Within each of these case studies, donors will find evidence-based models and interventions informed by local input and involving local actors. Each study further illustrates how the featured organizations effectively delivered their proven solutions and provides estimated impacts and costs. Finally, the toolkit provides decision-making tools and frameworks for how to think about and expand on these philanthropic models with action steps.

#### Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): As above

**Summary/Conclusion:** For donors who care about maximizing the social impact of their gifts, the child survival toolkit fills a critical information gap providing evidence-informed analyses and actionable decision-making tools. The tool kit has been shared with the Center's primary audience—individual donors and their advisors—as well as the larger philanthropic community through online publications, blogs, social media outlets, and reports.

### Bridging the accountability divide: Male circumcision planning in Rwanda as a case study in how to merge divergent operational planning approaches in global health

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**Background:** When voluntary medical male circumcision (MC) was confirmed as an effective tool for HIV prevention in sub-Saharan Africa in 2007, many public health policymakers and practitioners were eager to implement the intervention. How to roll out the tool as part of comprehensive strategy, however, was less clear. At the time, very little was known about the capacity of health systems to scale delivery of the new intervention. Today, nearly all countries prioritized for the intervention are far behind their targets. To contribute to the discourse on why this is, we develop a historical analysis of medical MC planning in sub-Saharan Africa using our own experience of this process in Rwanda.

Structure/Method/Design: We compare our previously unpublished feasibility analysis from 2008 with international research published in 2009, which suggested how Rwanda could reduce HIV incidence through a rapid MC intervention, and Rwanda's eventual 2010 official operational plan.

We trace how, in the face of uncertainty, operational plans avoided discussing the details of feasibility and focused instead on defining optimal circumcision capacity needed to achieve country-level target reductions in HIV incidence. We show a distinct gap between the targets set in the official operational plan and what we determined was feasible in 2008. With actual data from the ground finally available, we show our old feasibility models more closely approximate circumcision delivery rates to date.

#### Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): Not applicable

Summary/Conclusion: Our applied research demonstrates how feasibility and optimization modeling approaches can produce very different policy recommendations, an issue of relevance when seemingly apolitical empirical tools form the foundations of political maneuvering for a particular global health intervention, such as male circumcision. Using the language of quantitative models, we show how rigid models, specifically in a low-capacity, high-uncertainty setting, can create unrealistic mandates and leave implementers to balance between obvious international enthusiasm and derivative ramifications for resource mobilization while still juggling feasibility. With an eye toward the future of long-term policy planning, we conclude that discussing feasibility ahead of policy setting necessarily incorporates local perspectives and should help to create better, country-specific, operational plans and ultimately improved conversations around accountability in global health.

## Do no harm: The know-do gap and quality of care for childhood diarrhea and pneumonia in Bihar, India

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**Background:** The provision of high-quality health care relies not only on providers' knowledge, but also on the translation of that knowledge into action. A mismatch between these domains is known as the know-do gap. We present new evidence on the capacity of rural health care providers in India to properly identify and treat childhood diarrhea and pneumonia, two leading causes of disability and mortality among children worldwide.

Structure/Method/Design: We administered vignettes for childhood diarrhea and pneumonia to 340 providers in rural Bihar and unannounced standardized patients (SP) presented the same cases. We calculated the know-do gap by comparing the fraction of providers who asked key diagnostic questions on each method. We used multivariable regression analyses to examine the relation between providers' characteristics and percentage of diagnostic questions asked, as well as likelihood of prescription of potentially harmful treatments.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): Providers, on average, asked 2.9 diagnostic questions and suggested 0.3 examinations on diarrhea vignettes (1.4 and 0.8, respectively, for pneumonia). Only 3.5% offered the correct ORS treatment for diarrhea, while 20.9% prescribed potentially harmful drugs without ORS. With SPs, 0% offered the correct treatment for diarrhea and 13% for pneumonia. We find a large know-do gap for diarrhea with providers asking diagnostic questions far more frequently on vignettes than with SPs, but not for pneumonia. While only 20.9% prescribed treatments that were potentially harmful on diarrhea vignettes, 71.9% offered such drugs to SPs (P < 0.001). Although medical qualifications were associated with fewer diagnostic questions for pneumonia, odds of unqualified providers prescribing potentially harmful treatments for diarrhea were 5.1 times that of qualified (95% CI, 1.24-21.13) and 2.4 times for pneumonia(95% CI, 0.98-5.82). Higher knowledge scores were associated with better performance for diarrhea, but not for pneumonia.

**Summary/Conclusion:** Our findings highlight the urgent need for policies to regulate and incentivize providers to correctly diagnose and manage the two leading causes of childhood mortality.

# Current issues in global health evaluation: The role of academia in addressing methodological challenges

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