



Published in final edited form as:

J Acquir Immune Defic Syndr. 2014 January 1; 65(0 1): S32–S35. doi:10.1097/QAI.0000000000000043.

Managing multiple funding streams and agendas to achieve local and global health and research objectives: lessons from the field

Charles B. Holmes, MD, MPH^{1,2}, Izukanji Sikazwe, BScHB, MBChB^{1,2}, Roselyne Raelly, MBA¹, Bethany Freeman, MSW, MSPH^{1,2}, Inonge Wambulawae, MBA¹, Geoffrey Silwizya, MSc¹, Stephanie Topp, PhD¹, Roma Chilengi, MBChB¹, German Henostroza, MD^{1,3}, Sharon Kapambwe, MBChB, MPH¹, Darius Simbeye, BS¹, Sheila Sibajene, BA, Harmony Chi, MA, MPhil, MSc^{1,2}, Katy Godfrey, MD⁴, Benjamin Chi, MD, MSc^{1,2}, and Carolyn Bolton Moore, MBBCh, MSc^{1,2}

¹Centre for Infectious Disease Research in Zambia

²University of North Carolina, Chapel Hill

³University of Alabama, Birmingham

⁴National Institutes of Allergy and Infectious Diseases

Abstract

Multiple funding sources provide research and program implementation organizations a broader base of funding and facilitate synergy, but also entail challenges that include varying stakeholder expectations, unaligned grant cycles, and highly variable reporting requirements. Strong governance and strategic planning are essential to ensure alignment of goals and agendas. Systems to track budgets and outputs as well as procurement and human resources are required. A major goal is to transition leadership and operations to local ownership. This article details successful approaches used by the newly independent non-governmental organization, the Centre for Infectious Disease Research in Zambia (CIDRZ).

Keywords

Development assistance for health; operational management; PEPFAR: funding sources; monitoring and evaluation

Globally, development assistance for health (DAH) has increased two-fold in the last decade, to a total of nearly \$26 billion in 2010.¹ Government and multilateral aid comprises the bulk of such funding, but private foundations have grown in importance and now contribute increasing support to DAH.² Although direct funding to government represents a proportion of this aid, substantial resources are channeled through international and local non-governmental organizations in order to complement the work of governments.³

The multiplicity, unpredictability and often inflexible nature of DAH funding has spurred many non-governmental organizations to seek a broader base of funding and pursue relationships with diverse partners in order to achieve their mission and objectives.⁴ Working with multiple funders allows organizations to leverage single funder interests to achieve more comprehensive programs and encourages nimble and responsive decision-making.⁵ However, it also introduces challenges such as disparate expectations around program priorities, in addition to practical complexities, including unaligned grant cycles, variable timing of funding disbursements, unaligned reporting requirements, and unsynchronized regular and ad hoc financial and program audits.⁶

The Centre for Infectious Diseases Research in Zambia (CIDRZ) is an example of an organization that relies almost exclusively on external grant support from public and private funding sources in order to support its mission of improving access to quality healthcare in Zambia. Since its founding in 2001 by local and international leaders, CIDRZ has served as a partner to the Government of the Republic of Zambia (GRZ) in the expansion of critical HIV and broader health programs, training, and research to improve programmatic implementation and effectiveness. With funding from the President's Emergency Plan for AIDS Relief (PEPFAR), National Institutes of Health (NIH) and other donors, CIDRZ has supported the delivery of HIV care and treatment services to over 250,000 individuals, and enrolled more than 15,000 participants in studies including intensive phase 1 pharmacologic studies, individual and cluster randomized clinical and community trials and large multi-country program evaluations.

After 10 years as an affiliate of the University of Alabama at Birmingham, CIDRZ became an independent Zambian non-governmental organization (NGO) in 2011. The organization with over 600 employees now has a majority Zambian Board of Directors and its leadership team is greater than 75% Zambian. The transition from being an internationally-facilitated organization to a fully Zambian NGO allows for greater local ownership, more flexibility in applying for funding targeted for local partners and the opportunity to build strong partnerships with multiple university partners. Along with this transition, a majority of grant and donor funding is now provided directly to CIDRZ instead of via sub-contracts through an umbrella entity. This evolution to fully independent status has presented a series of challenges and opportunities for CIDRZ management as it strengthens its platform for research, program implementation and training. This paper details the tactics used by CIDRZ and other organizations to successfully manage complex funding streams through building strong governance, operational management and monitoring and evaluation capacity, as well as maximizing synergies between its programmatic and research activities.

Managing complex agendas through strategic planning and strong governance

Given the fluid nature of donor funding, organizations are often tempted to apply for any and all funding opportunities that are identified. However, this haphazard and opportunistic approach may ultimately derail higher organizational strategic priorities. To avoid this, organizations managing multiple funding streams and agendas must continually evaluate their projects and opportunities, not only for performance but also for fit into the broader

goals and objectives of the organization.⁷ In most cases, regular strategic planning is essential to organizational development, maintaining clarity of mission, prioritization of new and existing funding streams and directions, and setting and measuring performance goals. However, the potential to engage in an overly reductionist process may ultimately inhibit entrepreneurship, or the ability to evolve quickly, so caution is required to strike the right balance.⁸

CIDRZ undertook a strategic planning process in early 2013. The process included internal staff and external stakeholders, as well as donors and governmental representatives. CIDRZ was able to identify its strengths, weaknesses, opportunities and threats; clarify and update its mission and vision, and prioritize its principal strategic objectives for the 2013 to 2015 period.⁹ Adapting an approach designed by Harvard Business School faculty, key performance indicators were established for each objective, and cascaded into group and individual work-plans.¹⁰ This intentional approach, conducted for the first time within CIDRZ, has helped ensure clarity of purpose across the organization and has enhanced accountability. However, this 3-month process required a substantial commitment of staff time.

CIDRZ management holds ultimate responsibility for the day-to-day implementation of the strategic plan and monitoring performance on a quarterly and annual basis. This is overseen by the CIDRZ executive committee that reports progress on strategic plan objectives to the CIDRZ board of directors. The governance board comprises of individuals with an array of skill and experience and includes persons with expertise in finance, public health, medicine, law, research and government.

Operational Management

Managing portfolios of program implementation, research and training funding streams requires the ability to track budgets, expenditures, outputs, procurement processes and human resources. With a slowing in the growth of available funding, bilateral, multi-lateral and private funders are all requesting more detailed information in order to minimize inefficiencies through increased programmatic accountability.¹¹ For instance, the PEPFAR program requires partners to provide detailed information on categorized expenditures such as transport and human resources, and to link these expenditures to particular program outputs (e.g., number of HIV-infected women receiving PMTCT or number of individuals provided HIV testing and counseling) for a fiscal year, by geographical region.^{12,13} In the context of funding constraints and increased management demands, nascent local organizations such as CIDRZ have particularly acute needs to develop organizational capacity and do not receive the relatively high level of facility and administrative costs that US-based institutions do. These special needs of local independent organizations are being recognized and funders are increasingly willing to invest in institutions through funded activities or indirect funding within program grants.

Electronic systems can yield substantial efficiencies, but require upfront and ongoing investments for training and sophisticated support functions. With the support of PEPFAR and the Centers for Disease Control and Prevention (CDC), CIDRZ has launched an

Enterprise Resource Planning (ERP) system intended to track and monitor individual project funding, and provide greater transparency of financial flows and accountability of departments and individuals. A myriad of unaligned external audits currently sap precious staff time and it is hoped that the ERP system will help to lessen this burden. To augment existing accountability systems, CIDRZ is building a strong internal audit function for risk profiling of projects, identification of correctable problems, pro-active risk management and ad hoc investigations.

Driven by regulatory requirements, research operations require a unique focus and attention to accountability. CIDRZ has completed 76 research projects to date and the current research portfolio includes 18 individual-site and 14 multi-center studies funded through the NIH, the CDC, the Doris Duke Charitable Foundation and others. A dedicated research operations department has been convened to review all new grant applications to ensure operational feasibility, to find commonalities with other projects and minimize overlap between recruitment populations, and ensure financial and human resource needs are properly embedded. The department also oversees the development of standardized operating procedures and templates, as well as study tools that ensure careful source documentation, and prepares ethical and institutional review submissions locally and internationally. This group provides research sponsors assurance that quality data are collected and that regulatory requirements for human subjects protection are met.

Monitoring and Evaluation

Health program implementation and human subjects research require close monitoring and careful evaluation in order to protect participants and better interpret outcomes. The Paris Declaration of 2005 committed Ministers of Health and leaders of aid agencies to increasing aid effectiveness, including greater harmonization of methods of measuring progress and increased national ownership.¹⁴ To date, however, there has been limited success, and many gaps remain. Many governments and organizations continue to receive multiple funding streams and develop vertical or parallel systems in order to satisfy heterogeneous donor requirements.¹⁵ Recent work suggests that greater service delivery integration may also offer opportunities to achieve broader health benefits, as well as leverage strong vertical systems for monitoring and evaluation.^{16,17}

Several large donors, including PEPFAR, are beginning to focus more on outcome indicators, as opposed to output indicators. These indicators, such as the number of individuals starting ART who remain alive and on ART at one year, should allow for better measurement of program effectiveness and impact. However, outcome indicators are more challenging to report and require solid data systems and the capacity to perform cohort analyses.¹⁸

Increased demand for high-quality data requires that organizations invest in strong data collection and management systems to meet disparate reporting cycles, variable indicator definitions and other demands. Data management specialists, data analysts, and monitoring and evaluation staff are the backbone of successful reporting. At CIDRZ, the staff work closely with clinic staff and regional government staff to ensure proper reporting to the

national program, and with US government staff to ensure that PEPFAR-specific reporting is accurate and timely. This challenging process requires high-level analytic capacity, flexibility and the ability to interpret complex data. Quarterly stakeholder meetings supported by CDC, have created opportunities for discussions around indicator performance and harmonization, and allowed for identification of areas in need of improvement. Data security, including patient privacy rights, is required locally and by affiliated universities, and allows the use of de-identified data to enhance clinical implementation and evaluation efforts, and recruitment feasibility queries for particular studies.

CIDRZ has also sought to develop capacity across the continuum of research and supported training in project management, study regulatory affairs, data management, and biostatistics. This institutional support of the research infrastructure is critical for maintaining a robust research portfolio, supports key local institutions and enables further opportunities for talented local investigators to stay and contribute in their home country.

Synergies within the combined mission of service implementation, research and training

PEPFAR has helped to drive increased interest, and funding for, implementation science over the past several years.¹⁹ The objective of implementation science is to fill the gap between what is known empirically and what it takes to implement effective interventions for greatest impact at scale. The HIV response has created tremendous opportunities for knowledge generated during implementation to inform research questions and for the results of research studies to directly inform programmatic implementation.

Organizations such as CIDRZ that implement programs on a large scale, and also have access to substantial local and international academic faculty and resources, have been able to contribute to this cross-fertilization. In addition to its work specifically targeting HIV, CIDRZ applies this model to related areas of service integration including: cervical cancer scale-up; tuberculosis in prisons; childhood diarrheal disease and numerous other areas (Box 1). CIDRZ has not only performed numerous influential studies, its relationship and engagement with government policymakers has resulted in direct impact on policy development at the national and global level²⁰; successfully bridging the implementation gap between research and policy, a linkage that is typically under-resourced to the detriment of health programs.

The development of in-country programmatic and research expertise in young investigators is critical to sustain national research capacity and further supports organizational research and programmatic aims. CIDRZ has developed a portfolio of research training opportunities for local and international investigators to address critical areas of need. These programs include externally supported programs from the NIH, the Doris Duke Charitable Foundation, the Global Health Corps and collaborations with the University of Zambia School of Medicine, as well as the internally developed and administered *HIVCorps* Public Health Fellowship.²¹ To date, CIDRZ has trained over 200 Zambian and expatriate investigators. A combination of field attachments, exchange programs abroad, and Masters and PhD degree

sponsorship addresses a critical need for education and mentorship within the medical community in Africa.

Moving Forward

With the rapid increases in global health funding, opportunities to improve health outcomes through implementation and research have expanded. With this growth has come greater complexity and fragmentation of donor funding models, approaches and reporting requirements. While donors work toward greater harmonization and country ownership, there is a critical need for strong organizations in the global South that are able to harness disparate funding streams, and manage organizational, operational, and reporting challenges, for the purposes of advancing national health agendas. Local organizations in particular require dedicated support for institutional capacity building in order to achieve the most efficient and sustainable public health impacts.

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Table 1

Related areas of service integration at CIDRZ

New and Evolving Research and Programmatic Directions for CIDRZ

In addition to a continued focus on HIV, TB and maternal and newborn health, CIDRZ also is applying its model to newer areas, including:

- ❖ **Integrated Service Delivery:** Zambia's national policy on HIV treatment changed in 2004 in conjunction with an influx of international support and radically altered the paradigms of HIV care. The use of decentralized ART clinics allowed access to hundreds of thousands of HIV-infected people. Challenges included late entry into care, and loss to follow-up. CIDRZ has partnered with the Ministry of Health (MoH) and various District health teams to initiate three types of service-integration including ART and TB, ART in maternal and child health, and ART in general outpatient services, simultaneously catalyzing a new direction in service delivery research which is likely to have a significant impact on policy in Zambia.
- ❖ **Women's Cancer Prevention and Treatment:** Incidence rates of cervical cancer in Zambia are the second highest in the world. Due to the laboratory and human capacity requirements of Pap smear-based cervical cancer screening and the expense of HPV-based screening, the Zambian government chose to use VIA (visual inspection with acetic acid) as its primary form of cervical cancer screening for the public sector. CIDRZ, as a part of the broader Cervical Cancer Prevention Program in Zambia (CCPPZ) and the Pink Ribbon Red Ribbon (PRRR) program, trains nurses to prevent cervical cancer by first washing the cervix with table vinegar (dilute acetic acid), taking a photograph of the cervix using a digital camera, and then freezing pre-cancers with carbon dioxide or nitrous oxide gas. Patients with complex cervical lesions are referred to a tertiary facility where they undergo a biopsy. The innovative system that uses cervical photographs for patient education, magnification, clinical triage, documentation, consultation and quality assurance has been dubbed "electronic cervical cancer control." The programme has recently been expanded to new provincial referral centres in all nine provinces and is now moving to districts and primary health facilities. Breast cancer early detection and treatment services using locally appropriate screening methods are also being integrated into the program.
- ❖ **Prison Health:** The Zambian Ministry of Home Affairs (MHA) has partnered with CIDRZ to assess and improve the health care delivery and outcomes in prison, resulting in recently documented improvements in TB case detection and HIV diagnosis in six prisons. These successes have been followed by further work with MoH and MHA. This includes the three year "3i's initiative" (intensified case finding, infection control and isoniazid preventive therapy) funded by CDC/PEPFAR and the three-year Zambian Prisons Health System Strengthening project funded through the European Union. This work has enabled CIDRZ to implement a program to screen for a disease in a vulnerable population but also to develop a unique research platform to better understand the role of structural and social determinants of inmate health within Zambian prisons.
- ❖ **Prevention of Childhood Diarrheal Disease:** CIDRZ is implementing a comprehensive demonstration project on diarrhoea prevention and control. A multi-faceted collaborative project between CIDRZ, Absolute Return for Kids (ARK) and the MoH. The project has successfully leveraged additional funding from the MoH to refurbish and upgrade cold chain central infrastructure, an independent evaluation funded by the Bill and Melinda Gates Foundation, a donation of over 304,000 Rotarix vaccine dose by GlaxoSmithKline, and an NIH R01 grant to study potential factors that may contribute to lowered vaccine efficacy in Zambia, along with recent funding from Comic Relief and UNICEF that allows CIDRZ to address closely related issues of hygiene and sanitation. With this growth, CIDRZ has established a strategic platform to undertake formal research and training activities in behavior change, water and sanitation, along with plans to work with GRZ to take some of the successful aspects of the provincial pilots to national scale.

Table 2

Executive Summary

1	Research organizations require multiple funding sources to achieve their mission
2	Working with multiple funders is complex; because of differing requirements for documentation, parallel systems may be required
3	Local ownership and governance allows access to a broader range of funds
4	Strategic planning, as well as management and governance structures are critical elements of a successful organization
5	Research operations are best centralized with specific standardized study tools and procedures
6	Service delivery integration and implementation science may offer opportunities for important programmatic improvements
7	In country training programs develop local expertise and are important in succession planning
