

Capacity Building

for Global Health: Research & Practice

Oral - Orals

Abstracts . Abrégés

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en santé mondiale: recherche & pratique

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Simple and safe "100-dollar-kitchen" to prevent low-birth-weight in a rural area in Bangladesh: A cluster randomized controlled trial

Rationale: Low-birth-weight (LBW) is a major adverse pregnancy outcome and cause of neonatal mortality in resource-poor countries. Exposure to biomass fuels (BmFs) during cooking is highly associated with LBW. There is unlikely to be any significant change in use of BmFs in near future. Therefore, intervention targeted to reduce BmFs exposure on pregnancy outcomes is urgently needed.

Objective: To address this need, icddr,b conducted a cluster randomized controlled trial in Shahjadpur sub-district of Bangladesh between 2012 and 2014 to determine the effect of "100-dollar-kitchen" (\$100Kc) on LBW.

Methods: The \$100Kc was a locally-made inexpensive environment-friendly prefabricated model kitchen with improved clean-combustion cookstove (IC). The study was operationalized among 628 and 639 pregnant women at their 8-12 weeks of gestation for intervention and control groups respectively with follow-up visit until 42-days postpartum. All the enrolled pregnant women were subjected to non-invasive Masimo SET Pulse CO-Oximetric analysis for carboxyhemoglobin (SpCO) and methomoglobin (SpMet) measurement during their 2nd and 3rd trimester. All the birth outcomes (either at home or facility) were noted within 72-hrs of the deliveries and weighted by the Seca scale.

Results: Evaluation of the study showed promising results that use of the \$100Kc with the IC during antenatal period resulted in significant reduction of LBW prevalence (34.0%) among the rural newborns. The pregnant women in the intervention group who used the \$100Kc with the IC delivered 23.5% LBW newborns as compared to those who used the traditional cookstove delivered 35.9% LBW newborns. Moreover, significant mean-differences of blood SpCO and blood SpMet level were found among the pregnant women of the intervention and control groups. Mean-difference of blood SpCO level was 8.9% and 11.5% and blood SpMet level was 0.8% and 1.1% among the pregnant women of the intervention and control groups respectively.

Discussion: The \$100Kc with the IC is a preventive approach of addressing the environmental causes of LBW newborns. This simple rural-focus intervention significantly reduced BmFs exposure to the pregnant women and helped in delivering healthy newborns.

Conclusion: Scaling-up of this intervention will advance our thinking on physiological changes in the pregnant women leading to LBW newborns regarding household air quality due to BmFs exposure.

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Anesthesia Capacity in Rural Hospitals in Enugu, Nigeria

Background: Anesthesia and surgery in our rural areas are associated with high mortality rate due to shortfalls in trained personnel, infrastructure and anesthesia equipment.

Objective: To determine the current state of anesthetic infrastructure in our rural hospitals compared to the University Teaching Hospital.

Methods: Twenty-five rural hospitals and the Federal Teaching Hospital in the state were randomly selected for this study. Data regarding anesthesia personnel, and infrastructure was collected and analyzed using World Health Organization Tool for Situational Analysis. Data was collected on the availability of oxygen, water, electricity, types of anesthesia, categories of personnel, and availability of anesthesia machines. Data on anesthesia-related deaths were also collected.

Results: Nine (36%) hospitals had no access to oxygen. Twenty (80%) had no anesthesia machines and offered ketamine-only general anesthesia. Five facilities (missionary hospitals) employed a dedicated nurse anesthesia provider and had pulse oximeters. The teaching hospital had oxygen, ten consultant anesthetists with 30 residents, and offered both general and regional anesthesia with monitors. All the hospitals had electricity either from generating plants or national grid. There was poor documentation in most of the rural hospitals on anesthesia-related deaths. The estimated death rates were 1/1000, 1/350, and 1/250 in the teaching, missionary and rural hospitals respectively.

Conclusion: Most rural hospitals in the state had no staff and facility for safe anesthesia. Optimal facilities were concentrated in the teaching hospital. We recommend increased manpower development policy and government assistance in infrastructure in the rural areas.

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What health workers can do to address the social determinants of health: A qualitative study

Rationale: There have been multiple calls for health workers to help address the social determinants of health. Child labor is one recognized health determinant that has been tackled in social protection programs. Prevention actions of child labor could be incorporated into health care. However, little empirical evidence exists on what health workers are already doing on this topic, or what would be the most effective strategies for promoting greater child protection against child labor in a clinical and primary health care setting.

Objective: The purpose of this qualitative study was to explore what specific actions frontline health workers could employ to make an impact on child labor, one of the social causes of children's poor health and development and further effects on adult life.

Methods: We interviewed a purposive sample of vulnerable children working in hazardous forms of labor, community members and community health workers in Brazil, Bangladesh, Niger and Pakistan. All interviews were audiotaped and transcribed. Analysis was carried out using a deductive coding frame with triangulation by three independent researchers. Ethics approval was obtained prior to the study.

Results: Many respondents, child laborers as well as adults, consider health workers to be trusted members of the community. If properly trained and supported, they would be able to intervene on children's social protection against child labor. In particular, they can start discussions about the role of education and school attendance for health and development of child laborers with parents, relatives and caregivers during their contact with the community. They can also provide direct care to those in need, increase access to care for the most vulnerable, advocate for the rights of those who are disadvantaged and mobilize larger community action.

Discussion: There are concrete steps that frontline health workers can take to address the social causes of poor health in particular child labor. Many health workers are open and willing to be involved in tackling the social determinants of health. Yet, further training is needed, as well as modifying the traditional mandate, roles and responsibilities and perhaps even remuneration and rewards systems or their own occupational health and safety.

Conclusion: Frontline health workers are the first to witness the impacts of social, political and economic factors that can lead to poor health and health disparities. Training packages and clinical practice tools are required to help frontline health workers address the social causes of poor health.

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Canadian media: A source of misrepresentation of global health

A content analysis of the phrase global health and its usage throughout three Canadian newspapers

Rationale: Newspapers are a main a source of knowledge for the public, as diffusion of knowledge through printed media is essential to the fabric of society, enabling social participation [1], and sustaining political freedom as well as stable social order [2-3]. The media helps set the discussion agenda for society and creates the boundaries within which debate takes place[4]. In *Grosjean v. American Press Co.*, 297 U.S. 233 (1936), the Supreme Court emphasized the important role of newspapers and magazines in informing the public as to national affairs[5]. As such, we posit it as important for the global health community to be mentioned accurately in the media, including newspapers, in order for the public to understand the scope and actions of the “global health” intervention community.

Objective: The objective of the study is to gain a better understanding of the context and meaning linked to the term “global health” in Canadian newspapers, to understand the consequences of such coverage for the global health community, and to convey our findings to the audience.

Methods: We downloaded every article from The Globe and Mail and National Post, the two Canadian newspapers with national reach, as well as our local newspaper in Calgary where we are situated (The Calgary Herald) that contained the phrase “global health” in the text (n=1135). Each article was read within context to decipher the usage of the phrase “global health”, and respective usages were categorized into a variety of themes.

Results: Of the 1135 articles, we identified so far 163 codes to be associated with global health. One preliminary, yet noteworthy result includes the increased frequency of the phrase global health being mentioned in a sternly financial context, which may paint a problematic picture of how content is covered within Canadian newspapers.

Discussion: Perhaps the largest gap within global health education exists within the language and context by which it is referred to through media, and our presentation wishes to address this vital issue.

Conclusion: In order for issues regarding global health to be resolved, we must be aware of how such issues are portrayed in the media, and we must be critical to assess the underlying perspective in order to fully comprehend the purpose of global health. The global health community must strive to find a way to handle this issue and clarify the narrative of the term.

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

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

Methods: We conducted a community intervention trial in Masindi and Kiryandongo districts, Uganda in May/June-2013 to November/December-2014. A mixed methodology for data collection was used. Quantitatively, 1385 pregnant women (control=758; intervention=627) were included; primary outcomes included a change in maternal practices, such as completed three antenatal visits, health facility delivery, care seeking for newborn illness; and neonatal practices, such as thermal care, hygienic cord care and exclusive breastfeeding within one hour. Analysis was by intention-to-treat. Clustering was accounted for by random effects. Covariates such as age, religion, educational level and ethnicity were included in the model. Participants for qualitative study were drawn from the intervention arm which comprised of: in-depth interviews with women (20), group discussions with CHWs (5), key informant interviews with CHWs (16) and professional health workers (10). Data were analysed using latent content analysis techniques.

Results: A majority of the women and CHWs contended that the intervention improved access to maternal and newborn information, reduced costs of accessing maternal and newborn care, and facilitated referral. Statistically significant differences were noted in delivery place [adjusted Odds Ratio (aOR) 11.7(3.78-36.01); $p<0.001$], thermal care [aOR 7.83(3.91-15.71); $p<0.001$], cord care [aOR 2.34(1.09-5.01); $p=0.029$], and timely care-seeking for newborn illness [aOR 3.57(1.12-11.47); $p=0.032$]. Ethnicity was a striking covariate with statistical significance for several primary outcomes. For example, indigenous populations were 2.4 times more likely to deliver in a health facility [aOR 2.43 (1.75-3.37); $p<0.0001$] compared with migrant populations. A minority of CHWs perceived as difficult implementation of recommended maternal and newborn care practices. Few professional health workers did not approve the transfer of promotional maternal and newborn responsibility to CHWs.

Conclusions: Results highlight benefits of combining home visits with phone consultations between CHWs and professional health workers. However, the challenges of attitudinal change among CHWs towards certain strongly culturally-embedded behavioural post-partum practices and resistance from part of the professional health workforce to collaborate with CHWs are important systemic problems that need to be addressed. Based on the significant findings regarding ethnicity, we have designed a new study to explore how ethnicity may be intersecting with gender and other aspects of deprivation to affect utilisation of maternal and newborn care services.

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An evaluation of secondary prophylaxis for rheumatic heart disease in rural Egypt

Rationale: Rheumatic heart disease (RHD) is the most common cardiovascular disease in people aged 25 years and under, with 300,000 new cases identified each year. In Aswan, Egypt, RHD affects about 2.3% of children.

Secondary prophylaxis has proved to be an effective method of preventing the progression of RHD. However, its efficacy is limited by low patient adherence. A systematic, generalizable tool is necessary to outline these barriers in order to tailor effective interventions to specific populations.

Methods: A 43 item semi-structured questionnaire was developed based on the three domains outlined by Fishbein (capability, intention, and health care barriers). A preliminary evaluation of the barriers to RHD prophylaxis use in Aswan was carried out using this tool. Participants were local school children diagnosed with RHD or flagged as high-risk (as per a set of echocardiographic criteria developed by the Aswan Heart Centre) through a previous screening program of randomly selected 3062 school children in Aswan.

Results: 65.5% of patients were adherent to RHD prophylaxis. Compared to non-adherent patients, adherent patients had better understanding of the disease (68.4% versus 20% in the non-adherent group, $p=0.021$), and were more aware of the consequences of missing prophylaxis doses (79% versus 40% of non-adherent patients, $p=0.005$). Furthermore, 90% of non-adherent patients consciously choose to miss injection appointments (as compared to 31.6% of adherent patients, $p=0.005$). There was a positive unanimous response of the role of family in reminding patients of appointment times.

Discussion: The knowledge gap between adherent and non-adherent patients was found to be the most prominent barrier for this population. This tool not only allowed for the identification of this overarching barrier, but also highlighted specific concerns on which to develop an intervention. The gap in this population appeared in patient retention and understanding of information rather than lack of information provided. Concerns surrounding several misconceptions and patient frustration of the inability to see physical proof of the effectiveness of the shots was outlined. Culturally appropriate, family-centered, interactive, patient education workshops that incorporating ongoing feedback from patients were developed to include these specific concerns and target both the children and their families.

Conclusion: A standardized tool that systematically outlines barriers to prophylaxis is a necessary first step to improving adherence to penicillin. Many barriers are contextual in nature and a one-size-fits-all solution is both inefficient and sub-optimal. Application of this tool can inform the basis for the design of tailored KT interventions.

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Building population health research capacity in Guatemala using the COMPASS system

Rationale: Non-communicable chronic diseases are a leading cause of death in Guatemala (and Central America). Obesity (and the correlates of obesity; physical inactivity and poor diet) and age-related increases in substance-use among youth populations represent areas of concern in Guatemala. Guatemala, however, lacks the research capacity and resources to robustly develop and evaluate appropriate prevention interventions to address these issues.

Objective: To adapt existing research instruments and protocols from the COMPASS research platform for use in Guatemala and evaluate their efficacy in this context.

Methods: A research partnership (funded by the IDRC) was developed between a research team in Guatemala and COMPASS investigators. COMPASS is a school-based longitudinal study that evaluates changes in health behaviours over time among Canadian secondary school students. Members of the Guatemala team completed a three-day training and information session in Canada on COMPASS methods. Data collection instruments were translated into Spanish. Student and school-level data were collected in Guatemala for a pilot test (conducted both under the supervision of COMPASS researchers and independently) which included four schools (two public, two private) and 1274 students.

Results: COMPASS-adapted instruments and protocols were appropriate and well-received in the pilot study. School recruitment and data collections were conducted with few issues, schools were excited to participate and to receive their school-specific data reports, and initial data analyses have demonstrated data consistency and have revealed informative results. Detailed further analyses are planned and will be performed in the coming months. The only implementation-related issue was the physical differences between Guatemalan schools and the Canadian schools for which COMPASS built-environment assessment tools were developed; but these tools can be easily adapted.

Discussion: The success of the COMPASS-Guatemala pilot project supports the notion that COMPASS instruments and protocols can be successfully utilised in other contexts. The Guatemalan researchers' and school stakeholders' enthusiasm throughout the project and eagerness for the study results provide evidence of the buy-in that the project already enjoys in Guatemala. School stakeholders demonstrated a genuine interest in having data on student health outcomes to inform improvements in the school settings. The COMPASS research platform has the potential to yield significant population health improvements through further expansion in Guatemala and beyond.

Conclusion: Funding that supports partnerships between Canadian researchers and underfunded researchers in developing countries represents an inexpensive and effective method to build research capacity, provide relevant data with which to inform population-level interventions, and positively influence youth health outcomes.

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Predeparture training recommendations for students participating in global health experience

Rationale: There is growing popularity within medical, physical therapy and occupational therapy programs across Canada for global health experiences (GHEs). GHEs can benefit students, but can also lead to certain moral hazards and have negative impacts on the host communities and students. Predeparture training (PDT) is known to lessen these negative potential impacts. Little is however known about PDT best practices.

Objective: To identify PDT current and best practice guidelines for medical, physical therapy and occupational therapy students participating in GHEs.

Methods: A scoping review was performed, using 6 databases and a combination of keywords. A 'snow-balling' technique was also used to identify other relevant articles. A thematic analysis was performed to identify themes covered in PDT and training formats used. To identify current practices, an online survey was sent to all Canadian medical, physical therapy and occupation therapy programs.

Results: A total of 27 articles (21 in medicine, 5 in physical therapy and 2 in occupational therapy) were retained. They variably focused on GHEs ethical issues, global health competencies, proposed guidelines for GHEs and course descriptions. Two themes emerged with regards to PDT: (1) the importance of including cultural competence, ethical intervention, and social determinants of health in PDT (2) how to structure a GHE (i.e. student selection process, specific goal establishment, formalized PDT and post return debriefing, adequate field supervision and sustainable partnerships with host institutions). PDT evaluation methods mostly used student feedback; only 1 article documented an evaluation of patient satisfaction and 2 used self-assessment competency tools. Out of 45 programs eligible, 23 completed the survey. They all provided GHEs (96% provided credited GHEs in low income setting) and mandatory PDT. The content and the formats (e.g. workshops, integrated global health courses and web-based training) of PDT however greatly varied.

Discussion: The importance of PDT has been established and recommendations have been formulated concerning course content but little formal research has been done to establish the benefit of PDT on student competencies or evaluate the impact of the PDT on host communities. Overall, no clear recommendations emerged about what should be the ideal PDT. There is a need to compare various course formats to evaluate their impact on (1) student competencies and (2) the host communities.

Conclusion: Future research is needed to evaluate the efficiency of PDT and GHEs to standardize and optimize global health training received by medical, physical therapy and occupational therapy students across Canada.

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Abortion and fertility control in Pakistan: the misoprostol revolution?

Rationale: Six decades of family planning programs in Pakistan have failed to significantly increase contraceptive uptake rates, reaching 35% in recent years. Irrespective of low family planning use however, recent evidence suggests fertility rates have been declining. This may be due to increasing rates of induced abortion. Traditionally, religious and legal restrictions forced women to resort to unsafe, clandestine abortion services, where risks of maternal morbidity and mortality were magnified. But with the abortifacient drug misoprostol now available, women may have a safer and more practical abortion option. Given that misoprostol is a relatively new addition to Pakistan's health system however, little is known of how women have responded to it.

Objective: This study examined how the availability of misoprostol has impacted abortion seeking behavior among rural women in Chakwal Pakistan.

Methods: A focused ethnography was conducted from September to December of 2013. Participants were recruited from the Rahnuma Family Planning Association of Pakistan, a non-governmental organization that provides family planning and reproductive health services, including abortions. Twenty three in-depth interviews were conducted with women seeking or that had received an abortion and fourteen in-depth interviews were conducted with facility health service providers. One focus group discussion was conducted with providers.

Results: The data revealed that although most patients did try to prevent pregnancy through the use of family planning, contraceptive failure or side effects leading to discontinued or irregular use were common. This paired with non-use of family planning, meant women were at risk of having unplanned pregnancies. Consequently, women turned to abortions specifically through the abortifacient misoprostol to limit their fertility. The wide availability, low cost, safety and effectiveness of misoprostol meant it was not only the preferred means of terminating pregnancy, but also the preferred form of family planning. Women reconciled this decision by avoiding discussion around abortions, instead deflecting it as a mistake, miscarriage or menstrual cycle issue.

Discussion: Contraceptive use was inadequate in meeting a growing demand for fertility regulation. Misoprostol however, provided women with an easier means of exercising a second point of fertility control, abortion. By avoiding any discussion around this procedure, women's decision to limit fertility was enough to outweigh any moral dilemma faced in regards to termination of pregnancy.

Conclusion: To support women's access to safe abortions we recommend training providers to safely administer misoprostol within women's homes. Improving contraception uptake will also be important to prevent abortions.

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Ideology trumps: health care providers a barrier to abortion services

Rationale: In Pakistan, abortions occupy a highly ambiguous space. Although at first glance law and religion appear to denounce the procedure, poor clarity in the conditions underlying these rules leaves providers with a negotiable space to administer abortions. But the dominant social narrative remains heavily opposed to the procedure. As a result, it is possible that healthcare providers may experience an ethical or moral dilemma in making decisions around termination of pregnancy. Some providers may interpret the rules in the interest of patients, while others may use these conditions to restrict services. Little is known however of provider views towards induced abortions in the Pakistani context.

Objective: To explore this further this study examined provider views of induced abortion and how these views impact provider's provision of abortion services.

Methods: A focused ethnography was conducted in Chakwal, Pakistan from September to December of 2013. Participants were recruited from the Rahnuma Family Planning Association of Pakistan, a non-governmental organization that provides family planning and reproductive health services, including abortions. Twenty three in-depth interviews were conducted with women seeking, or that had received an abortion and fourteen in-depth interviews were conducted with the facility's healthcare providers. One focus group discussion was conducted with providers.

Results: As revealed by the data, providers expressed strong opposition towards abortions. Most felt abortions were wrong, facilitated a deviation from God's will and carried safety concerns for the mother's health. Providers also worried that abortions offered patients an easier fertility regulation option and would consequently incite a deviation from women's gendered norms. The extent to which these negative views shaped provider's provision of abortions depended on whether a social relationship existed with the patient. Where there was no relationship, providers exercised a value based assessment, aggressive counselling, and ultimately denied services. But where there was a relationship, providers were much more flexible in their provision of abortions.

Discussion: Provider beliefs emerged as a key barrier in patient's ability to access safe abortions. Negative views of the procedure led providers to restrict provision of this service based on a system of patronage. This left many patients without access to adequate abortion services.

Conclusion: To support women's access to safe abortions we recommend greater attention be given to hiring providers who are willing to conduct abortions, improving provider counseling skills, and expanding family planning services.

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Capacity building for implementation research in global health: Conducting multi-country, mixed methods case studies

Rationale: Developing and strengthening implementation research capacity of implementers in low and middle-income countries can lead to the generation of evidence to inform local-, regional-, or national-level programmatic efforts; strengthen decision-making; scale up effective interventions; and inform global policy.

Objectives: Under the auspices of the USAID TRAction (Translating Research into Action) project, build capacity for in-country implementers to conduct research and promote sustainable cross-country research collaborations.

Methods: Two sets of mixed-methods case studies were undertaken between 2013 and 2015: the first involving equitable access to facility deliveries in Kenya, Tanzania, Guatemala and Indonesia, and the second investigating recognition of maternal and neonatal danger signs and decision-making about care-seeking in Nigeria, Tanzania, Uganda, Ethiopia, India, and Indonesia. Participants were from US and local universities, NGOs, national research institutions, and national and provincial governments. Within each set, the capacity building activities consisted of protocol design, data collection, and writing training workshops; analysis meetings; and extensive feedback on intermediate and final products. Similar methods and data collection tools were used within each set to facilitate training and cross-context comparison of results.

Results: Outputs included harmonized protocols and study tools, scientific presentations, and drafts of case studies for publication. Studies generated locally useful findings, while common cross-context elements were also identified. Activities were well received by research teams and in some cases have been used to further build capacity in their home institutions. Lessons learned from the first study set prompted changes for the second. In particular, providing direct, on-site technical support at each research stage was found to be more effective in terms of capacity building and quality of the outputs generated.

Discussion: Conducting multi-country case studies using common methodologies and tools can be an effective way to build global health capacity for implementation research. Study complexity can be tailored to the existing capacity of the teams undertaking the research, and can be increasingly complex depending on the research questions and the emerging capacity of the teams. Although labour-intensive, developing capacity of implementers to conduct research builds a valuable skill base in the countries where the research findings will be used and shifts the culture away from only academic researchers being able to conduct research.

Conclusion: A model of implementation research through multi-country case studies was effectively used to build local research capacity and generate locally- and globally-relevant evidence about community-level interventions to improve maternal and newborn health.

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Gauging the organizational health of national public health associations: A determinant of their capacity to have an impact on human health

Background:

Public health associations (PHA) are important advocates in challenging and changing existing health-affecting public and private sector policies and practices. The World Federation of Public Health Associations (WFPHA) conducted a survey to determine how best to contribute to enhance the advocacy effectiveness of national PHAs. 'Governance' was found to be a determinant of a PHA's effectiveness as an advocate for appropriate and effective public health practice and policies.

Objectives:

Generate evidence about the governance capacity challenges and opportunities facing PHAs and describe means to improve PHA governance and advocacy capacity.

Methods:

An online survey using Survey Monkey was administered to 82 member PHAs in September 2014 by the WFPHA, in association with Management Sciences for Health. It gauged the state of and the factors that facilitate and constrain their organizational governance; the PHAs' perspective as to the application of five practices of good governance (cultivating accountability; engaging stakeholders; setting a shared strategic direction; stewardship of resources; and, continuous governance enhancement).

Results:

62 PHAs responded (75.6% response rate). Increasing awareness among decision-makers through evidence-informed advocacy, empowering people to take action on public health issues and creating and nurturing effective partnerships to identify and solve health problems were identified as among the key roles and responsibilities for PHAs. The most important factor that negatively affected organizational governance was the lack of financial resources for the PHA from national and international donors, followed by the absence of mentoring of future potential PHA leaders. Most PHAs practiced organizational accountability to some degree. The majority felt that their PHA's governance structure and process empowered people by promoting equity of participation in decision-making. Although many PHAs had prepared a strategic plan, the capacity of a PHA to set and maintain its strategic direction was an area of concern. Most PHAs felt their organization had used the resources available to it in an effective and ethical manner. Less than half of PHA respondents indicated that their PHA organized formal governance orientation and continuous governance education for Board members. PHAs desire training and mentoring, recognizing that their capacity to advocate is dependent upon the organizational health, including governance, of the PHA.

Conclusions:

"Good Governance" is an important issue for PHAs, being central to their organizational relevancy and survival. The survey results are useful to PHAs for assessing the governance challenges they face and helping them define what needs to be done to address them. The survey provided useful feedback to WFPHA as to how it can assist PHA members improve their governance and advocacy capacity.

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Training collaboration for strengthening Mozambique's health system research capacity

Rationale

The national institute of health (INS) from Mozambique is an autonomous institution with mandate to conduct research, training and provide referral diagnosis services. The Institute aligns its strategic plans to key-areas of the health sector plan. A core mandate of the institute is to conduct research that enables solutions and interventions for pressing health problems to take effect. Major gap on capacity to conduct health system research is prevalent in Mozambique. This limits the ability of the Institute to conduct needed evidence gathering and findings translation. Supported by the International Development Research Center from Canada, the Institute is implementing a training program to strengthen the capacity to conduct health system research, in partnership with FioCruz Foundation from Brazil.

Objectives

To strengthen the INS ability to conduct health system research that promote and improve health conditions, with major focus on social inequalities in health, access, quality of care and human resources for health. Being a backbone for a health system observatory in Mozambique, the program also aims at creating foundations for better and contextually tied knowledge built and translation of findings into policies.

Method

The program approach is essentially through short-term trainings (operational research methods) and long term trainings (full time master and doctoral course). Trainees are entirely personnel from the National Health Services. For the short term trainings (once or twice yearly) and masters, Mozambicans and Brazilians (FioCruz) faculties deliver theoretical classes; orientation is done in Mozambique; doctoral are being undertaken in Portugal.

Discussion

The main stream of the capacity building delivered in Mozambique, which allows the enrollment of substantial numbers of trainees for short-term course; trainees are from the Ministry of Health programs and partners NGOs; this potentially enables designing and implementing operational research; a substantial number of students are also doing the masters course, in Portuguese.

Outcomes

In Mozambique, this is the first south-south technical collaboration, with northern support, that has so far proved beneficial to conduct a locally deep-rooted capacity building. Fourteen students have finished the first year of masters training, now starting to conduct research on health system components; forty students have benefited from health system methods research; two doctoral students started the course in health and policy; in upcoming years, substantial number of research publications, policy briefs, locally held research translation events is expected.

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Disability in Western Zambia: Working collaboratively with persons with disabilities to reconsider "rehabilitation"

Rationale: It is estimated that more than 15% of the world's population is disabled. Despite their significant number, persons with disabilities still face tremendous exclusion, particularly in low- and middle-income countries. In the low-income country of Zambia there has been a gradual increase in the availability of strategies to improve the situation of persons with disabilities. This is a promising trend; yet there is a need for much further progress. There is a need to ensure that programs are sustainable in the political-economy, that they are aligned with the worldviews and priorities of Zambians with disabilities, and that they are available countrywide. Of Zambia's ten provinces, Western Province is considered to be the poorest and least developed.

Objective: To explore the perceptions of persons with disabilities in Western Zambia regarding requirements, hopes and ideas for improving their situations.

Methods: We designed this qualitative research according to the constructivist tradition, including critical perspectives and participatory research concerns. We recruited two groups of persons with disabilities in Western Zambia, one from an urban area and one from a rural area. We generated data through focus group discussions and interviews. We conducted these activities in local languages with the translation assistance of local research assistants, audio-recorded the activities and then transcribed them. The primary investigator drafted participant observation fieldnotes from all data generation activities and analyzed the data from all sources using an iterative coding scheme of inductive and deductive codes.

Results: The participants with disabilities identified multiple problems with existing programming, such as ineffective and disrespectful operating practices, and being overlooked by development initiatives. Participants emphasized the need for additional resources to overcome the disadvantages of disability.

Discussion: These results give us reason to reconsider the way in which services for persons with disabilities (i.e., rehabilitation) are offered. Through this collaborative research we have identified a need for programming focused on improving the situation of persons with disabilities, centred upon their needs, even if this means changing some of the fundamentals of practice. Activities geared toward more general populations should be more considerate and inclusive of persons with disabilities. A stronger interface between disability-focused and general activities will strengthen both of these to the benefit of persons with disabilities.

Conclusion: Multiple actors in Western Zambia are in a position to improve the situation of persons with disabilities in that jurisdiction. It is likely that these lessons are applicable to many other places.

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Research supervision experiences among university lecturers in sub-Saharan Africa

Rationale: Quality of post-graduate supervision is deemed essential in research training globally, yet supervision experiences from low and middle income countries (LMICs) have been rarely reported.

Objective: To document perspectives on supervision among fellows from the Consortium for Advanced Research Training in Africa (CARTA www.cartafrica.org/) programme.

Methods: A cohort of doctoral fellows, all university staff about to complete their training (6 women, 9 men), discussed their experiences supervising masters' students and being supervised as doctoral students. We took detailed anonymized notes during the report back of small group work and analyzed emergent themes. We obtained written comments and track changes on the CARTA supervision contract that guided their doctoral supervision.

Results: As supervisors, fellows noted that they had to supervise outside of their own area of expertise, which broadened their knowledge. Nevertheless, they worried about student expectations and the interpersonal dimensions of the relationship .e.g. whether they were intolerant or too lenient in setting and maintaining standards. Interfering contextual factors included: arbitrary allocation of students, heavy teaching loads, and lack of recognition for co-supervision with a senior faculty member. Fellows juggled competing administrative, teaching, personal study and other demands with their responsibilities to students, impacting the quality of their supervision.

As supervisees, fellows emphasized the importance of cultivating a good interpersonal relationship with their supervisor(s). Fellows valued keen interest, prompt feedback and skill-specific advice. Delayed feedback and unresponsiveness from supervisors was influenced by supervisor over-commitment. Problematic issues included supervisor lack of support to attend meetings, lack of feedback on conference presentations or peer review manuscripts, frank discouragement of fellows' networking, and concerns of ideas being stolen. In interdisciplinary environments, contradictory supervision comments from different disciplines were more frequent.. Fellows expressed confidence in taking action to improve communication with supervisors. The explicit CARTA supervision contract helped, though incentives for adherence may improve this.

Discussion: Tensions in research supervision roles showed similarities to those reported in high income country settings, though exacerbated in some LMIC university contexts where higher education structural factors and organizational cultures impacted on quality. Nevertheless, CARTA fellows' ability to reflect upon supervision practice, actively promote communication, and use supports, including the CARTA supervision contract, may partially mitigate such impacts.

Conclusion: Serving as academic supervisors whilst being under supervision themselves enabled these African doctoral students to gain unique insights. Further investigation of research supervision in LMICs could inform efforts to support supervisors and improve supervision practice.

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Health for all: Civil Society and the Global Health Governance

Rationale: Social movements - important actors in the struggle for implementing and maintaining universal health systems and in the defense of health for all - have its role expanded in the global economic crisis context.

Globalization brings a challenge to civil society (CS), to engage actors in the formulation of policies from beyond the local level (Kickbusch & LISTER, 2006). This presentation discusses the influence of civil society in the decision-making processes of Global Health Governance (GHG) at the World Health Organization (WHO) through the experience in the People's Health Movement project called WHO Watch.

Objective: Discuss the influence of civil society in the decision-making processes of the GHG in the WHO's framework. Analyze how those processes are performed. Debate about the possibilities of CS interacting with the WHO, influencing and disseminating its deliberations.

Methods: Analysis of the experiences in the WHO Watch project at the 65th Meeting of the PAHO Directing Council and 136th WHO Executive Board Meeting. The structure and operation of WHO will be described. WHO Watch, the project that made possible the participation as an observer in the WHO system, will be presented. Thus the role of civil society in the GHG processes will be discussed.

Results: Social movements bring a critical view of the discussions held by WHO, also promoting the dissemination of these debates beyond the governmental spaces.

Discussion: In the context of the failure to achieve Alma Ata Declaration's purpose the Millennium Development Goals (MDGs) were defined. The MDGs set 2015 as the year when the targets would be achieved but the world is far from reaching the commitments made 15 years ago. The current discussion now is the Post-2015 Agenda, which also includes health issues (PHM, 2014).

Therefore, the participation of civil society in these spaces is understood as essential to ensure that decisions taken by governments and intergovernmental bodies will meet the real needs of the population, not serving the interests of the rich countries and pharmaceutical corporations.

Conclusion: In this context of changes in the GHG structures social movements are essential elements in the struggle for the maintenance and the implementation of universal health systems and in the defense of the right to health for all. Social movements must be able to put together the issues of different communities and find ways to make proposals at national and international levels, which involves the ability to be organized into network globally.

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An integrative review of primary care clinical guideline use by Western-led medical service trips (MSTs) in Latin America

Rationale: Primary-care focused medical service trips (MSTs) are a common practice for North American providers, and Latin America is a common destination. Existing literature has failed to fully explore the nature of MST practice, and the use of evidence-based clinical guidelines in particular.

Objective: This review examines the state of guidelines employed in MSTs, with the goal of identifying, assessing, and summarizing papers that describe guideline development, implementation, or evaluation.

Methods: Based on an integrative review design, MEDLINE and LILACs were searched using the terms 'medical brigades', 'Latin America', 'primary health care' and related terms. The search was limited to articles published between 2000 and 2015 in any language. Qualitative or quantitative articles were included if they described management protocols in the context of patient care on an MST occurring in Latin America. Additional publications were identified by hand-searching the citations of articles reviewed in full. Themes were extracted to an Excel file, and objective scores were used to evaluate article quality (MMAT) and the quality of guidelines contained within (AGREE II).

Results: Of 391 abstracts screened, nine met inclusion criteria. All described MSTs operating in rural settings, and none were located in South America. Five were qualitative descriptive, including two travel reports, an ethics thesis paper, and a description of a dermatologic MST. Four described subjective clinician experiences while describing non-evidence based treatment suggestions or practices. Only one described evidence-supported primary care interventions.

Four studies were quantitative descriptive. These included three epidemiological articles, one of which used case definitions for select diagnoses. One described the application of American Family Physician guidelines to the description of UTI prevalence on a MST. Article scores in MMAT quality domains were variable, and only one article achieved a positive overall AGREE II score for guideline quality.

Discussion: Existing literature demonstrates minimal development or use of clinical guidelines on MSTs in Latin America. It is critical to develop and evaluate the quality of emerging guidelines before promoting or implementing them for regular MST practice. These must be broadly evaluated for relevance to local communities where they are implemented, while encouraging adherence to the greatest extent possible.

Conclusions: Future work must focus on the development and evaluation of culturally sensitive, evidence-based guidelines for the management of patients receiving care from MSTs.

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Innovative technologies to improve community health: implementation research to develop an e-health system with Ethiopian health extension workers

Rationale:

Ethiopia established a Health Extension Program which includes the training and deployment of female health extension workers (HEWs) based within local communities to improve access to primary health services. The existing health information management system depends on paper based reports which can lead to delays, incompleteness or inconsistency of data and under-utilization of existing data.

Objective:

Through an implementation research approach our study assesses the best approaches for HEWs to use e-health to strengthen equitable health systems in Southern Ethiopia. We are working in partnership with the HEWs to build capacity and effectively strengthen their link to the wider health system. We will generate the baseline data, establish an e-health data collection system in the Sidama zone, implement, review and improve it. We are at an early stage and here we report on the findings from baseline data collected.

Methods:

Focus group discussion and in-depth interviews conducted with HEWs, supervisor of HEWs, district and zonal health department officials in two zones in Southern Ethiopia (an intervention and control zone). Thematic qualitative analysis is ongoing and will inform the development of e-health data collection system.

Results: HEWs expressed strong commitment to their role and supporting the health of their communities. HEWs review patient data and take action to ensure follow up. They use paper based data and highlighted issues with archiving and administration. HEW currently use mobile phones within mainly emergency contexts, although network coverage, electric power and payment posed challenges. E-health was a new concept to HEWs. HEW responded positively to the possibilities and wanted tools that would be accessible to them in terms of layout and language. Zonal representatives highlighted how systems are already in place to collect data; emerging issues related to the completeness, accuracy, reliability and timeliness of current approaches to data collection. Issues affecting data quality were seen to be linked to language, training and infrastructure, including transportation.

Discussion: Developing a context embedded responsive e-health system requires understanding and building upon the realities, experiences of different stakeholders. Responding to the opportunities and challenges faced by HEWs who are a critical bridge between communities and health systems is particularly critical.

Conclusion: E-health technology presents a new opportunity for the Ethiopian health system to improve data quality and community health. Empowering, supporting and responding to the challenges faced by frontline female Health Extension Workers will be important part of ensuring the sustainability and responsiveness of e-health strategies.

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Re-examining the connections between health and internal labour migration: evidence from southern India

Internal labour migration represents a necessary livelihood strategy for millions of households in India. However, the link between migration and health is often reduced to viewing migrant workers as potential vectors for disease transmission or focusing on the occupational hazards that migrant workers experience through precarious employment arrangements. While these perspectives inform our understanding of the links between health and internal labour migration, this study aimed to broadly examine further connections between health and migration in southern India with particular attention to health outcomes for migrants and their households as a result of participation in internal labour migration. In total, 66 semi-structured interviews plus 300 household surveys (1,693 individuals) were completed using systematic random sampling in 20 rural villages in the Krishnagiri district of Tamil Nadu. Of the 300 households surveyed, 137 (45.7%) had at least one current migrant member with 205 migrants included in this study. The majority of migrants were engaged in either low skilled (131 individuals; 63.9%) or semi-skilled work (55 individuals; 26.8%). The main industries that migrant workers were engaged in included construction (92 individuals; 44.9%), manual labour (33 individuals; 16.1%), and the textile sector (18 individuals; 8.8%). In total, 55 migrants (26.8%) had experienced a serious health event in the previous 10 years. However, only nine current migrants (4.4%) directly attributed their serious health problem to an occupational or livelihood hazard experienced in relation to migrant labour. Additionally, 62 migrant households (45.3%) saw an overall decline in the health of their migrant members as a result of their participation in labour migration largely attributed to long working hours and a physically demanding job. Conversely, 45 households (32.9%) saw no change in health and 18 households (13.1%) saw an overall improvement in the health of their migrant members. Enhanced mental health was the most frequently cited health improvement and was often attributed to good working hours and improved food security. This study challenges the narrow and largely negative connections between internal labour migration and health, but at the same time recognizes that migrant labour may play an important role in the production of health and disease for rural migrant households. The broader connections between migration and health demonstrated by this study also provide opportunities for policy makers, NGOs and researchers to better support these populations in southern India through ensuring that access to quality healthcare is maintained in spite of mobile livelihoods.

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L'utilisation de l'évaluation au sein d'un programme d'exemption des frais de soins de santé d'une ONG humanitaire au Burkina Faso

Soumission: Présentation étudiante 2015

Titre : L'utilisation de l'évaluation au sein d'un programme d'exemption des frais de soins de santé d'une ONG humanitaire au Burkina Faso

Mots clés : L'utilisation de l'évaluation, transfert de connaissance

Auteurs : D'Ostie-Racine, L., Dagenais, C., & Ridde, V.

Justification : L'évaluation des programmes en santé mondiale est valorisée pour sa capacité à nous informer sur la transparence, l'imputabilité, l'efficacité, la pertinence et la durabilité d'un programme (Jabot, Ridde, Wone, & Fond-Harmant, 2014; Patton, 2008; Patton & LaBossière, 2009). L'évaluation est un outil important pouvant appuyer les parties prenantes des programmes, bailleurs de fonds et politiciens dans des efforts d'amélioration des pratiques et de prises de décision afin entre autres d'améliorer la santé mondiale et de diminuer les disparités en santé (Crisp, 2004; Patton, 2008). Cependant, un défi important reste l'utilisation de l'évaluation (UÉ) (Hallam & Bonino, 2013). De nombreuses études soulignent une sous-utilisation des évaluations réalisées (Hendricks, 1994; Podems, 2007) et ce particulièrement en contexte humanitaire (Sandison, 2006).

Objectifs : L'étude actuelle examine l'intégration progressive de l'évaluation au sein d'une organisation non-gouvernementale (ONG) humanitaire basée au Burkina Faso qui a intégré une stratégie d'évaluation à son programme d'exemption des frais de soins de santé. Cette stratégie tend à appuyer les membres de l'ONG et leurs partenaires afin que leurs pratiques, décisions et plaidoyers se basent progressivement sur des données probantes. Les objectifs de l'étude sont de documenter les types d'utilisation et de clarifier les conditions influençant l'UÉ.

Méthodes: L'évaluation qualitative emploie un devis d'étude de cas unique. Deux collectes de données (2009 et 2011) cumulent 32 entrevues semi-structurées et un focus group auprès de 25 participants. La stratégie d'échantillonnage « boule de neige » fut utilisée pour favoriser la participation de différentes parties prenantes permettant ainsi la triangulation des données (Creswell & Plano Clark, 2006). L'analyse thématique de contenu a suivi l'approche de Miles et Huberman (1994) et un cadre conceptuel basé sur l'évaluation de programme et le transfert de connaissances.

Résultats : L'UÉ par les parties prenantes de la stratégie d'évaluation inclut l'utilisation instrumentale, conceptuelle et persuasive des résultats ainsi que l'utilisation instrumentale et conceptuelle des processus d'évaluation. Les conditions d'UÉ incluent l'attitude des utilisateurs, les dynamiques et communications entre parties prenantes ainsi que l'habileté des évaluateurs à adapter la production et le partage des connaissances aux besoins des utilisateurs.

Discussion et conclusion: L'étude présente un cas particulièrement riche en UÉ et une description approfondie de ses conditions en contexte d'une ONG humanitaire impliquée en santé mondiale. Ayant des implications pratiques,

cette étude présente une réflexion pertinente aux chercheurs et praticiens préoccupés par l'utilisation des connaissances empiriques en santé mondiale.

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Hypertension prevalence and risk factors in a urban population of Burkina Faso

Background: Countries of sub-Saharan Africa are increasingly confronted with hypertension and urbanization is considered to favor its emergence.

Objectives: to assess the difference in the prevalence of hypertension between formal and informal urban areas of Ouagadougou and to determine the risk factors associated with hypertension in these urban populations of sub-Saharan Africa.

Methods: A cross-sectional survey was conducted in 2010 on 2041 adults aged 18 years and older in formal and informal areas of Ouagadougou. Data was collected through personal interviews conducted at home. Blood pressure and anthropometric measurements were taken by trained interviewers. Logistic regressions were fitted to identify factors associated with hypertension.

Results: The overall prevalence of hypertension was 18.6% (95% confidence interval [CI], 16.9-20.3) and its detection was 27.4% (95% CI, 22.9-31.9). Prevalence of hypertension in formal settings was 21.4% (95% CI, 19.0-23.8), significantly higher than prevalence in informal settings: 15.3% (95% CI, 13.0-17.6). However, this difference disappeared after adjusting for age. In addition to age, being an unmarried woman (odds ratio [OR]=1.7; 95% CI, 1.1-2.4), recent rural-to-urban migration (OR=1.8; 95% CI, 1.2-2.8), obesity (OR= 1.8; 95% CI, 1.1-3.1) and physical inactivity (OR=1.9; 95% CI, 1.2-3.0), were independent risk factors for hypertension.

Discussion: The overall prevalence found in this study (18.6%) is somewhat lower than prevalence of previous studies conducted in the same population because no information on hypertensive medication was available. Our study shows that rural-to-urban within-country migration is positively associated with hypertension. Explanatory factors for this positive association could be the same as those found in international migration: anxiety and stress first, then changes in diet and physical inactivity. The current study has further identified that the higher prevalence of hypertension in unmarried women, meaning divorced (4%) and widowed (61%). This suggest that women who are widows are particularly vulnerable for hypertension in Burkina Faso compared to married women. Mass prevention by acting on risk factors (higher BMI, physical inactivity) and special surveillance of risk groups such as rural-to-urban migrants and widows should be a priority in order to shift the distribution of risk factors to lower levels of risk.

Conclusions: Hypertension is common among the adult population of Ouagadougou but its detection is low. While there are no differences between formal and informal areas of the city, rural-to-urban migration emerges as an independent risk factor. Known risk factors as obesity and physical inactivity are confirmed while the vulnerability of widows to hypertension is shown.

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Social inequalities associated with the use of psychotropic drugs among older adults living in the community: the international mobility in aging study

Background: Studies have examined factors associated with psychotropic drug use among elderly persons, but the results are sometimes contradictory.

Objective: to examine social inequalities in the use of psychotropic drugs among older persons the International Mobility in Aging Study (IMIAS).

Methods: The sample consisted of 1,995 participants in the IMIAS 2012 baseline study in Saint-Hyacinthe (Canada), Kingston (Canada), Tirana (Albania), Manizales (Colombia), and Natal (Brazil). During home visits, psychotropic drugs (anxiolytics, sedatives, and hypnotics (ASH); antidepressants (ADP); and analgesics/antiepileptics/antiparkinsonians (AEP)) taken in the previous 15 days were identified and coded. Prevalence ratios for psychotropic drug use according to sex, education, income, and occupation were estimated by fitting a Poisson regression and controlling for demographic and health covariates.

Results: Psychotropic drug use was higher among Canadian participants than among those living outside Canada. Prevalence of use of AEP drugs was higher for women than men in the Canadian and Latin American sites. In Tirana, antidepressant drugs were rarely used. The relationships of drug use with socioeconomic status varied among sites. In the Canadian cities, low socioeconomic standing was associated with a higher frequency of psychotropic drug use. In the Latin American cities, elderly people with high education and income levels showed a higher level of antidepressant drug use, while people with manual occupations had a higher use of AEP drugs. In Tirana, ASH drug use was higher among those with low income.

Discussion: The difference between sexes in drug use was very significant at research sites outside of Canada. As the male/female gap remained after controlling for socioeconomic variables, it is likely related to general inequalities between men and women at the non-Canadian sites. At these sites, medical prescribers may be more likely to prescribe these medications to women. Additionally men may be less likely to consult for psychiatric symptoms because they perceived them as a threat to their masculinity. This is a topic that would benefit from further international research.

The low frequency of antidepressant use in Albania might be attributable to historical and social phenomena. One is the stigmatization of depression during Albania's communist period and the second phenomenon is linked to health professionals, who often consider depression to be a psychosis.

Conclusion: An inverse association was observed between socioeconomic standing and psychotropic drug use in Canada, while the opposite was true in Latin America. Albania was notable for an absence of antidepressant use and greater use of ASH drugs among low-income groups.

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Real-Time Responsiveness as an ethical capacity for health researchers in disasters

RATIONALE: In response to the increasing incidence of disasters as well as calls for greater efficiency, accountability, and more evidence-based aid, disaster research projects have grown in scope and frequency. Yet health research in the wake of disasters and during humanitarian crises ‘particularly in resource-poor settings’ is likely to raise profound, often unanticipated and unfamiliar, ethical challenges for researchers.

OBJECTIVES: We propose and define an ethical ideal and practice called real-time responsiveness (RTR) that can build the moral capacities of health researchers and help them better address the ethical issues that emerge in the course of disaster research. RTR also lessens the potential for disaster research to perpetuate or exacerbate the vulnerabilities of host communities.

METHODS: Based on empirical data, we first identify characteristics described as unique to disaster studies by researchers with field experience. We then expose gaps in current research ethics processes and guidance documents, showing that disaster researchers may lack support to deal with those unique characteristics and the kinds of ethical concerns they generate. We define RTR, and present a case study to illustrate how this ideal and practice can be applied, and how it can be expected to lessen the risk of creating new or deepening existing vulnerabilities.

DISCUSSION: With RTR as a guiding principle, ethical oversight stops being merely a scheduled research ethics committee (REC) event to become a more nimble process, receptive and adaptive to emergent concerns identified by researchers. As such, RTR extends the ethical focus over the lifecycle of a study. It specifically calls for open channels between researchers, research ethics committees, and community members, such that issues that are predictably unpredictable can be addressed via transparent discussions and the timely approval of protocol changes. Since it encourages a wider community of contributors to help identify emerging ethical concerns in health research, the use of RTR could serve to build research ethics capacity globally over time.

CONCLUSION: RTR can enable researchers to enhance their own ethical capacities to be attentive and responsive to the vulnerabilities of participants and communities. By encouraging the building of such moral capacities, RTR is likely to help improve the ethical acceptability of health research, particularly in disaster settings, and most important, diminish its potential to create, perpetuate, or deepen injustices.

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Toward a Global Index of Wellbeing: A Proof of Concept

Rationale: The world is changing rapidly and large numbers of researchers are attempting to measure the impacts of these changes over time and across space. Global environmental change ‘whether related to changes in climate, demographics, economics, change, the distribution and diffusion of health and disease, social and cultural change’ requires monitoring and measurement tools to assist in the search for knowledge around adaptation, vulnerability and resilience, and facilitate evidence-informed decision making. There was a time when measuring the ECONOMIC impacts of change was all that mattered. GDP (Gross Domestic Product), defined as the market value of all goods and services produced within a country over a period of time, was developed by Simon Kuznets for a US Congress report (1934) and was subsequently approved at the Bretton Woods conference (1944) as THE measure of a country’s economic health for all UN states. But even at that time, Kuznets had his doubts about the capacity of GDP to measure what really matters.

Objective: The fundamental basis of this work is to build local capacity for measuring and monitoring global environmental change in LMICs through the development of a global index of wellbeing (GLOWING). The goal of this work is to build an international team of researchers and end users who will work together to develop, implement, evaluate and render sustainable a global index of wellbeing for use in research and decision making.

Methods: Following an environmental scan of existing global indicators of happiness/wellbeing, a proof of concept in Kenya, Ghana and the Caribbean began in consultation with end users. The initiative is founded on the Canadian Index of Wellbeing (CIW), a composite index made up of 64 indicators across 8 domains.

Results: Early results indicate that the 8 domains used in the CIW are indeed transposable to an LMIC context, but significant efforts are being expended in each of the proof of concept sites to develop socially, culturally and geographically relevant indicators of wellbeing.

Discussion: The use and usefulness of a tool like the global index of wellbeing is not in question. This tool will allow for the development of baseline indicators of wellbeing against which policy interventions and global environmental change can be benchmarked. The challenge will be the process of building local capacity for developing measures that are relevant to local context and useful in the governance process.

Conclusion: Given the importance of wellbeing indicators (e.g., access to social services, sustainable environmental conditions, governance) to informed policy development and evaluation, we propose that this tool will be key in charting the future for wellbeing in Africa in light of the impending ‘Post-2015 Development Agenda’.

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Migrant friendly maternity care in a western urban centre

Background and Purpose: Migrant-sensitive care provision has been identified as a priority in the World Health Assembly Resolution, 'Health of Migrants'. Little research has been done on the extent to which migrant-sensitive ('friendly') maternity care (MFMC) is currently being provided, factors that support or inhibit provision of such care, and whether specific components of MFMC may be more important than others. We sought to determine: (1) to what extent recommended components of MFMC are being provided to recently-arrived international migrant women giving birth in an urban Canadian city; and (2) what contextual factors support the implementation of MFMC.

Methodology: We conducted a mixed quantitative-qualitative study of 2400 women recently giving birth, speaking any language, in Canada <8 years, and from non-Western countries; and 63 health professionals. Medical records and unit documents were reviewed. The Migrant Friendly Maternity Care Questionnaire was administered and open-ended interviews were completed.

Results: Women from over 97 countries, speaking any of 79 languages reported on their perceptions of how the health system responded to their needs including communication facilitation, promotion of social support, education for healthy weight, treatment of pre-pregnancy/perinatal/maternal illnesses, early access to prenatal care, and responsiveness to preferences for care, among other indicators of MFMC. A range of professionals reported on challenges to care provision and how these were met.

Conclusions and Discussion: Empirical data on migrant-sensitive maternity care, contextual factors supportive of that care, and associated reproductive health outcomes offer baseline data for programming and to permit benchmarking nationally and internationally.

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Taking account of context: anthropology in the evaluation of global health interventions

Rationale

Impact evaluations of international public health interventions in developing countries have skyrocketed over the past decades, amidst growing pressure for performance and accountability from donors. However, these evaluations have the tendency to focus on quantitative outcomes, failing to consider how the social, cultural and environmental context may affect the success of these interventions. In other words, the conclusions that are drawn from these evaluations may omit to reflect the explanatory power of contextual complexity.

Objective

This research pursued three objectives. First, we aimed at identifying the literature on impact evaluation of complex (i.e., multidisciplinary and involving a variety of national and international stakeholders) public health interventions in Sub-Saharan countries. Second, we examined whether and how anthropological research is used in the selected papers. Finally, we discussed the contribution of anthropology to the science of impact evaluation.

Methods

We performed a scoping review of the peer-reviewed articles that included impact evaluation of global health programs in Sub-Saharan Africa. We conducted searches in English and French for 2005-2015 on major scientific databases in social and health sciences (i.e. EMBASE, Medline, Global Health, PsycINFO, and Web of Science). All papers titles and abstracts were reviewed. When the use of qualitative methods was indicated, the full paper version was read in order to track the inclusion of anthropology in the evaluation framework and the involvement of anthropologists in the evaluation team.

Results

Excluding duplicates, we identified 398 papers evaluating the impact of complex health interventions in the African context. After an abstract review, we found that the majority of selected papers did not make use of qualitative methods - let alone methods that are specific to the field of anthropology, e.g., ethnography and participant observation - in the evaluation framework.

Discussion

Our results demonstrate that, if we want to draw comprehensive conclusions from outcome evaluations of complex public health interventions, there is a gap to be filled by anthropologists. Indeed, anthropological research is particularly useful for investigating the root causes of success or failure of interventions.

Conclusion

Multidisciplinary evaluation teams involving anthropologists and other social sciences experts could be set up for addressing the complexity of global health interventions.

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Analyse rétrospective de la riposte sénégalaise contre la crise Ebola : quels enseignements'

En 2014-2015, l'Afrique de l'Ouest a été confrontée à la plus vaste et complexe épidémie d'Ébola jamais enregistrée. Elle a eu des effets profonds sur les économies et systèmes de santé des pays les plus touchés (Guinée, Sierra Leone, Libéria) mais aussi sur ceux des pays voisins.

Le Sénégal a été jusque-là relativement épargné. La stratégie élaborée et les ressources politiques, financières et scientifiques mises en place ont aidé le pays à contenir, contrôler, traiter et, à vaincre le virus Ébola. Le seul cas « importé » de la Guinée a été rapidement maîtrisé. La gestion globale de la crise et de ce cas a été qualifiée par l'OMS comme un exemple de réussite.

Objectifs

Analyser les facteurs de succès de la stratégie globale de riposte contre l'Ébola mise en place par les autorités sanitaires sénégalaises et de la gestion du cas « importé » de la Guinée et ses effets collatéraux.

Méthode

C'est une étude cas. Le cadre conceptuel utilisé est inspiré de la théorie du changement appliquée à un contexte de crise sanitaire. Les données qualitatives proviennent d'entretiens individuels et de focus groups réalisés auprès des dirigeants et des professionnels du système de santé, autres acteurs impliqués dans l'élaboration et la mise en œuvre la stratégie de riposte. Ces données sont complétées par d'autres tirées de sources secondaires. L'analyse de contenu a été utilisée pour le traitement des données.

Résultats

Les premiers résultats de nos analyses montrent que les principaux facteurs de réussite sont : 1- leadership de la ministre de la santé et sa connaissance des enjeux et des contraintes liés à la riposte contre les maladies infectieuses dans les pays en développement ; 2-appui politique au plus haut niveau ; 3- mobilisation principaux des acteurs ; 4- bonne articulation, coordination et harmonisation des différentes interventions, 5- bonne stratégie de communication et la cohérence du message.

Discussion

Cette étude permet de mieux saisir les dynamiques organisationnelles et d'adaptation des systèmes de santé des pays africains et les bonnes pratiques de mise en place de stratégies de ripostes dans des contextes d'émergence rapide de crises sanitaires.

Conclusion

Leçons de l'expérience : mieux saisir les facteurs de réussite et contraintes d'interventions publiques face à des situations de crise sanitaires semblables et partager avec d'autres pays de la sous-région et du continent les clés de succès'

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Motivation of community health workers participating in a mobile health (mHealth) intervention trial in Singida, Tanzania.

Rationale: Frontline community health workers (CHW) have immense potential to improve maternal, newborn and child health (MNCH), particularly in hard-to-reach communities. Their performance, however, can be limited by weak delivery of appropriate training, unsupportive supervision and ineffective job aids. The emerging field of mobile health (mHealth) offers innovative and potentially powerful approaches to strengthen health system support for CHW and increase their effectiveness in improving key MNCH indicators. Few studies have explored how smartphone-based job aids for CHW influence their motivation, self-efficacy and job satisfaction. This study aimed to help fill this important knowledge gap.

Objectives: Objectives of this study were to: a) understand the experiences of CHWs participating in a DFATD-funded MNCH project implemented by World Vision in Singida Tanzania; and b) to investigate whether a smartphone-based application could be used to strengthen support for CHW.

Methods: This descriptive, qualitative study was nested within a larger trial investigating the impacts of a smart phone-based application designed to assist CHWs with data collection and management, delivery of education, gestational danger sign identification, and clinical referrals. Pairs of volunteer CHW in 32 randomly selected villages were cluster-randomized to receive training on either smart phone or existing paper-based protocols for use during household visits with pregnant women, mothers and children. Thematic analysis was used to identify and compare factors affecting CHW motivation, self-efficacy, job satisfaction and perceived challenges to MNCH protocol implementation using content from 60 in-depth, semi-structured interviews with CHW in both study arms.

Results: Most CHW in both groups were satisfied and proud of their work. Religion, duty and morality were common motivating factors; others included witnessing changes in health knowledge and behaviour, recognition and respect, and training opportunities. CHW were demotivated by lack of financial incentives and village-level government support, poor transport, and difficulties balancing volunteer duties with income-generating activities. Mobile phones incentivized CHW initially and simplified their work; however difficulties with charging, airtime, and security were common.

Discussion: Results indicate that while mobile phones can have a positive impact on CHW motivation, without appropriate support systems in place, their impact on CHW job satisfaction and self-efficacy is limited. Comprehensive programs that target both provider and patient needs are required to ensure effective delivery and uptake of MNCH messaging.

Conclusion: Motivation, job satisfaction and perceived challenges remained similar between CHW in both groups. Strengthening CHW activities with mHealth technology may improve MNCH if programs address logistical challenges and underlying CHW motivators.

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Men matter: engaging men for better MNCH outcomes

Rationale: In many contexts, in light of prevailing socio-cultural and gender norms and values, men's influence over decisions and behaviours critical to maternal, newborn and child health (MNCH) is often pivotal. Recognizing this, engaging men as active partners in MNCH is an emerging and promising strategy to improve MNCH and gender equality outcomes, currently promoted and adopted globally, nationally and sub-nationally through policy and program planning.

A Plan Canada commissioned, peer-reviewed primary qualitative study, conducted by the Burnet Institute, Australia (forthcoming 2015), of two Plan Canada supported MNCH programs with integrated male engagement strategies in Bangladesh, Tanzania and Zimbabwe investigated the effects and acceptability of male engagement in MNCH, and the feasibility of strategies to increase male engagement.

The research results reveal several benefits associated with male engagement in MNCH, including: improved health and care-seeking outcomes for women and newborns, increased couple communication; improved couple relationships, reduced maternal workload and increased maternal nutrition and rest. Participants reported that they valued male engagement in MNCH – although some participants did not desire men's participation in certain activities – and that the social acceptability of male engagement in MNCH increased over time. The results confirm, and add to, elements of good practice in male engagement programming which can usefully guide policymakers and program planners.

Learning Objectives: To advance understanding of factors likely to increase acceptability, sustainability, and potential contribution to MNCH of male engagement in a range of contexts. Specifically to understand:

- Contributions of male engagement to MNCH results
- Effective strategies in motivating and engaging men in achieving improved MNCH outcomes in the context of gender, social, and cultural norms
- Key factors to sustain male engagement in MNCH

Conclusion: Engaging men in MNCH can improve care-seeking as well as care and support in the home. Male engagement in MNCH is generally valued by women and men and can rapidly become more socially acceptable within communities. Engaging men can make a powerful contribution to MNCH results, men's health and wellbeing, and gender equality outcomes.

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Evaluation of the District Health Service Support Project in Afghanistan

Background: In Afghanistan, under the Basic Package of Health Services (BPHS), NGOs are subcontracted to provide health care delivery. The role of the Ministry of Public Health (MoPH) is one of stewardship and monitoring / evaluation of performance of the NGOs. Recruitment of District Public Health Officers (DPHOs) at District Health Departments is key to strengthening this stewardship role.

Objective: To assess the impact of the DPHOs

Methodology: This evaluation has used several methods. 1) Interviews conducted with DPHOs and their district stakeholders. For these interviews, eight provinces were randomly selected once stratified according to BPHS donors. Within these eight provinces, sixteen districts with DPHOs were randomly selected. This sampling strategy gave a representative sample for the health service as a whole. The key stakeholders in the district included clinic heads, health committee [shura] members and the district governor. At the provincial level, the provincial health director in the eight provinces and their team and also BPHS implementing NGO representatives were interviewed. The same groups of stakeholders in four districts without a DPHO were interviewed to understand if there was a perceived need for a DPHO in these districts. 2) A desk-review of the program documents and interviews with the central team was also conducted. 3) An analysis of the secondary data using Health Management Information System (HMIS) data and Balanced Scorecard Data. 4) Cost analysis of DPHOs program was performed.

Result: This evaluation showed that DPHOs are an important addition to the health services in their district. Interviews with stakeholders were almost uniformly positive towards the DPHOs and their roles. There are examples in each district of how the DPHOs make an impact on the health services. The DPHOs are valued for their monitoring, supervision and reporting role. At both the district level and the provincial level the DPHO role is seen largely as positively. Moreover, the DPHOs have significant role in improving the coverage of vaccine programs, overall performance of clinics, monitoring environmental health such as using clean water and minimizing infections through food in shops and restaurants, drug expiry and coordination with other health entities.

Conclusion: If MoPH adopts a truly decentralized approach to healthcare delivery, where power or responsibility for health resourcing is transferred to regional, provincial or district level and districts have relative autonomy over priority setting and programming within the framework of national policies, an existing cadre of high-quality DPHO professionals will be a useful addition to the MoPH structure.

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Fidéliser les ressources humaines en santé maternelle, néonatale et infantile dans les zones difficiles : le cas du Bénin, Burkina Faso et Sénégal.

Justificatif : En vue de contribuer à l'atteinte des Objectifs du Millénaire pour le Développement 4 et 5 dans des pays francophones d'Afrique (Ouest et Centre) et d'Haïti, l'initiative Muskoka des fonds Français offre son appui, en 2010, grâce à des accords signés entre le gouvernement français et quatre agences des Nations Unies. Dans ce contexte, le renforcement des ressources humaines en santé maternelle, néonatale et infantile (RHSMNI) est considéré comme cible prioritaire. Des recherches opérationnelles, ciblant les meilleures stratégies qui favorisent la fidélisation du personnel de santé qualifié sont sollicitées. La présente recherche opérationnelle cible les RHSMNI au Bénin, au Burkina Faso et au Sénégal. Elle vise principalement à identifier les stratégies de fidélisation ayant les meilleures chances d'être adaptées au contexte de chacun des trois pays et de permettre de fidéliser les RHSMNI dans les zones difficiles.

Objectif : Analyser la situation des RHSMNI en ce qui a trait aux stratégies de fidélisation - de type formation, financière, réglementaire, support professionnel et personnel - existantes en zones difficiles, dans les pays cibles.

Méthodes : Les méthodes de collecte comprennent : 1) une revue de documents officiels (rapports gouvernementaux, recherche, etc.) et d'articles scientifiques; 2) une analyse des registres et base de données du personnel de santé; et 3) des entrevues et questionnaires administrés auprès des responsables des Directions des Ressources Humaines, des instituts de formation, et des programmes visant la fidélisation du personnel.

Résultats : Au Burkina Faso, les données démontrent l'inexistence de stratégies spécifiques visant la fidélisation des RHSMNI dans les zones difficiles. Certaines stratégies transitoires mises en œuvre (ex. politique de régionalisation) posent plusieurs défis. Au Sénégal, et au Bénin, les interventions implantées couvrent différents types de stratégies mais ciblaient certaines catégories professionnelles et négligeaient d'autres. Aucune stratégie de type réglementaire n'a pu être recensée au niveau des trois pays.

Toutefois, pour les différentes stratégies rapportées, les données relatives au nombre de RHSMNI qui en a bénéficié, au nombre fidélisé après affectation, la formation sanitaire concernée, restent manquantes.

Discussion: La prise en compte des défis de fidélisation reste peu effective dans les pays en question.

Conclusion : Favoriser la fidélisation reviendrait à faire face, tel que recommandé par l'OMS, à différents défis liés à : l'environnement de travail, au processus d'affectation des RHSMNI, aux conditions de travail, à la formation, et au cadre réglementaire, afin de motiver le personnel à accepter et être fidélisé dans une zone difficile.

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Supporting the training of rehabilitation providers in Haiti: the McGill School of Physical and Occupational Therapy's involvement in an NGO-academic partnership for rehabilitation capacity building

Rationale: There are currently few rehabilitation providers in Haiti to offer care and deliver services for persons with disabilities, including only 30 Haitian physiotherapists and 1 occupational therapist in a country of 10 million people. To address this gap, and in response to the lack of rehabilitation training opportunities in Haiti, the non-governmental organization Handicap International (HI) launched a training program for rehabilitation technicians in 2012. As the HI project was implemented, a partnership was established with the School of Physical and Occupational Therapy (SPOT) at McGill University, through which SPOT would provide support to the rehabilitation technician training program and its instructors.

Objectives: The objective of the HI/SPOT partnership was to draw upon the pedagogical and clinical (content) expertise at SPOT to support HI's capacity building activities in the rehabilitation sector in Haiti.

Methods: SPOT faculty, students and affiliated clinicians have contributed to the partnership through several interlinking initiatives over a period of two and one half years: 1) Faculty from SPOT led train-the-trainer activities with Haitian instructors and provided feedback on curricular documents to those involved in planning and implementing the training program; 2) SPOT faculty and clinicians collaborated with local instructors to provide teaching on specialized clinical topics; 3) McGill physical and occupational therapy students developed teaching resources for the Haitian rehabilitation technician students, in the form of a summative handbook for graduating technicians; and 4) SPOT faculty and students conducted a study to investigate the work context and career trajectory of rehabilitation technicians after completion of their training program. Alongside these contributions to the rehabilitation technician training, SPOT faculty and affiliated clinicians have led continuing education seminars for other Haitian rehabilitation providers.

Results/implications: Academic-NGO partnerships offer a valuable model to support capacity building initiatives in low resource settings. We draw several lessons from our experience in this project. It has been necessary to be responsive to emergent needs and realities, and to adapt to the evolving nature of the project. Open discussion around expectations, timelines, and areas of expertise of non-governmental and academic partners is also crucial. The involvement of students from SPOT in support of the rehabilitation technician training program has offered an additional level of engagement and led to new avenues of collaboration between the partners.

Conclusion: Partnerships between non-governmental organizations and academic institutions can contribute to the implementation of robust capacity building projects that address gaps in the rehabilitation workforce.

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Violating dignity and not acting in a woman's best interest: Disrespectful and abusive obstetric care in a slack health system

RATIONALE:

Global attention to disrespect and abuse in obstetric care has yielded preliminary evidence and analytical frameworks, but questions remain about the definition and operation of these concepts in diverse settings.

OBJECTIVE:

We define and analyse the way disrespect and abuse operate in a slack health system in a disadvantaged social context.

METHODS:

We draw on evidence from 14 years of research in Koppal district, Karnataka, India: (1) detailed verbal autopsies of 33 maternal deaths and 3 near misses from 67 villages (2008 to 2011); (2) qualitative research on the organisational culture of the public health system (2004 and 2014); (3) a district-wide assessment of the obstetric competence of doctors and staff nurses (2012 to 2013); (4) participant and non-participant observations of pregnancy-related services over 14 years.

RESULTS:

Disrespect and abuse usually go together, but are distinctly different concepts.

Disrespect points to the violation of a woman's dignity. It reveals the moral judgements that health workers actively make about women in antenatal clinics and labour rooms. This morality, which stems from science (as encapsulated by medicine/nursing) and social prejudice, strengthens the power that health workers claim over the women who seek their help.

Abuse points to behaviour and practices that are not in the woman's best interests, as judged by objective standards. Abusive behaviour and practices, which range from neglect to the routine application of fundal pressure or frequent per vaginum examinations during labour, can lead to sustained harm. However, they are not always intentional.

Abusive behaviour and practices reveal (1) what health workers informally imbibe during training and service, (2) how they informally interpret protocols and guidelines that ostensibly support a woman's best interest, and (3) how they respond to systemic slack and shortages.

DISCUSSION:

Our nuanced and contextual analysis of disrespect and abuse offers a perspective that is currently missing in the literature on the subject.

CONCLUSION:

The organisational culture and social prejudice that give rise to disrespect, abuse and harm must be adequately recognised and tackled if health systems are to assure maternal safety and rights.

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Socioeconomic inequalities in informal payments for health care: An assessment of the 'Robin Hood' hypothesis in 33 African countries.

Rationale: In many low- and middle-income countries, household out-of-pocket expenses continue to represent large shares of the total health financing. Because of widespread corruption, low and irregular remuneration of health workers and information asymmetry between patients and care providers, important proportions of these out-of-pocket expenses are made in the form of informal payments (e.g. bribes) when accessing health care. Some authors suggest that the informal payment system could lead to quasi-redistribution among patients, with physicians playing a 'Robin Hood' role, subsidizing the poor at the expense of the rich.

Objective: To empirically test this assumption with data from the Afrobarometer rounds 3 and 5 surveys conducted in 18 and 33 African countries respectively, from 2005 to 2006 for round 3 and from 2011 to 2013 for round 5.

Methods: Nationally representative samples of people aged 18 years or more were randomly selected in each country, with sizes varying between 1048 and 2400 (a total of 25,397 individuals) for round 3 and between 1190 and 2407 (a total 51,605 individuals) for round 5. Interestingly, countries can be compared since a standard set of questions was asked for both rounds. Two outcome variables were considered. First, a binary variable indicating whether the individual had to pay a bribe at least once during the last 12 months when seeking care at the local health facility. Second, another binary variable indicating whether the individual has faced at least one demand for informal payments. We used the 'normalized' concentration index to assess the level of inequality in the payment of bribes and implemented a decomposition technique to identify the causes of the observed inequalities.

Results: We obtained that: i) the socioeconomic gradient in informal payments is in favor of the rich in almost all countries ii) this is mainly due to group differences in supply-side factors like the lack of medicines, the absence of doctors and long waiting times.

Discussion: Informal payments appear to be a highly regressive system and there is no evidence of 'Robin hood' behavior at the national level for the countries included. The poorest seem to seek care in health facilities facing poor conditions (e.g. shortages of inputs), which increases incentives for health staff to request informal payments.

Conclusion: This study highlights the need for substantial reforms of African health systems in order to better protect the worse-off from financial risk when seeking care.

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Priority setting in emergency situations: Lessons learnt from the case of Ebola

Priority setting (PS) during the heat of an emergency is challenging since it might mean life or death for those who are denied limited resources. The dire consequences of these decisions was displayed during the Ebola viral disease (EVD) outbreak and necessitates the systematic consideration of how and when these decisions can be made so as to mitigate their negative impacts.

Objective:

1. To discuss the predominant approach to PS during the Ebola outbreak
2. To discuss implications of using this approach during an outbreak
3. To propose strategies to mitigate the negative impact of using the 'Rule of Rescue' during emergencies such as the Ebola outbreak.

Methods:

- Review of published documents including World Health Organization (WHO) guidelines and working papers on EVD, National Ebola plans; and journal articles.
- Key informant interviews with thirteen emergency health workers from Uganda and from international emergency response organizations such as the Canadian Red Cross, and MSF.

Results and discussion:

The predominant approach to PS was the rule of rescue; which refers to situations where individuals, systems or countries are willing to rescue individuals or populations in immediate peril, regardless of cost. There is also focus on 'stopping the epidemic' and controlling the disease spread. Based on this approach, resources were mobilised (e.g. during the EVD outbreak in West Africa, up to \$17,079,581 were raised) and invested within that relatively short period. These findings were corroborated by our Ugandan interview respondents.

The focus of resource allocation exclusively to the epidemic phase, and the lack of allocation of resources to the pre-epidemic phase, means that for some 'especially those who lost their lives - , the resources are too much, too late. In Uganda, lack of proper planning for resources for the EVD outbreak led to deprivation of resources from other health programs, with negative impact on non- Ebola patients .

Conclusion

While it was inevitable to use the 'Rule of Rescue' during the EVD outbreak, guidance and rational PS in the period before the epidemic would have mitigated the negative impact of using that approach. Systematic PS for emergencies ought to be part of the national plans, with balanced focus on all the phases of the outbreak and the health care system, so as to mitigate the impact of using the Rule of Rescue.

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Building local capacity with participatory science workshops to address water, sanitation and hygiene challenges in rural northern Tanzania

Rationale: In rural northern Tanzania, sanitation and hygiene issues pose major health risks to communities lacking in awareness and access to sustainable strategies to address these challenges. Meanwhile, in resource-constrained settings, students often lack access to basic equipment and out of limited capacity teachers may not use participatory strategies in order to meaningfully engage students in learning. This study intentionally shifts away from 'rote' learning to incorporate experiential learning, which involves hands-on activities designed to engage students in the development of locally appropriate, sustainable strategies to improve sanitation and hygiene outcomes in their communities.

Objective: The goal is to introduce culturally appropriate participatory methods of learning in a resource-constrained context with the aim of inspiring students to direct learning towards locally relevant issues and solutions.

Methods: Using a Train the Trainer approach, four workshops on sanitation and hygiene were developed and delivered to 16 sciences and civics teachers at secondary schools in rural Tanzania between May-September 2014. Activities included modeling for educators a hand-washing experiment, low-cost innovations for using microscopes in classrooms, water quality testing and games to generate discussion about contextually feasible water filtration systems. The workshops were lead by Canadian Bachelor of Health Sciences students and local translators. The BOPPPS (Bridge, Objectives, Pre-Assessment, Participatory Learning, Post-Assessment, Summary) model for lesson delivery was used as a planning tool. Teacher logbooks tracked relevance of lesson plans as they rolled out in classrooms over the subsequent year.

Results: From the participants' engagement in workshops, participatory activities were positively received and sparked interest in innovating science education. During post-assessment, teachers noted the limitations of the current curriculum and expressed an interest in incorporating more practical and engaging science lessons and activities.

Discussion: Although the teacher participants perceived the activities positively, challenges persist in the sustainability of some activities due to limited access to necessary materials. However, it is possible that in the future, students who will be involved in such activities may identify unique and novel ways to approach water sanitation and hygiene issues in ways that are nevertheless experiential, but more feasible in their communities.

Conclusion: Despite resource constraints, the Tanzanian curriculum could be enhanced through the incorporation of more hands-on activities. This may increase both teacher and student motivation and capacity. It may also contribute to improved prospects for students following graduation, as students are better poised to take local leadership positions around science innovation, social entrepreneurship to sustain learning.

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Education and the health of the First Nations people of Canada

Rationale: The social determinants of health are those social and economic conditions in which people live that affect their health. As a social determinant, education has been shown to be a robust predictor of health outcomes. In the global and public health literature, 'education' is often used as a global construct with the implicit assumption that all forms of education are beneficial. However, this acontextual approach has serious limitations with respect to the First Nations people of Canada, where there has been a destructive legacy of colonialism and forced assimilation in the form of residential schooling.

Objective: The purpose of this study is to examine the complexities of the relationship of education and health of the First Nations people.

Methods: The existing literature was reviewed on education as a social determinant of health and the historic and contemporary relationship of schooling, education and health in the First Nations people, particularly in mental health.

Results: The literature reviewed demonstrated that historically and currently, First Nations people experience significant differences in health and socio-economic indicators ' including educational attainment. The destructive legacy of the residential schools underscores how education can lead to profound disenfranchisement, socio-cultural and health degradation. Furthermore, attempts at reforming the current system have been challenged by a lack of clear jurisdiction, a lack of knowledge, and divergent paradigms within First Nations' communities and federal and provincial governing bodies.

Discussion: The complex relationship of education to First Nations' health needs a multipronged approach at the population health policy perspective as well as the government and local community level. For education to act as a positive social determinant of health, it must empower and enable individuals to access its health-related benefits. Therefore, First Nations' educational policies must redress the intergenerational trauma of the residential schools and re-establish the notion of education and schooling as healing and empowering.

Conclusion: We advocate a more critical and nuanced approach that includes considerations of history, hegemony, and socio-cultural context as being crucial for appropriate First Nations' education and health policies. These are manifested in three specific recommendations based on the literature: a comprehensive national database of First Nations' health and education, targeted research to identify empowering education solutions for First Nations people, and a more explicit acknowledgement of education as a social determinant of health at the policy level.

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Building global capacity in vector-borne disease research

Rationale: Global malaria control is at a critical point with ongoing efforts to scale-up interventions and eliminate malaria transmission in endemic regions. With emerging insecticide resistance and shifting transmission patterns, malaria vector control efforts will require improved entomological surveillance and innovative approaches. In addition to global malaria control efforts, mosquito-borne viruses such as dengue and chikungunya are spreading to new regions via international travel and trade. These diseases may be further affected by climate change, highlighting the need for global capacity to detect and respond to emerging and re-emerging vector-borne diseases.

Objective: Research partnerships in global health provide a strong platform for capacity building in vector-borne diseases, particularly through applied research projects that incorporate specific capacity building elements. Students and trainees engaged in these projects gain practical training in basic science skills in both public health entomology and epidemiology, generating a cadre of multidisciplinary researchers who can ultimately improve public health capacity in their countries. Recognizing the need for formal training programs and research opportunities for trainees - both in low-and-middle income countries and in Canada - a model of capacity building through vector-borne disease research is proposed.

Methods: Three key elements of capacity building in vector-borne disease research have been developed and refined through collaborative global health research projects. These capacity building elements include: (1) field methods for entomological and epidemiological surveillance, (2) laboratory methods to identifying markers of disease transmission and drug/insecticide resistance, and (3) analytic approaches to map and model disease risk. Examples of research projects in sub-Saharan Africa and Latin America will be given to demonstrate each element, and the roles of Canadian and endemic-country researchers in capacity building for vector-borne disease research will be discussed.

Results and Discussion: Vector-borne disease research requires a multidisciplinary and cross-sectoral approach building on the tenets of epidemiology, medical entomology and public health. By addressing the three key elements of capacity building in vector-borne disease research, we can enhance the capacity of global public health systems to detect and respond to emerging and re-emerging vector-borne disease.

Conclusion: There is an urgent need for capacity building in vector-borne disease research to sustain global malaria control efforts and respond to new emerging vector-borne disease risks. Universities, in conjunction with public health agencies and other sectors, have an important role in capacity building through global health education and training.

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Assessing community health worker team performance in Bushenyi District, Uganda: evidence for strengthening supervision and health system linkages

Rationale: Scaling up and operating effective community health worker (CHW) systems is complex. However, there is a lack of evidence on factors that affect performance, as well as a lack of tools for analyzing system performance.

Objective: To determine which program factors are most-highly associated with CHW performance.

Methods: Between 2012-2014 a Canadian-Ugandan university partnership (Healthy Child Uganda), collaborated with Bushenyi District in southwest Uganda to implement and evaluate maternal newborn and child health-programming which included training and support for ~1700 volunteer, health promotion-focused CHWs. CHWs were divided into 64 units based on geography and assigned supervisors.

Two years after initial training, CHW units were ranked as high, medium or low performing following pre-determined criteria set by project-based field officers. CHW units were selected for study participation via stratified, random sampling. Individuals from selected units were then randomly selected for focus group discussions. Semi-structured focus groups sought CHW experiences and perspectives on 7 pre-identified 'CHW effectiveness' components identified in a literature review and past HCU-program experience. Content analysis involved organizing transcripts into the 7 main component categories, and assigning ratings to each system component per CHW unit, based on an analyst-designed ranking scale for each component.

Results: Based on data from the 8 focus groups (4 high/medium; 4 low performance), 'supervision', 'linkage to health centre', and 'peer support' rated lowest of the 7 system components across all CHW units. 'Supervision' and 'linkage to health centre' were most highly-correlated with CHW unit performance ranking. Negative themes identified by CHWs included absentee supervisors, referral system challenges, and low engagement and lack of respect by health workers. Absentee supervisors were more common where the supervisors were located at higher-level health facilities serving town populations. Positive themes noted by CHWs related to supportive supervision included increased confidence in skills, CHW cohesion, effective referral systems, and community credibility.

Discussion: "Supportive supervision" and "linkage to health centre" are critical performance-related factors which policymakers and program implementers should integrate and evaluate during CHW program development and maintenance. This study demonstrates the role of a systems framework in the assessment of CHW system performance.

Conclusion: Applying systems frameworks, such as the one used in this study, could help programme implementers better assess CHW system performance and identify gaps in order to improve effectiveness.

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Using Market-Based Strategies to Advance Health, Equity and Well Being in Bangladesh

Rationale: Market-based approaches such as microfinance and social business development have been broadly applied in developing nations to combat poverty and advance social equity and positive health outcomes for disadvantaged populations. These initiatives, though controversial, have provided a means for reducing social marginalization, and improving access to health and community services. Despite their application to select populations, in particular women, such strategies have not been systematically applied to disabled populations in Bangladesh.

Objectives: 1. To develop locally relevant and empowering employment opportunities for people with disabilities using participatory methods, 2. To develop the agency and leadership of people with disabilities 3. To assess the impact of market-based employment generation on health, equity and well being.

Methods: This study used participatory methods to develop locally relevant, market-based livelihoods opportunities for people with disabilities. Local participants in Bangladesh were identified through a national organization focused largely on providing rehabilitation services, engaging peer leaders in the process, organizing dialogue among people with disabilities related to livelihood issues and economic participation, and strategically developing partnerships with stakeholders committed to poverty reduction in the country.

Results: To date the project has resulted in the development of an infrastructure that supports the ongoing interest and investment of people with disabilities in addressing their livelihood concerns. Efforts to engage key partnerships with stakeholders in poverty reduction have been mixed due to the socio-political context. Key in advancing this project has been the input and support of a major micro-finance organization. Workshops with people with disabilities have identified possible business options and principles for development have been created.

Discussion: Multiple challenges exist relative to moving this project forward in relation to the political, cultural, and social context; however there are multiple possibilities that can be navigated through partnerships with local structures and stakeholders.

Conclusion: Community economic development focused on the needs and strengths of people with disabilities provides a means to improving their community health, well-being and participation. Engaging the participation of multiple stakeholders and resources can leverage multiple opportunities, and becomes a model for driving change in the lives of those who live in poverty in low resource countries.

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Addressing gender to improve maternal and child health: A multi-pronged approach in India

Rationale: Women face many barriers to accessing essential health services during pregnancy and child birth. To reduce these barriers, it is important to address the social underpinnings that contribute to poor maternal and child health (MCH).

Objective: The overall project goal was to improve utilization of essential health services in Pakur district of India. Cross-cutting gender objectives were to: (1) Strengthen service provider capacity to deliver gender-sensitive programs and services; (2) Engage men and mothers-in-law in MCH education; (3) Increase shared decision making at the household level about MCH.

Methods: Three integrated strategies were used: (1) Capacity Building of the local partner organization (EFICOR), community health workers (CHWs), village health committees and government personnel; (2) Behaviour Change Communication (BCC) through street theatre, print and media materials and community groups; and (3) Home counselling by CHWs. Changes in capacity, attitudes and behaviours were measured through a household survey, focus groups, and key informant interviews.

Results: EFICOR and CHWs had increased knowledge of gender concepts and local gender concerns. CHWs started to jointly counsel women, their husbands and mothers-in-law, and enhanced gender awareness was observed amongst government personnel. Increased inter-spousal communication about MCH was reported by women (from 88% to 95%; $p < 0.01$) and increased shared decision making was reported by both women (from 84% to 95%; $p < 0.05$) and men (from 82% to 89%; $p < 0.05$). Qualitative findings indicated a greater acceptance of shared decision making amongst women and men, and both reported that the health information booklet they received facilitated discussions about MCH. Access to maternal health services increased significantly ($p < 0.001$) for ante-natal checkups (from 29% to 52%), skilled birth care (from 30% to 71%) and post-partum care (from 45 to 67%).

Discussion: Findings show an enhanced awareness of the importance of shared decision making about MCH. The extent of actual shared decision making is difficult to discern due to the possibility of respondents' bias to give the 'right' answer. However, the outcome of decisions has shifted in the right direction, as more women utilized maternal health care.

Conclusion: The project laid the foundation for reducing gender-related barriers at the service provider and household levels. To sustain changes, gender training should be institutionalized into training programs for CHWs and government personnel, and BCC continued. Providing both men and women with health information may be an effective tool to encourage discussion and shared decision making about MCH at the household level.

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Building capacity to improve and sustain maternal child health outcomes in East Africa

Knowledge is not enough, we must apply. Willing is not enough, we must do. (Goethe).

Rationale: Too often in Africa, new health knowledge is not implemented in the community because proposed changes do not fit local context/culture, lack local champions, or lack resources etc. Daily health care demands often take precedence over change. In 2000, 189 countries promised to help citizens in world's poorest countries achieve a better life by the year 2015. These promises became the Millennium Development Goals (MDGs) and lead to increased funding from donor countries for programs to reduce poverty, improve maternal, newborn and child health. In June 2013, Ban Ki-moon, called the MDGs 'the most successful global anti-poverty push in history' In Sub-Saharan Africa, while significant progress has been made on many of the MDGs, there has been only modest success in reducing by 2/3 mortality under 5 yr mortality (MDG4) with less progress on reducing by 3/4 maternal mortality and achieving universal access to reproductive health (MDG5). Major barriers in East Africa include lack of trained health care workers, poor health worker retention; limited facilities, supplies, resources and access; limitations in health care system models, inappropriate, ineffective or limited translation of knowledge to clinical and preventive settings. The presentation will highlight several strategies used to address maternal child health problems, with examples from regions in three East African countries: 1) enhancing health care worker capacity at multiple levels, 2) growing community focused research capacity to find local solutions to local problems, 3) supporting a culture of inquiry with focus on local quality improvement. The examples illustrate principles for sustained success including the importance of partnership, community engagement and local leadership.

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Worse than HIV: an ethnography of cervical screening in Swaziland

Cervical screening saves lives. Population level cervical screening programs have contributed to the marked decrease in cervical cancer related deaths in most developed countries. Globally, however, there are inequalities between health systems in the provision and use of cervical screening services. In Swaziland, a country with one of the world's highest HIV/AIDS prevalence rates, the number of women dying from cervical cancer is on the rise. Free cervical screening services are available at major public hospitals and private clinics across the country. Yet, cervical screening use remains low. Within the epidemiological literature on cervical cancer in Africa, there is a tendency to blame this trend on cultural resistance to cervical screening. Critical of the culture-blame narrative, this research project sought to understand why cervical screening use is suboptimal in Swaziland, despite ongoing efforts to encourage cervical screening attendance. The specific objective was to examine how cervical cancer screening and treatment protocols influence women's decisions about cervical screening use. Over the course of three months of fieldwork in Swaziland, in-depth ethnographic interviews were conducted with 20 women, as well as 10 health workers involved in cervical cancer care and screening at a local government hospital. Interviews were audio recorded, transcribed and thematically coded and analyzed. Results of this qualitative ethnographic study indicate that decisions about cervical screening use are influenced by cancer treatment scarcity, expense, therapeutic failure and grief. Women and health workers alike describe cancer as worse than HIV, drawing comparisons between HIV's past and cancer's present. HIV/AIDS occupies a lot of clinical space in Swaziland, and consumes a large share of local and international funding for health. Cervical cancer, however, lacks this global solidarity. These differences result from unequal arrangements of organizations, practices, money and institutions around HIV/AIDS and cervical cancer. Thus, fear and avoidance of cervical screening in Swaziland are the result of political, clinical and economic arrangements, rather than cultural resistance. This paper contributes to scholarly critiques of the ways in which political and human choices within global health programming can create inequalities of time and space between diseases. It concludes with recommendations for bridging the equity gap.

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Global Health Me: Mentorship in Global Health

1. Rationale

As a student and young professional (SYP) interested in global health (GH), it is not easy to find the job opportunities on entry level from the field of interest in the multi-faceted maze. As a senior colleague in GH it is challenging to find motivated young colleagues to join or continue long-term projects and interventions in the continuously changing and developing GH landscape. Mentorship provides a solution to match these gaps in needs and resources.

2. Objective

- Learn new innovative approaches to Global Health problem
- Share ideas and opinions about Global Health
- Share own challenges and experiences in project work in Global Health
- Incorporate the culture of collaboration in Global Health
- Learn new ways to boost GH career
- Share successful tips how to produce productive interaction
- Share knowledge about projects, placements, activities, meetings, conferences and seminars
- Share knowledge about research methods, tools and opportunities
- Incorporate the culture of networking and leadership
- Share knowledge about different communication and IT tools

3. Methods

Mentors and SYPs were recruited globally via the Global Health Next Generation Network (GH NGN) and Swedish Network for International Health (SNIH) communication platforms. The first pilot period will take place between August until December 2015. A group of SYPs will be assigned to a mentor. Meetings will take place on a monthly basis. Monitoring and evaluation will be carried out through pre-, midterm and post-assessment forms.

4. Results

As of now, the project team could identify a strong interest towards the pilot project. The project accounts for nine mentor applications and 39 SYPs by 22nd of May 2015.

5. Discussion

Group based mentorship is an excellent tool and platform for future and established GH professionals to engage and broaden each other's knowledge and ideas. Increasing GH challenges need GH oriented solutions and this programme aims to provide a platform for collaboration in all levels of the health sector and beyond.

6. Conclusion

We will raise awareness towards the mentorship concept and its advantages in GH to connect different generations, specialists from different health professional fields and across different countries and regions. Group based mentorship provides forum for both professional and personal growth through networking and interactive discussion with peers and between junior / senior colleagues

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Learning problems among children of refugee background: a systematic scoping review

Rationale: Learning problems are common, affecting up to one in ten children, occurring within the dynamic, multidimensional context of family, school, community and broader sociocultural environment. Refugee children have, by definition, experienced forced migration, and multiple transitions, and ongoing socioeconomic and cultural challenges that may have cumulative risk factors for learning problems and educational disadvantage.

Objective: To review the prevalence and major determinants of learning problems in resettled refugee children and available evidence on their educational outcomes.

Methods: A scoping review using Arksey and O'Malley's framework for scoping studies was employed (a systematic search, selection, extraction, analysis and reporting strategy) to identify the prevalence, major determinants of learning problems and educational achievement in resettled refugee children. Relevant studies were identified from searches of MEDLINE, EMBASE, PubMed, CINAHL PsycInfo, and ERIC. Inclusion criteria were peer-reviewed articles in English addressing the prevalence and/or determinants of learning problems in refugee children. Two independent authors conducted abstract and full text article review. The data was extracted systematically and analysed using Arksey and O'Malley's descriptive analytical method for scoping studies.

Results: A total of 2002 studies were identified and 28 studies met the inclusion criteria to be included in the review. No information was available on the prevalence of specific learning issues, language disorders, or autism spectrum disorders. Included studies found refugee children to possess significant 'resource' factors that promote learning success and had similar academic outcomes compared to their native-born peers. Prevalence data were limited, with single studies informing most of the reported estimates. Eight studies examined the impact of trauma on learning identifying mental health issues, personal risk behaviours and lower school performance as key risk factors. Key resource factors were strong family ties, absence of racial discrimination, and school safety.

Discussion: This review provides prevalence estimates for learning problems in refugee-background populations, and highlights key 'risk' and 'resource' factors. This can guide clinicians (and educators) to better identify learning strengths and challenges, and support children to achieve success ' and provide direction for future research.

Conclusion: There is a large body of literature on learning problems in refugee population however published data on educational outcomes and learning problems in this population is limited. Further research is needed to better define the prevalence of learning problems among children of refugee background and map out the learning progress longitudinally in order to inform interventions and policy makers to support these children in optimizing their potential.

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Capital social et accès aux soins de santé maternelle à l'extrême-nord du Cameroun

Après la baisse des salaires des fonctionnaires en 1994, le système de santé camerounais a connu un basculement qui a transformé les formations sanitaires en des espaces où prospèrent la manducation, la corruption, le clientélisme et le favoritisme. Fort de cette expansion d'antivaleurs dans un cadre où l'on est censé soulager ses peines, le capital social s'est positionné comme un important déterminant de l'accès aux soins. A l'Extrême-Nord du Cameroun, cette forme du capital, généralement mesurée par les relations, la position sociale et l'appartenance aux réseaux collectifs, favorise l'accès aux soins pré et postnatals des femmes socialement privilégiées et en limite chez les anonymes. Dans la littérature, cette interrelation entre le capital social et la santé maternelle a abondamment été explorée ; mais jamais une telle étude n'a été faite dans le contexte sanitaire de l'Extrême-Nord où les femmes continuent, jusqu'ici, de parcourir, à pied ou à dos d'âne, des dizaines de kilomètres pour desservir une formation sanitaire. A cet effet, la présente étude s'est donnée pour objectif de documenter et de porter à l'attention des responsables nationaux et internationaux du biopouvoir, les déboires médicaux des femmes-mères de cette région dépourvues des relations socialement utiles.

Pour y parvenir, nous avons mobilisé, outre la littérature scientifique, une approche mixte (quantitative et qualitative) pour récolter les matériaux. Et de cette enquête, il est ressorti qu'à l'Extrême-Nord, les femmes consultent et suivent prioritairement leurs soins pré et postnatals dans les formations sanitaires où elles ont des liens sociaux directs ou indirects. Ainsi, elles y sont reçues, consultées et traitées avec diligence et humanisme. Par contre, les anonymes, c'est-à-dire celles qui n'ont pas ce soutien social, attendent des longues heures et retournent parfois chez elles sans être reçues. Celles qui, après insistance, accèdent finalement aux soignants sont verbalement agressées, insultées et traitées dans une totale désinvolture. Pour contourner cette médecine dyssymétrique, ces anonymes qui constituent pourtant la majorité à l'Extrême-Nord, se contentent des thérapies de proximité ou des soins délivrés par des accoucheuses traditionnelles. Au-delà de fournir aux décideurs une base des données dont l'exploitation peut aboutir à une réorientation des politiques sanitaires au Cameroun, ce corpus empirique rend compte d'une réalité qui prédispose l'Extrême-Nord à une forte mortalité maternelle et éloigne davantage le pays de l'Objectif du Millénaire pour le Développement 5.

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Promoting community participation in health system governance: Lessons from working with structures for community participation in rural Uganda and urban Cape Town

Rationale: Community participation and the notion of health as a right have both long been recognized as key elements of the Primary Health Care approach. More recently, attention has focused on elements of health system governance that enable greater responsiveness to community needs. However, there is relatively little research linking human rights approaches to governance in ways that recognizes participation as a critical element to health systems. This study explored the hypothesis that building stakeholder capacity to participate in health care and in services that determine health using a rights-based approach, in the context of interventions to enhance service responsiveness, will address inequities in health, promote stronger and more sustainable governance systems for health and give voice to the most marginalized people in low-income settings.

Methods: This project was anchored in a human-rights based approach to health. In both settings, interventions related to capacity building around human rights and community participation, advocacy, networking, sharing of experiences and testing systems for participatory action were applied to the local context. This paper describes the interventions undertaken and the findings from a mixed methods evaluation, including a range of qualitative and quantitative methods to determine the experiences of Health Committees (HC) members, providers and key informants in the health services.

Findings: Where HCs are well supported, trained and recognized by the health system, they can be effective advocacy bodies that can play a critical role in lobbying for solutions to challenges facing health centers. Incorporating human rights and responsibilities in their orientation adds value, as this will enable viewing health care as an entitlement rather than a favor, and acting on their responsibility to claim the right to health. However, implementing effective community participation structures requires attention to many issues of democratic governance and the capacity of the health system to engage issues of power. Our work contributes to growing evidence that HCs have the potential to play a critical role in bridging the gap between the communities and health facilities, and in making services responsive to community needs. However, this role requires streamlining membership and representativeness of this key structure and providing the necessary resources and empowerment. Rights based approaches are key in building the capacities of HUMCs and ensuring that providers are not threatened and hostile to community participation.

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Political pragmatism and empiric evidence: a conundrum for maternal health services in Pakistan

Rationale:

A key challenge in global health today is the incongruity between 'project success' invariably reported at the individual program level and the lack of any systematic effect of these programs in advancing population health. This 'micro-macro paradox' has been attributed to inadequate assessment practices, an international aid architecture overemphasizing processes while failing to consider societal impacts, and the use of aid as a political instrument. The present paper contributes to this literature by demonstrating how prior poor governance in recipient countries lays the groundwork for program failure and how aid agencies deliberately disregard evidence of this in the interest of 'not rocking the boat'.

The story:

To strengthen Pakistan's poorly functioning Community Midwife program (CMW), an international NGO provided government CMWs with microloans to establish financially sustainable private-practises. Funded by USAID, an operations research was embedded within the initiative to assess: 1) whether these microloans enabled CMWs to become financially sustainable, effective maternity care providers; 2) improved coverage of maternal care services; and 3) whether increased uptake of CMW care could be attributed to the intervention.

As part of the quasi-experimental study, a baseline survey was conducted to assess coverage of maternal/newborn care in the catchment areas of randomly selected intervention and control CMWs. A total of 1,521 women were interviewed using a pre-tested MCHIP questionnaire. Results showed that over 80% of respondents reported skilled birth attendance, a surprise finding for this context. Mapping revealed 51 of 52 sampled government CMWs were located in high provider density, urban areas of Quetta and Gwader cities.

The implementing agency was advised to reassess the intervention's design, as CMWs' urban location placed them in futile market competition with a range of government teaching hospitals, military and private sector physicians. The stated objective of providing maternity care to needy rural women will also not be achieved through urban-based CMWs. The latter is the result of nepotistic recruitment practises. The implementing agency (with USAID agreement) responded by terminating the operations research.

Discussion:

Poor governance in Baluchistan laid the groundwork for potential failure of this program. Instead of addressing the issue, the implementers and funders chose to discard the politically inexpedient evidence. While it can be argued that this was a pragmatic approach in the interest of maintaining local policymaker engagement, it does a disservice to both tax'payers in developed countries and poor recipients in whose name the aid industry operates.

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Have PMTCT programmes strengthened health services and health systems in sub-Saharan Africa?

Background: The scale-up of PMTCT services have contributed to a 52% decline in new HIV infections among children between 2001 and 2012. However, the epidemic still continues to challenge the maternal and paediatric HIV control efforts in Sub Saharan Africa (SSA) and this has repercussions on other health care services beyond those directly addressing HIV and AIDS and supported and vertically funded by the AIDS industry. This scoping review sought empirical evidence to assess: (1) the effects of PMTCT on health care services and systems in SSA (2) the extent to which actual integration of PMTCT within broader programs and health systems has occurred, (3) whether health systems as whole have been strengthened or weakened. Our overall objective was to assess the impact of PMTCT programs on health services and systems.

Methods: Articles describing the effect of PMTCT programs on healthcare services and those assessing its integration in health systems in SSA were sought through searches of the following seven electronic databases: PubMed, Medline, EMBASE, African Journals Online, Evidence Based Medicine Reviews, Google Scholar, and Cairn for the period dating from 1st January 2007 (the year of publication of guidelines on global scale-up of the PMTCT by WHO in partnership with other institutions) to 31 March 2015. Our search was restricted to articles published in English and French.

Results: We selected 21 peer reviewed published articles from 2007 to 2015 among 86 potentially relevant articles in seven databases. Seven out of 21 articles directly identified the impact (positive and negative effects) of PMTCT on other health care services as a major theme in their titles or discussion. The majority of selected articles offered plausible arguments and some evidence of beneficial synergies between PMTCT programs and other health services especially maternal health care, STI prevention and early childhood immunization. Synergies between PMTCT and other health care service are suggested in twelve studies. However, the empirical evidence for specific impacts of PMTCT or of full integration in health systems is scarce.

Conclusions: PMTCT services increase the utilization of antenatal care. Well-funded and essentially vertical PMTCT programs work, and can have beneficial synergies, but we do not have much large-scale evidence of this and very little evidence of locally funded and managed programs having this effect. This shows the need for more research on PMTCT programs, impact on and integration in other health care services and on health systems as a whole.

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Practicalities and possibilities of a simple text messaging-based infectious disease surveillance in Vietnam

Rationale: Similar to many developing countries where ICT infrastructure is not widely available, Vietnam's HMIS is based on a multitude of paper tools. As a result, disease surveillance data is slowly paper-based collected through five government tiers. Meanwhile, cell phone ownership and use in Vietnam is one of the highest per capita in the world, and is known to be a useful tool in delivering healthcare worldwide. Therefore there is the great potential for the development of a timely disease surveillance system through the use of mobile phone SMS.

Objectives: To study the barriers and challenges in the process, packaging and transmission of text messaging; and to provide lessons learned from a pilot of applying SMS technology to undertake infectious disease surveillance in Vietnam.

Methods: An SMS-based disease tracking system was set up to collect data from patient reports texted by clinic staff. Two six-month trials with different health information message compositions were designed and implemented in two provinces of Vietnam to report two commonly seen diseases: diarrhoea and influenza-like illness. Participating health staff completed a questionnaire at the end of the second pilot period. Statistical analysis was performed using Stata software.

Results: Basic knowledge about components of the SMS structure plays an important role in efficiency of texting reports. A strong correlation between those people who have thorough grasp of this knowledge and the time spent sending information is found. There was no significant difference seen between male and female participants in time spent for sending an SMS. Interestingly, participants who lived in healthcare underserved areas seemed to be more interested and motivated in the use of health care technology. The majority felt that information conveyed in the message was not difficult to understand. Most believed that they could report all 28 infectious diseases asked for by the MOH. This work was also strongly influenced by the number of reported disease cases per message and the delimiter used in the message.

Discussion: Despite being a new reporting system involving modern technology, the SMS-based disease surveillance received positive feedback from participants. In addition to its perceptions by users and feasibility, the project provided valuable learning lessons, including the importance of well-prepared training and technical areas.

Conclusion: An SMS-based surveillance system is a cheap, easy to use and feasible way to improve the surveillance of infectious diseases in Vietnam.

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A gender perspective on Ebola virus using a population health risk assessment framework

Rationale: After three decades of Ebola virus existence, there is still no licensed treatment even with its consistent mode of transmission and high fatality rates. This study seeks to understand the underlying risk factors that contribute to high fatality rates amongst women. Taken into consideration its incubation period of 2-21 days, and the symptomatology of the virus which is similar to some tropical diseases.

Objective: To analyse how socially constructed gender roles affect the level of exposure and risk of contaminating Ebola virus in the African context

Method: A literature review on relevant articles published on Ebola since 1976 with follow-up updates gathered from information in the media and relevant websites and reports. A telephone interview was also conducted in Liberia. Followed by categorization of the risk factors using a population health risk assessment framework into, environmental, occupational, social and behavioral perspective.

Result: The framework highlights consistent predominant gender associated risk factors in both previous and current outbreaks. Women in the current outbreak already accounted for over 55% of the death tolls and this is mirrored in the previous outbreaks. The 1976 outbreak in Democratic Republic of Congo, death toll of women was 56% and Men 44%, and the nosocomial outbreak of 1995 reported 315 cases of which 166 were female and 149 men and this has been relatively consistent in all outbreaks. Most known index cases have been traced consistently from hunting of “bush meat”, which is an activity that is culturally associated to men.

Discussion: Women in Africa are important economic drivers and their health is critical to long-term, sustainable economic development especially as most women are involved in cross border trading. Most importantly in rural areas where majority of small holder farmers are women, food production could be greatly affected. The daily activity of women increases their level of exposure and risk of contaminating Ebola virus. Like wise men, in the process of hunting of “bush meat”, an activity that is recognised as a source of protein and /or household income but also has strong cultural significance.

Conclusion: Most often the African woman is seen as the “unspoken backbone” of the family. She is the primary caregiver, and the go to, during illness. Ebola is a disease with high degree of transmission through behavior, lifestyle and practices. Therefore, it must be effectively communicated especially to those at risk, in order to promote healthy practices and behaviors to minimize the risk and spread of the disease. Emphasis place on women’s education, proper training and empowerment in understanding the disease and appropriate management approaches, before, during and after an outbreak. As the process of possible containment of the disease unfolds, and the development of preventive vaccination continues, it is important that women are given much consideration and attention. Thus, the importance of incorporating gender in designing health programs within specific context.

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Education impact of pain assessment and palliative care of community health workers at community level increased human resource capacity in home-based care integrated in Gasabo district hospital model of care in Rwanda public health system.

Rationale: 21 years after the genocide against Tutsi, Rwanda has made remarkable steps towards recovery by rebuilding health sector. Despite the tremendous improvements in vertical and horizontal approach, Human Resource for Health is still a challenge to cover the Rwandan population need. This work focused to demonstrate the gap of health providers in the community where most of patients are located in Rwanda and how an education program in Pain assessment& Palliative care to Community health workers could fill the gap. A task shifting at community level in Palliative will improve the quality of life of patients with life-limiting illness.

Objective:

-To demonstrate the capacity of community health workers to be an important human resource for health especially in Palliative care & Pain assessment in Low and Middle income countries.

-To demonstrate the role of community health workers for continuum care at the community level in palliative care program for patients into public healthcare systems in Africa

Methods: We initiated 1 day training in Pain assessment & Palliative Care among 'Community health workers' one/per village identified by the coordinator of CHWs at District level. Their role is to be the 'Eyes & Ears' of physician at the community.

Results: 481 Community health workers have been trained, 76% of patients agreed to be discharged from hospital to home and Anecdotal data indicates a high level of satisfaction by patients and family members with palliative care assisted at community level and a reduced stress of continuum care.

Discussion: Most of Patients diagnosed with life-limiting illness agreed to be discharged at home for continuum care since after the training of community health workers happened. Community health workers demonstrated a strong commitment to help patients& families in the community and reduce the flow of patients to district hospital.

Conclusion: Community Health Workers are a huge source of human resource in health especially in Low and Middle-Income countries. To assure the sustainability of palliative care services, they should be fully integrated into the public health system and should not depend on ongoing foreign financial support. It is feasible to integrate palliative care for patients at community level into public healthcare systems in Africa using Community health workers.

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Les normes pratiques des personnel de santé au Niger (et au-delà) : une base de connaissances, des repères pour l'action

Justification

Les comportements routiniers des personnels de santé sont souvent éloignés des normes officielles, en particulier en Afrique. Mais ils sont néanmoins régulés informellement par ce que nous appelons les « normes pratiques ». L'échec de nombreuses politiques de santé dans les pays à faibles revenus s'explique en partie en raison de leur « détournement » ou de leur « absorption » par les normes pratiques existantes. Néanmoins, le plus souvent, les réformes consistent à introduire à grands frais de nouvelles normes professionnelles en ignorant les normes pratiques. Une voie alternative serait la promotion de réformes partant des normes pratiques.

Objectif(s)

Il s'agit de décrire les normes pratiques dominantes au sein des personnels de santé de premier niveau au Niger (infirmier(e)s et sages-femmes), leurs conséquences négatives (mais parfois positives) sur la qualité des soins, et comment certaines innovations locales prennent place au niveau des normes pratiques. Au-delà, comment peut-on s'inspirer de ces innovations pour des réformes du système de santé lui-même ?

Méthodes

Ce travail est basé sur quinze années de recherches collectives menées par une équipe nigérienne, travaillant avec des méthodes qualitatives de type anthropologique (observations prolongées, entretiens libres dans les langues locales, études de cas, approche par groupes stratégiques, triangulation, saturation) dans une trentaine de sites urbains et ruraux à travers le Niger.

Résultats

Une typologie des normes pratiques les plus fréquentes a été établie : normes pratiques adaptatives, quasi tolérées, transgressives, palliatives et rebelles. Concernant plus particulièrement les sages-femmes, une nouvelle définition de leur culture professionnelle a été proposée, comme étant la résultante des normes professionnelles, des normes pratiques et du contexte de travail. Les comportements quotidiens des personnels de santé se déploient dans l'espace entre normes professionnelles et normes pratiques.

Discussion

Le concept de normes pratiques permet de documenter un champ de recherches empiriques nouveau, tout en laissant ouvert l'éventail des interprétations possibles (origine de ces normes, légitimations, contestations, marges de manœuvre). Il permet aussi de fournir une base de dialogue innovante avec des responsables réformateurs au sein du système de santé : sur quelles normes pratiques faut-il agir ; lesquelles faut-il modifier ; avec lesquelles doit-on composer ?

Conclusion

Les normes pratiques sont un concept exploratoire et « agency-friendly », qui peut fournir une base pour des réformes internes des systèmes de santé dans les pays africains qui soient à la fois « ancrées dans les réalités » et à faibles coûts.

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Applying Lessons on e-health from the Nigerian Ebola outbreak to a public health emergency

1. Rationale: Application of lessons from mhealth deployment during Ebola crisis directly relevant to other public health emergency situations.
2. Objective: We sought to apply our Ebola experience to an outbreak of a 'mysterious illness' in Ondo State, Nigeria.
3. Methods: Working with WHO and State Ministry of Health Epidemiologists we developed a comprehensive list of questions to be used to gather field epidemiological data. Our team created digital versions of the questionnaire and 'pushed' it to tablet computers we had already deployed in the field for this purpose. Records staff were trained on electronic data collection; they captured the data and uploaded it to our servers via available wireless networks; InStrat staff analyzed the data in real time; and isolated Acute Methanol Poisoning as cause 36 hours after being called in to assist with the surveillance.
4. Results: Process accurately identified Acute Methanol poisoning as the cause of the outbreak. Based on the timely diagnoses, State law enforcement was deployed to shut down selling of locally brewed gin in the contaminated area preventing further spread of the outbreak. Toxicology analyses on victims later confirmed Methanol Poisoning as the cause of death in the deceased.
5. Discussion: Our pilot study on the effectiveness of an mHealth intervention in improving knowledge and attitude of primary health workers in Ondo State to Ebola Virus Disease in Nigeria, demonstrated its effectiveness as a tool to rapidly built worker capacity during emergencies. The learnings from this pilot enabled us to rapidly develop an effective electronic surveillance mechanism that allowed us to accurately isolate and identify the cause of a recent 'mysterious disease' outbreak within 36 hours. Leveraging our tools, we identified acute methanol poisoning as the cause of the public health emergency resulting in 29 deaths or 74.4% affected patients. This mechanism also provided the Government with accurate information that enabled effective action to prevent further sale of the contaminated gin; address the medical situation of survivors; develop accurate public health messaging and material for health workers and the public; and quickly stop the rumor machine suggesting witchcraft, ebola or other erroneous reasons as the cause of the health emergency. By these actions, more lives were saved and confidence of the public in the State's Health System was quickly restored.
6. Conclusion: Leveraging e-health tools in a locally appropriate manner could be a critical component of tools used to contain public health emergencies.

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Implementation, outcomes and associated costs of a community-based intervention for hypertension management in an urban slum in Kenya

Rationale: Cardiovascular diseases (CVD) are the leading cause of death globally and 80% of deaths from CVD occur in developing countries such as Kenya. Hypertension is the number one risk factor for CVD, and its prevalence is increasing worldwide - from over 25% in 2000 to a projected 40% in 2025. Specifically, there is emerging evidence that the burden of hypertension and associated cardiovascular diseases are on the rise in urban slums where resides more than half the urban population in the developing world.

Objectives: This paper aims to describe an 18 month (August 2012 to January 2014) multi-component community-based intervention aiming to control hypertension among adults aged 35 years and older in a large slum in Nairobi, Kenya. The intervention comprised awareness campaigns, household screening, referral and standardized treatment of people with hypertension at a local primary health clinic within the slum.

Methods: We describe the implementation processes and outcomes of each intervention component, using multiple sources of data including administrative records and representative surveys. We also estimated the costs associated with the intervention using a top-down costing approach and presented in US\$2013 per unit outcome.

Results: The intervention reached 60% of the target population (4,049 people at US\$17 per person screened), provided access to treatment for 68% of persons referred (660 people at US\$123 per person with hypertension who attended the clinic), retained in care 27% of those recruited to the clinics (178 patients at US\$194 per person who retained in care), and achieved blood pressure control among 33% of those retained in care (n=58/178). The total intervention cost per patient with blood pressure controlled was US\$3,205.

Discussion: This study showed that with a comprehensive community-based intervention it was possible to achieve awareness and treatment rates for hypertension comparable to high-income countries. More so, the costs of the intervention were also comparable to existing community-based health interventions in Kenya such as the provision of free antiretroviral therapy for all HIV positive mothers - the so called Option B+. This is a great accomplishment especially in unstable populations such as the slum context where annual migration rates alone could get up to 30%. However, retention in care and control rates in our population remains sub-optimal.

Conclusions: Overall, we view the implementation of our intervention and the outcomes as highly encouraging and we hope our findings will stimulate further research and interventions on hypertension and CVD risk reduction in often marginalized communities.

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Ebola as an occupational disease: A multi-scalar analysis

Background: The Ebola outbreak currently occurring in West Africa has had devastating effects on workers involved in the Ebola response; healthcare workers (HCWs) caring for those affected by Ebola have suffered the most devastating consequences. As the epidemic is now waning, the current study looks back at the issue of occupational infection of HCWs, and lessons that can be drawn.

Methods: The Global Health Research Program, based at the University of British Columbia, is a World Health Organization (WHO) Collaborating Center in occupational health, and as such, was invited to assist the WHO in Geneva on the Ebola response. Our analysis was thus based on in-person discussions with WHO personnel, as well as review of the literature, including WHO documents and data regarding the 2015 outbreak. We applied a micro-meso-macro analysis to understand the drivers of Ebola as an occupational disease.

Results: HCWs in Liberia, Guinea or Sierra Leone had a risk 21-32 higher of contracting Ebola than the population they served. In Nigeria, 52.6% of Ebola infections were occupationally acquired, and in Spain and the United States, 100% of infections contracted in those countries were occupational. While the greatest occupational risk is infection with the Ebola virus, additional risks such as psychological distress, stigma, violence, fatigue, heat stress, ergonomic problems, and chemical exposures, further plagued HCWs and inhibited the Ebola response. Lack of training was a major micro-level (individual) determinant; deficiencies in all three levels of the infection control hierarchy (administrative, environmental, and personal protective equipment) characterized meso-level (workplace) drivers of transmission; precarious employment, lack of social protection for illness, and inadequate funding of the public sector characterized the macro analysis.

Discussion: Despite the high rate of HCW infection, classifying Ebola as an occupational disease opens the discussion of state laws and workplace responsibility, including workers' compensation and paid sick leave ' topics fraught with controversy due to economic implications. While the priority is strengthening policies, procedures, training, surveillance and equipment for protection of HCWs, we argue that failing to acknowledge Ebola as an occupational disease can undermine protective efforts.

Conclusion: Healthcare workers and other workers in a variety of settings are crucial in preventing and stabilizing such epidemics; protecting their health is therefore vital not only as an obligation to these hard working individuals but to protect the health of populations in these countries and worldwide. Attention to micro, meso and macro drivers of workplace transmission is essential.

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Education for preventing workplace transmission of TB in South Africa: Pilot testing an arts-based approach

Background: South Africa has a high incidence of tuberculosis (TB) and healthcare workers (HCWs) are at high risk. Nonetheless, compliance with infection control and occupational health measures remain problematic. Arts-based techniques use various art forms to both gain insight into issues that may be difficult to elicit with other research designs as well as serving to enhance educational efforts.

This pilot study aimed to determine whether an arts-based intervention is feasible to implement with South African HCWs, as well as effective in shifting beliefs and attitudes that affect their non-compliance with infection control measures including disclosure when developing active TB. A secondary objective was to elicit HCWs' perceptions regarding occupational TB as these emerged within the group setting.

Methods: We developed a 2-hour intervention to engage HCWs in embodied activities. An experienced drama facilitator, trained in Augusto Boal theatrical techniques, led the session. Six sessions took place sequentially with 8-15 participants per session (81 total). Sessions were videotaped. Data included observers' notes, questionnaires using a retrospective post-then-pre design, video transcripts, and follow-up interviews. Data analysis included thematic analysis of the videos and the follow-up interviews with NVivo, triangulated with observers' notes and questionnaire responses.

Results: The intervention was refined after each session, until deemed feasible and effective at addressing the key occupational TB issues identified a priori. During early interventions, participants focused on TB patient care and mask wearing, avoiding other issues pertaining to HCW wellbeing. Some confusion was noted regarding TB, worker protection, and worker rights. Later interventions, with facilitator prompting and content expert input, more directly addressed issues related to TB disclosure and ensured that key messages were well understood at the end of the session. Emergent themes included 'stigma', 'fear of TB', 'denial', and 'support'. Follow-up interviews revealed that the intervention shows potential to sensitize HCWs to occupational TB. Most participants who answered the questionnaire reported finding the session 'enjoyable' (61.7%) and 29.4% rated the session 'extremely enjoyable'. Some talked of having 'renewed awareness' regarding TB, and 'thinking about their own wellbeing as a HCW for the first time'.

Discussion/Conclusion: A mixed approach that combines skilled arts-facilitation with content expertise seems promising -engaging participants, allowing misconceptions to emerge and be addressed, and increasing awareness. This sample was small and follow-up short; next would be a large longitudinal study comparing this method to the traditional educational approach, and testing feasibility to implement such an intervention as part of the education efforts in South Africa to prevent occupational TB.

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Intention of women living with HIV to use self-collection based HPV testing for cervical cancer screening in Uganda

Rationale: Women living with HIV (WHIV) at greater risk for cervical dysplasia compared to HIV negative women. In low to middle-income countries, WHIV bear the greatest burden where limited or no access to screening exists. In order to plan appropriate cervical cancer screening interventions in this group, a better understanding of knowledge and acceptability is needed.

Objective: To describe knowledge, attitudes and behaviour of WHIV towards HPV self-collection for cervical cancer screening, and intention to participate in screening.

Methods: A validated survey was administered to 84 HIV positive women aged 30-69 years attending the Kisenyi Health centre in Kampala, Uganda. Women were engaged in HIV care and were recruited by HIV peer outreach workers. Surveys were translated to the local language and completed in interviews with local research assistants. Descriptive statistics were compiled. Clinical data were abstracted from their clinical charts.

Results: Most (97.6%) WHIV had not heard of HPV or cervical cancer screening, and most (98.8%) did not think they needed to be screened. Almost all WHIV (98.9%) intended to use self collection for screening if available. Most WHIV (95.2%) did not feel embarrassment was an issue, were not afraid of stigma of cervical cancer (97.6%), and were not worried that collection would be painful (82.1%). Almost all WHIV (98.8%) indicated that they would attend the local health unit if the self-collected sample was abnormal.

Discussion: Despite high acceptability of self-collection based HPV testing, knowledge of HPV and cervical cancer remains low among WHIV. Intention to attend self-collection based screening was high in this group, and no barriers to testing were identified in the survey, suggesting this could be a feasible screening tool among these WHIV currently engaged in care.

Conclusion: There is an urgent need for education around HPV and cervical cancer in this WHIV and the development of integrated reproductive health programs for WHIV.

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Kuskaya: an interdisciplinary training program for innovation in global health

Rationale

Globalization has produced a heightened awareness of problems affecting public health that require the expertise and collaboration of multiple disciplines to effectively implement change. Though solving these problems is difficult, formation of cross- and interdisciplinary collaborations between different disciplines can stimulate innovations to reduce the global burden of disease.

Objective

KUSKAYA: An Interdisciplinary Training Program for Innovation in Global Health, is a joint program between the University Peruana Cayetano Heredia (UPCH), Lima, Peru and the University of Washington (UW), Seattle, USA, supported by the Fogarty International Center, which aims to provide terminal degree students from different disciplines with training and practical experience to develop, promote, and manage adoption of innovative global health strategies. Kuskaya means "working together" in Quechua, a Peruvian dialect.

Methods

KUSKAYA pairs Fellows from the north and the south and from diverse fields (architecture, economics, veterinary medicine, policy and engineering) to conduct a multidisciplinary research project, guided by UW and UPCH mentors. They receive training in research methodology, leadership, research ethics and integrity, implementation science, and key skills related to the life cycle of research. Training modules will serve as a platform for a UW-UPCH jointly-accredited Certificate Program in Interdisciplinary Research in Global Health.

Results

In the first year of the program, we received 46 applications, and chose eight to form three research teams which worked on three projects: 1) One health; 2) Climate change and health, and 3) Pharmacies, TB and Information and Communication Technologies. Fellows participated in key activities during their training, including the COP 20 in December 2013 in Lima, Peru, various symposiums and conferences, and won several awards for abstracts and oral presentations. In the second year of the program, we have received 72 applications, and chose 12 Fellows and 3 Senior Fellows to form 8 research teams.

Discussion and Conclusion

Young professionals in disciplines not historically integrated in health research are seeking opportunities to make a positive impact upon the health of communities. KUSKAYA's strategy of selecting outstanding students and junior researchers from varied disciplines, and training them in health research, has proven an effective and novel approach to training investigators to tackle and solve complex global health issues. The multi- and interdisciplinary nature of the groups and projects has allowed Fellows to gain experience in international collaboration and inspired innovative projects that are expected to have a positive impact on public health in Peru.

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Audits de décès maternels : Une stratégie porteuse pour améliorer les standards de pratique en santé maternelle

Justification : L'essai QUARITÉ (QUALité des soins, gestion du Risque et TEchniques obstétricales) a démontré qu'il était possible de réduire de 35% le taux de mortalité maternelle en milieu hospitalier par une intervention qui a jumelé la mise à niveau des connaissances des prestataires de soin, l'implantation des audits de décès maternels et les activités de supervision par des superviseurs externes.

Cette présentation donne un aperçu de la stratégie et des résultats préliminaires de la mise à échelle des audits de décès maternels au Mali, suite à l'essai QUARITÉ (QUALité des soins, gestion du Risque et TEchniques obstétricales).

Objectifs : (1) Présenter la stratégie et les résultats de l'essai QUARITÉ au Mali; (2) Revoir la stratégie retenue pour la mise à échelle des audits de décès maternels au Mali dans le cadre d'une initiative subséquente ; (3) Présenter et discuter les résultats préliminaires de cette nouvelle intervention.

Méthodes : Le projet 'Réduction de la mortalité maternelle et néonatale au Mali' intervient dans les 22 établissements de santé ciblés dans le cadre de l'essai QUARITÉ. Dans les établissements du « groupe intervention » de l'essai QUARITÉ, le projet apporte un appui technique et financier afin de renforcer les acquis des comités d'audit locaux. Dans les établissements du « groupe contrôle » nous avons mis en place les comités d'audits locaux et leur avons apporté aussi appui technique et financier. De plus, afin d'assurer la pérennité de l'intervention, le projet a aussi constitué et formé une équipe nationale de superviseurs pour les activités de supervision formative reliées à l'intervention.

Résultats : En 2014, 100% des établissements de santé ciblés disposent d'un comité d'audits et de ceux-ci, 77% sont fonctionnels selon les critères du projet. Ces comités ont enregistré un total de 434 décès maternels et audité 201 d'entre eux (46%). Les comités ont déduit que 103 décès maternels, soit plus de la moitié (51%) étaient évitables et ont formulé 243 recommandations parmi lesquelles 162 (67%) ont été mises en 'uvre. Les activités de supervision formative ont été assurées par une équipe nationale de 11 membres, provenant de la Direction nationale de la Santé et des associations professionnelles de santé.

Discussion : Il est possible de mettre en 'uvre une stratégie nationale qui vise l'implantation de comité d'audits de décès maternels en milieu hospitalier. Cette stratégie exige la formation et l'encadrement, au niveau de chaque centre, d'une équipe multidisciplinaire motivée, bien formée et régulièrement suivie.

PHAM, HOANG -ANH

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Direct and Indirect cost of smoking in Vietnam

1. Rationale: Evidence on the economic burden of tobacco consumption is important for policy advocacy but is limited in developing countries, including Vietnam. This research estimating both direct and indirect cost of the five most important smoking related diseases would contribute to understanding the economic burden of smoking in Vietnam and other developing countries.

2. Objective: To estimate the direct and indirect cost of active smoking in Vietnam.

3. Methods: A prevalence-based disease-specific cost of illness approach was utilized to calculate the costs related to five smoking-related diseases: lung cancer, cancers of the upper aero-digestive tract, chronic obstructive pulmonary disease, ischemic heart disease and stroke. Data on healthcare came from an original survey, hospital records and official government statistics. Morbidity and mortality due to smoking combined with the average per capita income were used to calculate the indirect costs of smoking by applying the human capital approach. The smoking-attributable fraction was calculated using the adjusted relative risk values from phase II of the American Cancer Society Cancer Prevention Study (CPS-II). Costs were classified as personal, governmental and health insurance costs.

4. Results: The total economic cost of smoking in 2011 was estimated at 24 679.9 billion Vietnamese dong (VND), equivalent to US\$1173.2 million. The direct costs of inpatient and outpatient care reached 9896.2 billion VND (US\$470.4 million) and 2567.2 billion VND (US\$122.0 million), respectively. The government's contribution to these costs was 4534.3 billion VND (US\$215.5 million). The indirect costs (productivity loss) due to morbidity and mortality were 2652.9 billion VND (US\$126.1 million) and 9563.5 billion VND (US\$454.6 million), respectively. These indirect costs represent about 49.5% of the total costs of smoking.

5. Discussion: The costs of smoking in 2011 occupied approximately 0.97% of the 2011 gross domestic product. The indirect costs represent 49.5% of total costs which were equivalent to 5.76% of the 2011 healthcare budget. The Government shares 36.4% medical cost representing 5.76% of the 2011 healthcare budget.

This study provides a more comprehensive and refined estimate of the total costs of smoking in Vietnam including the indirect costs using original survey data. Our research also improves the understanding of the economic burden of tobacco use in developing countries while demonstrating the feasibility of conducting such studies in countries where resources and valid data are scarce.

6. Conclusions: Tobacco consumption has large negative consequences on the Vietnamese economy.

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What a difference contagion makes: Contrasting the international response to the Nigerian lead-poisoning outbreak and the West Africa Ebola crisis

Rationale: The Nigerian lead-poisoning outbreak of 2010 exposed profound inadequacies in global health emergency response. Fast forward four years to the West Africa Ebola crisis and the same inadequacies are exposed again. Both outbreaks received humanitarian responses, but the Ebola outbreak eventually garnered a multi-national multi-agency response. Exposing the degree to which the fear of contagion accounted for the asymmetry of response would reveal values and assumptions implicit in global health governance.

Objective: To compare and contrast the international responses to the Nigerian lead-poisoning outbreak and the West Africa Ebola crisis, to gain insight into values and allocation priorities within global health governance with a view to future reforms.

Methods: Participant observation in the humanitarian response to both outbreaks (JP). Drawing from field experience and publicly available documentation, this comparative case study examines the two international responses and their reported justifications. The analysis adopts a critical approach to examine the historical, geopolitical and economic factors shaping the nature of response and discourse.

Results: In both cases, the outbreaks occurred in contexts of dire poverty and paucity of essential services alongside the accumulation, concentrating, and exportation of wealth. Both cases necessitated humanitarian involvement. Because the lead-poisoning outbreak posed little threat beyond the immediate vicinity, its response remained confined within humanitarianism. However, because there were broader disruptions pertaining to the fear of Ebola contagion, reluctant UN agencies and foreign governments gradually participated, and a single case was deemed too many.

Discussion: Under neoliberal globalization, public health emergencies in poor areas of the Global South are palliated by private humanitarian organizations. When such emergencies include the fear of contagion to the extent that they threaten national and international security and the functioning of the global economy, then global health governance mobilizes sufficient capacity to protect its interests. The findings show that current arrangements of global health power are not sufficient 'nor intended' to address a full range of global public health emergencies.

Conclusion: This study contrasts the international response to the Nigerian lead-poisoning outbreak and the West Africa Ebola crisis to expose explicit and implicit values and assumptions in global health power. It finds the fear of contagion 'specifically its impact on security and trade' as a threshold for mobilizing global health capacity. The authors argue for broad and democratically-accountable protections of public health from the global to the local, to counter the recurrent platitude 'Never again'.

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Introducing an innovative digital DNS PMIS for effective nurse-midwife workforce management by the Ministry of Health and Family Welfare

Rationale: The Directorate of Nursing Services (DNS) the central hub of Nursing and Midwifery education and services in Bangladesh is responsible for recruitment, deployment and transfer of the nurse-midwife (NM) workforce. DNS is currently managing the Personnel Management Information System (PMIS) manually, fully paper based, and requiring high level of effort. DNS being understaffed, this manual system limits access to timely personnel data for short and long-term human resource analysis, management and planning by the DNS and the Ministry of Health and Family Welfare (MOHFW). The Department of Foreign Affairs, Trade and Development (DFATD) funded Human Resources for Health in Bangladesh (HRH) project is providing technical assistance to develop the DNS PMIS software model for strengthened coordination between DNS and MOHFW for effective MN workforce management.

Objective: To replace the existing manual PMIS of DNS with a phased wise introduction of a web-based PMIS from DNS head quarter to sub-district levels under the MOHFW.

Methods: Prioritized data needs were identified to support a new web based PMIS for NM services in Bangladesh. Essential data elements and a Data Collection Tool (DCT) were shared and agreed with DNS and MOHFW stakeholders. Reliable programming language and database structure were selected and initially the beta version of DNS PMIS software was developed and demonstrated to all stakeholders and necessary modifications made to finalize the DNS PMIS software.

Results: The DNS PMIS software has been uploaded into the DNS web space and made operational at DNS headquarters in Dhaka.

Discussion: DNS PMIS software model is nursing-specific and nationally applied web-based approach is an innovative technology to address human resource management. For effective operation of the software, substantial and phased-wise PMIS training has been planned for relevant DNS staff, MOHFW staff at national and sub-national levels including 70 program managers who will be the actual data users. Further, a data transfer plan to extract and enter key personnel information from approximately 22,000 manual records of currently employed NMs has been prepared. A detailed dynamic data analysis model is also developed which will capture staff setting, vacancy and sex disaggregated data as well.

Conclusion: By 2015, Bangladesh's - web-based DNS PMIS software model is expected to provide required personnel information within a short period and will strengthen the operational mechanism between DNS and MOHFW with regard to critical short and long term HR planning and effective management of the nurse-midwife workforce.

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La recherche sur les politiques et systèmes de santé dans les pays à faible et moyen revenu : un ancrage nécessaire pour mieux comprendre les politiques de santé

Justification : La recherche sur les politiques et systèmes de santé (RPSS) vise à mieux comprendre les interactions entre les politiques de santé, les systèmes de santé et les acteurs qui y prennent part. Les principes qui fondent ce champ en émergence sont encore méconnus, malgré le potentiel qu'ils offrent pour l'étude des interventions et phénomènes complexes.

Objectif : L'objectif est d'explicitier les quatre principes fondateurs de la RPSS, afin de favoriser l'ancrage de nouvelles recherches dans ce nouveau champ.

Méthode : A travers l'exemple de l'étude des politiques de gratuité des soins en Afrique subsaharienne, les principes fondateurs de la RPSS ont été illustrés : 1) la complémentarité des angles d'analyse, 2) l'interdisciplinarité, 3) la transversalité des connaissances, 4) l'ancrage théorique et conceptuel.

Résultats : Les politiques de gratuité des soins ont été analysées selon trois angles complémentaires : macroscopique (débat international), mésoscopique (défis de mise en 'uvre), et microscopique (recours aux soins gratuits). Un devis de recherche approprié a été utilisé pour chaque angle, favorisant les méthodes mixtes. Des propositions théoriques ont été faites sur la base des résultats. Pour ce faire, des théories de la science politique, de l'économie, du développement et de la santé publique ont été mobilisées. Une approche réflexive a été adoptée et a permis des avancées significatives tant sur les politiques étudiées que sur les méthodes utilisées.

Discussion : Les principes de la RPSS ont facilité la mobilisation et l'intégration de méthodes et de théories issues de différentes disciplines. Ils ont également permis à la fois une compréhension plus large des enjeux soulevés par ces politiques, et une compréhension plus fine de chacun des niveaux d'analyse.

Conclusion : L'exemple de l'étude des politiques de gratuité des soins montre l'intérêt d'opter pour une approche holistique et systémique des réformes des systèmes de santé pour élargir une vision techniciste dominante, souvent centrée sur la performance des systèmes de santé.

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L'épidémie à Virus Lassa au Bénin en 2014 : quelles leçons pour le système national de surveillance épidémiologique ‘

Justification

Dans la foulée de l'épidémie de la fièvre Ebola dans l'extrême Ouest de l'Afrique, le Bénin a connu l'épidémie de la fièvre hémorragique Lassa. L'histoire de cette fièvre et les mécanismes de sa gestion sont à reconstituer pour tirer des leçons sur les comportements des populations, des agents de santé et les capacités du système de soins.

Objectif(s)

La recherche vise à comprendre les conditions sociales d'émergence et de développement de l'épidémie d'une part et les processus techniques, politiques et institutionnels de gestion entreprises au niveau de l'Etat et du réseau international de gestion des crises sanitaires d'autre part.

Méthodes

La recherche a été menée principalement à l'hôpital Saint-Jean de Dieu de Tanguiéta au Nord-Ouest du Pays, dans les milieux populaires qui ont connu des décès et au niveau du ministère de la santé. Sur la base de l'approche qualitative, les méthodes employées ont été les observations directes dans les milieux sociaux et hospitaliers, les entretiens semi-structurés et la recension d'articles scientifiques, de littérature grise et de presse.

Résultats

Sur le plan institutionnel et médical, les situations ont permis de constater une faiblesse structurelle de l'Etat dans la riposte d'urgence et dans la gestion de la communication. Du côté des populations et même des agents de santé eux-mêmes, les symptômes vus, entendus ou appris ont été appropriés dans les modèles étiologiques locaux de la maladie, essentiellement à tendance magico-religieuse.

Discussion

L'offre privée de santé, malgré ses forces et sa réputation, est encore peu apte à réagir rapidement à une épidémie d'urgence. Les structures décentralisées de gestion du système de soins ne sont pas appropriés leurs rôles. L'Etat béninois manque de système de surveillance et de capacités de prévention et de gestion d'une épidémie d'urgence.

Conclusion

La recherche a permis de tirer des leçons sur les capacités de l'Etat à contrôler et à gérer les crises sanitaires la perception peu favorable des populations à l'institution médicale même si elles sont toujours obligées de la consulter.

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L'émergence du financement basé sur la performance: en quoi les bailleurs influencent-ils la mise sur agenda politique' Une revue de la littérature

Justification

Parmi les stratégies de renforcement des systèmes de santé, le financement basé sur la performance (FBP) a suscité un fort engouement depuis la fin de la décennie 2000, en particulier dans les pays en voie de développement. Son extension continue, à la fois au sein d'un pays et d'un pays à l'autre, attire la curiosité. Nous réalisons une revue de littérature de type « scoping review » afin d'examiner la part des bailleurs de fonds dans cette dynamique internationale.

Objectif(s)

L'objectif principal de notre recherche est de décrire et d'analyser les rôles des bailleurs de fonds dans la mise sur agenda du FBP. Ensuite, nous cherchons à comprendre les facteurs qui favorisent une telle situation et les stratégies d'adaptation des acteurs nationaux. Autrement, que font ou que ne font pas les acteurs nationaux face à la pro/im/position du FBP '.

Méthodes

Notre travail repose sur une recension de la littérature scientifique et grise, anglophone et francophone, publiée entre 2000 et 2015. Nous utilisons les bases de données Medline/Pubmed, Web of Science, CAIRN et Google Scholar. Le cadre méthodologique de Arksey & O'Malley (2005) est utilisé pour guider la sélection, l'extraction et l'examen de la littérature. L'analyse des données est réalisée sur la base de thèmes émergents des articles et documents sélectionnés.

Résultats

Nous avons sélectionné 20 documents dont 15 articles révisés par les pairs et cinq documents de littérature grise. Dans presque tous les pays, le FBP a été introduit par des bailleurs de fonds comme la Banque Mondiale en premier. Elle est suivie de plusieurs autres partenaires de coopération bilatérale, de fonds multilatéraux ou d'agences des Nations Unies.

Discussion

Notre recherche invite à une réflexion sur la limitation, possiblement induite par les bailleurs de fonds internationaux, de l'autonomie technique et politique des systèmes nationaux de santé dans l'émergence des politiques.

Conclusion

Pour renforcer durablement les systèmes de soins et améliorer les conditions critiques de santé des populations, les bailleurs de fonds devraient réfléchir à la manière de réduire leur influence dans la mise en place et la diffusion à large échelle des politiques de santé dans les pays en développement.

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Inégalité d'opportunité de santé chez les enfants âgés de moins de 5 ans au Togo

La littérature sur la santé publique révèle que l'état de santé des enfants ou leur état nutritionnel influence la santé et le bien-être à l'âge adulte. L'influence avérée des inégalités d'opportunité (chance) et celles d'efforts (comportement par rapport à la santé) sur l'état de santé ou la mortalité des individus pose le problème de l'inégale répartition de l'état de santé dans une population donnée, sujet relativement peu abordé dans la littérature sur la santé publique dans les pays en développement dont le Togo. C'est pour combler ce gap que ce travail s'est fixé pour objectif de mesurer et de comparer l'importance de la contribution de l'inégalité d'opportunité (provenant des différences dans les circonstances de vie considérées) à l'inégalité totale de santé des enfants (0-5ans).

La démarche méthodologie se base sur les mesures générales d'entropie décomposable à l'instar de l'indice de Theil-T pour mesurer l'inégalité totale après avoir traité l'effet des variations naturelles dans la distribution de la taille des enfants. Cette inégalité est décomposée en inégalité intra-opportunité et celle inter-opportunité (inégalité d'opportunité) après avoir construit les groupes d'opportunité à partir des variables de circonstance retenues.

Les résultats ont montré que l'inégalité totale de santé a connu une diminution entre 1998 et 2013 passant de 0.56 à 0.12. Cette diminution est également observée pour l'inégalité d'opportunité et celle intra-opportunité. La contribution de l'inégalité d'opportunité est passée de 0.4 à 0.01 respectivement en 1998 et 2013. L'inégalité d'opportunité se révèle être celle dont la diminution contribue le plus à la diminution de l'inégalité totale de santé. La diminution du niveau de l'inégalité totale de santé proviendrait plus de la diminution de la contribution de la classe de « moyenne opportunité » (0.16).

L'inégalité d'opportunité est une réalité et sa contribution à l'inégalité totale dans la distribution de l'état de santé (mesuré par la taille standardisée) des enfants est très importante. Pour réduire significativement l'inégalité totale de santé et améliorer l'état de santé des enfants, il faudra donc agir plus sur l'inégalité d'opportunité. Au vu de nos résultats, une politique efficace de réduction de l'inégalité d'opportunité sera celle qui va améliorer les conditions de vie des parents et rendre accessible les services publics de santé notamment les soins prénataux à toutes les femmes enceintes quel que soit leurs niveaux de vie et milieux de résidence. Ceci permettra de réduire les écarts entre les groupes d'opportunité en offrant à tous les enfants les mêmes opportunités

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Global capacity for surveillance and response to a public health emergency of international concern: Brazil experience in preparation to Ebola

Rationale: The global health impact of Ebola transmission was an important factor to promote global health actions for preparedness, surveillance and response to public health emergencies of international concern. This work shows how Brazil was prepared and fills the gap that all countries must work in cooperation to promote global health.

Objective: The epidemiological monitoring of Ebola outbreak was performed by the International Health Regulations (IHR) National Focal Point Office in Brazil since the report of the first cases. The Secretariat of Health Surveillance at Brazil Ministry of Health aimed to strengthen surveillance and to promote public health actions for preparedness and response in Brazil, according to World Health Organization (WHO) and Pan American Health Organization guide.

Methods: In 2012, it was constructed the Work Plan for Response to Public Health Emergencies in Brazil, which anticipated the organizational structure for public health emergencies, the Operational Health Center, activated when Ebola outbreak was declared a Public Health Emergency of International Concern by WHO in August 2014. The Ministry of Health was arranged in order to work in cooperation with all government sectors and to organize surveillance, communication flow and protocols for detection, investigation and management of possible Ebola cases.

Results: It was organized and made available the Contingency Plan for Ebola to health professionals and correlated sectors. The Ministry of Health supported the development of preparedness actions in the whole country, promoting webconferences with all the Secretariats of Health from municipalities and states. In cooperation with local governments, there were practical simulations in ports, airports and land border crossing. Reference hospitals were defined to receive possible detected cases and the mechanisms of transport across the country were established. Moreover the communication flow was agreed between different sectors of federal government and airports charts were implemented to guide international travellers about symptoms and health service contacts in Brazil. Finally, Brazil supported other countries technically to promote global health capacity in preparation for potential Ebola transmission.

Discussion: Brazil public health actions for preparedness, surveillance and response to Ebola reflect the implementation of IHR core capacities. Besides, the technical support from Brazil may contribute to strengthen capacities for surveillance and response to public health emergencies in other countries.

Conclusion: The national joint movement to develop capacities for public health situations and also the international collaboration demonstrate the importance of cooperation for the global capacity building in health.

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The burden of viral hepatitis in people living with HIV in Brazil: reasons to improve global health capacities

Rationale: Viral hepatitis remains a global public health problem. In Brazil, safety systems for control of blood and blood products were implemented in 1993. This work presents the current burden of viral hepatitis C (HCV) in people living with HIV in Brazil in order to promote global capacity discussion towards implementation of new technologies for treatment.

Objective: To depict the burden of HCV and HIV coinfection in Brazil and present evidence to improve surveillance and response worldwide.

Methods: It was briefly described the Brazilian response to viral hepatitis over the years and reviewed recent statistics from the Ministry of Health of Brazil related to specialized healthcare assistance and HCV/HIV morbidity.

Results: From 2009 to 2013, 57,082 new cases of hepatitis C were reported in Brazil. From those, 47,068 cases were additionally tested for HIV and 5,024 (10.7%) were identified as HCV/HIV coinfection. This considerable rate of coinfection also presented significant changes according to demographic features. While during the same period transplant services and treatment were improved, HIV patients still faced great difficulties in medical assistance mostly because of interactions between antiretroviral therapy and Boceprevir and Telaprevir, making HCV treatment improbable, and disease progression with need of specialized and costly healthcare services most certain. Moreover, liver cancer case fatality rate was kept at approximately 20% during this period.

Discussion: As the natural history of HCV lead patients to advanced fibrosis stages, increasing the burden of disease for the public health system, a comprehensive response with effective treatment to prevent future disease progression and negative impact in public health is desirable. Given the significant percentage of HCV/HIV coinfecting patients in the latest cohort analysis and the impressive figures of health expenses and mortality of advanced liver disease and liver cancer, Brazil has decided to prioritize the HCV/HIV coinfecting population, and sought to provide better direct-acting antiviral agents in HCV treatment which are more compatible with antiretroviral therapy.

Conclusion: The burden of viral hepatitis in people living with HIV in Brazil and the global burden of disease due to HCV/HIV coinfection raise the importance to discuss the implementation of new treatments and to promote global capacity building in order to improve the quality of life and to minimize the mortality worldwide.

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Survival time in patients coinfecting with HIV and hepatitis C in Brazil

Rationale: In Brazil, the estimated prevalence of patients coinfecting with HIV and hepatitis C (HCV) varies from 5 to 20%. Coinfecting individuals present a higher chance of progression to diseases related to the liver, including cirrhosis, hepatocellular carcinoma, and hepatic coma, than those infected with only HCV. Liver diseases have been considered one of the emerging causes of death related to Aids.

Objective: This study aims to estimate survival time and associated factors among patients coinfecting with HIV/HCV in Brazil.

Methods: 3355 records of patients coinfecting with HIV/HCV were considered, identified by the probabilistic linkage of the databases of the period from 2002 to 2012. The survival time of the coinfecting patients, according to epidemiological variables, was estimated using the Kaplan-Meier method and the risk factors through the Cox regression model. Survival time was defined as the difference between the date of diagnosis of coinfection and the date of death.

Results: Of the overall, 72.8% were male, 86.7% were from 25 to 49 years old, 32.0% were black or mixed race, 78.5% were in treatment for HIV and 42.2% were from the exposure category of injectable drug users. Individuals aged 50 years or more had a lower median survival time (43 months) and 2.5-times-higher risk of death compared to those less than 25 years. Black and mixed race also have a lower median time compared to the other races and 21% higher risk of death. Individuals who were not in treatment for HIV had a risk of death three times higher than those who were in treatment.

Discussion: Vulnerability, difficulty in access to the health care services, lack of awareness of adherence to treatment and prevention for HIV/Aids and viral hepatitis are some of the factors which may explain the higher risk of death and the lower survival time among individuals over 50 years old and among black and mixed race.

The history of active treatment for HIV/Aids among patients coinfecting with HIV/HCV showed that there is a better survival time when patients have already started treatment, proving the positive impact of antiretroviral therapy on the survival of coinfecting patients as well.

Conclusion: The analysis of survival time in patients coinfecting with HIV/HCV in Brazil brings to global health scenario the importance of build capacities for treatment and prevention for HIV/Aids and viral hepatitis, especially among high risk populations.

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Trade and investment policy as a driver of the sweetened carbonated beverages market in developing countries: a natural experiment in Vietnam

Rationale: Trade and investment liberalisation may facilitate the spread of sweetened carbonated beverages (SCBs), products associated with increased risk factors for diabetes and obesity. Apart from a limited set of comparative cross-national studies, the majority of analyses linking liberalisation and the food environment have drawn on case studies and descriptive accounts. The current failure of any country to reverse its obesity epidemic demonstrates ostensibly the need for a new approach, one which we argue should emphasize the role of systemic factors, like trade and investment policy, in creating food environments.

Objective: This study aimed to contribute to the body of quantitative evidence exploring the diet-related health effects of trade and investment agreements by providing robust evidence for the link between investment liberalisation and changes to the food environment, namely SCBs.

Methods: To understand the impacts of previous trade and investment liberalisation we used a natural experiment design to test whether Vietnam's removal of restrictions on foreign direct investment subsequent to its accession to the World Trade Organisation in 2007 increased sales of SCBs compared with a matched country, the Philippines. Difference-in-difference (DID) models were used to test pre/post differences in total SCB sales and foreign company penetration covering the years 1999-2013.

Results: Post-WTO accession Vietnam's growth rate of SCB sales increased from 3.3% to 12.1%. SCB sales per capita rose significantly faster in Vietnam compared with the Philippines (DID: 4.6L per annum, 95% CI: 3.8L-5.4L, $p < 0.008$). Vietnam's increase in SCBs was primarily attributable to products manufactured by foreign companies, whose annual sales growth rates rose from 6.7% to 23.1%, unmatched within the Philippines (DID: 12.3%, 95% CI: 8.6%-16.0%, $p < 0.049$).

Discussion: Growth of SCB sales in Vietnam, led by foreign-owned companies, significantly accelerated after trade and investment liberalisation raising concerns about the implications of further liberalisation for Vietnamese dietary transition and future public health regulatory space to address rising diet-related health consequences.

Conclusion: Transnational beverage companies project that their main source of growth in profits in the next several years will come from developing countries. At present, 12 countries are negotiating the Trans-Pacific Partnership (TPP) agreement, argued to be the most comprehensive regional trade and investment treaty to date. Vietnam, the economically weakest negotiating member but a strong emerging market, will be particularly vulnerable to the agreement's aggressive liberalisation provisions.

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Capacity building, a case study of success in Uruguay

Rationale: The Health reform in Uruguay included a payment for assistance goals in 2007. In 1996, it began a quality improvement experience called Accreditation in Good feeding Practices (AGFP), which in 2009 was included as a health goal. This policy strategy includes the best practices maternities and primary health care centers a health service should implement to improve little children diet and growth. It was of interest to search the factors of successful.

Objective: To study associated factors to the success and the positive impact of health goals through the analysis of Accreditation on Best Practices of Feeding (ABPF) a goal.

Methodology: Secondary analysis of survey data applied by UNICEF over a representative sample of the population adjusted by age, type of health provider and region. It were processed exclusive breast feeding rates at 6 month over 1996, 1999, 2003, 2007 and 2011 data bases. It was calculated the evolution by accreditation, type of provider and geographic region. A binary probit model was applied to measure the ABPA impact on providers. The variable to explain was exclusive breast feeding and the independent variables were accreditation on GFP, country region, kind of health provider (private/public), birth weight, baby's age, mother's age and mother's work situation. Afterwards a qualitative analysis was made by interviewing actors who play different roles in the governance system: Ministry of health, health services providers, representatives in the National Board of Health (workers, Institutions, patients).

Results: Exclusive breast feeding increased in providers which applied ABPA all over the period (37% to 67%). Probit regression showed that ABPA was the variable which increases most the probability of exclusive breast feeding (17%, SD 2% and $p < 0.05$). Breast feeding rate in 2007 differs 10 points with that of 2011 (57 Y 67% respectively). The qualitative analysis showed that the success was due to governance where training human resources, institutional strengthening and gradual accountability but tied with an specific goal of improving health.

Conclusion: The ABPF strategy has been demonstrated to be an effective tool to improve exclusive breast feeding at 6 months old. The inclusion as a health goal had capitalized and enhanced a previous experience. Results showed that a governance strategy which contains: training, institutional strengthening and incentives achieve the expected health impacts over the population. These three factors must be tied with an specific health goal.

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Geographic predictors of primary multidrug resistant tuberculosis cases in an endemic area of Lima, Peru

Rationale: Peru reports amongst the highest multidrug resistant tuberculosis (MDR-TB) rates in the Americas, with a growing proportion of MDR-TB in previously untreated tuberculosis (TB) cases. Identifying clusters of primary MDR-TB, compared with drug susceptible tuberculosis (DS-TB), could help prioritize public health interventions.

Objectives: We examined the clustering of primary MDR-TB case residences and their proximity to high risk locations in San Juan de Lurigancho (SJL) district, Lima, Peru.

Methods: Enrolled primary MDR-TB and primary DS-TB cases were interviewed and their primary residence at the time of diagnosis was recorded using handheld GPS recording devices. Kuldorff's spatial scan statistic was used for cluster detection (SaTScan, v9.1.1). The following a priori selected cluster centers were tested: a health centre with the highest TB and MDR-TB rates (Clinic X), a hospital and two prisons. Regression analyses examined predictors of primary MDR-TB cases compared with DS-TB cases.

Results: We analyzed data from 104 primary MDR-TB cases and 750 DS-TB cases. The mean age of cases included was 30.6 years and 58.4% were male, 50% unmarried, and 58.9% cohabiting with greater than 5 persons. A statistically significant clustering of primary MDR-TB cases was detected in the 2 km area surrounding Clinic X of SJL district by focussed spatial scan statistics (cluster radius=2.29 km, $p=0.037$). In bivariate analyses, primary MDR-TB cases were significantly more likely than DS-TB cases to be younger than 35 years old, living within 2 km of both Clinic X and Hospital A and earn 51-100 US Dollars compared with those earning less than 50 US Dollars per month. In adjusted regression, proximity to Clinic X (AOR=2.10, 95%CI[1.29-3.51]) and age remained significant predictors of primary MDR-TB.

Discussion: Clinic X was selected a priori for analysis because of TB and MDR-TB rates were nearly 4 times the national and local SJL district TB incidence. The cluster detected around Clinic X (2.29 km) also includes the neighbouring catchment areas of eight other health centres. Household, community, biologic and environmental factors could play roles in the clustering of primary MDR-TB compared with DS-TB.

Conclusion: We identified a 'hotspot' of primary MDR-TB cases around Clinic X and prioritizing and ensuring active prevention efforts in the 2 km surrounding Clinic X could be a first step towards controlling MDR-TB in the district.

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The influence of performance-based financing on access to essential medicines in Cameroon: A qualitative study

Context

Evidence that a performance-based financing (PBF) approach is a successful intervention to improve health outcomes remains mixed. Access to medicines provides a proxy indicator of health systems' performance. There is no evidence so far on the effect of PBF on drugs' accessibility. Our research aims to understand stakeholders' perceptions of essential drug accessibility at the primary health care level during the scaling-up phase of the PBF program in Cameroon.

Methods

The research method used an explanatory case study and involved two concurrent qualitative data collection methods: a document review and in-depth interviews with key informants (KI). KI were selected using purposive sampling, with the main criterion being their knowledge of the program. The selected respondents (n=24) included researchers, managers of health services at the district level, health care providers from the public and private not-for-profit as well as for-profit health facilities, regional health authorities, managers from the regional drug supply system and community members. All interviews were recorded, transcribed and analyzed using a qualitative data analysis software (QDA miner lite). Content analysis was performed.

Results

Transitioning from a monopolistic and highly bureaucratic supply system to a flexible performance-based system was very challenging. Overall, actors' perceptions on the effect of the PBF program on drug accessibility was positive due to greater autonomy of health facilities, the availability of multiple suppliers, better involvement of the community in the management of the health centre and a reduction in the price of drugs through market competition. However, concerns were raised about 1) an expected decline in quality of medicines due to the low effectiveness of quality assurance mechanism, 2) a limited accessibility for very remote areas and 3) an unbalanced market power through connivance among suppliers. In addition, small health centres faced difficulties supplying their pharmacy stock because they were not able to deal with recurrent costs that include salary of the pharmacist and transportation of drugs from the supplier to the health facility. Some health facilities were using separate drug cupboards for the 'PBF drugs', leading to fragmentation of the drug management system.

Policy implications

While PBF may improve drug accessibility, policy-makers must remain vigilant to prevent or lessen its potential undesirable effects by paying particular attention to quality-control and using indicators for quality evaluation that does support a systems approach.

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Socioeconomic characterization and risk factors of men and transwomen who have sex with men in Benin, and El Salvador

Rationale: Socio-economic factors and levels of risk of contracting HIV are intrinsically connected, especially for vulnerable populations where discrimination, stigmatization and different types of abuse are preventing them from accessing adequate health and social services. In particular, men who have sex with men (MSM) and transwomen (TW) are at a higher risk for contracting HIV. Plan International is working with these two populations in Benin and El Salvador respectively.

Objectives:

- To map and characterize MSM and TW populations.
- To design innovative comprehensive services tailored for these populations.

Methods: A sexual behavior and seroprevalence survey was conducted in El Salvador and Benin. A convenience sampling procedure was used to identify the specific population and structured questionnaires were administered to collect information related to sexual behaviors. HIV prevalence was estimated following national algorithms using standard ELISA and Western Blot tests.

Results: TW have the highest prevalence of HIV in El Salvador (17%). The majority of this population is young and initiated their sexual activity before the age of 15. They have a low economic and educational status. Many forms of discrimination prevent them from accessing adequate income and resources, which render this population at high risk of HIV infection.

In Benin, trans populations are not yet recognized and their demographic characteristics have not yet been investigated. There is however some data on MSM with sixty percent of this population self-identifying as bisexual, and with a high HIV prevalence, ranging from 9 to 21%, increasing with age. The majority are students or youth, and had their first sexual encounter between the ages of 15 and 19 years old.

In both populations, regular condom utilization is lower than 40%.

Discussion: Until recently, TW in Latin America had been included in the category of MSM neglecting their specific support needs related to HIV. Both studies revealed significant social differences and similarities, demonstrating the importance of recognizing the specific needs and issues of these two population groups.

The study in Benin has shown important social constraints that put the MSM population at risk. The results indicate that is essential to provide access to effective and acceptable services early in adolescence. The study in El Salvador has led to the design and implementation of comprehensive and innovative preventive and treatment strategies to for transwomen.

Conclusions: This new data on MSM and TW demographics, socioeconomic status, behavior, and knowledge around HIV may inform future research, programmes, and policy

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Appréhender les conceptions de la performance d'un système de santé de district pour élaborer un cadre d'évaluation consensuel

Justification: L'élaboration des critères d'évaluation de la performance d'un système de santé de district doit prendre en compte les perspectives de tous les acteurs concernés. Ainsi, cette recherche permettra de disposer des perceptions des principaux acteurs sur la performance d'un système de santé de district.

Objectifs: Identifier les dimensions de la performance d'un système de santé de district selon les perspectives des principaux acteurs.

Méthodes: La recherche s'est déroulée dans dix districts sanitaires repartis dans deux régions sanitaires. Les données ont été collectées auprès des infirmiers chefs de poste (ICP), les membres de l'équipe cadre du district et de la direction régionale de santé, les responsables d'associations intervenant dans le district, les membres des comités de gestion des centres de santé (CSPS) et enfin les agents de santé communautaires (ASC). Trois méthodes ont été utilisées pour la collecte des données : les entretiens semi-directifs, les focus groups et les ateliers délibératifs.

Résultats: Constat d'une variation dans la vision de la performance des différents groupes d'acteurs impliqués dans l'étude. Les membres CoGes, les ASC et les responsables d'association mettent l'accent sur l'accès financier des services aux populations, la disponibilité et la présence des agents dans leurs postes, la disponibilité des médicaments, les relations entre soignants et soignés. Les ICP se focalisent sur la disponibilité des intrants et l'amélioration du niveau des principaux indicateurs de santé. Les responsables des ECD et des DRS sont plus préoccupés par les questions de gouvernance. Ils mettent l'accent sur le respect des textes administratifs et réglementaires, l'application des protocoles thérapeutiques, l'atteinte des objectifs officiels, le fonctionnement du système d'information sanitaire, le remplissage des supports de soins et de gestion.

Discussion: Cette recherche montre une divergence de vue entre les principaux acteurs sur la performance du système de santé de district et amène à poser une question fondamentale. Comment faire pour prendre en compte ces différentes conceptions dans l'élaboration d'un cadre d'évaluation de la performance d'un système de santé de district ?

Conclusion: L'élaboration d'un cadre d'évaluation de la mesure de la performance d'un système de santé de district doit prendre en compte les attentes de tous les acteurs.

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Integrating mental health into primary health care in the Caribbean: a demonstration project in two Caribbean countries

Rationale: The World Health Organization (WHO) developed the Mental Health Gap Action Programme Intervention Guide (mhGAP-IG) to assist low- and middle-income countries (LMICs) in training non-specialized primary health care (PHC) professionals to integrate mental health (MH) into primary care. The Montreal WHO Collaborating Center for MH implemented a training project in two Caribbean countries aiming to strengthen the capacity of PHC professional in the area of MH.

Objective: This presentation will report participants' experiences with a training program based on the mhGAP-IG.

Methods: The training was attended by 32 participants in country-a and by 50 participants in the country-b. Participants' experiences were assessed using a web-based survey, sent out post-training. This survey was completed by 20 participants in country-a and 12 in country-b.

Results: In country-a, there was clear improvement in participants' comfort in diagnosing and treating depression and anxiety. Bipolar disorders and psychoses were least improved, due to a high pre-training comfort in these areas. Post-training, there was greater comfort in approaching and discussing emotional issues with patients. On the topic of suicidal behavior, improvements were greatest in comfort in approaching patients and asking questions, followed by diagnosing, and treating suicide risk. In country-b, comfort increased more in diagnosing than with treating mental disorders. Improvements were greatest for depression, anxiety, non-medically based somatic complaints, suicidal behavior, acute psychosis, and mental health problems in the context of medical illness. Changes in comfort with treating was lesser for suicidal behaviors and psychosis.

Discussion: In this project the training based on the mhGAP-IG had an overall positive impact on participants' PHC practice in both countries. Training appears to have contributed to integration of mental health interventions into PHC. Comments indicate that the improved comfort in approaching and discussing emotional issues was perceived as equally important to improvement in knowledge about specific disorders. Participants' showed increased comfort in managing suicidal behavior but wanted more knowledge on managing suicidal risk.

Conclusion: The mental health training based on the mhGAP-IG had an overall positive impact on practitioners' primary care practice in both countries. Research that assesses the effectiveness of a mental health training based on the mhGAP-IG using experimental designs are nonetheless needed.

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Why language matters: Insights and challenges in applying a social determination of health approach in a North-South research collaboration

Rationale: Focus on 'social determinants of health' provides a welcome alternative to the bio-medical illness paradigm. However, the tendency of epidemiology to concentrate on the influence of 'risk factors' related to living and working conditions of individuals, rather than to more broadly examine dynamics of the social processes that affect population health, has triggered critical reaction not only from the Global North but especially from voices in the Global South where there is a long history of addressing questions of health equity, such as in the collective health / critical epidemiology traditions in Latin America.

Objective: To specifically elaborate on how focusing on the language of 'social determination of health' has prompted us to attempt to apply more equity-sensitive approaches to research and related policy and praxis ' and to more generally consider how 'ways of knowing' emergent in the Global South strengthen our abilities to do so.

Methods: We focus on our long-standing (now decade long) international collaborative Canadian ' Ecuadorean research program that currently addresses five quite distinct population health problems and settings (health of healthcare workers; food systems; antibiotic resistance; vector borne disease [dengue]; and social circus with street youth), critically examining our attempts to integrate social theory from Latin America with empirically rich participatory research in these diverse contexts.

Results: For each program area, the influences of applying a 'social determination of health' approach are presented with regard to how conceptualization, research and praxis are pursued and how accomplishments and challenges are assessed. In doing so, attention is given to component dimensions of Sustainability, Sovereignty, Solidarity and bio-Security, collectively framed as the '4 S's'.

Discussion: We argue that the language and epistemology of social determinants lends itself to research that is more reductionist and beckons the development of different skills than would be applied when adopting the language of social determination.

Conclusions: We conclude that this language leads to more direct analysis of the systemic factors that drive, promote and reinforce disparities, while at the same time directly considering the emancipatory forces capable of countering negative health impacts. It follows that 'reverse innovation' (the term currently being used in a debate series in the Globalization and Health journal) must not only recognize practical solutions being developed in low and middle income countries, but must also build on the strengths of the theoretical-methodological reasoning that has emerged in the South.

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Global health partnerships in real-life: a case study of the global fund's country coordinating mechanism in ethiopia

Rationale: Over the last 3 decades, the global health governance field has seen a proliferation of Global Health Partnerships (GHPs). These mechanisms are widely celebrated for enabling cross-sectoral interactions between actors drawn from the public sector, private sector, civil society organisations and donors. However, their conduct in real-life, especially in developing country contexts, remains poorly understood.

Aim of the Study: This study set out to explore the factors that influence interactions between actors in and around these partnership mechanisms in developing country contexts.

Methods: To this end, a case-study of the Global Fund's Country Coordinating Mechanism (CCM) in Ethiopia was undertaken. It is a qualitative study that draws on the critical realist research paradigm, whereby it first describes manners of interactions between actors, before analysing causal factors that underlie observed trends in interactions. It employed multiple methods of data collection including in-depth interviews with 43 policy makers, non-participant observation of CCM meetings, and document review. The data was analysed through the thematic analysis method whereby thematic categories were developed both apriori, and in due analysis of emerging themes from the data.

Results: Observed manners of interaction in the CCM mainly revealed trends of: dominance by the public sector, prioritisation of clinical-care over population based health promotion activities, an asymmetric consensual decision-making process that favours powerful actors, and predominance of discourses that bolster the positions of dominant actors. The pertinent contextual factors that underlie observed trends in interaction include: the ideology of the government (Developmental State), the broader set of geopolitical considerations that characterise the relationship between donors and the Ethiopian State, the legal frameworks for regulation of non-state actors, and the inherent organisational and coordination challenges that afflict non-state actors. On the other hand, global level processes such as requirements emanating from the Global Fund were seen to be co-opted by existing contextual realities in the country, in ways that further reinforce and reproduce the relative ordering of actors in the setting.

Discussion: The study contributes to enhancing the meagre understanding of how GHPs enable cross-sectoral interactions between actors in developing country contexts. In so doing, it reflects on existing conceptualisations of the interface between global governance structures and national health systems.

Conclusion: The real-life conduct of globally initiated policies and mechanisms is mainly contingent on broader contextual factors that exist in a particular setting, and on the ways in which these interact with global level requirements and directives.

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The effects of MCH insurance cards on improving equity in access and use of maternal and child health care services in Tanzania: A mixed methods analysis

Background

Low and middle income countries have recently adopted demand-side financing interventions to influence access, use and provision of reproductive health. In 2010, the Tanzania's National Health Insurance Fund (NHIF) introduced a pilot maternal and child health insurance cards (MCH card) in the Mbeya and Tanga regions in Tanzania. Initially, two targeting strategies, a needs-based individual and geographical targeting were implemented in different districts, but subsequently a decision was made to use geographical targeting in all districts. This research uses a mixed-methods approach to gain insights from implementers and beneficiaries on the perceived advantages and disadvantages of individual and geographic targeting and the process and results of switching from individual to geographic targeting. It examines the extent to which the program reached those most in need, and decision on place of birth.

Methods

Purposive sampling was used to select study participants at the district, village, facility and community level. Seven health care facilities were visited and the researchers reviewed the program beneficiaries register book and selected randomly a total of 190 women: 115 from dispensaries, 38 from the health centre and 37 from hospital, and contacted each to obtain information on their education level. A total of four group discussions and 31 in-depth interviews were conducted with local leaders and health care providers from the seven facilities. Interviews were conducted in Swahili, and transcribed and translated into English. Analysis of qualitative data was based on thematic analysis approach, and Nvivo 10 software was used for analysis. Microsoft Excel was used for analysis of quantitative data.

Results

High rates of facility deliveries were achieved after implementation of the program, although women with the lowest educational attainment were underrepresented among women who delivered in facilities. Qualitative findings indicated that a sense of stigmatization, informal payments to village executives, and difficulties in the screening procedure hindered individual targeting efforts. Providers experienced increases in the number of clients after the change to geographical, which led to an increase in work load. Beneficiary's awareness of the risks associated with home delivery influenced their choice of facility delivery.

Conclusion

Geographical targeting appeared to offer several advantages over individual and resulted in high coverage of facility deliveries, although the program had unforeseen consequences in increasing facility workload. Further efforts are needed to ensure that the most disadvantaged women participate and that staffing and beds are adequate to handle the increased workload without compromising the quality of care.

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The role and responsibilities of the staff nurse in a tertiary hospital in a rural area of Punjab, India.

Rationale: Researchers and policy analysts in India have called for a comprehensive national policy to address the severe shortage of human resources for health, with a particular need to provide qualified health workers in rural areas. It is recognized that strengthening nursing could provide a partial solution to India's health care needs, and international partnerships are often seen as a way to build nursing capacity. To support this initiative it is necessary to understand the current role of the staff nurse within the Indian healthcare system.

Objective: The purpose of this collaborative study between faculty members at an Indian college of nursing and a Canadian school of nursing was to investigate the role and responsibilities of staff nurses at a large university hospital in Punjab, India to inform professional development and workplace support activities.

Methods: The study used interpretative description methodology with data collected through focus group interviews. Twelve staff nurses and five physicians participated in one of five focus groups conducted in April, 2014, with each interview lasting 30-60 minutes. Data were transcribed and analyzed using interpretative description methods. To assist with data organization and management, NVivo software was used. Ethics approval was received from both universities.

Results:

Key themes that emerged from the data were:

- Task Orientated Care
- Extended Nursing Role
- Partnerships in Care

Discussion: It appears that the staff nurses in India work according to tasks and this is undertaken to ensure that nursing care is provided to all the patients under the nurses' care. Furthermore, while the staff nurses in India described working according to a list of tasks they also described critical thinking and it was evident that they utilized critical thinking within their working day. While the staff nurses described task orientated care they also described undertaking tasks which can be thought of as an extended nursing role and an example of this would be tracheal intubation. To enable them to work at this advanced level they worked in partnerships with the physicians who supported them and provided them with training and further learning opportunities. The data indicated a mutual respect between nurses and physicians who shared a goal of providing safe, quality patient care.

Conclusion: There is great opportunity to build nursing capacity within India. Staff nurses are already working at an advanced level in some areas. To support and facilitate growth of the profession, the advanced level at which these nurses work should be acknowledged and supported within the infrastructure of the hospital. Such support could include formalized continuing education and development of nurse specialist roles.

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The UN Convention on the Rights of Persons with Disabilities and its impact on mental health law and policy in Canada

Introduction

Persons with mental disabilities face disparate levels of access to health care and support services worldwide. These groups also endure systemic discrimination, structural inequalities, and widespread human rights abuses. In response, discussions have been facilitated on how international human rights law may play a fundamental role in addressing global mental health challenges. On December 13, 2006, the UN General Assembly formally adopted the UN Convention on the Rights of Persons with Disabilities (CRPD) - the first human rights treaty of the 21st century, the fastest ever negotiated, and with the highest number of opening-day signatories. This paper discusses the CRPD and the degree of its implementation in Canadian law and policy to determine whether it has been successful in protecting the equal enjoyment of all human rights and fundamental freedoms for all persons with disabilities.

Methods

A critical analysis of the current evidence on the CRPD's uptake and implementation in Canadian public policy, legislation, and jurisprudence was conducted for Canada.

Results

Although many agree that the Convention is an important step forward, others believe that its articulated goals are far from being realized. Three practical challenges arise on this: a lack of effective disability policies required for implementation; a gap between domestic policies and community programs; and a domestic lack of will for explicit implementation.

In Canada, there remains a divide between the Convention's goals and the lived experiences of Canadians with disabilities. Its full implementation is perhaps hindered most by Canada's reservations to Article 12 of the Convention on legal capacity. The UN CRPD Committee asserts that this Article only permits 'supported decision-making' regimes for persons with disabilities and holds all others inconsistent with the CRPD's mandate. Canada noted its reservation to Article 12 by asserting its right to maintain 'substitute-decision making' regimes. As a result of pervasive social stigma and discrimination, persons with disabilities have been denied legal capacity despite the ability to make their own decisions with support systems. As a result, persons with disabilities are limited in making major decisions related to healthcare, housing, assets, and everyday living. Despite the dominance of 'substitute decision-making' regimes in Canada, recent court decisions have demonstrated affinity for 'supported decision-making' in judicial proceedings.

Conclusion

While Canada has taken the important first step of ratifying the CRPD, a concerted effort is needed to implement its provisions and facilitate equal rights and access to healthcare, housing, education, employment, transportation, and built-environments. While the overarching principles of the CPRD may become progressively recognized over time, it will take a consistent and determined effort by federal and provincial/territorial legislatures, courts, tribunals, public services, and civil society organizations to ensure that equal participation and accessibility rights are achieved for Canadians with disabilities.

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Development and testing of a scale to measure trust on public health care system, for a developing country context.

Rationale: Trust on health care system leads to improved adherence to preventive as well as curative health services by improving health care utilization. Many scales exist for assessment of trust in healthcare system in developed country settings, but to our knowledge none of these imply a developed in a developing country context. Thus arises the need for a culturally and socially appropriate scale to measure trust in public healthcare system.

Objectives: Study aims to develop and validate a scale to measure trust on public healthcare system for developing country setting.

Methods: Study adopted a sequential exploratory mixed design with two phases: developmental phase and testing phase. Items for the scale were identified by qualitative study and review of other scales. A 32 item scale was administered to 200 subjects in Kerala, South India. Factor analysis was employed for item reduction, which revealed 6 factor structure scale with 23 items. Internal consistency and test retest reliability was assessed in testing phase. Face validity, content validity and construct validity of the scale was established. Content validity was measured as content validity index and construct validity was established by assessing convergent and divergent validity.

Results: A 23 item Likert type scale was constructed with 5 responses which measured individual and institutional trust. Quality of health care, good communication, transparency in relation, reliability and technical competency were important factors of trust in public health care system. Scale was significantly correlated with General Trust Scale ($r=0.488$) and Medical Mistrust Index ($r=-0.526$). Scale has a Cronbachs alpha 0.872. Test re test reliability scores in two occasions were significantly correlated ($r = 0.970$).

Discussion: Trust on public health care system is a surrogate measure to assess quality of services provided by public health care system. Policies targeting improvement in communication between people and health professionals should consider the communicative aspects of trust, which in turn produce better health outcomes. In general scale measures the integrity of public health care system. Trust on public health care system gives a proxy measurement of extent to which the ethical principles are followed in health system. Public health care system scale trust scale covers bioethics principles which in turn reflect the trust on health care system.

Conclusion: Public health care system trust scale is a valid and reliable tool for measuring the trust on public health care system in developing country setting.

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Use and acceptability of mHealth tools in Myanmar: perceptions of auxiliary midwives

Rationale: Myanmar's fragile health system and suboptimal health workforce negatively affect quality of care. An NGO pilots Myanmar's first point-of-care mHealth-project in 2014, providing smartphones to auxiliary midwives (AMWs) with a patient registration and algorithm-based decision-making application for antenatal care services. Behavioural theories suggest that external stimuli increase clinical compliance, thereby improving quality of care, ultimately contributing to reduced maternal and neonatal mortality. With (inter)national evidence being scarce, the NGO wants to know whether AMWs accept and use the mHealth tools (electronic application and voice option (calling)).

Objective: to assess user acceptability of mHealth tools and contextual barriers/facilitators influencing use, by exploring AMW's perceptions.

Methods: Operationalizing a conceptual framework based on Davis' (1989) Technology Acceptance Model (TAM), acceptability, use and perceived contextual barriers/facilitators are assessed through in-depth-interviews, focus groups, and observations with/of all participating AMWs (n=20). Based on Ajzen and Fishbein's Theory for Reasoned Action (1975), TAM's premise is that if mHealth tools are perceived as useful, easy to use, and important others in the social environment of AMWs support its use, AMWs will accept mHealth tools (acceptance being predictor for use), whereas contextual barriers/facilitators influence use of mHealth tools directly.

Results: Acceptability is very high: smartphone and electronic application are perceived as useful, easy to use, and AMWs' social environment as supportive. All AMWs report using the voice option. Most AMWs use the electronic application, however, not always during patient consultations. Different degrees of ease-of-use are observed. To improve usefulness, AMWs suggest additional features for the application (e.g. treatment information). Organizational support (training, technical, material), economic advantages (electronic reporting cheaper than paper) and political interest (MOH announced all reporting to be electronic soon) are contextual facilitators to use. Technical problems with the application and Internet network problems represent the main contextual barriers.

Discussion: AMWs are strongly motivated by their communities' best interests. As mHealth is believed to be the future norm and the electronic application perceived as superior to the traditional system, AMWs are determined to use mHealth tools despite important contextual barriers. AMW's requests for add-ons suggest that AMWs believe that mHealth tools offer potential for improvement of services. Observed lack of ease-of-use and reported lack of use during patient consultations suggest that more training and improved technical support is required.

Conclusion: Believed to be the future norm and good for their community, mHealth tools are embraced by AMWs in Myanmar despite important contextual barriers.

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A journey into the study of sex and gender in global health research

Qualitative and quantitative methods are flourishing at both the undergraduate and graduate levels in an increasing number of global health related disciplines. Such methods can contribute to a better understanding of issues such as inequity, often founded on ethno-racial differences, sexism and gender bias. These determinants have been documented to affect access to health care services to those most in need.

A diversity of research methods can be applied to elucidate the intersecting social determinants of health care access, which is essential for the development of appropriate preventative and therapeutic interventions.

Sex and gender are increasingly recognized as important health determinants and critical aspects of health care research.

The aim of the proposed workshop is to emphasize the fact that incorporating sex and gender as biological and social determinants in health care research contributes to better science in the field of global health research.

More specifically, the objectives of this workshop are as follows:

- a. To define the concepts of sex and gender as key determinants in health research¹;
- b. To provide an overview of the ways in which sex and gender can be operationalized into qualitative health research methods;
- c. To offer illustrative examples of research knowledge derived from qualitative health research methods in which sex and gender were incorporated as determinants of health (case studies and critical analyses);
- d. To provide an interactive forum which will allow the workshop participants to discuss their research plans and methods and receive feedback from a diversity of experts in sex, gender and qualitative health research.

To address these objectives, a number of scientific papers will be presented and discussed. Some basic references will be presented as well such as:

1. Johnson, J.L., Greaves, L., & Repta, R. (2007). Better Science with Sex and Gender: A Primer for Health Research. Vancouver: Women's Health Research Network.
2. Oliffe, J. and Greaves, L (2012). Designing and Conducting Gender, Sex and Health Research. Sage Publications.
3. Johnson, J., Sharman, Z., Vissandjée, B., Stewart, DE. (2014) Does a Change in Health Research Funding Policy Related to the Integration of Sex and Gender Have an Impact' PLoS ONE 9(6). DOI:10.1371/journal.pone.0099900
4. Banister, E.M., Begoray, D.L., and Daly, L.K. (2011). Responding to adolescent women's reproductive health concerns: Empowering clients through health literacy. Health Care for Women International, 32(1), 1-11
5. <http://genderedinnovations.stanford.edu/index.html>

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The continuing education needs of nurses working in hospital environments in rural Punjab, India

Rationale: Statistics suggest that 72% of India's population resides in rural areas, while 75% of physicians practice in urban centers. As a result, nurses are depended upon for knowledge and skills beyond their initial training and education. Currently, in India's rural health care settings, formalized processes to ensure nurses receive continuing education do not exist. Physicians and nurse colleagues often bridge the education-practice gap, allowing nurses to fill the void in their practice responsibilities. However, the Indian Nursing Council is requiring a five-year renewal process with mandatory requirements for continuing education. Developing appropriate and relevant continuing education programs will require an understanding of nurses' role in the clinical setting and their learning needs.

Objective: The purpose of this research study is to investigate the continuing education needs of nurses working in hospital environments in rural areas of the Punjab, India.

Methods: This qualitative research study is a secondary analysis of data obtained from an original study that investigated the roles and responsibilities of nurses working at Guru Gobind Singh Hospital in Punjab, India. Twelve staff nurses and five physicians who were comfortable participating in an English-speaking interview and expressed familiarity with the role of a nurse, participated in focus group interviews. Interpretive description methodology was used to identify themes and subthemes.

Results: Key themes from the analysis revealed nurses' emphasis on task completion; the knowledge and skills required for clinical practice exceed nurses' basic education preparation; and recognition of nurses' capacity for advanced practice roles within the health care system. Physicians also expressed their dependence upon nurses to fulfill their respective responsibilities.

Discussion: The results identify nurses' desire for continuing education and specific education needs. Nurses' education needs included advanced practice skills and knowledge, to support patient care. Nurses demonstrated capacity for critical thinking, and assumed an unregulated advanced scope of practice to ensure patient care was provided. However, as seen in literature, the results also suggested that nurses practicing in rural environments face limited opportunities for continuing education due to limited resources.

Conclusion: The study findings highlight the need to enhance nursing's capacity through continued education and advanced practice roles to meet the health care needs in rural India. Future plans include returning to India, and building continued partnership with Baba Farid University by tailoring nursing education, and opportunities for advanced practice to increase nursing capacity.

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Saving mothers project 2014: preparing for scale-up of community distribution of clean birth kits with misoprostol

Rationale: In rural Africa, postpartum hemorrhage and sepsis are major causes of maternal death. Women who deliver outside of a health care facility are most at risk. In Mara Region of Tanzania, over 60 percent of women have non-facility births.

Objective: The objective of this pilot study was to demonstrate that dispensary nurses and community health workers can safely distribute clean birth kits with misoprostol to pregnant women in rural Mara Region.

Misoprostol can be self-administered to prevent postpartum hemorrhage and infection. The birth kits contain materials to help prevent infection at delivery (soap, plastic sheet, three pairs of gloves, razor to cut cord, and cord ties).

Methods: We trained dispensary nurses and community health workers in Bunda and Rorya Districts, Mara, Tanzania to educate women about safe delivery practices and the use of clean birth kits with misoprostol. The kits were distributed to the women at no cost. The kit was to be used if the woman was unable to reach a health facility at the time of her delivery, or if the facility lacked oxytocin. Women were surveyed to explore their experiences of using the kits. Women, nurses and community health workers participated in focus groups about the research.

Results: About 400 birth kits were distributed during the three month project. Of the 335 women surveyed after delivery, only approximately 40 percent delivered in a health facility. Eighty six percent of the women took misoprostol while the remaining women received an injection from a health care provider. All the women used other components of the kit regardless of their delivery location.

Discussion: The clean birth kits with misoprostol were well received by women in the community. Dispensary nurses and community health workers were also supportive of the project. The contents of the birth kit, including misoprostol, were useful in health facility deliveries, where medical supplies and oxytocin can be lacking.

Conclusions: It is feasible to train rural dispensary nurses and community health workers to educate women about safe delivery and to distribute birth kits with misoprostol to pregnant women. Provision of these kits is an incentive for women to seek antenatal care and delivery at health facilities, even if supplies are lacking. Home delivery rates need to be monitored in scale-up. Challenges to be addressed include ensuring availability of the kits to all pregnant women, sustainable funding models for the future, and government uptake of the project.

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Canadian foreign aid: A focus on reproductive, maternal and newborn health

Rationale: Canada's 2010 Muskoka Initiative and the 2014 Saving Every Woman Every Child: Within Arm's Reach summits, launched programs that focus on maternal, newborn and child health. These efforts have received significant praise and are viewed as one of Canada's leading contributions to global health. The rhetoric and politics that entrench Canada's involvement in foreign aid, as well as Canada's approach to maternal, newborn and child health (MNCH) are anticipated to limit the potential improvements to women's health worldwide.

Objective: This presentation will discuss Canada's role in global health through examining recent trends in foreign aid, strategies and priorities to provide understanding of the current Canadian development aid context. It will critically analyze the current and future Canadian development priority programs, the Muskoka Initiative and Saving Every Woman, Every Child to understand progress achieved and future prospects.

Results: Canadian foreign aid strategies and priorities have changed as a result of fluctuating government leadership and political influence. These changes have had a significant impact on Canada's bilateral and multilateral support of countries and areas of health. Canada's recent contributions to overseas development assistance have seen significant declines and continue to fall short of international commitments. Canadian priorities over the last several years have seen a shift from focusing on health system strengthening to the vertical delivery of health programs focusing on specific issues, such as maternal and newborn health through vaccinations and nutrition. Canada's aid towards maternal and newborn health fails to adopt a rights-based, comprehensive approach to women's reproductive health, focusing primarily on framing all women as 'mothers', ignoring the wide spectrum of reproductive health-related issues and needs, including politically sensitive areas, such as adolescent reproductive health, modern contraception and safe abortion services.

Discussion: The framing and conceptual limitations of 'maternal health' and financial constraints of funding towards ensuring universal access to comprehensive reproductive health within the Muskoka Initiative and Saving Every Woman Every Child: Within Arm's Reach highlight Canada's prioritization of short-term gains, while failing to achieve long-term sustainable prevention of maternal and newborn mortality.

Conclusion: Looking ahead to Canada's role in global health and the post-2015 development agenda, it needs to be acknowledged that the rights and needs of populations in low- and middle-income countries should be prioritized over Canada's political ideologies in order to achieve sustainable development through the provision of Canadian foreign aid.

Williams, Kimberly

University of Calgary and Catholic University of Health and Allied Sciences, Canada and Tanzania

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Understanding stigma: collaboration between the University of Calgary and Catholic University of Health and Allied Sciences (CUHAS) in Tanzania.

Title: Understanding stigma: collaboration between the University of Calgary and Catholic University of Health and Allied Sciences (CUHAS) in Tanzania.

Rational: CUHAS has identified gaps in mental health and reached out to the University of Calgary to help develop curriculum in the area of mental illness. It is important that the curriculum developed will reduce stigma.

Objectives: To describe the current perceptions of medical students and masters students of those with mental illness; to understand the effect of an educational intervention on medical students and masters students' perceptions of mental illness; and to recognize the factors which reduce stigma against those with mental illness.

Methods: This study was a cross-sectional design with both quantitative and qualitative data collection. Data collection included interviews with key stakeholders, a pre-and-post survey of students, and focus groups with students. The qualitative data was analyzed using thematic analysis and the quantitative data was analyzed using both descriptive and frequency distribution. Bivariate analysis will be done with chi-square or t-test.

Results: The major theme to emerge was that stigma has a large impact on the diagnosis, management and treatment of patients with mental illness. Participants noted that not only do mentally ill patients experience stigma, but so do their families. There are many barriers to patients seeking treatment including opportunity cost, the use of traditional healers, a lack of knowledge of the biological causes of mental illness, and stigma. Those with mental illness experienced external and internal stigma. Stigma even extends towards those who work with mentally ill patients. Solutions included: increasing the knowledge of both health care providers and the community, putting more resources into mental illness and sharing stories of resiliency.

Discussion: Studies from West Africa found that an overwhelming majority of people believe those with mental illness are dangerous and not suitable for normal social contact¹. This was consistent with what was found in Tanzania. Participants confirmed that the way mental illness is described creates stigma. Many areas of the world prefer a psychosocial rather than a biogenetic explanation for mental illness¹. Participants did not prefer a psychosocial cause to illness, but instead noted that a lack of knowledge and a belief in traditional healers are primary causes to stigma.

Conclusion: It is imperative that reducing stigma is considered as a part of curriculum development as it is perceived to be a large barrier to current assessment, management and treatment of patients with mental illness in Tanzania

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Reciprocity in Global Health university-to-university partnerships

Rationale: Central to many definitions of global health is addressing inequality. University-to-university partnerships are one means of doing so. However, establishing successful partnerships incorporates commonality and mutuality so that both parties benefit from the relationship. The Global Health literature has many examples of project results, and toolkits exist for managing partnerships, but critical, contextualised assessments of university-to-university partnerships are few.

Objective: How is reciprocity, the practice of exchanging things with others for mutual benefit, incorporated into university-to-university Global Health partnerships?

Methods: We present the findings on the role of international partnerships in strengthening medicine, nursing and public health programmes at four universities in East Africa. Moi University and UoN (Kenya) and KCMUCo and MUHAS (Tanzania) were purposefully selected. In Phase 1, 42 KIIs were conducted with senior university and teaching hospital representatives to identify which partnerships were considered most significant for increasing the capacity of their health professional programmes in education, research and/or service. In Phase 2, 88 student and lecturers from the four universities participated in FGDs or interviews. In Phase 3, 56 KIIs were conducted with representatives from 24 of the partner universities (3 African, 8 European, 13 North American) to understand their motivation for partnering. The interviews were transcribed and analysed.

Results: One-hundred and twenty-six international partnerships were identified and mapped. Partnerships involved universities in high-income countries (75%) and low- middle-income countries (14%); 10% were with consortia. Eleven types of activities were identified. PhD attainment, infrastructure development, curriculum development and student exchanges were most valued by the Kenyan and Tanzanian partners. International partners were largely motivated by placement sites for students, research and social responsibility. Financial considerations are important to most partners. The degree to which reciprocity existed within specific activities varied greatly between partnerships, from being perfectly balanced using the same units (e.g. # of students participating), to being balanced but with different units (e.g. students, finances), to being significantly unbalanced. Examples of each situation were found for international partners from HICs and LMICs.

Discussion: Most Global Health partnerships are inherently between or among unequal partners. Nurturing reciprocity in international, universities-to-university partnerships is challenging. Some partners construct their partnerships so that they are reciprocal and refuse to engage in imbalanced partnerships. Other partners seek to maximize the potential benefit of any partnership.

Conclusion: Each activity within a partnership need not honour reciprocity but the overall partnership should work towards being reciprocal in nature to reduce inequalities.

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International health partnership to develop cardiac services and a standardized adult cardiology training program in Ayder Referral Hospital, Mekelle University, Mekelle, Ethiopia

Rationale: In Ethiopia, approximately 10% of annual deaths are attributed to cardiovascular diseases. Currently 12 'cardiologists' in Ethiopia serve a population of 92 million people. These physicians, with variable amounts of training are in the region of Addis Ababa, and primarily within the private system. The Tigray region of Ethiopia has a population of over 5 million people, and its main teaching and referral hospital is the Ayder Referral Hospital (ARH). Twenty five percent of ARH's internal medicine patients have a primary cardiac diagnosis. Presently there are very limited cardiac services and no trained cardiologists to serve this region.

Objectives: Academics without Borders (AWB) and Mekelle University (MU) are partnering to develop sustainable and comprehensive cardiac services for the Tigray region, and thereafter to implement a regionally tailored and standardized adult cardiology training program. The main aims are to 1) identify the important elements required to develop sustainable and relatively comprehensive cardiac services for a large population in this low income region, 2) develop a partnership framework that adapts to changing resource opportunities while building the region's capacity for essential cardiac services, and 3) address the imperative to advance local medical expertise with a standardized training program in order to build long-term capacity for improved patient care.

Methods: This partnership has 3 main phases,

- 1) Needs assessment and feasibility study for developing regional cardiac services and adult cardiology training program at ARH
- 2) Program design and implementation of training modules for Internal Medicine physicians and allied health staff taught by AWB volunteers, together with Health Ministry funded full-time, or limited scope foreign cardiology training experiences as opportunities arise
- 3) Implement first tailored 2 year adult cardiology training program at ARH with a combination of AWB and MU tutors

Discussion: Academics without Borders and Mekelle University are partners in a multi-stage long-term collaboration intending to develop regional cardiac health services and an adult cardiology training program that will be managed and advanced long-term by Ethiopian physicians and staff. If this program is established at Mekelle University, it could serve as a model for the rest of the country.

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Virtual longitudinal mentorship: a feasibility project for clinical research capacity building

Rationale: Clinical research skills are becoming an essential part of clinical practice. Teaching clinical research methods, however, can be challenging for smaller programs in developing countries. Building on the desire to share clinical research expertise between an academic center in Toronto and highly motivated trainees in Ghana, a longitudinal clinical research capacity building virtual mentorship program was designed and piloted.

Objective: The objective of the project is to evaluate the feasibility of a virtual longitudinal mentorship program, and its efficacy in enabling clinical research capacity building in radiation oncology.

Methods: A focus group was conducted with the trainees in Ghana to help design the content and format of the virtual mentorship program. All five trainees from the National Centre for Radiotherapy and Nuclear Medicine, Korle Bu Teaching Hospital, Ghana were invited to submit research concepts and participate in the program. Two candidates were further selected based on the quality and feasibility of their proposal to be assigned a methodology mentor (Toronto faculty) and a clinical supervisor (Ghana faculty). Twelve weekly (1.5 hour) sessions led by Toronto faculty trained in epidemiology provided knowledge content at the beginning of the program via Telehealth technology. Supervisors and mentors committed to work with the trainees for 12 months to develop their research proposals and prepare an abstract for submission. Toronto mentors provide design expertise while the Ghanaian supervisors provide support in adapting the solutions to the local environment. The primary outcome measure is the number of abstracts accepted for presentation at international conferences. Intermediate outcomes include online feedback questionnaires designed to evaluate satisfaction with content and interaction, and a critical appraisal skill assessment (Berlin Questionnaire). This pilot program is funded by the UHN Global Capacity Building Fund.

Results: Five Ghanaian trainees and two faculty, eleven Toronto faculty, and two telecommunication specialists participated in this pilot. All twelve sessions were successfully delivered and well received, with the systematic review and randomized trial sessions being most highly rated. Both selected trainees completed their protocol design and are in the process of implementing their projects. The program is ongoing.

Conclusion: A virtual longitudinal mentorship program designed to enable clinical research capacity building was successfully launched between Ghana and Toronto. The model has the potential to build research capacity by utilizing research excellence at geographically remote academic institutions, with minimal interruption to clinical flow in both departments. The program plans to expand to other developing countries.

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Lessons from a Canadian-South African partnership of partnerships: A multi-scalar approach to protecting health workers from infectious disease transmission

Rationale: There is considerable debate on how best to build capacity to strengthen health systems globally to respond to emerging and recurring health threats. Health workers in low and middle-income countries (LMIC) are at high risk of exposure to infectious diseases at work, especially in circumstances of critical health human resource deficiencies and limited implementation of occupational health and infection control measures. In 2006, a partnership developed between occupational health and infection control experts in Canada and institutions in South Africa, including an institute with a national mandate to conduct research and provide guidance to protect health workers from infectious diseases and promote improved working conditions.

Objective: To describe this collaboration. what was achieved, and outline lessons learned.

Methods: Applying a realist review analytic framing model, we analyzed why, when and how the partnerships developed at global, national, provincial and hospital levels, difficulties encountered and; how each undertaking contributed to capacity-building. Diverse expectations on developing new insights, providing training, and addressing service needs are examined through a micro-meso-macro lens, focusing on efforts to strengthen the knowledge and skills of individual health workers, build infrastructure at the workplace, and introduce new government policies.

Results: Training that synergistically benefitted Northern as well as Southern trainees was conducted; a state-of-the-art occupational health and safety surveillance program was introduced in select South African hospitals and public health laboratories (following successful technology transfer from a similar undertaking in Canada); and integrated infection control and occupational health policies to minimize infectious disease transmission were developed. Having a national (South-South) network reinforced by the international (North-South) partnership was pivotal in mitigating the challenges that emerged.

Conclusions: High-income country partnerships with experience in health system strengthening ' particularly in much needed areas such as occupational health and infection control ' can effectively work through strong collaborators in the Global South to build capacity. Partnerships can sustainably reinforce efforts at national and sub-national LMIC levels when they adopt a 'communities of practice' model, characterized by multi-directional learning. The principles of effective collaboration learned in this 'partnership of partnerships' can be applied to other areas where health system strengthening is needed. The key message is that developing a multi-scalar

community of practice, centered on strengthening a key LMIC institution that can sustainably work with local partners, is especially useful.

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Contribution du téléphone mobile à l'accès équitable aux soins de santé maternelle, infantile et des personnes vivantes avec le VIH au Burkina Faso

Rationnel de l'étude et gap à combler

L'utilisation de la technologie mobile en expansion s'offre comme une opportunité pour améliorer l'accès des populations aux services de santé en Afrique. Au Burkina Faso, la mortalité maternelle et infantile restent élevées. L'accès des services de base aux PVVIH reste également limité avec un taux de perdus de vue au delà de 30% ; une mauvaise observance du traitement. Ce déficit est en partie lié au faible accès à l'information. Cette intervention se voudrait de combler le gap à travers la mise en œuvre d'un système de téléphonie mobile.

Objectifs spécifique

Il s'agit d'améliorer l'accès des femmes enceintes et des PVVIH à l'information sanitaire, pour une meilleure couverture santé mais avec un accent sur l'équité et la gouvernance du système de santé.

Méthodes

A travers une intervention de type quasi-expérimental, un système de téléphone mobile communautaire a été mis en place en 2013 dans 5 centres de santé d'intervention afin de pouvoir mesurer les effets de l'intervention sur les résultats de santé maternelle et infantile et des PVVIH. Une application d'interaction vocale en cinq langues locales génère des rappels automatisés des rendez-vous de consultation.

Résultats

Au total 423 femmes enceintes, 319 nouveaux nés, et 116 PVVIH, ont été suivis par le système. 305 rappels de consultation ont été émis. Une augmentation de 8% des consultations prénatales en 2014 a été noté de même qu'une augmentation de 3,5% pour la vaccination BCG chez les nouveau-nés, un taux de perdus de vues de moins de 3,5% chez les PVVIH en 2015. Toutefois, mettre en place un projet de mobile santé en milieu rural nécessite de surmonter des défis liés à la technologie avec 65% de remplacement des téléphones.

Discussion

L'intervention mobile santé en milieu rural est un défi technologique majeur. Ce projet innovateur premier du genre au Burkina permet de jeter les bases de son adoption. Cette téléphonie mobile pourrait apporter une contribution à l'équité d'accès aux soins.

Conclusion

Le téléphone mobile pourrait améliorer l'accès des populations à l'information sanitaire, et à participer dans la gouvernance du système de santé. Elle se présente comme une solution pour améliorer l'accès des femmes, des PVVIH aux soins de santé et partant de l'atteinte des OMD.

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The velocity of Ebola spread in West Africa

Rationale

A variety of risk factors have contributed to the human-to-human spread of Ebola virus disease (EVD) in the ongoing West African epidemic including caring for the infected, involvement in funeral preparations of infected corpses, and healthcare infrastructure. At the population level, mobile populations, porous borders, and commercial air travel patterns have influenced the frequency and breadth of EBV transmission. However, little is known about the speed and pattern of EVD spread in the current epidemic.

Objective

The goal of our analysis was to calculate the velocity of spread of EVD in Guinea, Liberia, and Sierra Leone.

Methods

Publically available data from the World Health Organization (WHO) were used for this analysis, which we restricted to confirmed cases of EVD. Using a surface trend analysis, the speed and direction of EVD diffusion was calculated for each district. Surface trend is a spatial interpolation method used to estimate continuous surfaces from point data. The response variable was time from first confirmed EVD case (week of 06 to 12 January 2014) for each coordinate, and the continuous surface of time to infection was estimated by regressing it against X and Y coordinates.

Results

The average speed of EVD spread across Guinea, Liberia, and Sierra Leone was 19.3 km/week, and varied from 2.3 km/week to 267.6 km/week. There was a radial pattern of diffusion from the initial EVD-affected districts that bordered Guinea and Liberia. Other spatial patterns of spread were present, which could likely be explained by the translocation of infected individuals.

Conclusions

Predicting disease movement is useful for identifying critical locations and corridors for containment efforts, such as the placement of clinics, training of health professionals, community outreach, and active case finding.

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Les facteurs contextuels comme modificateurs des effets de l'exemption des paiements sur les résultats de santé infantile au Burkina Faso

Justification : L'accès aux soins de santé est reconnu comme l'un des principaux facteurs associés à la réduction de la mortalité infantile. Le Burkina expérimente depuis 2008 une politique d'exemption totale du paiement des soins en faveur des femmes enceintes et des enfants de moins de 5 ans dans deux districts sanitaires de la région du Sahel. Le but est d'augmenter le recours aux soins et de réduire les taux de mortalité et de morbidité. Dans la perspective de la couverture universelle des soins de santé primaire en Afrique le besoin de preuves solides pour soutenir la mise à l'échelle des politiques d'exemption des paiements se fait de plus en plus pressant.

Objectif : cette étude évaluer les effets à long terme de l'exemption des paiements sur le taux d'utilisation des services de santé infantile en contrôlant pour les facteurs liés au contexte et à l'offre de soins.

Méthodes : Nous utilisons la modélisation par la méthode des séries temporelles interrompues. L'intervention est évaluée sur la base de l'évolution du taux mensuel d'utilisation des services de santé infantile dans 88 centres de santé de 4 districts sanitaire du Burkina Faso. Les données proviennent du système national d'information sanitaire (SNIS), avec une fenêtre d'observation s'échelonnant de janvier 2004 à décembre 2014.

Résultats : Après avoir pris en compte des tendances séculaires, les variations saisonnières, la surdispersion, les facteurs reliés aux services de santé et leurs contextes, l'exemption des paiements a entraîné une hausse immédiate soutenue des taux d'utilisation des services de santé infantile ($p < 0.0001$). Les facteurs reliés aux services de santé (qualités des services, taille des centres de santé, disponibilité des médicaments) et à leurs contextes (pluviométrie, et coûts des transports et barrières géographiques) sont associés à l'hétérogénéité des effets immédiats et à long terme de cette intervention.

Discussion/Conclusion : En identifiant les facteurs associés à la disparité des effets immédiats et à long terme de cette expérimentation, cette étude peut servir de base pour ajuster les interventions d'exemption de paiements pour plus d'efficacité et pour soutenir la nécessité de leur mise à l'échelle dans la perspective de la couverture universelle des soins de santé primaire en Afrique subsaharienne

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Les tests rapides de la dengue, une opportunité de renforcement des capacités des soignants face à une maladie infectieuse émergente au Burkina Faso

Justification

Malgré une forte épidémie en 2013, les centres de santé du Burkina Faso ne disposent pas de dispositifs pour diagnostiquer la dengue afin de mieux la prendre en charge. L'infection reste méconnue et la plupart des épisodes fébriles sont traités de façon présomptive comme du paludisme.

Objectif

Analyser la manière dont l'utilisation des tests rapides par les soignants permet d'améliorer leurs capacités de diagnostic et de prise en charge thérapeutique de la dengue.

Méthodes

Cette recherche est qualitative. Elle a concerné six formations sanitaires de Ouagadougou où des tests rapides de la dengue ont été introduits dans les consultations curatives dans le cadre d'une recherche interventionnelle.

Trente-deux entretiens individuels semi-directifs et approfondis ont été menés avec des soignants, et analysés à l'aide du logiciel d'analyse qualitative QDAminer.

Résultats

Avant l'introduction des tests, la dengue n'était ni connue ni diagnostiquée par les soignants. La plupart des cas fébriles étaient systématiquement assimilés au paludisme et traités comme tels. Grâce à la formation dont ils ont bénéficié et avec les résultats des tests rapides, les soignants ont amélioré leurs connaissances sur la dengue, facilitant ainsi le diagnostic des épisodes de fièvres et leur prise en charge par des prescriptions appropriées et à moindre risque de complications. Du fait des contre-indications médicamenteuses pouvant entraîner des complications, les dérivés d'anti-inflammatoires non stéroïdiens et l'aspirine 'couramment utilisés auparavant' font l'objet d'une attention particulière dans les prescriptions.

Discussion

La dengue reste méconnue et sous-notifiée en Afrique du fait de multiples facteurs dont sa très faible connaissance par les soignants, la prévalence d'autres maladies fébriles majoritairement traitées de façon présomptive comme le paludisme et l'absence d'un système de surveillance adapté. Le diagnostic biologique (rapide) est important pour parvenir à une meilleure connaissance de l'infection et prendre rapidement en charge, de manière adéquate, les cas et aider à la surveillance de l'infection.

Conclusion

Dans un contexte de présence de la dengue et de forte prévalence des maladies fébriles, le recours au test biologique (rapide) renforce les capacités diagnostiques des soignants et améliore leurs prescriptions. Cependant, un passage à l'échelle suppose de prendre en compte les capacités des centres de santé à ajouter de nouveaux tests dans un contexte où ils disposent déjà de plusieurs outils de diagnostics et de supports à renseigner en routine.

