outcome, making the outcome more sustainable and enduring. When conflict is not handled effectively, the results can be damaging to families and communities, impacting on their mental and physical health, their safety and increasing the financial cost.

Target Group: The benefits of mediation services will be promoted and extended in community situations where they already exist but are underutilized (e.g. family mediation for separation and divorce, workplace mediation, community mediation, elder mediation). The benefits of mediation services will be discussed with and promoted to gatekeepers (health care professionals, community services, educators, churches, NGO's dealing with immigrants etc). Services will be developed for use in situations where mediation is not generally offered (family mediation to cope with chronic health issues, mental health, prevention services, school bullying prevention/mitigation programmes, etc). The benefits of including mediation skills in health training will be discussed with training institutes.

Activities: 1) Support the professional Training of Mediators. 2) Promotion of mediation through meeting with gatekeepers, presentations and the development of promotion materials. 3) Offering and completing mediations in situations where it is not generally offered. 4) Documenting mediation experiences to highlight potential of mediation. 5) Follow up mediation situations to assess appropriateness and outcome of mediation in new situations

Results: 1) Documentation of mediations outcome. 2) Referrals to mediation from new situations. 3) Conduct mediation coaching workshops

Brindamour, Mahli

University of Saskatchewan, Saskatoon

Co Authors: Hortense Nsoh Tabien (University of Saskatchewan), Navi Bal (University of Saskatchewan), Hadal El-Hadi (University of Saskatchewan), Nazeem Muhajarine (University of Saskatchewan)

Student initiative for refugee health: a service learning experience

Background: In 2009, the Division of Social Accountability at the College of Medicine of the University of Saskatchewan launched the Immigrant and Refugee Health Committee (IRHC) to address current immigrant and refugee health issues in Saskatoon. The IRHC then developed the Student Initiative for Refugee Health (SIRH), aiming to increase the cultural competence of future practicing physicians in Saskatchewan by facilitating interaction between first-year medical students and newcomer families. The IRHC partnered with the Saskatoon Open Door Society (SODS) and the Health Training in French (HTiF) committee to help match students with newcomer families. Eight students, 3 volunteers and 3 newcomer families participated in the inaugural year of the program (2010-2011) and 29 students, 14 volunteers and 14 families in 2011-2012.

Objectives: The objectives of this initiative are as follow: 1) To enhance cultural competency of future physicians and ensure they are better equipped to work with newcomers. 2) To teach medical students the value of advocating for vulnerable populations and to provide them with better tools to do so. 3) To augment students and newcomers' knowledge of the Canadian healthcare system. 4) To provide a more welcoming experience to refugee families in Saskatoon. 5) To set the stage for longer term involvement and relationship building between medical students and newcomers. 6) To enhance interest in immigrant and refugee health among medical students.

Methods: A pair of two students meets with the newcomers once a month for two to four hours, accompanied by Open Door and HTiF volunteers. The students receive an orientation session on basic notions of cultural competencies and immigrant and refugee health. They also receive guidelines highlighting possible topics of discussion during the visits (such as health, religion, stories of migration, etc.) and are encouraged to think about creative activities to do with their matched family. The students provide written feedback to the coordinators after each visit and write a reflective paper at the end of the year on their experience. There are two occasions during the school year for in person feedback: in January the coordinators meet with the students for a debriefing session, and in May the entire group (students, newcomers, volunteers, coordinators) meet for a potluck during which time is reserved for a discussion regarding the initiative's successes and/or necessary improvements.

Conclusions: Future steps for this project involve including students from other disciplines such as nursing and nutrition, and expanding the newcomers and students experience to include a practicing family physician. Formal evaluations of the program will be conducted in a future year. This program offers a promising community service-learning model to introduce students to immigrant and refugee health in a meaningful, relationship-based fashion.

Brothers, Thomas D.

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European immigrants born in Low & Middle Income Countries accumulate more age-related health deficits than native-born peers

Objectives: To compare the accumulation of age-related health deficits between immigrant and native-born middle-aged and older community-dwelling Europeans in relation to country of birth and time since migration.

Methods: This is a secondary matched cohort analysis of the first wave (2004/2005) of the Survey of Health, Aging & Retirement in Europe (SHARE). A frailty index (FI) was constructed from 70 age-related health measures for 27,527 participants aged 50+ (mean 64.9±10.2 years; 54% female), from 11 European countries (Austria, Belgium, Denmark, France, Germany, Greece, Italy, Netherlands, Spain, Sweden, Switzerland). Immigrants were matched with native-born participants on age, sex, education level, and country of residence, resulting in 1901 matched pairs (mean 63.9±9.9 years; 56% female). Immigrants were divided into two subgroups by country of birth (Low & Middle Income Countries vs. High Income Countries; World Bank Development Report, 2007) as well as three subgroups by years since migration (YSM; 0-30 years, 31-50 years, 51+ years).

Results: 7.7% of SHARE participants were immigrants (40.2±18.1 years since migration), and about half of immigrants were born in each of Low & Middle Income Countries (n=891) and High Income Countries (n=976). Immigrants from Low & Middle Income Countries had a greater mean FI score than their matched native-born peers regardless of time since migration (0-30 YSM: 0.16±0.12 vs. 0.12±0.09, p<0.001; 31-50 YSM: 0.17±0.13 vs. 0.14±0.10, p<0.001; 51+ YSM: 0.20±0.13 vs. 0.18±0.13, p=0.02). Mean FI score was not significantly higher among immigrants from High Income Countries than matched native-born peers at any time since migration (0-30 YSM: 0.13±0.12 vs. 0.12±0.10, p=0.3; 31-50 YSM: 0.15±0.12 vs. 0.14±0.11, p=0.3; 51+ YSM: 0.19±0.13 vs. 0.18±0.12, p=0.06).

Conclusions: Middle-aged and older European immigrants born in Low & Middle Income Countries demonstrate a higher burden of age-associated health deficits than matched native-born peers, even with longer durations of residence. This growing and aging population may be particularly vulnerable to poor health

Buhler, Shayna

Interagency Coalition on AIDS and Development, Ottawa

Co Authors: Nicci Stein (Interagency Coalition on AIDS and Development), Ian McKnight (Caribbean Vulnerable Communities Coalition)

"One Blood: Youth linked in Action": youth change agents and the power of video

Objectives: The goal of the project is to raise awareness about the impact of HIV and AIDS issues on youth in the Caribbean and in Caribbean communities in Canada through the production of the two films, which can be used as innovative and creative tools to engage communities in the Caribbean and the Caribbean Diaspora in Canada.

Methods/approach: Twelve youth from Jamaica and the Caribbean Diaspora in Canada were selected to participate in a project to develop skills and awareness of the drivers of HIV in the Caribbean region and amongst the Diaspora in Canada. The project participants were given training in HIV and AIDS, story development, filming, interviewing and editing. Over a five week period, the participants created the story and filmed the footage for a 20 minute documentary exploring youth perceptions, misconceptions, experiences and feelings about HIV in Jamaica and Canada. The youth produced a second video to give viewers a behind the scenes tour of the creation of the documentary. The videos can be viewed at http://www.icad-cisd.com/index.php?option=com_content&view=article&id=487:one-blood&catid=45:african-and-caribbean-diaspora&Itemid=72&lang=en and will be distributed with this poster. Community screenings and discussions took place in Canada and Jamaica.

Results: The youth participants received skills that will serve them well professionally they also developed a deeper understanding of the social drivers of the epidemic in the region. Through community screenings, audiences gained a better understanding of the factors affecting youth and influencing the spread of HIV in Jamaica and the Diaspora in Canada.

Conclusions: Video is a powerful medium for HIV education and prevention. Youth-led initiatives are effective in reaching young people at risk of contracting HIV and educating health care providers, church and community leaders. Youth who receive skills training that will benefit them in the future are engaged as leaders.

Buhler, Shayna

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Lessons Learned from a Canada-Africa Collaboration: Building Community Capacity on New Prevention Technologies

Objectives : “North-South collaboration” and “South-South collaboration” are key phrases often used in the research world. However, these concepts and the practicality of their implementation is not well defined within the community of civil society organisations (CSOs) working in the new HIV prevention technologies (NPT) field, and successful models for these partnerships have not yet been established. The purpose of this lessons learned toolkit is to assist Canadian organizations working with international partners to effectively engage in their work.

Methods: A collaboration was initiated between the Interagency Coalition on AIDS and Development (Canada), New HIV Vaccine and Microbicide Advocacy Society (Nigeria) and the Southern African AIDS Trust (South Africa) to develop and deliver a series of skills-building workshops on interpreting and communicating information around NPTs. At project wrap-up, the partners jointly developed a “lessons learned” toolkit designed to assist other organizations working with international partners to develop standardized training resources, while tailoring for local community education and engagement on HIV/AIDS. The toolkit was developed based on information gathered via an in-person partner meeting as well as a review of meeting minutes and materials developed over the course of the project.

Results: Topics included in the toolkit include discussions on: the partnership process used to develop and deliver the workshops; the standardization of the workshops across different countries and cultures; the importance of building capacity within all partner organizations; successes in leveraging the project to undertake other initiatives; and other lessons learned that are applicable to organizations considering engaging in similar partnerships. The toolkit has been widely disseminated.

Conclusions: Long-term collaboration amongst CSOs working in the field of biomedical HIV prevention research is feasible and necessary. The success and sustainability of such partnerships beyond the lifetime of the immediate project is best facilitated when projects are jointly designed and flexible enough to adapt to the different needs of partners. The toolkit developed through this project can provide a roadmap for other organizations undertaking similar work.

Chen, Isabel

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Training the Physician-Advocate: A Collaborative Cuban-Canadian-American Colloquium on Medical Education

Background / Objective: There is growing recognition that medical education needs to better prepare future physicians to be socially responsive in order to improve health outcomes. Medical schools are increasingly aware of the significant shortcomings in ways doctors are educated about the social contract between medicine and society. Cuba, however, is an excellent example of educational reforms that has led to remarkable health outcomes and reductions in health disparities. This presentation aims to explain 1) a historical understanding of the evolution of medical education in Cuba, in the context of its modern history and 2) to report findings from an inaugural international colloquium between Canadian, Cuban, and American medical students that examines how medical students are taught the concept of social accountability.

Methods: The project will take place over the summer of 2012. All historical research will take place at medical libraries in Havana (la Biblioteca Médica Nacional and 6 surrounding medical libraries) and Santa Clara. The international medical student colloquium will be a 2-day event, co-sponsored by UBC, Cuban, and Yale medical students and will take place at Instituto Superior de Ciencias Medicas in Santa Clara. Discussion will include presentations and focus groups on the teaching of physician advocacy and public health in medical education.

Results: The results and findings will be gathered in the summer of 2012.

Conclusions: I anticipate that the different ways in which students are taught social accountability defines its impact on healthcare practice. I intend to present our work as a formal, internationally co-authored report made available to other disciplines and medical schools that have vested interests in preparing future health professionals to be socially and community responsive.

Cheng, Jethro

Department of Community Health and Epidemiology, University of Saskatchewan, Saskatoon

Co Authors: Lori Hanson (Department of Community Health and Epidemiology, University of Saskatchewan)

Discourses on International Medical Electives

Objectives: There is an increasing popularity and interest in global health experiences by students from North American universities, and participation in short-term international medical electives (IMEs) has grown rapidly over the past two decades. The burgeoning literature on IMEs reports both perceived benefits and ethical challenges, but provides few reflections, analyses or deconstructions of the discourses associated with these practices. Dominant discourses have the ability actively shape the world in favor of certain view points that are neither neutral nor reflective of all experiences, and that may thus reinforce the status quo. The purpose of this research is to critically examine the discourse published in the academic literature around IMEs that has largely originated from Northern countries. The lack of Southern perspectives raises questions regarding the claims of partnerships and mutual benefits underlying IMEs. This research seeks to understand how dominant discourses on IMEs are constructed, and how they may be problematic for global health training, practice, and research.

Methods: A discourse analysis will be conducted on the published academic literature about IME experiences from the year 2000 to present. The academic literature was chosen because such publications are associated with institutions that have a high influence on global health practice and are widely circulated among researchers, trainees, and students to produce knowledge. Using Foucault's concepts of discourse, this project seeks to understand how language constructs different objects, subjects, and phenomena that have the potential to affect different outcomes.

Results: The current published literature around IMEs is based on a dominant discourse that constructs a particular version of reality around IMEs that discursively proscribes students' roles and posits particular kinds of institutionalized practices. The way that discourses shape different possibilities for social practices and the different subject positions, which can be either empowering or disempowering for people, are discussed.

Conclusions: The dominant discourse in the academic literature attempts to fix meanings around IMEs in particular ways becoming privileged. Alternative or marginalized discourses may also exist and provide possibilities for how practices may be transformed. By understanding the effects of these discourses, it becomes possible to work towards changing problematic practices into promising ones.

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Co Authors: Timothy Brewer (McGill University)

International medical electives – a narrative literature review of educational objectives

Objectives: Nearly every North American medical school allows their students to engage in international medical electives [IMEs]. In spite of the growing number of medical students participating in IMEs, institutions do not necessarily provide them with any curriculum or set of educational objectives.

Methods: A literature review was conducted for institutional IMEs curriculum. Educational objectives were collected and sorted into pre-determined categories of pre-elective, intra-elective and post-elective.

Results: From the initial search strategy 247 articles were returned. After title and abstract review, eight articles were selected for full text review and data collection. Although few institutional experiences were described, a total of 28 educational objectives for IMEs were identified. Five pre-elective objectives were recognized; only cultural awareness was listed by more than one article. Eighteen intra-elective objectives were found, with highest consensus between institutions for students participating in clinical work, understanding different health care systems and understanding cultural differences in treating patients (75%). Five post-elective objectives were identified. Reflecting on experiences through a written project was the most accepted at 87.5%.

Conclusions: While the majority of North American medical schools allow their students to engage in IMEs, this review demonstrates that there is minimal published data as to how they should be structured. Yet, some commonalities did exist. These commonalities can be used a framework upon which institutions can build their own curriculums, ultimately helping to ensure that their students have a meaningful learning experience while abroad.

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Development and evaluation of livestock disease management workshops among the Maasai of the Ngorongoro Conservation Area in Northern Tanzania.

Background: The Maasai pastoralists on the Ngorongoro Conservation Area (NCA) in northern Tanzania rely heavily on their livestock as a source of milk, blood, and meat, and as their primary means of income, which places animal health as a priority within this population (1, 2). East Coast Fever (ECF) is a tick-borne disease affecting herd health, and has been identified by the community as a main contributor to bovine morbidity and mortality. Although ECF medications are available in the NCA and the Maasai are actively involved in treating their animals, current practices are often inconsistent with the recommended protocol; a gap in knowledge highlighted by the absence of accessible information.

Methods: We partnered with the Maasai community in the development, pilot testing and evaluation of a health education workshop that focused on ECF treatment. Our community representatives assisted in the recruitment of participants from each of the three targeted districts in the NCA. For the workshop, our transdisciplinary team used a Velcro presentation board with detachable pictures to teach correct procedures in terms of: (1) proper drug choice; (2) proper dosages for different sized animals; (3) correct drug injection sites; (4) treatment duration. We also demonstrated the economic advantage of using the more efficacious treatment protocol. Workshops were audio-recorded to capture participant questions and comments for evaluation purposes and an exit discussion was held to let the participants share suggestions for improvement.

Results: Results are currently being analysed and will be presented. We anticipate that these workshops have enhanced Maasai knowledge so that they can make informed decisions on how to treat their animals. Our experience suggests that the evaluations will contribute to the improvement of the workshop and for proposing necessary changes for the following years.

Conclusions: The refined workshop format will be adapted for other priority livestock diseases in the NCA(2). The anticipated long term outcome of this health promotion initiative is to facilitate proper livestock disease treatment practices that may decrease livestock disease duration and mortality. Healthier animals and the maintenance of herd size would improve Maasai livelihoods through increased food, financial, and social security.

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Health in Africa: Angolan Nursing Workforce

Background: Angola is one of the largest African countries with continuing levels of insecurity, considerable weakness in terms of respect for human rights, destroyed infrastructure and low transparency and social accountability levels. The health system displays gaps and nursing represents the main contingent among nursing human resources.

Objectives: This research aims to understand the healthcare context in Angola. This general view of health services is followed by a description of nursing workforce particularities at a tertiary health service in the province of Luanda.

Methods: Data were extracted from the database of the Global Network of WHO Collaborating Centres for Nursing and Midwifery Development, constructed based on technical visits to Angola in 2009. Information related to health service characteristics was used, focusing on nursing human resource activities at two tertiary, one secondary and one primary health institutions located in the province of Luanda. The study data were analyzed through descriptive statistics.

Results: Among the problems the nursing workforce faces, the lack of human, material and financial resources stands out, as well as insufficient professional qualification, excessive work journeys, low remunerations, non-valuation of professionals, leading to unsatisfactory work environments and demotivated human resources.

Conclusions: Nursing in Angola is conquering its professional space. Therefore, regulatory policies are fundamental, defining the rights and obligations of all categories involved, with a view to determining nurses' function in the health team, including respect for and acknowledgement of their role in the community.

Darwish, Ilyse

Graduate Student Alliance for Global Health (GSAGH), Toronto

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The Graduate Student Alliance for Global Health (GSAGH): Prioritizing the Need for Research, Education and Professional Development in Global Health

Objectives: The Graduate Student Alliance for Global Health (GSAGH) is an interdisciplinary student-led initiative supported by the Global Health Division at the University of Toronto's Dalla Lana School of Public Health, and funded by university programs and centres committed to student leadership in global health. GSAGH's primary goals are to: provide students with opportunities for interdisciplinary collaboration; foster critical research and practice skills; and encourage professional development and leadership.

Target Groups: GSAGH works with undergraduate and graduate students from a variety of disciplinary backgrounds who share a common interest in global health. Students are engaged via networking, workshop, and symposia activities.

Activities and Deliverables: GSAGH's key priorities are research, education, and outreach. GSAGH's current fifteen person Executive leads over 100 members from over fifteen schools and disciplines, including: Public Health, Health Policy, Engineering, Nursing, Pharmacy, Dentistry and Medical Sciences. Approximately 500 students have attended GSAGH-led initiatives. Teaching and mentoring are facilitated by the "Make World Change" program. Since its inception in January 2009, GSAGH has held four student workshops, five research symposia, and five phases of "Make World Change" (a GSAGH-led seminar series on critical global health issues targeted at undergraduate students). GSAGH has recently presented at Global Health Conferences (2011 Global Health Conference, Montréal; 2012 World Congress on Public Health, Addis Ababa), and has published within academic journals and national university magazines. Currently, GSAGH is developing a three-year strategic plan, which will incorporate the use of a rigorous mixed-methods evaluation strategy in order to determine the impact of GSAGH events and activities (both within and outside the University of Toronto) on the development of student leadership and its effects on reduction of global health inequalities. The numbers of students reached as well as gaps in our programming will be identified in order to better respond to stakeholder interests and to expand the membership nationally and globally. Moving forward with its strategic plan, GSAGH seeks to develop and expand in ways that will increase global health students' leadership and collaboration. Our challenge remains to lead a Canadian-based student network that will connect local, national and global initiatives to continue fostering research and advocacy in global health equity.

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Bringing it home: the role of local global health electives in medical education

Background: Global health is an increasingly relevant concept in medical education, particularly as the shifting world economy presents new challenges for health systems and professionals. Given globalization, migration, and a diverse population in Canada, it is imperative that health professionals are prepared to work in culturally and socio-economically diverse settings, via appropriate training and experiences. However, while global health tenets are becoming more central to medical education, they are often associated with an international (ie; developing country) context and rarely on the unique health needs of populations within Canada. In order to address this perceived gap in medical education, Dalhousie University's Global Health Office (GHO) developed a Local Global Health Elective for medical students, an idea that was initiated by students themselves. Throughout the year-long longitudinal elective, students rotate through community clinical placements; frontline health services; and social service organizations, all located in low-income urban communities in Halifax, Nova Scotia and Saint John, New Brunswick. Many determinants of health intersect in these communities, and are areas where social services and community health – or a lack thereof - have acute impacts, quickly exemplifying health inequities and the need for responsive health professionals.

Objectives: The objective of the elective is to facilitate students' exposure to populations marginalized from mainstream health care services, thereby providing a broad understanding of the social determinants of health; experience in community-based health services; and skills in communicating with and treating marginalized individuals and groups. In addition to the ongoing program activities as outlined above, the GHO has undertaken a systematic approach to evaluating the program. Such an evaluation will serve to illustrate some of the challenges and benefits of local global health electives in medical education, and their role in the global health arena.

Results and Conclusions: Deliverables include an evaluation of the elective that highlights key impacts in relation to the program objectives; a literature review of other local global health electives in Canada; and a strategic plan to extend the breadth of local global health curricula via partnerships with other organizations, communities and universities. Target groups who may be impacted by this initiative include medical students, professors and administrators, primary health care clinicians, researchers, policy makers, community health centres, and social service providers

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Anticipating science and technology enabled emerging forms of bullying: A global health issue

Background: The highest price paid as a result of bullying is life; just one of the many examples of victim's taking their lives is the Megan Meier's story (Schoen and Schoen, 2010). Bullying is a global social problem (Volk et al, 2012). Volk and his colleagues (2012) stated that it involves "hundreds of millions adolescents worldwide" and the effects of bullying are devastating for all that are involved. To illustrate the magnitude of bullying Songsiri and Musikaphan (2011) refer to Tapanya 2007 Report on Pattern Development for Bullying Prevention among Children stating that 60% of students in Japan have been bullied and further stated that 20-25 percent of students in the United States are bullied. BullyingCanada.ca states that one in four students are bullied and nationally 282,000 high school students are attacked monthly. Bullying is a social phenomenon that is continually evolving; new forms of bullying have been emerging with technological advancements; for example cyber bullying which is the use of various forms of technology (social networks, cell phones, and chat rooms) to victimize. It has been estimated that 20-40% of students are victims of cyber bullying (Tokunaga, 2010). Bullying just does not happen in the school yard; in a press release by the Trades Union of Congress (2008) they state that as economic downturns increase this could lead to more bullying in the workplace.

Objectives: The objective of this paper is to present a conceptual piece that looks at the effects of bullying and at possible future forms of bullying whereby we take into account discourses around certain emerging sciences and technologies.

Methods and Results: Through the use of a literature review we discovered that there are various effects of bullying and that it is a global issue impacting the lives of thousands. Since bullying impacts the lives of so many it will be imperative to find prevention and intervention plans.

In accordance with Sarah Brown's discussion with my supervisor Dr. Gregor Wolbring, we were told to indicate that the oral presentation will be via mp3 file or Youtube channel, as physical attendance is not feasible due to lack of travel funds for the students.

Diep, Lucy
University of Calgary, Calgary

The new age of communication technologies: Will our changing expectations of abilities impact the future of education of people with disabilities?

Objectives: Advancements in technology have transformed the way we communicate and interact with each other. Smartphones, emails, video conferencing and even social media are forms of communication technologies that have redefined expectations of how we connect, what we connect with, and how often we connect with each other. Therapeutic enhancement devices, such as the brain-machine interface, sub-vocal speech devices, artificial hippocampus, and cochlear implants/hearing aides are in the midst of changing not only communication expectations but also ability expectations.

Defined as the preference and value for certain abilities (Wolbring, 2008), ability expectations – or ableism – is anticipated to move beyond our species-typical abilities with the introduction of these communication devices. This in turn has impact on our cultural attitudes of abilities particularly within the discourse of teaching and learning in education. From a global perspective, it is known that individuals with disabilities face the lowest level of education as a result of social, economic and political determinants (World Health Organization [WHO], 2011). These determinants lead to factors such as decreased individual well-being, poverty, and increased health risks (WHO, 2011). What the global future entails regarding education access and opportunities for people with disabilities and teaching methods and practice in promoting inclusive education are captured from the perspective of special education school teachers.

Methods: Generated literature was imported into Knowledge Share version 2.1.3 (KSv2) tool, developed by Dean Yergens (<http://people.ucalgary.ca/~dyergens/ksv2.htm>). This tool was used as a way to systematically review the literature.

Individual face-to-face interviews were conducted with a group of special education school teachers. The interviews were audio-taped and then transcribed. The transcribed documents were imported into the ATLAS.ti© tool and themes were identified for qualitative analysis.

Results: Ability expectations played an influential role on the perceptions and assumptions of the future of teaching, learning and accessibility to education with the prevalence of advanced therapeutic enhancement devices by this particular discourse.

Conclusions: Special education school teachers exhibited one facet of perspectives around ableism. There are opportunities for further research to be conducted with other discourses to obtain another dimension of ability expectation perspectives with the advancement of these technologies.

In accordance with Sarah Brown's discussion with our supervisor Dr. Gregor Wolbring, we were told to indicate that the oral presentation will be via mp3 file or Youtube channel, as physical attendance is not feasible due to lack of travel funds for the students.

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Fighting malaria: Do community health workers articulate a primary care or a primary health care approach?

Objectives: This study aims to: (i) determine whether the community case management of malaria entails a human resources perspective [primary care] or a health promotion approach [primary healthcare] and; (ii) discuss the repercussions of this policy orientation.

Methods: This study is based on a scoping review of literature on community case management of malaria and of relevant policy documents promulgated by international organizations. The literature on the evolution of primary healthcare was also scrutinized. By combining socio-historical, political and public health perspectives, this study offers a trans-disciplinary outlook on this current topic.

Results: Established during the Alma-Ata Conference in 1978, the primary healthcare approach originally attributed a predominant role to community health workers as agents of social change. However, the initial enthusiasm for this approach quickly faded. Three decades later, international health organizations are now again promoting the use of community health workers. But our analysis suggests that they are now considered as front-line therapists, rather than agents of community emancipation. Illustrating a more general trend towards medicalization, the community case management of malaria contains serious flaws, such as: a focus on disease rather than health, a neglect of malaria social determinants, pressures on the drug supply chain, and risks of overtreatment and of increased drug resistance.

Conclusions: The use of community health workers as front-line and quickly trained therapists has several limits for the fight against malaria. The shift from a primary healthcare perspective to a primary care approach is not an adequate answer to the human health resources challenge in developing countries.

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Studying the use of medicinal plants for prevention and treatment of malaria in Mozambique

This research project is an ethnobotanical study conducted in 2010-11 in the community of Tevele, a Mozambican village that is 30 km from Massinga, the district capital in the province of Inhambane. The community of Tevele has valuable knowledge about the use of medicinal plants for prevention and treatment of malaria. However, the use of these medicinal plants is not in the public domain because there is no written documentation that explains how they should be used in the prevention and treatment of what constitutes the greatest health problem in the Mozambican communities. Thus, this study aims to document, as a starting point for ethnopharmacological research, traditional knowledge and practices for medicinal plants used by the Tevele community in the prevention and treatment of malaria. Data collection used an ethnographic method and two techniques primarily: semi-structured interview and direct observation. The sample consisted of 30 key informants, consisting of traditional medicine practitioners, herbalists and individuals having knowledge and practices about the use of plants for the prevention and cure of diseases. Identified were six plant species in five families used in the prevention of malaria and 20 species in 16 corresponding families of plants used for its treatment. Knowledge about the use of some plants was not uniform among the informants. There were no clear mechanisms among practitioners for preservation of species nor for the transmission of knowledge to new generations. Data from this study demonstrate that the community of Tevele is rich in knowledge and local resources to address the problem of malaria. If validated scientifically, these resources can contribute greatly to the reduction of damage caused by this health problem, which currently is a priority for health authorities in Mozambique.

Dyeja, Cipriano

Centro de Formacao em Saude de Massinga, Massinga

Geraldine Dickson (University of Saskatchewan), Denise Kouri (University of Saskatchewan)

Increasing community participation for health in rural Mozambique through partnerships among training centres and communities

Mozambique's serious health problems are closely linked to conditions of extreme poverty, subsistence livelihoods and illiteracy, especially in rural areas, which make up most of the country. This is not likely to change with the newly established coal mines in the north of the country and natural gas exploitation in the east. Rather inequality will rise and poverty likely increase, in particular in the rural areas that make up most of the country.

Mozambique's health workers are far too few and cannot meet the need unless they can increase communities' capacity and participation in improving their own health. The Mozambican health system's increasing interest in community engagement has manifested itself through its support of the Massinga Centre (MC) located in the province of Inhambane. The MC trains health workers, focusing on community participation. Its methodology builds community partnerships to improve health and the social conditions affecting it. MC has developed through a partnership with the University of Saskatchewan and 15 years of CIDA-funded support.

Developed as a model centre through international cooperation, MC is now called upon to spread its methodology elsewhere in the country. One of its methods has been to partner with a sister training centre, Chicumbane, in the neighbouring province of Gaza, with the objective of implementing a pilot replication of the MC methodology of community participation. The pilot project builds on the recent placement in Chicumbane of 2 teachers who were trained at MC and are able to anchor the new developments. The target group for the pilot itself is the training centre of Chicumbane, its professors and students, as well as the neighbouring community. However, lessons from the pilot will be applied to the health system as a whole. Activities have included MC sharing its methods and providing ongoing mentoring support to Chicumbane. Chicumbane has selected a partner community, and formed a core group of community members to lead the efforts in participation and development alongside the Chicumbane teachers and trainees. Relationships are also emerging between the Chicumbane and MC partner communities. MC is documenting Chicumbane's progress, its successes and challenges, and identifying implications for the health system in Mozambique as it moves forward in expanding such programs through the country. This presentation by Cipriano Dyeja, MC professor and community engagement specialist, will provide the findings of the pilot project so far, and discuss the implications for health and development in rural Mozambique.

Foster, Chris

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Evaluation of a One-Day Global Health Pre-Departure Training Conference as Measured by the Objective Structured Clinical Exam

Objectives: As a growing number of medical students embark on international electives, the need for high-quality pre-departure training (PDT) programs is increasing. Unfortunately, little information is available on these programs in terms of effectiveness and standardization due to the lack of an objective evaluation tool. This study aims to evaluate the effectiveness of the GET Ready! PDT Conference at the University of Western Ontario using the objective structured clinical exam (OSCE).

Methods: Participants (n=5) completed an OSCE with five stations prior to and after PDT. Each station was based on one of the five national competency recommendations for PDT: personal health, travel safety, cultural awareness, language competency and ethical considerations. At each station, participants were assessed for the completion of predefined tasks.

Results: Statistically significant improvements ($p < 0.05$) in performance were observed in both the travel safety (+22%) and cultural competency (+19%) stations. Significant decreases ($p < 0.05$) in performance were observed in both the ethics (-10%) and personal health (-24%) stations.

Discussion: The improved performance in the travel safety and cultural competency stations may be due to a strong congruence between taught and assessed material. Travel safety was found to be one of the easiest topics to cover didactically at our PDT conference. The decline in performance in personal health and ethics may be due to a failure to appropriately cover these topics at PDT. These results highlight the need for increased standardization of PDT programs to cover national competencies and the possibility for the further development of the OSCE as a tool to assess global health competencies.

Conclusions: Improvements in performance related to travel safety and cultural safety, and decreased performance in ethics and personal safety were found following PDT. Future PDT conferences should strive to adequately cover all five national competency recommendations. The OSCE may be useful as a tool in the continuous development of PDT programs in Canada.

Foth, Kristine

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Combating Childhood Diarrhea in Niger, Africa

Background: Diarrheal disease remains the second leading cause of death in children under five years of age in Sub-Saharan Africa. In the country of Niger, one in every five children dies before the age of five years ~most from preventable and easily treated conditions, such as diarrhea and dehydration (CDC, 2011). Leading world health organizations have prioritized efforts to reduce child mortality attributed to diarrheal disease. The efficacy of oral rehydration solution (ORS) in the treatment of diarrhea and dehydration is supported through research and practice across the developing world.

Objectives: The following project proposal was developed to address diarrheal illness in children <5 years of age in the region of Galmi, Niger, located along the southern border of the Sahara Desert. Objectives were to increase knowledge among the nurses and health care workers at Galmi Hospital in the recognition, management, and prevention of pediatric diarrheal disease and dehydration. A specific aim of the educational intervention was to empower nurses to assume the role of patient/parent educator, thus disseminating valuable health care information throughout the community.

Methods: A quality improvement study was conducted to evaluate the effect of an educational intervention based on the existing World Health Organization (WHO) guidelines and Galmi Hospital Diarrhea and Dehydration treatment protocols. The intervention included the provision of didactic and mentored teaching on childhood diarrheal illness and dehydration to the nurses and health care workers of the "Under 5" clinic/triage area at Galmi Hospital. Nurses were mentored in the role of patient/parent educator.

Results: Nurses and health care workers demonstrated knowledge attainment following delivery of the educational curriculum. Knowledge test scores improved from pre- to post-intervention. There was a statistical trend toward improvement in teaching practice, with greater delivery of important educational principles post-intervention. Patient care outcomes were influenced as evidenced by a decrease in pediatric presentations with diarrheal illness and dehydration.

Conclusions: Nurses and health care workers are in a strategic position to address community health concerns if equipped with the knowledge and experience to assume roles in patient and community education. The development and delivery of health problem-specific curriculum and mentorship is essential. Empowering parents and communities with valuable health care information may improve child health and decrease the unacceptably high child mortality rates across Sub-Saharan Africa.

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Development and implementation of a paediatric postgraduate training program in Guyana

Objectives: Guyana, South America, currently has 2 board-certified paediatricians (both working exclusively in the private system), and an under five mortality of 62 per 1000 live births (2006). A number of Canadian paediatricians, including from McMaster Children's Hospital have collaborated with Georgetown Public Hospital Corporation (GPHC) & University of Guyana to establish an accredited three year postgraduate training program in pediatrics (Masters in Pediatrics). The primary objective is sustainable capacity building in paediatric clinical care and reduction in childhood mortality (MDG #4).

Target Groups: To date, there are 7 Guyanese trainees, all of whom have completed medical school, and are practicing as Senior House Officers or Registrars in Guyana's only tertiary pediatric centre. Faculty include visiting staff paediatricians and paediatric residents from Canada, recruited from community and tertiary pediatric centres.

Activities: Current curriculum includes didactic lectures and small-group (case-based) sessions both in person and through video conferencing technology. Clinical skills workshops are also provided. Practical experience continues through service on inpatient and outpatient units, including paediatric and neonatal wards. In addition, all trainees are expected to develop practice protocols based on available evidence and local resources, maintain an academic portfolio, and procedure log. To meet the needs of the paediatric care delivered at GPHC, nursing and undergraduate medical education as well as infrastructure/ equipment is also being supported. This is the third postgraduate medical training program in Guyana, modeled from a surgical training program in place since 2005.

Challenges: 1) Developing a curriculum and evaluation process that meets the clinical and scholarly needs of the trainees in Guyana. 2) Shifting the paradigm of practice towards evidence based medicine. 3) Improving the overall care of patients by targeting multiple levels of training, within a low resource setting. 4) Infrastructure development to meet the training needs. 5) Retaining trainees upon graduation has been an ongoing concern given the significant emigration of healthcare professionals. 6) Ensuring the sustainability of the training program locally using local and international medical experts.

Results: Such a program will not only train certified pediatricians, but will help to improve quality of care for Guyana's children in a sustainable model of continued leadership. It will also provide an opportunity for trainees and faculty to exchange research and practice tools.

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Towards a more global learner: exploring the implementation of a global health curriculum within a pediatric postgraduate training program

Objectives: Though many medical training institutions have responded to the demand for establishing leaders in global health through increasing exposure to medicine in low-resource settings, more structured training is necessary to fulfill growing learner interest and board expectations, and enhance understanding of ethical and cultural factors inherent in global health. In response to this demand, some training institutions are adopting global health curricula. Our objectives were to assess general interest and knowledge in global health and the curriculum effectiveness in improving global health knowledge with a pre- and post-curriculum implementation survey.

Methods: In this cross-sectional study, 84 pediatric residents received a 21 item electronic survey in February of 2012 as a pre-implementation needs assessment instrument for a global health curriculum at a postgraduate pediatric medical training institution. The survey was IRB exempt (no identifiers collected). The items assessed general interest in a global health curriculum, scope of future career goals, and general knowledge of global health. Survey data was compiled and analyzed for later post-implementation comparison. **Results:** The response rate was 57% (48 respondents). The availability of a global health opportunity was an important criterion in selecting a residency program for 50% of the respondents with 58% interested in ultimately pursuing a global health-related field; 56% indicated previously practicing medicine in a low-resource setting with 87% expressing some degree of interest in expanding global health knowledge to aid in their pediatric practice after graduation. The respondents highlighted infectious diseases in the developing world, malnutrition, and emergency medicine in the low-resource setting as the three most helpful topics to emphasize in a global health curriculum. Over 68% of the respondents indicated some degree of interest in participating in a global health pathway during residency and spending at least a one-month rotation in a low-resource setting. Forty-seven percent of the respondents correctly identified at least one World Health Organization Millennium Development Goal.

Conclusions: The results of this cross-sectional study suggest that there is marked resident interest in expanding global health exposure within our institution. The implementation of a global health curriculum may begin to meet learner interest and augment global health exposure and knowledge among trainees; in addition, it may better address patient care needs and board expectations. Future directions of this project include re-administration of a similar survey 18 months after implementation of a global health curriculum as a comparison for objective analysis of curriculum effectiveness.

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How to create social change within the food system

Objectives: To explore various means of creating social change within the food system in order to create a sustainable food secure system.

Background: The purpose of both the green revolution and later biotechnology was to centralize production thereby decreasing costs and increasing yield. With the amount of food currently being produced, nine billion people can be fed with all the calories, fruits and vegetables that they require (Moore-Lappe, 1998). The reality though is that despite this shift in the world economy, the number of people suffering from food insecurity continues to rise. If we are to achieve food security for all, including the poorest, we need to change our food system to one that is able to address the nutritional (and cultural) needs of everyone.

Methods: This piece of research will address how to create and leverage social change at the systems level for the goal of food security. We will analyze how social change has been brought about at various levels - political, community, and individual. Examples of social change will be taken from research conducted in South Africa, Cuba, and Ottawa.

Results: There are various stages of change. In first order change, the performance of an existing system is improved slightly. In second order change, the shortcomings of a system are addressed and space is created for the revision of rules. In third order change efforts that fundamentally rethink the issue and seek to transform the system are put forward (Pruitt and Waddell, 2005). The global food system is desperately in need of third order change if we hope for it to be sustainable and responsive to population needs, both now and in the future.

Conclusions: Although transformational change is vital to the growth and development of a system, change at a systems level is extremely difficult to achieve and all levels of society – political, community, and individual need to be implicated.

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Training health workers for community participation in rural Mozambique:

Background: Mozambique's serious health problems are closely linked to conditions of extreme poverty, subsistence livelihoods and illiteracy, especially in rural areas, which make up most of the country. This is not likely to change with the newly established coal mines in the north of the country and natural gas exploitation in the east. Rather inequality will rise and poverty likely increase, in particular in the rural areas that make up most of the country. Mozambique's health workers are far too few and cannot meet the need unless they can increase communities' capacity and participation in improving their own health. The Mozambican health system's increasing interest in community engagement has

manifested itself through its support of the Massinga Centre (MC) located in the province of Inhambane. The MC trains health workers, focusing on community participation. Its methodology builds community partnerships to improve health and the social conditions affecting it. MC has developed through a partnership with the University of Saskatchewan and 15 years of CIDA-funded support.

This poster presents the MC program through photos and text, describing the MC's objectives of promoting community participation, its activities of teaching, curriculum development, revision and dissemination and developing community partnerships

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Assessing and promoting children's psychological well-being in Zambia

Background: Research in psychology and neuroscience has traditionally focused on the diagnosis and treatment of dysfunction and illness. In contrast, positive psychology seeks to identify factors that contribute to well-being, including happiness and life satisfaction, and promote well-being. Across cultures and continents, adults highly desire happiness for their children (1), but research on children's positive well-being is lacking (11), especially in low-resource nations (8).

Positive well-being has many empirically-validated benefits: improved cognition and coping skills (2); enhanced intellectual exploration, and sharing with others (3; 6); improved productivity, social relationships, physical and mental health (9); reduced negative emotions (4; 5); increased antibodies to combat viruses (13); and reduced frequency of illness and physician visits (7). One of the few previous happiness studies conducted in Africa (12) demonstrated influences on individualism and collectivism, philosophical traditions, material living circumstances, and linguistics. Factors that contribute to the happiness and life satisfaction of first-world adults include personality, social relationships, and genetics (10). As many of the determinants of adult happiness do not apply to children (e.g., marriage and career), additional research with children is needed.

Objectives: The object of this research is to discover determinants and barriers to psychological well-being in Zambian children. We will identify correlations of variables - personal and family health / illness, wealth, hunger, religious practices and spirituality, education, social connectivity, nature connectivity - with happiness, hope, and life satisfaction. This knowledge will lead to further research on approaches to promote the well-being of children in Zambia and other countries with few resources.

Methods: Over 1300 children from Zambian three provinces completed a five-section survey that included the Children's Hope Scale, The Subjective Happiness Scale, the Students' Life Satisfaction Scale, a "faces scale", and a demographics section. The four populations studied were urban affluent and rural impoverished children from Lusaka (Lusaka Province), as well as rural impoverished children from Senanga (Western Province) and Livingstone (Southern Province). All materials were translated into local languages and supported with verbal explanations in multiple languages. Co-Investigator Tim Krupa, a Bachelor of Science Candidate from the University of British Columbia, conducted the study as he continued a project he began in 2011 focused on 'youth development through sport' (www.gozambia.ca).

Results and Conclusions: The data will be analysed upon Tim Krupa's return to Canada on June 10, 2012, and an article for publication will be completed by September, 2012. The research is supported by the UBC IKBSAS Undergraduate Research Award.

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Technology, Health Consumerism, and a New Age of Global Health—private vs. public involvement and who will be left behind?

Objectives: The technology driven movement of empowered and informed individuals, deemed health consumerism, is a growing global movement encompassing new high demand health topics such as the quantified-self and personalized medicine. Despite this, little has been done to analyze how this shift towards technologically revolutionized, health consumer driven healthcare may impact health inequities between different populations. This project aimed to analyze existing health consumerism discourse in order to assess the roles, abilities, and values of this movement and its potential impact on the health statuses of different populations. Furthermore, the development and implementation of this movement, varying perspectives of benefits and concerns, and the current level of private vs. public involvement were also explored.

Methods: A scoping literature review was conducted using the keyword “health consumer” within both academic and grey literature databases. Database searches were conducted over 4 time periods: 1900-1930, 1930-1960, 1960-1990, 1990-2011. Searches were limited to English full text articles only. To be included within the review, articles had to contain “health consumer” within the source and/or the term “health” within the title or abstract; articles had to address the research questions explicitly within and/or one of a set of additional criteria. All sources passing inclusion criteria were included within the review and thematically analyzed using NVIVO 9 software.

Results: A total of 140 articles were examined (74.3% grey, 25.7% academic). Abilities identified within the literature as inherent to the role of health consumers included cognitive capacities such as problem solving, self-awareness, comprehending and utilizing health literature, as well as various physical capacities such as being able to access health information within a largely technologically based system and vocal communication. As a result, there exists varying levels of health consumerism ranging from groups pushing towards new paradigms of conceptualizing healthcare and health, to groups restricted to passive patient roles. Similarly to existing literature on the topic, health consumerism was identified within the review as being a potential solution to inefficiency, improving health outcomes, and out-of-control spending within healthcare systems. Despite this, academia and policy makers appear to be only marginally aware of the shift towards health consumerism; as a result adaption and incorporation of this movement into public domains is slow—leading to rapidly expanding growth in the private healthcare sector to meet consumer demands.

Conclusions: Health consumerism overwhelmingly favors health literate, affluent, and tech savvy populations. As a result, should the spectrum of varying abilities, values, and needs be ignored in future development— health consumerism has the potential to severely diminish health outcomes by creating and enforcing various access barriers to achieving active health stakeholder status. This review was successful in identifying that health consumers play an active, informed, and empowered role within healthcare interactions and that the growth of this movement may be guiding the development of healthcare technology and services; however, beyond this review it has not yet been explicitly recognized or studied in its capacity to do so by academic or political domains.

***In accordance with Sarah Brown’s discussion with my supervisor Dr. Gregor Wolbring, we were told to indicate that the oral presentation will be via mp3 file or youtube channel, as physical attendance is not feasible due to lack of travel funds for the students.

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Environmental Ethics and Global Health Concerns—Survey Results for Climate Change, Water, Sanitation, and Energy as Social Determinants of Health

Objectives: We sought to assess the views of students, researchers, government workers, members of industry and NGO's on the impact of climate, water, sanitation, and energy insecurity on various vulnerable populations. These populations included groups such as people with disabilities, women, ethnic minorities, children, and indigenous people, in both low and high income. Our study sought to contribute to the global health of these groups, especially for people with disabilities who are particularly impacted by water, sanitation, energy, and climate change discourses.

Methods: A non-probability, exploratory online survey using the survey monkey platform was utilized to gain the results. Respondents were asked to rank various vulnerable groups in the order the respondents felt they might be negatively affected by climate change and in the order they might experience the greatest lack of access to clean water, sanitation and energy.

Results: Of a total of 190 survey respondents, the majority of respondents were Canadians between the ages of 18-65. Energy, water, and climate change issues were acknowledged as critical areas of discussion, within vulnerable groups, with individuals in low- income countries being identified as most impacted by these topics. Disabled people as a vulnerable population were consistently distinguished as being highly impacted by energy and water insecurity, as well as climate change, however their representation within high-level policy documents remains scarce. Furthermore, the impact of these environmental concerns on vulnerable groups in high-income countries, such as access to sanitation for disabled people, was not acknowledged by participants.

Conclusions: Our results suggest that it might be prudent to abolish the invisibility of people with disabilities in climate change, disaster, water, sanitation, and energy security and insecurity discourses in general, as well as in global health discourses surrounding these issues. Future research needs to include people with disabilities as well as explore the unique experiences, expertise, and needs of people with disabilities-- in order to implement more effective and appropriate climate change, disaster, water, sanitation, and energy security policies.

****In accordance with Sarah Brown's discussion with my supervisor Dr. Gregor Wolbring, we were told to indicate that the oral presentation will be via mp3 file or youtube channel, as physical attendance is not feasible due to lack of travel funds for the students.**

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Shifts in Global Health Services Technology: Ethical Considerations for Implementing Health Sensors

Objectives: Health sensors are increasingly being developed and implemented into various health service domains worldwide. The automatic generation and transmission of one's health information by sensors generates various implications for privacy, autonomy, and control of health information. This project aimed to identify and explore the ethical implication of these concerns to the use health sensors on differing global populations.

Methods: This project is an ethical consideration for future study and research into the ethics of health sensor development and implementation. As a result, this project draws from existing research on the topic and is largely logic and policy based.

Results: Sensors within the body, on the body, and within the environment to collect and transmit health information are increasingly being developed and integrated into the healthcare sector. Although the primary goals of these types of sensors are largely efficiency of information transfer and the safety of the individuals being cared for, these technologies are accompanied by a number of ethical issues. Ethical considerations for privacy and autonomy with the widespread implementation and use of this health tool largely center on global populations with varying levels of self-advocacy and visibility with global health policy domains, such as elderly and disabled populations. Privacy, autonomy, and control issues related to the wireless generation of health information however, extend beyond specific populations to overall consumer and health care provider utilization. In particular, the inability for individuals to control the generation of and access to sensitive health information potentially paves the path for social, medical, financial, and occupational discrimination based on third-party interpretation of information generated.

Conclusions: Despite increased efficiency and other benefits of sensor integration into various healthcare sectors, future research into the appropriate use and regulation of this important health tool is necessary. Overall, it is necessary for global health policy to acknowledge and address concerns for privacy, control, autonomy, and discrimination generated by the implementation of health sensors into various health care facets.

****In accordance with Sarah Brown's discussion with my supervisor Dr. Gregor Wolbring, we were told to indicate that the oral presentation will be via mp3 file or youtube channel, as physical attendance is not feasible due to lack of travel funds for the students**

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La qualité de la prise en charge des urgences obstétricales dans les CSCOM de la région de Kayes, au Mali

Introduction : Chaque an, environ 342 900 femmes enceintes décèdent (Hogan & al. 2010). Une grande partie de ces décès a lieu en Afrique subsaharienne (Ronsmans & Graham 2006). La plupart d'entre eux se produisent entre le troisième trimestre et la première semaine suivant l'accouchement, d'où l'importance pour les femmes d'avoir recours à des soins spécialisés lorsqu'elles donnent naissance (Cambell & Graham 2006). Or, dans un contexte où les ressources sont limitées, les parturientes font face à de nombreux obstacles qui retardent leur prise en charge une fois entrées dans le système de santé (Koblinsky & al. 2006).

Objectifs : La présente étude vise à identifier des éléments qui sont associés à une prise en charge déficiente au niveau des CSCOM. Il s'agit d'analyser des données portant sur les urgences obstétricales prises en charge dans les centres de santé communautaires de six districts de la région sanitaire de Kayes.

Méthodes : Nous avons opté pour une démarche exploratoire comparative des groupes de CSCOM qui diffèrent de par les issues des parturientes qui y ont transité ainsi que par leur configuration en termes de ressources humaines. La population à l'étude correspond à des CSCOM de la région de Kayes dans lesquels ont transité des femmes qui ont fait face à des urgences obstétricales. Les ressources humaines et les spécificités techniques de ces établissements constituent les principaux objets à l'étude.

Résultats : L'analyse de nos données ont révélé qu'il existe certaines lacunes au niveau des connaissances et ce, tout niveau de qualification confondu. C'est entre autres le cas de la prise en charge l'hémorragie du postpartum et de la détection de la pré-éclampsie. Lorsqu'il s'agit de scénarios plus compliqués ou qui se produisent moins fréquemment, les sages-femmes et les médecins ont de meilleures connaissances. Néanmoins, les matrones et les infirmiers sont aussi compétents que les sages-femmes et les médecins en ce qui concerne les scénarios qui se produisent souvent ou qui font appel à des connaissances de base. Par ailleurs, la structure des centres de santé varie selon la configuration du personnel: plus le personnel est qualifié, mieux le CSCOM est équipé. Toutefois, il ne semble pas y avoir d'association entre l'issue de la complication obstétricale et la structure du CSCOM.

Conclusions : Le niveau de qualification semble être un élément crucial dans l'explication du niveau de connaissance des répondants. La prise en charge des urgences obstétricales est davantage influencée par des caractéristiques individuelles que par des caractéristiques de centres.

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Clinical trial outsourcing in the shifting world economy

Objectives: Many industry funded clinical trials are outsourced to low and middle income countries. Most of these trials are conducted in China, India, Thailand and in some African countries. This happens because trials are cheaper to conduct in these countries; the disease burdens are higher hence more cases to recruit from and more severe cases of disease can be found; there are larger numbers of treatment naive patients; regulatory requirements are less stringent; these countries have English speaking local investigators. The benefits of such research include the fact that some participants get access to treatment which was previously unavailable and there is some knowledge transfer. The downside is that research is conducted on patients who may never benefit from the drugs developed if they are unaffordable and that important ethical requirements may be overlooked. In recent years, the shifting world economy may remove the financial and medical incentives for these countries to accept foreign sponsored trials. These countries will be able to fund their own trials on diseases which are relevant to them. Our objectives were to investigate the possible effects of a shifting world economy on the dynamics of global clinical trial research

Methods: We consulted clinical trial experts from around the world at the “Sensible Guidelines for the Conduct of Clinical Trials” symposium held in Toronto, Canada, May 24-25, 2012. We also appraised the literature to examine the driving forces for clinical trial outsourcing.

Results: Opinions vary as to how clinical trial outsourcing will evolve in the shifting world economy. Causal models suggest an overall increase in research output worldwide.

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Health in Africa: Angolan Nursing Workforce

Background: Angola is one of the largest African countries with continuing levels of insecurity, considerable weakness in terms of respect for human rights, destroyed infrastructure and low transparency and social accountability levels. The health system displays gaps and nursing represents the main contingent among nursing human resources.

Objectives: This research aims to understand the healthcare context in Angola. This general view of health services is followed by a description of nursing workforce particularities at a tertiary health service in the province of Luanda.

Methods: Data were extracted from the database of the Global Network of WHO Collaborating Centres for Nursing and Midwifery Development, constructed based on technical visits to Angola in 2009. Information related to health service characteristics was used, focusing on nursing human resource activities at two tertiary, one secondary and one primary health institutions located in the province of Luanda. The study data were analyzed through descriptive statistics.

Results: Among the problems the nursing workforce faces, the lack of human, material and financial resources stands out, as well as insufficient professional qualification, excessive work journeys, low remunerations, non-valuation of professionals, leading to unsatisfactory work environments and demotivated human resources.

Conclusions: Nursing in Angola is conquering its professional space. Therefore, regulatory policies are fundamental, defining the rights and obligations of all categories involved, with a view to determining nurses' function in the health team, including respect for and acknowledgement of their role in the community.

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An evaluation of the sensitivity and specificity of Rapid Diagnostic Tests in a remote and rural hospital in Tanzania: Implications for malaria diagnosis

Background: In Tanzania, an area with variable malaria transmission intensities, Rapid Diagnostic Tests (RDTs) are currently being rolled out at most health service levels. Several studies have evaluated the accuracy of these RDTs in clinical settings. However, currently within the Ngorogoro Conservation Area (NCA) these new RDTs have not been evaluated. Furthermore, the challenges to implementing RDTs in this area have not been investigated. This study aims to fill this gap in the literature by investigating the sensitivity and specificity of RDTs and potential barriers to implementation at the NCA.

Objectives: To determine the sensitivity and specificity of SD Bioline Malaria Ag P.f/Pan RDT and the challenges to its successful implementation.

Methods: A cross sectional study will be conducted. Patients who present to the local hospital with malaria-like symptoms will be enrolled in the study. Patients will be tested for malaria using the SD Bioline RDT and microscopy. Microscope slides will be sent to external parasitologists for the quality control. The sensitivity, specificity and misdiagnosis proportion of the RDT compared to microscopy will be evaluated. Individual interviews will be conducted to assess the impact of RDT use on clinical officers' prescribing behaviors, as well as the lab staffs' perceptions about the logistics of implementation.

Results: I anticipate that the SD Bioline RDT used in this study will demonstrate high sensitivity and specificity compared to microscopy (1). Similar to another study it may be possible that health workers' adherence to RDT results will be high (2).

Discussion: Although an evaluation of diagnostic tests in field settings is a crucial factor in determining whether or not large-scale implementation is justified, it alone is insufficient. An exploration of context-specific challenges will help determine possible directions for sustainable RDT implementation.

Conclusions: Highly sensitive and specific RDTs are promising diagnostic tools in low transmission settings. Yet a clearer picture of the consequences of RDT rollouts can be determined through evaluating the sensitivity and specificity of the tool as well as investigating potential barriers to its implementation.

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The ASPIRE Project: Risk factors for human papillomavirus (HPV) in a community-based HPV self collection cervical cancer screening feasibility study in Kampala, Uganda

Objectives: Cervical cancer has been described as a case study in health equity with 85% of the over 500,000 annual cases occurring in the developing world. Human papillomavirus (HPV) self collection is emerging as an effective way to increase the uptake and availability of screening in the developing world where the burden of cervical cancer lies. We performed a feasibility study using HPV self collected specimens in a community setting to evaluate this method of cervical cancer screening in Uganda, a country with one of the highest rates of cervical cancer in the world.

Methods: Following a community-engagement workshop and community based acceptability survey locally trained community research assistants recruited 205 women aged 30 to 69 in Kisenyi, a densely populated community with low socio-economic indicators in Kampala during September and October 2011. Consented participants received a brief educational intervention and were offered screening using self collected vaginal samples performed in the home or workplace and a survey was administered. Samples were transported to Mulago Hospital for analysis of high-risk HPV (HR-HPV) genotypes using Qiagen's careHPV platform. Descriptive statistics, bivariate analysis and a multiple logistic regression model were applied to determine factors associated with HR-HPV positivity.

Results: The HPV samples were successfully transported at ambient temperature and 97% of submitted samples had adequate DNA collected for HPV analysis. Prevalence of HR-HPV was 17.6% (95% CI, 12.57-23.6) with women aged 31-35 representing the highest prevalence at 42.9% and women who were divorced or separated with a prevalence of 31.3%. Women who self-reported HIV positivity had an HPV prevalence rate of 31.5% and those in higher quintiles of wealth had lower rates of HPV. Although 94% of women stated they felt they needed to be tested for HPV, only 14% saw themselves as at risk for HPV.

Conclusions: Use of self collection for cervical cancer screening allows for screening to occur with minimal health human resources impact and optimizes use of scarce health dollars. Preliminary data from this study suggests that specimens self collected in participant's homes and workplace is a highly acceptable method of cervical cancer screening in low-resource settings. Our data identifies a disconnect between the perceived risk of HPV and the perceived need to be tested. Characterization of high risk sub-groups provide valuable guidance in targeting future larger-scale self collection based screening programs which hold much hope for decreasing the burden of cervical cancer in low-resource settings.

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Planning an innovative and cost-effective deworming strategy to target women of reproductive age

Background: Investing in cost-effective health interventions is a primary concern in all countries, and perhaps especially in developing countries where competing demands can never be adequately met. Commitment of resources by developing countries to treat and prevent neglected tropical diseases (NTDs) is becoming increasingly difficult. In January 2012, the London Declaration confirmed a public-private partnership whereby deworming drugs for treating soil-transmitted helminth (STH) infections (i.e. intestinal worms) would be provided at no charge by Johnson & Johnson and GlaxoSmithKline. Despite no charge for the drugs themselves, distribution costs and choice of target population significantly impacts the cost-effectiveness of deworming strategies. Women of reproductive age (WRA) are a high-risk group for STH infections but they have been largely neglected by large-scale deworming programs. To date, no study has assessed the impact of postpartum deworming (i.e. immediately following delivery) on maternal or infant health outcomes, a strategy which can easily be integrated into routine postpartum care.

Objectives: To discuss and propose solutions for the technical, ethical and logistical challenges of conducting a randomized controlled trial (RCT) on postpartum maternal deworming.

Methods: To ensure the highest rigour and eventual generalizability of results, an RCT is planned where women will be randomized to one group receiving deworming treatment and to another group not receiving deworming treatment.

Results: The following challenges, with solutions, are proposed: 1) Expected effect size: From the published literature, no data were found on the effects of deworming lactating women on infant weight gain between birth and six months of age. Therefore, to estimate sample size, experts in obstetrics were consulted to determine what difference between the two intervention groups would be of clinical relevance. This was determined to be 200 g. 2) Parental consent: The Peruvian Ministry of Health requires consent from both mothers and fathers if infants are participants in RCTs. Since fathers are not permitted in the labour room, recruitment must take place in the women's homes, to obtain both maternal and paternal consent. 3) Reaffirmation of consent: There will be time between obtaining informed consent in the home and study initiation in the hospital. Women may have forgotten about the study or changed their minds about participating, therefore, they will be asked to reaffirm their consent in the labour room.

Conclusions: Despite these challenges, conducting a trial on postpartum deworming in Peru is feasible and will provide key empirical evidence on a global deworming strategy for targeting WRA.

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A Nursing Curriculum With a Global Health Focus

Background: This unprecedented economic crisis, together with the social breakdown it has engendered, reflects a profound error of conception about the nature of human development and planning. Optimistic forecasts about future wealth generation have vanished into the ever-widening abyss that separates the living standards of a small and relatively diminishing minority of the world's inhabitants (the privileged 1%) from the poverty experienced by the vast majority of the globe's population (the 99%).

Objectives: This calls for re-examination of the attitudes and assumptions that currently underlie approaches to social and economic development. At the macro level, such rethinking will have to address practical matters of policy, resource allocation, planning procedures, implementation methodologies, and organization. As it proceeds, however, fundamental issues will quickly emerge, related to the long-term goals to be pursued, the social structures required, the implications for development of principles of social justice, the nature and role of knowledge in effecting enduring change and the way that most of the institutions of contemporary society carry out their functions, including universities and colleges.

Methods: The School of Nursing at McMaster University has, over the past three years, evolved a Global Health focus in its Kaleidoscope curriculum, comprising a series of courses and care scenarios, across all four levels, comprising Service Learning, Community Professional Practice, The Social Determinants of Health and Issues in Global Health, culminating in a 12-week Professional Practice Placement in a "developing country" or "northern Aboriginal community" in Canada.

Conclusions: This poster will highlight key aspects of curriculum content and learning processes that are designed to transform nursing students from passive observers and consumers of knowledge to actively "becoming" global citizens and "belonging" to a global community with all of the associated rights and responsibilities.

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Guideline Adaptation in Kazakhstan

Background: In 2010, the Government of Kazakhstan and the World Bank initiated a multi-year, multi-component health system reform project to introduce institutional transformation and improve health outcomes. Evidence-based clinical practice guidelines (CPGs) are seen as instrumental.

Context: The Canadian Society for International Health (CSIH) has partnered with Kazakhstan's Ministry of Health to build capacity to adapt and implement high quality international CPGs. Working Groups (WGs) comprised of clinical experts and health policy-makers are now established in four major medical specialties. CSIH has been supporting this process through a twinning program that has focused on mentorship and training workshops.

Best practice description: The adaptation process is based on CAN-IMPLEMENT. Key CPG topics are being identified, primarily by the Kazakhstani partners, using priority setting principles. The quality of candidate CPGs is then assessed by two CSIH experts using AGREE II. The WGs review the selected CPGs on a recommendation-by-recommendation basis and adopt, reject or modify each recommendation. Implementation barriers and facilitators are also identified. Background sections of a CPG template for Kazakhstan are then completed based on the chosen CPG.

Lessons Learned to Date: the desire of local officials to adapt too many CPGs within a short timeline is counterproductive; most relevant literature is only published in English and insufficient English language skills are a major barrier for local partners; copyright issues have added complexity and limited progress; a short version of AGREEII (emphasis on scope, bias and usability) may be ideal in this setting.

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Exploring the impact and ethics of international medical student placements in low-income countries

Background: International medical electives are known to have a positive impact on students' education and career development, but there is growing concern about the potentially negative impact of western students' activities and presence in healthcare settings in low-income countries.

Objectives: The purpose of this pilot project is to examine the ethics and impact of international medical electives at Canadian universities. Specific objectives include understanding what research has already been done in this area; and examining the type and nature of international elective opportunities in low-income countries that are available to students in Canada.

Methods: Researchers at the University of Western Ontario have conducted a systematic literature review and environmental scan of international electives offered through 14 Canadian medical schools to document the elective opportunities, pre-departure training, and evaluation practices used by each of these schools to assess the student and host experience.

Results: While all medical schools in Canada offer students the opportunity to do an international elective, there is no standardized approach to assess students' preparedness for participating in international electives, or their competency in global health and cross-cultural experiences. Global health courses and pre-departure training varies significantly between schools. Very few schools engage in any type of evaluation the students' experience and activities while abroad, and similarly, there is little done to critically evaluate the positive and negative impacts that students have on host communities and healthcare facilities.

Conclusions: The results indicate there is a need to assess pre-departure training and global health courses for effectiveness, and to develop a standardized procedure for preparing students for placements for international placements. A rigorous scientific evaluation of the impact on host communities and medical facilities is also needed to better understand both the positive and negative affects Canadian medical students have during placements in low-income countries. There are numerous ethical and methodological complications that need to be considered when conducting such an evaluation. The results from this pilot project include strategies and recommendations for conducting further research, and developing standardized pre-departure training procedures.

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GRIP: An Integrated Approach to Sexual Violence Intervention and Advocacy in High-Risk Communities in South Africa.

Background: South Africa has one of the highest rates of gender-based violence (GBV) in the world, and women who experience violence – either sexual or physical – have a greater likelihood of experiencing a range of physical, mental and emotional health difficulties. Sexual violence also increases the risk of contracting the human immunodeficiency virus (HIV), which is a particular concern in South Africa where an estimated 17.3% of adults are living with HIV. Survivors of violence face considerable cultural and logistical barriers to obtaining follow up care and support, and an integrated, multi-sector approach is required to effectively address the country's concurrent GBV and HIV epidemics. The Greater Rape Intervention Program (GRIP) was founded in 2000 to provide humanitarian assistance and empowerment to sexual assault and domestic violence survivors in the Mpumalanga province of South Africa.

Methods: In 2011 an in-depth qualitative review of GRIP was conducted, including an extensive document review, 30 key informant interviews, and 2 focus group discussions.

Results and Conclusions: GRIP has developed a comprehensive model for providing immediate and ongoing assistance to survivors of sexual assault and domestic violence, that addresses many of the cultural and logistical barriers that prevent survivors from seeking assistance in South Africa. GRIP's services are widely accessible, with Hospital and Police Care Rooms open 24 hours a day, seven days a week, and continual support delivered through visits to the survivor's home. Legal assistance is provided through pre-court training that prepares survivors for bringing their case to court. Reports from survivors, volunteers and staff indicate that these comprehensive support services have made a significant impact in the lives of survivors.

GRIP has undertaken a number of advocacy and awareness activities in order to overcome the cultural factors that perpetuate cycles of violence and hinder survivors from seeking immediate assistance, long-term support and legal justice. Partnering with law enforcement, healthcare providers and the legal system has helped standardize care and unify advocacy efforts across these sectors. GRIP relies on a large volunteer workforce to provide services to survivors, which also contributes to community advocacy efforts, both directly and indirectly.

This case study supports the conclusion that GRIP's integrated approach has helped to strengthen community response systems to sexual violence, and provide much-needed support services to survivors in areas where specialized services are otherwise lacking.

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Shifting demographics and the disease burden

Migration health: how is it affected by social factors?

Objectives: The movement of large population has important implications for health care systems and the health of individuals of both the migrants and the host population, which altogether is referred as migration health. Researchers along with the policy analysts are continuing their effort towards improved health of migrants in Canada (immigrants, refugees, refugee claimants, temporary foreign workers and smuggled and trafficked persons) and to mitigate the impact of imported infectious diseases in Canada due to global migration. The objective of this project was to collect up to date data through literature search to improve an understanding of the state of migration health.

Methods: Literature search through Health Canada Library, Pubmed and Prowler. Search phrases used were 'migration health', 'social determinants of health', 'immigrants health Canada', 'temporary foreign workers Canada'.

Results: Immigration is the main driver of population growth in Canada. Canada accepts approximately 252,500 newcomers each year. Welcoming immigrants to Canada is not new; however, the newcomers now typically arrive from Asia and Africa unlike from Europe during the 1950s. Understanding this shift of the source area is important to ensure successful settlement of immigrants and is vital to be prepared for diseases that Canada may not be familiar with. Although newly arrived immigrants are typically in better health than their Canadian-born counterparts, as the time spent in Canada increases, their health status deteriorates. This effect is known as the "healthy immigrant effect". There are many reasons leading to "healthy immigrant effect" such as social behaviors, environment and acculturation. Social determinants such as unemployment and low income affect immigrants' health. Data shows that the situations of recent immigrants are much worse compared to Canadian average. Unemployment rate of recent immigrants is 12.3% compared to 6.3% of Canadian average and 16.4% immigrants are living in low income versus 9.9% Canadian average. In addition, situations such as inability to locate a doctor, language barrier, financial difficulty, long waiting lists are common difficulties that immigrants encounter while accessing health care services upon arrival. Presence of new health problems also increases rapidly during the first two years of their stay in Canada; mental health problem increases from 5% to 30% in two years time.

Conclusions: The health of immigrants is thus determined by a number of factors, which includes social status, social network, employment, culture, social environment and health care access. Addressing mentioned social determinants of health may potentially reduce "Healthy Immigrant Effect".

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(Dis)Abling Sexualities: Exploring the impact of the intersection of HIV, disability and gender on the sexualities of women and men in Lusaka, Zambia

Objectives: Women and men with a disability are often characterized as being a homogenous social group, consigned to a cultural stereotype with assumptions of dependence, asexuality and gender neutrality. The objective of this study was to explore how the intersection of disability, HIV and gender impacted on perspectives of HIV+ women and men with disabilities regarding their sexualities.

Methods: In-depth semi-structured interviews were conducted with twelve women and nine men with disabilities who have become HIV+ positive and are living in Lusaka, Zambia. Data were analyzed using descriptive and thematic techniques plus the application of a social relations approach for gender analysis.

Results: 1. Assumptions and stigma related to the sexuality and gender(less) identity of disabled women and men negatively impact HIV related interactions with health service providers. 2. Stigma in relation to HIV+ status in participants' communities and families appeared to increase due to assumptions about their sexualities. 3. Disabled women's gender roles and relationships were described as disproportionately impacted by HIV-diagnosis as a result of social vs medical consequences of HIV diagnosis; there is a magnifying effect on gender inequalities and vulnerability within relationships.

Conclusions: Assumptions regarding the sexualities of disabled women and men were understood as strongly influencing intimate relationships and interactions with the community, family and health providers both at and following HIV diagnosis. HIV strategies need to be inclusive and gendered, and to avoid essentialisms that reinforce negative stereotypes of women and men with disabilities. That is, HIV prevention and care programmes should resist the use of difference to multiply negative framings of 'vulnerable victims'. Strategies should employ a positive approach informed by the complex and diverse realities of people's lives. Progressive HIV programming can be used to challenge damaging stereotypes and stigmatizing assumptions.

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Developing global research partnerships: A Canadian-Zambian case study

Background: The country of Zambia's Sixth National Development Plan (SNDP) includes many objectives directly related to participation and health that align with values underlying the profession of occupational therapy. Given the relevance of the SNDP to occupational therapy, occupational therapy research has the potential to advance the SNDP and thereby enhance the participation and health of Zambians. There is no school of occupational therapy in Zambia, nor are there many occupational therapists working in Zambia. Therefore, occupational therapy research that is meaningful and meets in-country needs will require partnerships to be established between occupational therapists from outside of Zambia and non-occupational therapy Zambian stakeholders. A leading Canadian framework advocates for global health research partnerships to be sustainable, interdisciplinary, involve participatory action, and have a policy or practice orientation.

Objectives: Using the case study of a global research partnership between Canadians and Zambians conducting occupational therapy research in Zambia, this paper examines how the partnership sought to operationalize the core characteristics for global health research in order to derive lessons for future occupational therapy research partnerships.

Methods: A retrospective analysis of how the Canadian and Zambian research partners perceived the partnership to have operationalized the principles for global health research partnerships presented in the Canadian framework was conducted. This analysis was developed through collaborative and candid dialogue by the research partners, using the Canadian global health framework as the basis for deliberation.

Conclusions: To carry out global research partnerships and ensure that the collaborations are sustainable, interdisciplinary, involve participatory action, and have a policy or practice impact orientation involves the effective engagement of representatives from all partners because of the mutual learning and provision of support. This mutual support enables ease through all stages of the research process from ethics approval, to participant recruitment, data generation, and knowledge dissemination. Furthermore, such partnerships can build the capacity of occupational therapists to develop research applicable and appropriate to local priorities.

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Co Authors: Gregor Wolbring (University of Calgary)

Footprint Hierarchy: A Global Health Issue

Objectives: The aim of the paper is to answer the question: “Is there a hierarchy present related to different footprints? (i.e. water, carbon, eco, etc.)”. Research was performed using an ableism lens to delineate a cost/benefit framework to the footprint discourse, and to infer the impact of footprint hierarchy on global health.

Methods: This research used the Canadian Newsstand Proquest online database provided by the University of Calgary, the New York Times (NYT.com, searching from 1981), China Daily (<http://www.chinadaily.com.cn>, from 2000-today), and Malaysia The Star online (<http://thestar.com.my/>) to examine the frequency of various footprints. The authors also present data related to water footprint from a recent online survey monkey survey (n=244). Data was synthesised using an ableism framework, which is an emerging perspective which views looks for ability-preference.

Results: There is a footprint hierarchy apparent in the media (with the main visible footprints being: carbon>ecological>water>energy). The ableism framework brought forth reasons why the carbon footprint is more visible than the water footprint. Reasons for the footprint hierarchy became apparent using the ableism framework as a cost-benefit analysis. Consequences of the footprint hierarchy for global health were generated.

Conclusions: The authors submit that ability preferences influence cost benefit analysis of footprints which contributes to the footprint hierarchy. The authors further submit that footprint hierarchies influence global health policies and global health, by way of demonstrating which footprints are seen as a more critical global issue, and thus, why certain wasteful practices occur more than others.

In accordance with Sarah Brown’s discussion with my supervisor Dr. Gregor Wolbring, we were told to indicate that the oral presentation will be via mp3 file or youtube channel, as physical attendance is not feasible due to lack of travel funds for the students.

Noga, Jacqueline
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An Analysis of the Rio +20 Discourse Using an Ability Expectation Lens: the global impact on the health of marginalized groups

Objectives: The aim of the study was to content analyse documents related to Rio +20 through an ability expectation lens and to evaluate the impact of the exhibited ability expectations on marginalized groups, specifically people with disabilities.

Methods: Content analysis of academic and grey literature sources covering Rio+20 using the software's Atlas-ti and knowledge share. Academic databases being used include EBSCO, which includes Environment complete, Web of Knowledge and Web of Science, Scopus and Jstor; so far 109 articles have been found relevant (English language, not books and PDF available). Non-academically we used sources such as the International Institute for Sustainable Development (IISD) Reporting Services and Google. Data collection will continue until August 2012 in order to include the literature post-dating Rio+20, which will likely offer a rich source of newspaper article.

Results: From the articles we have so far we can see a difference in visibility of various marginalized groups and we can identify certain ability expectations (e.g. ability to consume, to travel, etc.) which come with certain consequences, such as the health of the global group of disabled people.

Conclusions: The authors submit that using ability expectations as a lens of analysis contributes a new useful angle to the analysis of global health issues and various policy discourses such as Rio+20

In accordance with Sarah Brown's discussion with my supervisor Dr. Gregor Wolbring, we were told to indicate that the oral presentation will be via mp3 file or youtube channel, as physical attendance is not feasible due to lack of travel funds for the students.

Omar, Sabrina

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Gestational Surrogacy in India: Examining the issue from perspectives of risk, ethics and political economy

Objectives: To provide a thorough review of existing evidence on gestational surrogacy in India. Three inter-related approaches were used to collect and analyze this reportedly growing phenomenon: a basic risk assessment/epidemiological viewpoint, an ethical/moral reasoning perspective, and argument arising from the political and economic power struggles embedded in Indian society. This review of evidence also sheds light on what remains unknown regarding surrogacy in India.

Methods: A search of the English language literature was conducted for articles related to gestational surrogacy in India. Nine databases were searched: Ovid HealthStar, PubMed, Scopus, Web of Science, Academic Search Complete, CINAHL, Communication & Mass Media Complete, International Political Science Abstracts, Social Work Abstracts, Women's Studies International, ERIC, and the Alternative Press Index. Strict inclusion/exclusion criteria were not determined in order to retrieve as many relevant articles as possible. No high quality evidence was identified (systematic reviews, meta-analyses). No restrictions were placed on publication dates. Initial search yielded 133 articles; however, after screening for duplicates, relevance, and accessibility, 34 articles were included in the final review.

Results: From a risk assessment viewpoint, based on the McLaughlin Centre's Integrated Framework for Risk Management & Population Health, biological determinants (risks associated with pregnancy and risks associated with IVF treatment), environmental/occupational determinants (threatened work-life balance, lack of independence and privacy, and decreased feelings of self-worth), and social/behavioral determinants (socioeconomic status, education, unemployment, social stigma and emotional distress/guilt) have been identified. The way in which these determinants interact shows how risks associated with gestational surrogacy are exacerbated in the context of India. From an ethical perspective, seven major ethical issues were identified regarding the practice of surrogacy in India: failure to achieve acceptable informed consent, increased potential for exploitation, increased risk of social stigmatization, socially constructed devaluation of the surrogacy, commoditization of reproductive capacity, unfair basis of compensation, and unfair allocation of medical care. Lastly, three categories of power struggles emerged from analysis of the literature: unequal authority in decision-making, unequal power in decision-making and unequal economics.

Conclusions: This comprehensive literature review from various epidemiological, ethical, and political economy perspectives has allowed for a deeper understanding of the issue of surrogacy in India. The evidence review did not find any existing analysis attempting to link across these three themes. Prior to identifying solutions and lowering the risks involved to the surrogacy in regards to this practice, it is essential to understand the root causes for the problem.

Osuji, Joseph

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The application of artificial intelligence in the diagnosis of Malaria

Objectives: The purpose of this study is to make the case for the utility of Decision Support Systems (DSS) in the diagnosis of malaria and to conduct a case comparison analysis of the effectiveness of the fuzzy versus the AHP methodologies in the medical diagnosis of Malaria, in order to provide a framework for determining the appropriate kernel in a fuzzy-AHP hybrid system. Malaria is considered a major killer disease both in the tropics where it is endemic and increasingly in developed countries, where affected returning travelers in most cases receive substandard care due to the lack of specialized personnel who have adequate experiences diagnosing and managing tropical diseases (Panosian & Coates, 2006). This combination of inadequate expertise and sometimes the vague symptomatology that characterizes malaria, exponentially increase the morbidity and mortality rates of malaria. The task of arriving at an accurate medical diagnosis may sometimes become very complex and unwieldy, this complexity is complicated when the disease in question presents with non-specific symptoms, which may at best be vague, such as seen in early stages of malaria. The challenge therefore for physicians who have limited experience investigating, diagnosing, and managing such conditions is how to make sense of these confusing symptoms in order to facilitate accurate diagnosis in a timely manner.

Results: The results of the study show that the fuzzy logic and the AHP system can successfully be employed in designing expert computer based diagnostic system to be used to assist non-expert physicians in the diagnosis of Malaria. This conclusion was made because the effectiveness and accuracy of both systems when compared with diagnosis of malaria made conventionally by expert physicians in practice showed non-significant differences. Fuzzy logic proved to be slightly better than the AHP, but with non-significant statistical difference in performance

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La gouvernance collaborative de la coopération internationale pour améliorer la santé des populations moins bien nanties – Étude de cas en Haïti

Introduction : La gouvernance de la coopération internationale est un champ d'études relativement nouveau. Les grands problèmes contemporains en matière de santé dans les pays pauvres constituent des défis complexes dont les solutions se doivent d'être mise en œuvre par plusieurs acteurs. Depuis les dernières décennies, une multitude d'intervenants de la coopération internationale sont actifs dans le champ de la santé à travers le monde.

Malheureusement, le bilan de l'aide internationale dans les pays en développement est des plus mitigés. Entre bureaucratie paralysante, dédoublements et manque de complémentarité, l'aide internationale aboutit souvent à des impasses : la pauvreté ne se résorbe pas, les inégalités de santé et les injustices persistent. Ce constat des plus amères, interpelle au premier chef, la gouvernance collaborative des acteurs de la coopération internationale.

Dans un monde interdépendant, la coopération internationale est un impératif moral et un symbole du désir de bâtir un monde plus juste. Comment donc favoriser une meilleure compréhension des dynamiques de gouvernance de la coopération internationale pour des interventions plus efficaces en santé des populations? Quels sont les mécanismes de coordination et de collaboration qui doivent être au cœur de la gouvernance dans le domaine de la santé? Comment agir sur les déterminants de la santé de façon verticale et horizontale pour le plus grand bénéfice des collectivités?

Objectifs : En examinant le cas particulier d'Haïti, la communication que nous vous proposons vise à répondre à quelques-unes de ces questions que notre projet de recherche abordera de façon plus détaillée.

Conclusions : Nous nous attarderons aux facteurs de succès d'une bonne gouvernance de la coopération internationale pour mieux agir sur les déterminants de la santé en vue d'améliorer la santé des collectivités locales. L'analyse de la gouvernance de la coopération internationale visant à améliorer la santé de collectivités haïtiennes permettra d'identifier sur le terrain, les réussites et les actifs à consolider ainsi que les écueils et impasses à éviter.

Nous postulons que l'amélioration de la santé des populations moins bien nanties est possible par une meilleure compréhension de la dynamique de gouvernance, une mobilisation accrue des principales parties prenantes et une mise en commun d'outils et de modèles d'intervention.

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Breaking the silence of HIV/AIDS through peer health education of school aged children in Njombe, Tanzania

Background: The United Republic of Tanzania reports an HIV prevalence rate of 5.7% in the population between the ages of 15 and 49. Limited formal health education and early initiation of sexual activity leave Tanzanian youth at high risk for poor sexual health practices thus contributing to sustaining the HIV epidemic.

Objectives: The McGill School of Nursing partnered with CHAKUNIMU, a local grassroots non-government organization, to implement a youth peer health education program to improve communication around HIV/AIDS at a primary school-aged level.

Methods: Twenty students aged 11 - 16 from two primary schools, were trained as youth peer health educators for their respective schools. The training sessions took place over a five-week period with a curriculum developed from the adult-led peer-assisted 'MEMA kwa Vijana' HIV education project in Tanzania. The curriculum used various teaching methods such as skits, role-plays, songs, games and lectures.

Results: Pre-and-post-test knowledge and attitude questionnaire scores suggested that this training program was successful in raising HIV-related knowledge by 32.4% and attitudes by 26.2%.

Conclusions: Peer health education training may be an effective way of increasing communication regarding HIV/AIDS for school aged children in rural Tanzania and may contribute to reducing the overall prevalence rate in the country.

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Mapping of malaria incidence using GIS and understanding behaviours and attitudes of migrant construction workers in Manipal, India: a pilot study

Objectives: Malaria is the second largest infectious disease killer, following only tuberculosis worldwide. While levels of malaria are lower in India compared to other areas of the world, some regions are suffering from increasing incidence, such as the small Southern town of Manipal. Migrant construction workers from the North of India are one cause of the increase, as they carry malaria from endemic Northern regions to the Manipal area. The aim of the present pilot study was to plot malaria cases around Manipal to various construction sites using Geographical Information System (GIS) mapping, and assess specific risk factors and attitudes towards malaria and its treatment amongst migrant construction labourers.

Methods: Health records from the local Primary Health Centre were analyzed to distinguish geographical areas of high incidence. Construction sites with a history of malaria incidence were targeted, with cases mapped according to these sites. A cross-sectional study design was implemented at the construction sites, with labourers from these sites constituting our study sample. An interviewer-administered questionnaire was developed to assess attitudes amongst construction workers towards malaria prevention and treatment at the targeted sites.

Results: Analyzing 2011 data from the PHC indicated that 90% (228/253) of malaria cases occurred in construction workers, located across 21 construction sites around Manipal. Amongst these cases, the average age was 27.1, 81% (n=185) were male workers, and only 10% (n=24) were cases of *P. falciparum*. Construction sites with highest incidence were selected and a total of nine sites were visited. Of 56 labourers interviewed, 88% (n=49) were migrant workers. Of our sample, 59% (n=33) of workers reported not using mosquito nets, with 32% of those using just a ceiling fan for vector control. Only 6 respondents had an unfavourable opinion of local malaria screening efforts. Significant associations were established between knowledge of screening efforts and likelihood of completing recommended medications ($p=.001$), as well as their likelihood to visit a health centre and usage of bed nets ($p=.04$).

Conclusions: Migrant workers become malaria infected more often than the general population, and awareness of screening programs is poor but favourably viewed. Coverage under these initiatives must be greater, and involvement of workers should increase. Bed net usage is irregular and coverage is poor, indicating that improved dissemination of nets (in particular insecticide treated nets) is necessary. Finally, the importance of completing drug treatments and improving health seeking behaviour must be stressed among this population.

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An Assessment of Mercury exposures among women and children in gold mining communities in Ghana

Background: In the past, both large-scale and artisanal gold miners in Ghana processed gold with mercury. In recent times all the large gold mining companies have abandoned mercury amalgamation to heap leaching, where cyanide is used to process gold. Small-scale miners continue to use mercury and effort to regulate their activities by the government of Ghana, has forced over 90% of them to operate illegally. It is estimated that 50% of over 200,000 workers in illegal small-scale gold mining are women and children. Yet not much research has been done to assess their level of mercury exposures.

Exposure to mercury vapor could damage the central nervous system. A damaged nervous system could result in difficulties with coordination, eyesight, and tactile senses. Symptoms of chronic mercury poisoning include inflammation of the mouth, easy excitation, trembling of the hands, loss of memory, decreased cognitive functioning and death (Baird, 1995).

Objectives: To assess, through questionnaire, the occupational history and the health risks of women and children in small-scale mining communities.

Methods: A total of 36 participants (33 women and 3 children) were conveniently selected from two communities in the study area. Exposure to mercury was determined in two ways. First, information was gathered by questionnaires on occupational history (contact with and use of mercury in gold mining). Second, mercury concentrations were measured in biologic compartments, which involved measuring urine samples as a biomarker to assess their mercury exposure levels.

Results: All participants are exposed to mercury because they worked in mining camps where 61% of the amalgamation and purification of gold occurred. Gold purification involved application of heat to vaporize mercury residues on the gold. Though 58% were aware of the toxic nature of mercury, only 2% used protection during gold purification, which could take an average of 45 minutes.

Conclusions: Despite the study's small size and non-random sampling, it is obvious that women and children in gold mining communities are at risk of mercury poisoning. Since this was an exploratory study, these findings highlight the need for further research and public health interventions regarding mercury toxicity and its prevention in gold mining communities in Ghana

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Income generating activities are associated with health and nutrition knowledge, attitudes and practices of pregnant women in Western Kenya

Objectives: Antenatal care (ANC) clinics facilitate the identification and mitigation of risk factors early in pregnancy and aim to reduce the burden of adverse maternal and peri-natal outcomes in low-resource settings. ANC utilization can influence maternal knowledge, attitudes and practices (KAP) to improve maternal and child health. However, there is limited understanding of pregnant women's KAP in the context of sub-Saharan Africa. The objective of this research is to explore factors associated with knowledge, attitude and practices among pregnant women in rural Kenya.

Methods: This analysis utilizes data from a baseline cross-sectional survey conducted prior to the introduction of the Mama SASHA project – an intervention that is aimed at integrating Orange Fleshed Sweet Potato (OFSP) promotion and production and nutrition education with ANC services to improve maternal and infant health. Survey data on KAP variables were used to construct indices for nutrition knowledge score, health knowledge score, attitude score, and dietary diversity score. Health practices included malaria and/or antihelminthic treatment in addition to qualitative assessment of food consumption during pregnancy. The Hosmer-Lemshow approach for multiple regression analyses was used to explore factors associated with knowledge, attitudes, and practices. Maternal age, number of ANC visits, education level, involvement in income generating activities (0 to 3 activities) and wealth index, derived from household assets and quality variables; were among the independent factors explored.

Results: Among the 979 pregnant women in the survey, 59% had attended an ANC clinic at least once. A greater proportion of women who attended ANC clinics were in the highest wealth quartile compared to ANC non-attendees (30% vs. 20%, $p=0.001$). In addition, women who participated in one income generating activity and attended ANC clinics were more commonly in the highest wealth quartile compared to ANC non-attendees (28.6% vs. 16.6%, $p=0.001$). Higher wealth index was positively associated with dietary diversity (3.90, $p<0.0001$), while adjusting for maternal age and education. Similarly, involvement in two income generating activities was positively associated with health knowledge score (0.37, $p=0.026$) and with dietary diversity score (0.64, $p<0.0001$), adjusting for confounders. Being involved in agriculture as a secondary activity and selling agricultural products was also associated positively with health attitudes (0.93, $p=0.004$), independent to maternal education.

Conclusions: Income generating activities and higher wealth quartile demonstrated positive associations with health knowledge and practices among pregnant women in rural Kenya. Further research is required to assess the nuances of multi-level factors that influence maternal KAP.

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Using the '5x5' Framework to Evaluate Community Health Worker Program Design for Mental Health Care in India

Objectives: Community Health Workers (CHWs) have become a central feature of primary care delivery in Low and Middle Income Countries, and more recently CHWs mental health pilot programs have been implemented in India. The literature review contributes to the clinical effectiveness literature of CHWs mental health programs, by exploring the feasibility of pilot project scale-up to alleviate the burden of mental health disorders in India. The '5x5' framework was chosen to guide the review as it captures key professional skills and implementation processes needed to ensure project scale-up. It describes five skill packages and five implementation rules needed to guide mental health coverage and adequate support for CHWs to ensure project scale-up and sustainability.

Methods: The literature search was conducted using University of Toronto's Summon search system for following databases: PubMed, Scopus, Web of Knowledge, ProQuest, Ovid, Jstor, Factiva, Scholar's Portal and EBCSO. The search combined the search terms: 'India', 'mental health' and a list of common CHWs terms gathered from WHO report 2007 of CHWs effectiveness. The search was limited to available online, English language articles.

Results: A total of 354 titles, 30 abstracts, and 20 full articles were reviewed prior to the selection of 10 articles for inclusion. **Skill packages:** the majority of studies reported CHWs had access to training in front line services (10 studies) and in delivering therapeutic interventions (5). Over half the studies reported CHWs worked with professionals who could prescribe medication (7), provide supervision and consultation (6) and provide quality oversight (5). **Implementation rules:** Prior to program design, 5 studies reported assessing the local cultural context and 3 reported identifying local care pathways. 4 studies mentioned some training manuals were provided, and 2 reported decision support tools for the CHWs. Only 1 study mentioned quality measures for CHWs work. None of the studies reviewed addressed program sustainability.

Conclusions: The results provide encouraging evidence that CHWs mental health programs are feasible and effective. The lack of a common framework to guide project design may lead to a "Tower of Babel" problem – individual programs' use of unique skill packages and implementation tools hampers project integration and scale-up. The review stresses the importance for framework adoption to standardise CHWs training and supervision and program implementation to maximize the use of limited mental health resources in India.

Reddock, Jennifer
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Challenges in providing third-line antiretroviral medication in the Eastern Caribbean: An 18-year journey

Objectives: To identify the factors contributing to the challenges in providing third-line antiretrovirals in the Eastern Caribbean.

Background: The Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) established minimum standards for intellectual property regulation including pharmaceuticals in 1994. Despite the special and differential treatment provisions in TRIPS, 18 years after the agreement was negotiated at the World Trade Organization, countries in the Eastern Caribbean have still not resolved the question of how to guarantee universal access of third-line antiretroviral medication to HIV/AIDS patients. While the expiration of patents for many of the first-and-second-line HIV/AIDS medications have made them more affordable in middle income countries, continued access to newer medications is not guaranteed.

Methods: The research uses a case-study approach to identify the factors that contribute to the current problem in countries faced by Antigua/Barbuda, Dominica, St. Lucia, St. Vincent and the Grenadines, Grenada, St. Vincent and the Grenadines. The research conducts a policy analysis of the region's health-policy and systems designed to respond to HIV/AIDS and achieve the sixth Millennium Development Goal which commits nations to combat the spread of HIV/AIDS. Analysis includes a review of policy statements, health systems data and interviews with regional stakeholders.

Results and Conclusions: While too wealthy to qualify for least-developed country concessions in TRIPS, countries in the Eastern Caribbean face significant resource challenges if they are to indigenously finance treatment for third-line anti-retrovirals. Institutional history including dependence on previously-reliable sources of external funding, capacity limitations in health systems and institutions, combined with the legacy of not adopting an activist stance on intellectual property issues are forcing new approaches in policy and negotiating practices in global health initiatives. A shift in global emphasis from HIV/AIDS to non-communicable diseases demands a realignment of regional health systems and a re-examination of vertical approaches to disease management

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Co Authors:

Do donors decide policy priorities in HIV/AIDS

Objectives: To create a typology of policy transfer for HIV/AIDS in the English-speaking Caribbean

Background: Globalization has ushered in new dynamics for health sector policy making that force a range of complex actors to merge their ideas and interests. Traditional assessments of global health policy suggest a dynamic of discordant voices in the policy arena. In the English-speaking Caribbean, programmatic policy-making for HIV/AIDS deliberately includes all of these varied actors and stakeholders: governments, donors, international organizations, people living with HIV/AIDS, academics and private sector. The decision-making mechanism therefore is a real-life testing ground of whether coercive theories of policy transfer hold true in a region that is heavily donor-dependant and has a shared history of colonial rule.

Methods: The research uses a case-study approach and conducts a policy analysis. In assessing the applicability of coercive policy transfer dynamics, interviews are conducted with individuals from various sectors represented in the HIV/AIDS policy-arena in the English-speaking Caribbean to assess to what extent their respective agendas have been reflected in regional policy priorities and approaches. Analysis considers whether donor-driven coercive policy transfer dynamics are present.

Conclusions: The English-speaking Caribbean has developed a unique model for HIV/AIDS policy-making that challenges traditional assumptions of policy-making in a globalized context. In a post-colonial era, the region's strong emphasis on political self-determination has forced a new type of independence and policy entrepreneurship. The policy transfer models where donors dictate policy outcomes which has been developed from European typologies do not apply to the health policy context of the English-speaking Caribbean.

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Student driven global health initiatives: the SCOI perspective on how to build comprehensive and ethical programs

Objectives: The Standing Committee On Immersions Program aims (1) to build capabilities of medical students in Quebec on global health and cultural skills and to help them challenge their current paradigm of the developing world. (2) It aims as well to create ethical overseas internships that highlight local knowledge and respect local communities.

Target groups: Our target group is pre-clerkship medical students motivated to have a first experience in global health overseas. To assess this motivation and their potential to challenge actual paradigm, every candidate have to complete a thorough selection questionnaire that aims to highlight their judgement of ethical issues in a challenging cultural setting and their ability for critical thinking and self-reflection.

Activities: On 54 applicants last year, the 34 that were finally selected were given 28 hours of pre-departure training on knowledge, skills and attitudes that were identified as core for future global health physicians. Moreover, this set of capabilities did not focus on clinical sphere because SCOI philosophy defined the bottleneck in better global health physicians was more about softer capabilities than hard medical skills.

Parallel to pre-departure training, SCOI redefined partnership with immersion settings: from a relationship of humanitarian or medical aid driven by unskilled pre-clerkship students, the 5 different immersion settings now aim to train and teach to SCOI interns how local physicians practice medicine in their cultural setting and how culture influences the way population perceive health.

The core of the program, a 6 weeks immersion in a low-resource clinical setting enable each participant to put into action capabilities they have learned during the pre-departure phase and to better understand the challenges and possibilities of global health.

At their debrief , we support our participants in structuring their experience to better communicate it back in Canada in videos and articles providing more in-depth analysis of their experience around specific global health or cultural issues they have confronted during the immersion phase of the program.

Results: Our deliverable is a group of medical students trained and experimented in better understanding culture and health in a global spectrum to improve health of cultural communities here in Canada and overseas once they will have finish their MD degree.

Other deliverables are new pilots: (1) 3 credits internship program at Faculté de Médecine de l'Université de Montréal and (2) pre-departure program at Faculté de Médecine et de la Santé de l'Université de Sherbrooke.

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Exploring Gender Dimensions of Treatment Programs for Neglected Tropical Diseases in Uganda

Background: Neglected tropical diseases (NTDs) are a group of infectious diseases affecting over a billion people worldwide. Recent international advocacy efforts have led to increased access to medicines for certain NTDs through the formation of National Programmes, providing free or low-cost medicines through private-public partnerships between pharmaceutical companies, and academic, governmental and non-governmental organizations. The international community has focussed on the increased procurement and distribution of medicines as an indicator of the programme's success. However, information on variation in community and individual level access and adherence to treatment is limited.

Objectives: Using a gender-based approach, we sought to examine community and individual level barriers to access and adherence to treatment in Uganda's Neglected Tropical Diseases program. Specific objectives were: to explore whether a gender bias may be present in the treatment program among adolescent and adult populations; to examine factors which may contribute to a gender bias; and to identify whether pregnancy and breastfeeding presents a barrier to the participation of women in the treatment program.

Methods: Data was collected in two districts in Eastern Uganda. Quantitative data was abstracted from community treatment registers on number of persons treated by gender and age group. Qualitative methods included: focus groups with community leaders, community medicine distributors (CMDs), and adult and adolescent males and females; semi-structured interviews with program supervisors; and participant observation in distribution visits.

Results: Major findings included: (i) men face more structural barriers to accessing treatment due to social and occupational roles which keep them away from the village or household for long periods; (ii) women and adolescent girls tend to exhibit more health seeking behaviour overall, while men and adolescent boys may be more reluctant or distrustful of the mass-treatment; (iii) CMDs are often unaware of which medicines are safe for pregnant and breastfeeding women, resulting in women missing beneficial treatments.

Conclusions: Findings highlight the need to include gender-specific issues in community-level training on drug distribution and to clarify guidelines for treating pregnant and breastfeeding women in this training. Accurate age and sex disaggregated measures of the number of community members who swallow the medicines are also needed to ensure proper monitoring of treatment program coverage. Strengthening community and individual capacity and willingness to participate in the program should be a priority for national and international partners.

Salehin, Masudus

Plan Bangladesh, Dhaka

Co Authors: Narayan Chandra Sarker (Plan Bangladesh), Tahmina Mirza (Plan Bangladesh), Selina Amin (Plan Bangladesh)

Theater for Development: A cost-effective way to raise community awareness on Adolescent Reproductive Health

Background: There are 33 million adolescents in Bangladesh, constituting a quarter of the total population.¹ Despite this population profile of this age group, adolescent health care specially adolescent reproductive health (ARH) in particular, has been a neglected issue. Cultural taboos exist in the religiously-guided, traditional communities which inhibit open discussion regarding reproductive health issues, such as menstrual development, wet dream HIV/AIDS, STIs, sexual harassment, child marriage and family planning.

Objectives: Demonstrate the effectiveness of 'Theater for development' (TFD) in raising awareness in the community regarding issues related to Adolescent Reproductive Health in a cost-effective way.

Target groups: TFD intervention was initiated by Plan Bangladesh with 215,220 boys, girls, parents, and community people to discuss ARH issues, explore community beliefs and challenge them in a sociable manner.

Activities: Theater groups are formed among adolescent in the community, with training provided by the master trainers of TFD. Themes are based on key ARH issues, as identified by the adolescents, which includes child marriage, dowry, drug addiction, HIV/AIDS and STIs, sexual harassment, changes during adolescence and parent-adolescent communication. Scripts, dialogues and scenes are prepared by the adolescents. TFDs are organized in open spaces and involve 8 to 10 local adolescent girls and boys, using drama techniques and mirroring reproductive health situations of adolescents in the community. TFD involves active participation of the community during audience interaction where they share their opinion and experiences.

Results: The project has trained 169 TFD adolescent groups, and a total of 1064 2 shows have been organized. According to survey by Plan Bangladesh, TFD shows are the second most accessible form of media communication (98%) after television (100%). The shows were found by respondents as an enjoyable form of learning (65%) and easily understood (28%). Forty-five percent adolescent are able to relate the bad effects of early marriage to their friends and neighbors, 19% of girl adolescents are able to discuss their reproductive health problem with their family. The expenditure reported for each TFD show is about \$5 to \$21, with an average of 211 viewers per show.

Conclusions: The project learned through this experience that TFD is highly effective and acceptable media form for developing awareness among adolescents and community, which is appreciated and enjoyed by the community at a very low cost.

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Sanou, Dia

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The 2012 Summer Institutes in Haiti: Building competencies in public health nutrition with a multi-sector perspective

Background: The devastating seism in 2010 which caused the death of more than 300,000 Haitians and exacerbated the country's fragile health and nutrition situation. Rates of under 5 mortality, stunting, wasting, low birth weight and anemia all remain at unacceptably high levels. Several UN agencies and NGOs have been active to support the weakened health system and provide emergency nutritional interventions. One major stumbling block consists in the lack of properly trained staff in nutrition as no nutrition programme exists in the country. Recognizing the importance of capacity development, Haitian and Canadian partners came together and initiated the first ever Summer Institute in Community Nutrition and Public Health Agriculture.

Objectives: This partnership initiative involved the University of Ottawa, University Laval, Haiti's State University (UEH), Haiti's Ministry of Public and Population Health (MOH), Haiti's UNICEF and World Food Programme offices. The aims were 1) to develop participant skills in community nutrition and public health agriculture in order to enhance the implementation of nutrition programmes in Haiti; 2) to support nutrition training in academic curricula and develop the foundation of a post-secondary degree in nutrition in Haiti.

Target groups: This capacity building initiative was intended for senior level undergraduate students (food sciences and technology, medicine, agricultural sciences) currently studying in four Haitian universities, professionals from the Ministries of Public and Population Health and Agriculture, the National Committee for Food Security, local staff from UN agencies and NGOs.

Results: From May 28th to June 8th, 2012, professors from 3 Canadian Universities paired with their peers from UEH and experts from UNICEF, WFP, MOH and International NGOs trained more than 120 individuals from 4 Haitian Universities, government public servants and NGOs local staff. The University of Ottawa's Chancellor and UNESCO Special Representative for Haiti, Ms. Michaëlle Jean, lent her patronage to the initiative and kick-started its activities. Several members of the Haitian government also spoke at the opening ceremony and expressed their wish for a successful summer institute. Twenty training modules related to nutrition and agriculture as well as current initiatives to address the problematic situation were covered. A stakeholder consultation workshop was also held on the last day to set the foundation for a postsecondary nutrition training programme in Haiti. Comments collected during the Institute from participants and local organizers stressed the importance of this initiative for the country's advancement and the great need for its development and continuous implementation.

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Training on parenting adolescents on reproductive health issues to change attitude of parents leading to development of a supportive community

Background: In Bangladesh, adolescents are dependent on their parents for decisions that affect their reproductive health and development; however parents are ill informed about reproductive health issues and feel uncomfortable discussing them with their children.

Objectives: To enable adolescents to make informed decisions regarding their sexual and reproductive health and to avail services in a friendly environment

Target groups: The project will reach 200,000 adolescents age of 10-19 years as direct beneficiaries' and the parents, community leaders, religious leaders, school teachers and other stakeholders (500,000) are treated as indirect beneficiaries.

Activities: Interested, motivated parents who have leadership skill and parents of adolescents where 64% of mother and 36% of father selected as Parent Peer Educators (PPE). Initially parents received one day orientation on Parenting followed by two years after refreshers. In this training gender issue is addressed. Parent peers were given regular support in organizing meetings with other parents in the community.

PPE conveyed the knowledge to their peer in four to five informal sessions. Sessions are usually conducted in informal settings such as tea stalls, during washing clothes, agriculture fields, market place and neighbor's houses at their convenient time. During the sessions, the mother parent peer talks with other mother and same goes for the fathers.

Results: 12,000 parent peer educators have been developed in the project area. Till the end of years four, parent peer educators have reached 282,846 parents. During field visits, most of the parent peers shared that parenting training was very useful. After the training they could identify their own mistakes in communicating with their adolescent children. One of the parents said she used to get angry and did not listen to her son's problems. Now she is more attentive and listens carefully and plays a supportive role toward her son's problems. Study showed that "Parents give importance to their daughters, discuss on menstruation issue and 80% mother inform the issue with their daughter".

Conclusions: Parents are more sensitized about Adolescent Reproductive Health and are comfortable discussing these issues with their children. As a result, adolescents are also sharing their problems with their parents.

Selbie, Adrienne

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Using Narrative Analysis to understand how street-involved men navigate the health care system in Southwestern Ontario.

Background: Marginalized populations often experience difficulties in accessing medical care. The homeless in Canada are one such population that experience difficulties in navigating and accessing the health care system. This difficulty presents a significant challenge as the homeless and street involved population is currently growing in size. Prior research has well documented that their unique health care needs are not being met by the current model of health care delivery. There is a lack of research that explores the first hand experiences of individuals who are homeless and their perspective on the difficulties they face in accessing the health care system. This missing perspective further exacerbates the barriers and challenges encountered by practitioners working to deliver health care services to this at-risk population.

Objectives: The goal of this study was to gather first hand health care narratives from street-involved and homeless individuals and build an understanding of the issues encountered by these men when dealing with the health care system.

Methods: One-time interviews were conducted with ten adult males who were homeless, precariously housed or street-involved in a medium sized city in Southwestern Ontario. Each participant was asked to describe his health care experiences from his unique perspective. Interviews were analyzed using a grounded theory approach with attention to story content and delivery.

Results: Emergent themes were 1) Concerns surrounding access to services, 2) Primary health care (un)availability, 3) Perceived negative attitudes of healthcare professionals within the hospital setting and 4) Perceived stigma associated with recreational drug use.

Conclusions: The findings highlighted the need for healthcare practitioners to provide an environment in which patients do not feel judged or discriminated against due to their homelessness or street involvement. In light of the economic constraints on today's modern health care system, continuing to further our understanding of the most effective ways to meet the needs of growing populations is of increasing importance. By attending to first-hand accounts such as these we may more creatively and efficiently strive to improve the accessibility of health care for marginalized populations in the current global economy.

Tynedal, Jeremy
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Sport Peacebuilding: Emergence, Sustainability and Disability

Objectives: Sport as a tool for peacebuilding has the ability to effect change at the global level by providing life skills to youth and children such as communication, leadership, cooperation, discipline, participation, respect and trust [1]. Although a prospective field of research, there is no literature which explores the role of sport peacebuilding programs for disabled people in regions experiencing global conflict. For every child killed in warfare, three are injured and acquire a permanent form of disability and in some countries, up to a quarter of disabilities result from war and violence [2]. Thus, research is needed to seek out, monitor and evaluate sport peacebuilding programs to help ensure sustainability of both programs and outcomes for disabled people to help bridge the gap between disputing populations.

Methods: Literatures generated around sport peacebuilding programs and initiatives (from both high income and low income countries) were imported into Knowledge Share version 2.1.3 (KSv2), developed by Dean Yergens (<http://people.ucalgary.ca/~dyergens/ksv2.htm>). Once literatures were systematically reviewed in KSv2, they were imported into atlas.ti for coding and thematic and content analysis.

Results: It was found that little sport peacebuilding programs or initiatives exist that include disabled people in high income countries and little exist for disabled people in low income countries. Guangzhou, China (termed to be 'disability inclusive') and South Africa were found to have disability sport and recreation programs for youth [3] but there was no indication of their level of sustainability.

Conclusions: Although 12.4% of Canadians have disabilities, they represent only 1% of the memberships of National Sports Organizations [4]. If disabled people are not included in sport initiatives in high income countries then it is not surprising that they are hardly involved in sport peacebuilding programs in low income countries. This presents a problem from a global health perspective because exclusion of disabled people in peacebuilding and mainstream sporting events such as the emerging Youth Olympics creates barriers to diplomacy and openness toward increased dialogue and greater cultural understanding because disabled people largely contribute to a culture's identity.

*In accordance with Sarah Brown's discussion with my supervisor Dr. Gregor Wolbring, we were told to indicate that the oral presentation will be via mp3 file or youtube channel, as physical attendance is not feasible due to lack of travel funds for the students.

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Ud Dawla, A. B. M. Shameem
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Impact of Mass Media on HIV/AIDS related Knowledge, Attitudes and Behavior (KAB) among Adolescents

Background: Evidence from developed countries that media is an important source of adolescent reproductive health(KAB). Results have been reported with quantitative study.

Methods: Plan Bangladesh has implemented Strengthening Adolescent Reproductive Health project since 2008 six districts with seven partners funded by CIDA for five years. The goal of the project is to improve reproductive health of poor, vulnerable and underserved adolescents in the selected areas and to increase their access to services. The project considered 200,000 adolescents age of 10-19 years as beneficiaries.

Results: A cross sectional survey (n-1020) was conducted in 2009 among adolescents 13-16 years of age from intervention areas. Although adolescents aged 10-19 years are target groups for the project. A structured questionnaire was used for information from adolescent relating to their KAB. Besides bivariate analyses, multivariate analyses were done to identify the importance variables influencing knowledge, attitude and behavior of the adolescents. To determine the factors facilitating awareness about HIV/AIDS, modern FP methods and service seeking behavior, three dependent variables were identified. The models and dependent variables are Model-1, correct knowledge of five transmission routes of HIV, Model-2, correct knowledge of three contraceptive methods, and Model-3, visited health facilities last 12 months. The independent variables included age, sex, residence, education and employment affiliation with social organizations and exposure to mass media. The boys were four times more likely to know the routes of HIV transmissions and FP methods ($p < 0.001$) compared to girls. The probability of knowing the routes of HIV transmission and the FP methods was respectively, five times and two times higher among primary level educated adolescents ($p < 0.001$ and $p < 0.01$); it increased with the level of education. The probability of knowing the routes of HIV transmission was higher among those who listened radio ($p < 0.01$) and watched television ($p < 0.001$) every day compared to adolescents who did not listen radio and watched TV every day. Odds ratios suggested that knowing the routes of HIV transmission was two times higher (OR-2.53) among the adolescents who listened radio everyday compared to those who did not (OR-1.45).

Conclusions: 1) Mass media was highly effective in planning, organizing and efficient delivery of services. 2) Association between media exposure and adolescents sexually related KAB is positive and merits further research

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Strengthening of parent education on adolescent reproductive health and development

Background: The adolescents are in need of understanding, guidance and support from the people around them. More than anybody else, it is the family, specifically the parents, who should fulfill the needs of their adolescent children. The WHO identified positive relationships with parents as one of the protective factor for adolescents that can deter them from initiating early sexual intercourse.

Methods: Plan Bangladesh has implemented Strengthening Adolescent Reproductive Health project since 2008 under six districts with seven implementing partners funded by CIDA for five years. The goal of the project is to improve reproductive health of poor, vulnerable and underserved adolescents in the selected areas and to increase their access to services. The projects will reach 200,000 adolescents age of 10-19 years as direct beneficiaries' and the parents (400,000) are treated as indirect beneficiaries. Project attempts to provide basic orientation on parenting services to the poor and marginalized community mothers. The key strategies included: a) capacity building on adolescent reproductive health. b) 12,000 peer educators(PE) selected among the mothers as volunteer. All the parent peer educators received parenting training from the project. The parenting sessions were mainly conducted by the parent's peer educators. Each peer educator was assigned to orient nearly 35 mothers in the community. In 2008, 2009, 2010 and 2011, 3152, 24990, 68400 and 186304 community mothers received parenting orientation by the parent PEs respectively.

Results: A qualitative Study on "Parenting Practices related to addressing Reproductive Health issues of Adolescents 2012" conducted comparing to control areas. 12 FGD and in-depth interviews have been conducted in intervention and control areas. Remarkable knowledge differences were found among the mothers between intervention and control groups.

Conclusions: Parent peer educators are provided knowledge on life skill, communication and are considered an important channel to promote sustainability for supporting adolescent reproductive health in their community. Community based organization should be considered as important channels for sharing, exchanging and providing reproductive health knowledge and information relevant to socio cultural contexts and needs. A key emphasis of the project should be engage parents in the development of policies and services. PEs are caring socially responsible women. Provide health messages and adolescent's happiness is their remuneration. They never bargain for any fees for reward.

Vintane, Bertina

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Co Authors: Geraldine Dickson (University of Saskatchewan), Antonio Tanda (Mozambique Ministry of Health)

Rural Health Workers in Mozambique – identifying factors for success

Mozambique's health workers are far too few to meet its need. Improvement of retention and quality are two important related issues that need to be addressed. The Massinga Centre (MC), located in rural Mozambique, trains health workers for the country's national health system, and has graduated many who are now employed throughout the country. MC has developed through a partnership with the University of Saskatchewan and 15 years of CIDA-funded support.

MC has initiated a small scale research study to follow up with some of its graduates, with the objective of learning more from their experience, and to identify the facilitators and barriers to their success as health workers. Using a questionnaire with a mix of closed and open-ended questions, investigators held an in-person interview with 34 graduates. The study inquires about both the quality of their work and its sustainability, in particular health worker retention. For those graduates who are working as health workers, the study identifies factors that affect their ability to deliver good services and engage with communities, and the factors that have affected their willingness and ability to continue in their position. The study has been designed to be complementary to a larger one recently undertaken by the Ministry of Health in partnership with Johns Hopkins University NGO affiliate JHPIEGO. The latter study interviewed a random sample of health workers from across the country. MC's smaller study focuses in a first phase on its own graduates currently residing in the province of Inhambane, the province where the MC is located. Preliminary findings indicate that the retention of the MC graduates is better than average, and their experience with the health system more positive, and that this may be related to the fact that the health workers are working in their home province. This presentation by Bertina Vintane, MC professor and head of pedagogy, will provide preliminary findings from the study and discuss implications for the Mozambican health system.

Vintane, Bertina

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Building best practice for health in rural Mozambique – the Kangelá Model Health Centre

Mozambique's economy is in transition. Coal deposits among the largest in the world have been discovered in the north and natural gas deposits in the east. However, the country's health system is very poorly resourced, especially in the rural areas. Health centres are far too few, and facilities poor. Health workers are also far too few, and too often have inadequate skills as well as poor attitudes to the local populations, whose health problems are linked to illiteracy and poverty.

The Mozambican Ministry of Health has initiated projects to change this situation and has asked the Massinga Centre (MC) located in the province of Inhambane to develop a model rural health centre, focusing on maternal and child health. The MC trains health workers, focusing on community participation. Its methodology builds community partnerships to improve health and the social conditions affecting it. MC has developed through a partnership with the University of Saskatchewan and 15 years of CIDA-funded support. The objective of the MC's project to establish a model health centre is to create a practicum site for MC health worker trainees to learn best practices. The immediate target groups for this project are the community surrounding the model centre and the MC health trainees learning from it. However, the intention is that in time, benefits will be felt throughout the country as new graduates take their learning to other sites. Among the first activities for this project, MC selected the neighbouring health centre of Kangelá, and partnered with the corresponding community of Malova. In building the model centre, MC is providing resources to develop the physical infrastructure at Kangelá (solar power, improved water systems, housing for health workers and practicum students) and MC staff are assisting Kangelá staff in developing protocols and standards of practice. These standards include both technical aspects of care as well as respectful and responsive attitudes to the population health workers serve. The approach also calls for community involvement in setting standards and evaluating practice. This presentation by Bertina Vintane, MC professor and head of pedagogy, will describe the project's development so far, its successes and challenges, and discuss the implications for health and development in rural Mozambique.

Westwood, Erica

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A realist review of insecticide-treated net public health interventions: Insights into the importance of context and theory.

Background: Public health interventions (PHI) have been shown to be more effective when theoretically based and contextually specific (1). Within the malaria prevention literature however, it is not always evident that theory has been used during intervention design or that the intervention has been adapted to the local context. Therefore, we believe there is a need for a critical analysis of both explicit and implicit theories used within malaria prevention PHIs in low and middle income countries, to understand which theories might lead to more effective PHIs. The context guiding the purpose for this review is the Ngorongoro Conservation Area (NCA) of rural northern Tanzania, where malaria prevention has been expressed as a local concern. A future insecticide-treated net (ITN) intervention for malaria prevention may be necessary, yet theoretical steps must first be undertaken to build sufficient background knowledge.

Objectives: The main objective of this research is to conduct a realist review synthesizing evidence from previous malaria prevention interventions to understand underlying health promotion theories that could affect ITN use in sub-Saharan Africa (SSA). Sub-objectives for this research are to apply the results of the realist review to the NCA context, then to provide general recommendations for malaria prevention PHIs to increase ITN use in SSA, as well as more specifically for the NCA context.

Methods: Realist review methodology was used to examine health promotion theories within malaria prevention PHI research, which measured ITN use as an outcome. Steps towards review completion included clarifying the scope of the review, searching for evidence, primary study appraisal, data extraction and finally generation of recommendations for future programs (2).

Results and Conclusions: Thirty-eight peer-reviewed studies were included in this review. Of the theories which emerged, the empowerment of individuals at a household level who hold decision making power was crucial in affecting ITN use. Social marketing was also found to be the most common mechanism used in malaria prevention programs, however there lacks a unified approach for implementing malaria prevention programs using social marketing. Furthermore, social marketing did not frequently contribute to significant ITN use. Final recommendations require discussion in community stakeholder engagement meetings before integration into PHIs.

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Implementing Global Health Education into University of Calgary Medical Education- The Global Health Concentration Pilot

Introduction: Global Health education currently allows students only a glimpse into this burgeoning field and is elementary in nature. Although the need to foster student leaders is evident, without programs to mentor students interested in this field we will be unable to meet growing global health issues.

Project Objective: The Global Health Concentration (GHC) was developed to allow students to understand, through educational opportunities and first-hand experience, the complexity of interactions between individual, population, and global scales of health. Through this program, we hope to develop future physicians who are global health leaders and advocates for the communities they work within, both inside and outside of Canada.

Target group: The target of this project was first year medical Students at the University of Calgary (class of 2014).

Implementation: An integrated curriculum and elective GHC has been set up to benefit medical students, the undergraduate medical education program, and underserved populations. The Global Health program will run parallel with required undergraduate medical education (UME) courses, as well as incorporating a number of extra-curricular activities. Upon completion students will receive recognition on their Dean's letter.

Activities: The program will consist of 11 components which will bring together already existing curriculum and new program components.

1. Mentorship
2. Orientation Workshop
3. Healthy Populations Course
4. Family Medicine Clinical Experience (MED 330)
5. Community Clinical Experience and Engagement
6. Global Health Course
7. Global Health Journal Club
8. Pre-Departure Training
9. Global Health Elective in Partnered Tanzania Location
10. Aboriginal Health
11. Applied Evidence Based Medicine (MED 440)

Deliverables: Students will be evaluated based on the Global Health portfolios they develop throughout the course. This can include, but is not limited to, projects, essays, personal reflection, research, photos/photo journals, description of electives and shadowing, and preceptor evaluation and feedback. Students in the program will meet to share, discuss, and evaluate each other's portfolio. The student's mentor will also evaluate portfolios for student experiences and learning. The portfolios will also be used to measure, qualitatively, the impact that increased global health education has on the capabilities of physicians to be effective clinical practitioners and health advocates.

Wong, Katia
McMaster University, Hamilton

Human Resources for Health: The Policy Context for Nursing and Midwifery in Bangladesh

Background: As one of the world's most densely populated countries, supporting nearly 162 million people, Bangladesh faces innumerable barriers in the development of the country. The delivery of health care is currently ineffective and insufficient in the areas of health promotion, prevention, maintenance, management and treatment. Despite nursing being identified as a valuable human resource in the provision of health care services and population health management, nursing is one the weakest health care services in the public sector of Bangladesh.

Objectives: This paper examines the relevant stakeholders and policy regimes that contribute to capacity development locally, nationally and globally, and further explores implications and opportunities for policy change in sustainable capacity building in human resources for health.

Methods: Findings in this paper were acquired through literature reviews from academic databases, policy papers, grey literature as well as field visits in Dhaka. John Kingdon's Theory of Multiple Streams was used in studying the policy context for nursing and midwifery in Bangladesh.

Results: Many barriers impede the development of Bangladesh's health care system and nursing services, such as socio-economic, cultural, political, environmental and gender specific obstacles. Current nursing education is lacking international standards, creating a bottleneck in efficient and effective health care provision for the country. Furthermore, registration and accreditation processes for nursing and midwifery are currently fragmented among multiple government and non-governmental systems.

Conclusion: Opportunities for change include strengthening health systems, better coordination in education and training, and strategically improving the national image of nursing and midwifery. Further research on the implications of brain-gain and brain-drain on nurse migration would better inform policy decision-makers and stakeholders on effective management of human resources for health in Bangladesh.

Wynne, Ashley

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Co Authors: Solina Richter (University of Alberta), Walter Kipp (University of Alberta)

Tuberculosis program challenges in rural western Uganda: Health provider and patient perspectives

Background: A functioning tuberculosis (TB) program of diagnosis and effective treatment of smear positive TB cases is central to the global strategy to reduce TB. Although officially Uganda has full coverage of the Directly Observed Therapy, short-course (DOTS) regimen, TB indicators are still poor with a TB mortality rate of 93/100 000. Little is known about where gaps lie between countrywide policy and local on-the-ground realities.

Objectives: This project aimed to explore health care worker and patient perspectives about the TB program in one district in rural western Uganda.

Methods: We conducted 34 in-depth qualitative interviews with health care providers and TB patients. Transcripts were analyzed using latent content analysis to identify, code, and categorize the data. Themes were developed from these categories.

Results: Health care workers identified multiple health systems issues leading to poor TB program outcomes in the district: DOTS programs have been cut due to resource constraints, health care workers feel a need for more training about TB and TB/HIV co-infection, and follow up of patients who do not return to the clinic is not routinely possible. Patients experienced long delays in diagnosis of their TB symptoms after multiple visits to health services where they were treated with “cough”, and the financial burden of TB treatment, especially for HIV positive patients, is a major barrier to adherence.

Conclusions: Poor health care worker knowledge is likely leading to the extensive delays in diagnosis experienced by patients. Insufficient funding of the local TB program has resulted in the transfer of financial burden to the patient. The TB program in western Uganda is seriously neglected, which will continue to perpetuate poor patient outcomes and ongoing transmission. A greater priority must be placed on TB programs in this area.

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Social robotics and global health: Emerging opportunities and implications

Background: Social robotics utilizes socially interactive robots for a variety of applications including education, companionship, household tasks, security, and healthcare.

Objective: to explore the potential impacts of social robotics on global health, and to determine the role of the global health perspective in social robotics research.

Methods: Literatures generated around social robotics were imported into Knowledge Share ver. 2.1.3 (KSv2), a tool developed by Dean Yergens (<http://people.ucalgary.ca/~dyergens/ksv2.htm>) to systematically review literature. Databases included ScienceDirect, Compendex, IEEE, Communication Abstracts, Scopus, OVID(All), EBSCO(All), Academic One File, Web of Science, and JSTOR. Out of 489 articles, we included 171 (based on social-science related content; excluded: pure technical papers). Articles were coded using Atlas.ti qualitative data analysis software. Analysis focused on healthcare applications, global health perspectives, and economics.

Results: We found that although robots exist (or are being developed) for health-related applications, the global health perspective is absent from the discussions. Only a handful of articles expressed concerns about the economic affordability of social robots in low- and middle-income countries, and none of them gave a critical discussion of these concerns. All research on healthcare applications took place in or was considered for only developed countries, even though they could be applied globally. For example, robots for elderly care or stroke rehabilitation are said to relieve human resource strains on health care systems in developed countries, but they can also be applied to low-income countries where these conditions are just as demanding. We envision similar global applications for other healthcare robots.

Conclusions: Current social robotics applications can have global health impacts (e.g. affecting health equity, environmental impacts of cheap robot production, health systems costs/benefits), and we assert the need for the global health community to become involved in social robotics, and to critically examine its broader implications. For example, given the perceived benefits of robotics applications in health care, how will the economic requirements of these technologies impact the “digital divide” between rich and poor countries? Will such a divide contribute to global health inequities, and how can this be overcome? Within a shifting world economy, the potential impacts of social robotics applications are more than pertinent to the global health agenda, and we submit that the global health perspective can illuminate how these applications can be brought to low- and middle-income countries in a sustainable and equitable way, lest the use of robots in healthcare applications result in further economic and health inequities.

In accordance with Sarah Brown’s discussion with my supervisor Dr. Gregor Wolbring, we were told to indicate that the oral presentation will be via mp3 file or Youtube channel, as physical attendance is not feasible due to lack of travel funds for the students.