considerations: Independent ethics committees within hospitals or clinics Local leader or village chief permission or support 5. Individual considerations: Factors that limit true informed consent Appropriate consenting process Spousal permission In DRC, we obtained approval from the DRC National Order of Physicians Ethics Committee and at individual clinics. In the Philippines, the University of Santo Tomas partnered and undertook primary IRB responsibility with additional approvals at each hospitals. In Mexico, a hospital-based partnership was formed with Shriners Hospital Tijuana through a co-investigator. In Honduras, Morocco and Vietnam, approvals came from directors of individual hospitals and clinics.

Going Forward: A checklist tool is being developed to facilitate the international ethical approval process for similar studies conducting international human subjects research. The tool will assist in identifying stakeholders and understanding which approvals are neede

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Abstract #: *01GMHE007*

Attracting and retaining nurses to a rural hard to reach post in lesotho: A combination of financial incentives, preservice competency based curriculum and student rural clinical placements

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Program/Project Purpose: Lesotho is one of the 57 countries that are experiencing health workforce crisis and distribution challenges. This program represents a combination of three US Government funded projects whose aim was to prepare nurses that would be attracted and retained in the rural mountainous areas of Lesotho. The three projects focussed on financial and no-financial incentives, development of a competence based curriculum for midwives willing to work in rural areas and student nurse rural clinical placements program. These programs were implemented by 3 US Government implementing partners; ECSA, Jhpiego and Columbia University. These programs are/ were concurrently implemented from 2010 to 2014/15/16.

Structure/Method/Design: To prepare a nursing cadre willing to be deployed and retained in rural hard to reach mountanous areas of Lesotho; To develop a competency based curriculum that prepares a nurse midwife to work in rural areas of Lesotho; and To attach student nurses to rural clinical sites in order to expose them to the rural work environment and therefore prepare them for rural posts. The nurse participants were nursing students in the six nursing schools and in-service nursing staff working for the Ministry of Health. The capacity building activities were carried out in both Ministry of Health and Churches Health Association of Lesotho training institutions and health facilities.

Outcomes & Evaluation: The results were collected through routine program monitoring information and a specific evaluation conducted on the students that were placed in rural clinical cites to assess their willingness to work in rural hard to reach health facilities once they graduate. The research results revealed that of the 49 students placed in rural clinics 35 (71%) stated willingness to work in rural sites after graduation. The program also monitored the recruitment of staff to the 46 rural hard to reach health facilities. The program was able to attract and fill 325 nurse positions out of the earmarked 375 positions (87%).

Going Forward: The program clearly shows that a combination approach to preparing nurses for rural deployment, beginning with the content of the curriculum, student placement in rural areas and a combination of financial and non-finacial incentives does improve availabi

Funding: The partners that supported the activities of this program include USAID using PEPFAR funds and Irish AID supporting the finacial and non financial incentives at the 46 health facilities.

Abstract #: *01GMHE008*

Time series analysis of sexual assault case characteristics and the 2007–2008 period of post-election violence in Kenya

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Background: Kenya witnessed hundreds of cases of sexualized violence in the post-election period (December 2007 to February 2008), yet few comprehensive medical studies measure the prevalence of sexualized violence cases. The aim of this study was to establish the patterns of mass rape during the post-election violence.

Methods: Medical records of 1,615 patients diagnosed with sexual assault between 2007 and 2011 at healthcare facilities in Eldoret (n = 569), Naivasha (n = 534), and Nakuru (n = 512) were retrospectively reviewed to examine characteristics of sexual assault cases over time. Data were cleaned to eliminate cases from the analytic dataset that failed logic and consistency checks. Time series and linear regression were used to examine temporal variation in case characteristics relative to the period of post-election violence in Kenya. We collapsed the dataset by month of assault and calculated the percentage of cases that exhibited a case characteristic of interest, then examined the first 10 autocorrelations for each outcome series, and calculated the Durbin-Watson statistics. Key informant interviews with healthcare workers at the sites were employed to triangulate findings, using inductive content analysis. This research was approved by the Institutional Research and Ethics Committee of Moi Teaching and Referral Hospital, the Boston University Medical Center Institutional Review Board (IRB), and the Research Triangle Institute International IRB.

Findings: Prais-Winsten estimates indicate that cases in the PEV period showed a greater percentage-point increase in a one-month lag between date of assault and date of presentation to healthcare facility (0.28 in PEV cases, 0.10 in non-PEV cases, p = .003), the perpetrator being unknown to the victim (0.45 in PEV cases, 0.23 in non-PEV cases, p =.001), more than one perpetrator being involved in the sexual assault (0.35 in PEV cases, 0.13 in non-PEV cases, p .001), and abdominal injuries (0.07 in PEV cases, 0.03 in non-PEV cases, p = .025). Sensitivity analyses confirmed that these characteristics were specific to the post-election violence time period.

Interpretation: These results illustrate systematic alterations in sexual assault case characteristics during the PEV period in Kenya that are consistent with the patterns of mass rape in conflict settings elsewhere. This finding bolsters claims being advanced in legal processes that crimes against humanity of mass rape took place during post-election violence. Limitations of the study include the inability to capture cases that were not reported to medical facilities or sexual homicides, as well as variation over time and by location of medical records. A strength was that time series analysis in conjunction with medical record review allowed us to gain efficiencies that would be lost in a larger, cross-sectional population base survey relying on survivor recall.

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Abstract #: *01GMHE009*

Informal fees for maternal health: A critical interpretive synthesis of evidence and policy

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Background: A growing number of studies suggest that informal (illicit) fees for healthcare are prevalent in low and middle income countries. These fees are regressive and deeply embedded, often proving impervious to policy interventions.
Methods: The author conducted a critical interpretive synthesis of peer reviewed literature, grey literature, global standards, and donor funding related to informal fees in order to assess their prevalence, critically interrogate the paradigms that are applied to understanding them, assess to what extent fees are addressed in global policy and funding, and propose future areas for policy and research. In contrast to a systematic review, critical interpretive synthesis fosters cross-disciplinary research that encompasses quantitative, qualitative, and conceptual work. As such, it can open new avenues of discussion on persistent public health problems whose roots reach into the political, social, and cultural realms. Pursuant to established methods for critical interpretive synthesis, key terms were searched in databases and selected journals. Resources were added through an iterative process of developing new lines of enquiry from the initial papers identified, and obtaining resources identified in paper citations.
Findings: Patients and providers perceive informal fees on a continuum from gift giving to forced payment. The often disrespectful and coercive nature of fee requests undermines trust and future utilization, and perpetuates helplessness and disempowerment. Health system "hardware" drivers, such as low salaries, scarcity of health workers, and poor infrastructure are widely explored in the literature. "Software" drivers, such as values and norms, are less explored, except in a few qualitative investigations. Policy literature is dominated by rational choice approaches. While the prevalence of fees is well documented, maternal health strategies and donor policies acknowledge the relevance of all out of pocket fees (both formal and informal) with little — if any — attention to informal fees as such.
Interpretation: The empirical literature about informal fees is limited by the paradigms applied. Rational choice approaches ignore cultural and practical meanings. International standards and strategies reflect this limitation, presumably exacerbated by reluctance to describe illicit practices. Two trends in international health and development offer opportunities. First, the emerging quality agenda in global health could include informal fees. Second, the governance field is evolving to focus on addressing the function of informal practice, rather than resorting solely to regulation and incentives to end it. Critical interpretive synthesis insights on the function of informal fees — from expression of consumer power to resistance of the health system — illuminates possible interventions beyond simple prohibition or incentives. This study is notable for its examination of both public health literature and policy. However, all data regarding informal fees were secondary, the key limitation of this study.
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Abstract #: *01GMHE010*

Collection and use of human biological specimens in research: Is there adequate ethics governance in Africa?

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Background: Innovations in biotechnology and advances in the potential of research to produce life-saving discoveries have led to rapid escalation in genetic and genome-based studies in developing countries. This is particularly true in Sub-Saharan Africa (SSA), where many research protocols call for the collection, use, and storage of human biological specimens (HBS) and where major efforts to establish biorepositories are underway. International codes of ethics and regulatory guidance require that these initiatives be reviewed by ethics review committees in both the researchers' own institutions as well as local host countries. This study is part of a multi-phase study examining the extent to which regulatory frameworks at the national level in SSA exist to guide local ethics review of HBS-related protocols.
Methods: Two systematic reviews were undertaken in this study. The first involved a literature and web-based review of publicly accessible laws, codes, and procedures in each SSA country relating to its ethical governance of HBS-related research and biobanking. The second review identified active clinical trials in SSA calling for HBS collection and use. Data from these two sources were compared to determine if countries with high-volume HBS-related activity had ethics governance structures in place.
Findings: Of the 46 countries in SSA, 31 (67%) had publicly available ethics regulations, of which only 12 (38%) had regulations with language specific to HBS. Of these, guidance was provided on informed consent (11/92%), collection (8/67%), ownership (2/25%), reuse (8/67%), storage (10/83%), disposal (7/58%), and export (10/83%). As of September 2014, 314 of the 1529 registered clinical trials active in SSA involved HBS collection. Of the seven SSA countries that currently host the majority of HBS-related research, all had regulations on HBS, yet, of these, only 4 (57%) had regulations on reuse and only one contained guidance on ownership.
Interpretation: Viewed at a regional level, SSA does not yet possess capacity to take full advantage of HBS-related research while ensuring adequate protection for research subjects. With only 12 of 46 countries possessing publicly accessible guidance on the ethical conduct of HBS-related research and biobanking, the region as a whole still lacks the governance systems it needs to review and facilitate ethical, high-quality research of potential benefit to its populations. Findings from this study suggest that those countries in which the largest volume of HBS-related research is currently situated include those with adequate regulatory guidance in place to support local ethics review. Before research efforts can expand beyond these locations to other countries within SSA, however, ethics capacity-building to improve national governance of HBS-related research and biobanking is needed.
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Abstract #: *01GMHE011*

Quality improvement of ward medicines management at a public sector hospital in the Southern Africa region

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Background: Equitable access to essential medical products, vaccines and technologies of assured quality, safety, efficacy and cost-effectiveness is one of the World Health Organisation's building blocks of a well-functioning health system. Pharmacists are trained as the custodians of medicines, to manage medicines selection, procurement, distribution and use, aimed at quality care and minimisation of waste. In most public sector hospitals in Southern Africa, pharmacists are primarily stationed in the pharmacy, with restricted medicines management involvement in the wards, limiting quality assurance of medicines used by in-patients. The study aimed to determine the role and impact of the active involvement of a pharmacist in the management of medicines at ward level in a public sector hospital in Southern Africa.
Methods: A 3-phased, operational, intervention study was implemented. A baseline assessment of medicines management practices in