

is present during clinic for logistic reasons and to facilitate the discussion. Diagnosis and treatment plans are made. Patients continue to get specialised care in the OPD or Tele-consultation clinic. Occasional emergency consultations are also provided.

Outcome & Evaluation: In the last 3 years, 316 patients with 1,200 consultations were provided in weekly clinic. The most common diagnoses made were depression ($n = 169$, 52%), Anxiety disorders (37, 11.7%), schizophrenia (24, 7.5%), unspecified Psychosis (19, 6%) and Somatoform disorders (14, 4.4%). Our pharmacy is equipped with a variety of medicines to support psychiatric illnesses in rural India.

Going Forward: Tele-consultations is a feasible model of providing specialist psychiatric care. This allowed us to reduce referral rates to Medical colleges for psychiatric illnesses and provide a learning environment for residents. Both the consultant psychiatrist and patients reported high rates of satisfaction. Treatment compliance rates have improved with internet consultations. We have been able to sensitise communities about mental health and form local, mental health support groups at the village level. We hope to develop methods to improve the outreach and compliance and reduce stigma of mental illness.

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Risk factors for cytomegalovirus retinitis among individuals with HIV and low CD4 count in northern Thailand

Abstract Opted Out of Publication

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Predictors of medical outcome in 1,712 Ethiopian survivors of rape

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Background: This study, conducted by Emory and Addis Ababa Universities, described the population and analyzed determinants of medical outcome in Ethiopian survivors of sexual violence treated in two comprehensive care clinics.

Methods: 2,970 patient charts from clinics in Hawassa and Adama, Ethiopia were reviewed, and 1,712 were selected based on criteria including history of rape, female gender, and chart completeness. Descriptive characteristics defined the population, while univariate and multivariable logistic regression analyses described predictive models for STI transmission, pregnancy, and injury. Approval was obtained from Emory University IRB00080146.

Findings: Average patient age was 13.4 years (SE = 0.1). 11.8% (SE = 1.1%) of patients tested positive for gonorrhea and 13.3% (SE = 1.2%) of patients tested positive for an STI (gonorrhea, hepatitis B, syphilis, or HIV). 9.0% (SE = 0.8%) of patients were pregnant. 16.8% (SE = 0.9%) of patients had genital injury, while 4.7% (SE = 0.5%) of patients had evidence of body trauma. Gonorrhea transmission was more common in patients with genital injury (OR = 2.53 [95% CI 1.51–4.24]), while education was protective

against both gonorrhea (OR = 0.18 [95% CI 0.04–0.76]) and aggregate STI transmission (OR = 0.38 [95% CI 0.15–0.96]). Pregnancy was common in cases of incest (OR = 2.96 [95% CI 1.74–5.04]) and prior sexual contact (OR = 2.33 [95% CI 1.38–3.91]), however on multivariable analysis, incest was uniquely predictive of pregnancy (OR = 3.21 [95% CI 1.62–6.33]). Body trauma was more frequent in patients with secondary education (OR 2.86 [95% CI 1.44–5.68]), prior consensual sex (OR 2.54 [95% CI 1.25–5.20]) and multiple penetrative assailants (OR 6.71 [95% CI 2.17–20.77]). Genital injury was more likely in younger patients (OR 0.96 per year [95% CI 0.93–0.98]) and those with multiple penetrative assailants (OR 2.85 per year [95% CI 1.03–7.86]).

Interpretation: When compared to other survivor cohorts, gonorrhea transmission and pregnancy were more common, while injury was less common. Although limited by chart completeness and inter-provider consistency, several characteristics predicted STI transmission, pregnancy, and injury. Novel findings included increased gonorrhea transmission after genital injury, while findings such as the protective effects of education on STI transmission reinforced prior studies. Many of these findings may be broadly applied to the care of these survivors.

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An evaluation of transparency and accountability in Brazil's pharmaceutical sector

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Background: It is estimated that one third of the world's population lack regular access to essential medicines. In recent years this lack of access has been attributed to a lack of good governance in the health and pharmaceutical systems, as it limits governments' ability to ensure proper management of public resources and can create opportunities for corruption. While anticorruption policies grounded on good governance are considered the 'golden' standard for tackling corruption, the transition from policy creation to the everyday practice of good governance policies involves robust complexities and may not always translate into minimized corruption. With this in mind, the proposed research aims to evaluate what good governance policies are in place in Brazil's pharmaceutical sector and how they are implemented and practiced in everyday activities. This will be done to contribute to the existing literature on good governance policies and how their uptake can be improved to minimize corruption and ensure access to medicines and health services.

Methods: We utilized WHO's Good Governance in Medicines Programme's Transparency Assessment Tool as the framework for our study. We conducted a desk review of legislation and policies that govern Brazil's pharmaceutical system and 20 semi-structured key informant interviews with government officials, hospital directors and pharmacists in the states of Sao Paulo and Paraiba to capture their perceptions on the level of transparency and accountability in the pharmaceutical system. Interview data was analyzed using Braun & Clarke's (2006) qualitative thematic analysis approach.

Findings: Preliminary results illuminate that Brazil has robust public policies to ensure civil society inclusiveness in the development of health policies, as well as mechanisms for the actualisation of accountability and transparency in its pharmaceutical system. However, we also are finding that cases of corruption and inefficiencies are evident in the procurement and selection of medicines. We also have found uneven levels of civil society participation and a lack of government support for including civil society in the formulation and monitoring of health policies.

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Strengthening monitoring and evaluation to improve quality of care in integrated community case management services in Bugoye, Uganda

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Collaborations between academic institutions and a Colombian health insurance provider to implement a mobile health platform for chronic disease management: Opportunities and obstacles

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Program/Project Purpose: Llamada Saludable is a pilot mobile health (m-health) program using interactive voice response (IVR) calls to monitor diabetes patients and provide self-care education between outpatient visits. While m-health tools are increasingly important in chronic illness management in low-middle income countries, health systems struggle to identify financially sustainable models. From 2013–2015, the University of Michigan (UM) partnered with a large public payer for low-income patients in Colombia (Savia Salud EPS) and a university in Medellín to pilot the Llamada Saludable system. This collaboration unites technology designers, local providers, and payers in a novel and viable partnership to implement a large scale, long term, m-health program.

Structure/Method/Design: The partnership is directed through the Living Lab, whose physicians and paramedics are responsible for maintaining the m-health service, recruiting health centers, and training clinicians to use the program and respond to patient alerts. Savia Salud participates in site identification and plans for long-term program scaling. UM provides software, technical assistance, and evaluation plans for determining program impacts.

Outcomes & Evaluation: A 12-week pilot program including 150 diabetes patients was successfully implemented in the summer of 2015. Living Lab staff developed a triage system to follow up on adverse health events reported during IVR assessments. UM staff addressed software changes and assisted in troubleshooting technical problems. Patients completed over 70% of their weekly automated calls

and the model of implementation successfully demonstrated proof of concept to patients, health care providers, and Savia Salud. Challenges to program implementation included low buy-in on the part of some administrators, delays in acquiring patient records, and shared telephone lines that hindered calls from going directly to patients.

Going Forward: Llamada Saludable is being extended to other municipalities around Medellín and expanded to address conditions including tuberculosis, HIV, and depression. As the program expands, it will be adapted to accommodate diverse patient and infrastructure demands (e.g. cellular network reliability in rural areas may require the incorporation of community health workers). Tailoring the IVR program to support workflow will be critical to the program's long-term success. Savia Salud plans to conduct a three-year trial to evaluate cost-effectiveness.

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Strengthening decentralized primary health care in low and middle income countries: A narrative review of frameworks

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Background: Primary health care (PHC) is essential for improving population health in low- and middle-income countries (LMICs). Considerable health systems strengthening (HSS) and implementation research challenges exist in decentralized, low-resource LMICs. Lessons learned through decentralizing LMIC health systems suggest the need for an effective context-specific conceptual framework to guide PHC strengthening. While not specific to decentralized, low resource settings, preexisting HSS frameworks may have relevance for future efforts to strengthen decentralized PHC systems in LMICs.

Methods: We searched PubMed and Google Scholar with terms such as “primary health care,” “decentralization,” “developing countries,” “policy development,” “regional health planning,” and “community integration,” and “global health,” to identify scientific, policy, and white papers that discussed HSS evidence in various global contexts. We reviewed 64 scientific articles referenced through PubMed and 23 policy and white papers, choosing six frameworks.

Findings: Six existing frameworks significantly contribute to HSS in various contexts and may be adaptable for application to decentralized areas of LMIC's. These frameworks are: 1) WHO Health System Building Blocks, 2) Starfield's Primary Care Framework, 3) Global Fund to Fight HIV, Tuberculosis, and Malaria's Community Systems Strengthening, 4) Results-Based Logic Model, 5) USAID Five Smart Strategies, 6) Health Systems 20/20. Notable concepts from these frameworks include essential health system components, the role of communities and local context, assessing and iteratively reforming PHC, strengthening decentralized health systems, and negotiating intersectoral roles.

Interpretation: A PHC strengthening framework that incorporates all concepts relevant to decentralized areas of LMICs is needed. Consensus should be derived from the applicable concepts within these and other preexisting frameworks, the lessons learned through efforts at decentralizing health systems and current