

within the team tended to serve more in an advisory rather than participatory role. Key challenges in program implementation were related to inadequate and inconsistent inputs (salaries, transport, dedicated office space) and gaps in management. Specific factors that undermined consultant's effectiveness included lack of formal orientation at inception, no clear job performance targets, no performance feedback or monitoring of Consultants, weak supervision, and no co-management between the National and State levels on Consultants activities.

**Interpretation:** While Consultant's TORs are fairly well observed, weaknesses in managerial and material inputs affect performance. This study provides evidence that could inform efforts to improve the management and implementation of the RI consultant program. Our finding may help to understand operational challenges to implementing TA interventions more broadly, and can act as a tool for leadership in the design and management of these programs.

**Funding:** Funding by the GAVI Alliance through the Vaccine Implementation Technical Advisory Consortium (VITAC) grant.

**Abstract #:** 02GMHE007

### Lessons for public-private partnerships from ACHAP's contributions to the fight against HIV/AIDS in Botswana

*K. Peterson; FSG, Boston, MA/US*

**Program/Project Purpose:** In 2000, Botswana was a country in crisis. The HIV/AIDS epidemic was ravaging the country, with an adult prevalence rate over 28 percent. Projections from the World Health Organization (WHO) at the time indicated that 85 percent of 15 year-olds in the country would eventually die of AIDS. In 2013, FSG conducted a strategic review of the African Comprehensive HIV/AIDS Partnerships (ACHAP), focusing on the successes, challenges, impact, and lessons learned by the partnership over its 14 year history. ACHAP is a public-private partnership (PPP) formed by Merck, the Bill & Melinda Gates Foundation, and the Government of Botswana that contributed significantly to the dramatic scale-up of the antiretroviral therapy (ART) program which today reaches an estimated 85 percent of those in need.

**Structure/Method/Design:** Over the course of 12 months, FSG conducted over 75 interviews with key informants, three site visits to Botswana, a review of hundreds of documents pertaining to ACHAP's strategy and operations, and a review of external literature assessing ACHAP, HIV in Botswana, key interventions, and other PPPs.

**Outcomes & Evaluation:** FSG found that ACHAP's story is one of adaptation. Lessons from this partnership have clear implications for PPPs today working to solve health issues in complex and often broken healthcare systems. PPPs need to develop the capacity to adapt to ever changing political, epidemiological, and social contexts. By studying ACHAP's successes and failures, FSG identified critical and timely recommendations for the field.

**Going Forward:** FSG has put forward six key lessons that PPPs today can and should integrate into their work: Emphasize nimble execution and leverage flexible funding upfront to design the right interventions and role for the PPP. Set clear milestones upfront and be intentional about strategic shifts to ensure the organization has the skill and capacity to support the shifts. Ensure the management and governance structure supports the PPP design and goals. Plan for the sustainability of the organization and its impact and revisit the plans on an ongoing basis to ensure the success of the partnership. Set up the PPP to be a learning body that both informs the field and regularly test the strategic direction of the partnership. Design the appropriate collaboration mechanisms to allow for alignment with the government to ensure success of the partnership. ACHAP formed at a time when many other PPPs on health issues were emerging putting it in a position to serve as

one of the few examples that show the challenge of remaining relevant and effective over time.

**Funding:** FSG, a nonprofit consulting and research firm, received funding from the Merck Foundation to conduct the research.

**Abstract #:** 02GMHE008

### A comparative cost-benefit analysis of medical equipment sterilization methods in a rural Nicaraguan clinic

*N. Rosenberg, O. Valdman; University of Massachusetts Memorial Medical Center, Worcester, MA/US*

**Program/Project Purpose:** The rural clinic in El Tololar, Nicaragua routinely turns away dental and women's health patients because of a lack of sterile medical equipment. Clinic staff, including the director and dentist, identified this as a problem that could be ameliorated by having on-site equipment sterilization, but lacked evidence to rigorously determine the optimum method for sterilization.

**Structure/Method/Design:** Therefore, from January-February 2014, I performed a comparative cost-benefit analysis of three methods of medical equipment sterilization in their clinic: the status quo of shipping medical equipment back to the main hospital about one hour away, chemical sterilization, or purchasing an autoclave for on-site use. I visited the closest medical supply store, priced out goods, and calculated the net present value (NPV) and internal rate of return (IRR) for each sterilization method. I found that the autoclave would maximize NPV, while chemical sterilization maximized IRR. In addition, I calculated annualized return on investment (ROI) and time to ROI, which was shortest for chemical sterilization.

**Outcomes & Evaluation:** With the main criterion of maximizing NPV, I concluded that obtaining an autoclave would be the optimal solution to the clinic's problem. I have presented my findings to a US-based business, and hope to convince them to make a relatively small investment by US standards to improve the financial outlook and health of this rural community. The clinic has agreed to take responsibility for ongoing maintenance and upkeep of the autoclave.

**Going Forward:** This project demonstrates a powerful financial tool that can be used in the global health setting to decide between projects from a fiscal perspective.

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### The economic and social impact of patient care attendants at Mulago national referral hospital, Kampala, Uganda

*M. Sadigh<sup>1</sup>, F. Nawagi<sup>2</sup>, S. Byekwaso<sup>3</sup>, M. Sadigh<sup>4</sup>; <sup>1</sup>University of Vermont, Burlington, VT/US, <sup>2</sup>Makerere University College of Health Sciences, Kampala Uganda, Kampala, UG, <sup>3</sup>Makerere University College of Health Sciences, Kampala, UG, <sup>4</sup>Western Connecticut Health Network, Woodbridge, CT/US*

**Program/Project Purpose:** Uganda has one doctor per 15,000 patients and one nurse per 11,000 patients. Critically or terminally ill patients are commonly referred to Mulago Hospital in Kampala. Even at Mulago, the number of nursing staff is insufficient to meet the significant needs of all patients. Thus, it is common for inpatients to be accompanied by an attendant to aid in their care. However, little is known about the lives and experiences of patient care attendants. Aim: The primary goal of this study was to learn about the lives, impact and economic challenges of attendants at Mulago Hospital.