CHILD HEALTH LEADERSHIP AND NETWORKS IN UGANDA FROM 2000 TO THE PRESENT: COUNTRY PERSPECTIVES

CASE STUDY REPORT

MARCH 2020

ACKNOWLEDGEMENTS

Contract Number:
AID-OAA-M-16-00006

CONTENTS

ABBREVIATIONS

ACHEST	The African Centre for Global Health and Social Transformation
ACT	Artemisinin-based combination therapy
AIDS	Acquired immunodeficiency syndrome
APR	A Promise Renewed
ART	Anti-retroviral therapy
ARV	Anti-retroviral drug
CH	Child health
CHAI	Clinton Health Access Initiative
CIDA	Canadian International Development Agency
CIRCLE	Coordinating and Implementing Research to Communicate Learning and Evidence Project
CSOs	Civil society organizations
DFID	Department for International Development
DPT	Diphtheria-tetanus-pertussis vaccine
EPCMD	Ending Preventable Child and Maternal Deaths
EPI	Expanded Program on Immunization
FUE	Federation of Uganda Employers
GAVI	The Vaccine Alliance
GDP	Gross domestic product
GFF	Global Financing Facility
HAART	Highly active antiretroviral therapy
HBB	Helping Babies Breath
HIV	Human immunodeficiency virus
HPAC	Health Policy Advisory Committee
HPP	Health Policy Project
HSS	Health system strengthening
HTC	HIV testing and counseling
ICCM	Integrated community case management
IMCI	Integrated management of childhood illnesses
INGO	International non-government organization
KMC	Kangaroo mother care
LMIC	Lower-middle-income country
MAK	Makerere University
MAKU SMED	Makerere University School of Medicine
MAKU SPH-HPPM	Makerere University School of Public Health, Department of Health Policy Planning and Management
MALARA_CONS	Malaria Consortium
MCH	Maternal and child health
MCSP-JSI	Maternal and Child Survival Program at John Snow Inc.
MDG	Millennium Development Goals

MOH	Ministry of Health
MUJHU	Makerere University-Johns Hopkins University Research Collaboration
NASA	National AIDS Spending Assessment
NMR	Neonatal mortality rate
NORAD	Norwegian Agency for Development Cooperation
NSP	National HIV and AIDS Strategic Plan 2015/2016–2019/2020
ODK	Open data kit
ONA	Organization network analysis
PCV	Pneumococcal conjugate vaccine
PEPFAR	President's Emergency Plan for AIDS Relief
PhD	Doctor of Philosophy
PI	Principal investigator
PMI	President's Malaria Initiative
PMTCT	Prevention of mother-to-child transmission
PSI	Population Services International
RBF	Results-based financing
RMNCAH	Reproductive maternal, newborn, child and adolescent health
SDG	Sustainable Development Goals
SIDA	Swedish International Development Cooperation Agency
SWAP	Sector-wide Approach
U5MR	Under-five mortality rate
UMA	Uganda Manufacturer's Association
UN	United Nations
UNAIDS	Joint United Nations Program on HIV/AIDS
UNEPI	Uganda National Expanded Program on Immunization
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNICEF-NUT	United Nations Children's Fund-Nutrition Department
UPA	Uganda Pediatric Association
UBOS	Uganda Bureau of Statistics
USAID	United States Agency for International Development
VHT	Village health team member
WASH	Water, sanitation and hygiene
WB	World Bank
WHO	World Health Organization
WVI	World Vision International

EXECUTIVE SUMMARY

From 2000 to 2015, Uganda made major progress in reducing child mortality and was one of the few countries in sub-Saharan Africa to *almost* meet MDG4. Heavy financial investment and progress made by the Ugandan government and its partners has resulted in a downward trend in the under-five child mortality rate (U5MR) as well as the infant mortality rate (IMR). However, there still remains an unacceptably large number of preventable child deaths related to the persistent causes of neonatal mortality (i.e. preterm births, intrapartum conditions, sepsis, and congenital anomalies), resulting in a sluggish reduction in the neonatal mortality rate (NMR): 33 per1000 in 2000 to 21.4 per 1000 in 2016 per national estimates. As Uganda aims to reduce under-five mortality by 2030, it must reach the targets of 15 per 1000 by 2020 and 12 per 1000 by 2030, as neonatal causes of death comprise 42% of U5MR. In addition to assessing the countdown to SDG targets, there is also a need to identify the barriers, facilitators, and contextual factors impacting Uganda's progress on child health. This study aimed to understand the effectiveness of leadership and stakeholder networks in improving child health in Uganda since 2000, identify barriers and enablers of child health progress, and suggest how they and other drivers of change might help advance child health going forward.

Using a mixed methods approach, we completed: 1) a desk review of published data and literature, 2) conducted 21 in-depth interviews (IDIs), and 3) administered 23 organizational network analysis (ONA) surveys with child health experts at the national level. The IDI informants provided historical information on drivers and constraints to child health progress, leadership, and stakeholder coordination, while the ONA more explicitly characterized relationships and interactions among organizations since 2015. IDI data were analyzed by evaluation questions and aligned with a framework on the effectiveness of global health networks first proposed by Shiffman and others[1]. ONA data were compiled using specialized analysis and visualization software. All country data and conclusions were reviewed in a joint meeting of researchers and country representatives. Findings are intended to inform investment, policy, and programmatic decisions and to enhance stakeholder collaboration to improve child health outcomes.

FINDINGS

In the following sections we summarize key findings related to child health successes and failures; enablers and constraints of child health progress; leadership factors; political commitment; stakeholder engagement, governance and organizational coordination.

CHILD HEALTH SUCCESSES AND FAILURES

With unprecedented reductions in child mortality and morbidity, the period from 2000 to 2015 proved revolutionary for child health in Uganda, but not for neonatal health. In 2000, the United Nations Millennium Declaration generated new global policies and initiatives and a subsequent influx of resources which helped strengthen the country's political resolve to make sweeping changes to its health-care system. Uganda implemented a range of modern technical approaches to make improvements that included: establishing partnerships and networks, improving governance, mobilizing resources,

---

[1] Shiffman, Quissell, Schmitz, et al. A framework on the emergence and effectiveness of global health networks. Health Policy and Planning 20\15: 1-14.

reorganizing health systems, promoting community engagement, and introducing technology and innovations into the health sector.

Despite improvements in the health of children under five, newborn health has remained stagnant due in part to poor quality of clinical services, inequitable distribution of resources, high fertility rates, pervasive poverty and social determinants of health. The Sustainable Development Goal (SDG) era began with recognition of mixed accomplishments during the MDG period—progress had been made for children one month to five years, but not in newborn health. While countries have generally embraced the 2030 SDGs, findings suggest they are not yet widely understood or known in Uganda outside of "the elites" (e.g., technical experts, international development actors, high level policy makers). In Uganda, the community and sub-national levels have not been fully engaged and political will and commitment remain limited due to the complexity of expanding the range of services including multisectoral interventions within a resource limited environment.

FACTORS THAT ENABLED AND CONSTRAINED PROGRESS

Respondents identified strategies and factors that enabled or constrained progress on child health. They are grouped into three categories: national priority and resources; health systems; and community engagement.

Category	Enabling Factors	Constraining Factors
National Priority and Resources	• Strong political will and commitment to child health during the MDGs • Strong leadership to advance child health including coordination of partners during MDGs • Increased resources to drive MDGs (e.g. Global Fund, Gavi, PEPFAR, PMI) as well as national resources • Emergence of strong accountability with children put at the center of health and health systems	• Attention to and understanding of SDGs is limited to technical experts • Reduced government financing of the health sector within the national budget • Weak coordination of partners especially for a common vision around implementation
Health Systems	The MDG period witnessed: • Better understanding of health systems and improved attention to a health systems approach to implementation • Decentralization of health care delivery, which brought services and accountability closer to populations • More partners and improved coordination • More use of evidence with emergence of better collaboration between academia and policy makers	• A growing number of small and fragmented decentralized structures made it difficult to manage and coordinate health care management and services. • Weak district health systems • Weak partner coordination especially around implementation and accountability • Limited attention to clinical health care systems • Poor financing • High fertility resulting in a large pool of children needing care

Category	Enabling Factors	Constraining Factors
Community Engagement	• Attention to a primary health care (PHC) approach • Focus on high-burden diseases such as malaria, diarrhea, pneumonia, and immunizable diseases • Use of village health teams (VHTs) to complement formal health care workers	• No formal community structures; existing ones are voluntary and poorly managed • Poverty and inadequacies in other supporting structures (the social determinants of health)

LEADERSHIP

- In the period between 2000 to 2015, Uganda witnessed strong leadership from within and outside the MOH, and at all levels of government for child health. Major reforms such as decentralization were made to strengthen health systems for child health in particular.
- The MOH played a critical role in providing organizational leadership for child health initiatives, and for trying to coordinate partners, but implementation remained fragmented.
- Uganda witnessed an increase in civil society groups which advocated for children's rights and health, promoted accountability, and influenced politicians to improve maternal and child health (MCH) services.

POLITICAL COMMITMENT

- Uganda experienced strong political commitment from the executive level, legislature, and at the decentralized units from 2000 to 2015.
- Strong political commitment led to allocation of significant resources to improve child health in both the preventive and curative areas.
- In recent years, the government's health allocation has been continuously reduced unlike areas such as security, energy, and infrastructure which were given higher priority. This has implications for sustaining progress gained and for Uganda to reach the SDG targets.

STAKEHOLDERS, GOVERNANCE AND COORDINATION

- The Ministry of Health's well-organized structure provided stakeholders with a range of opportunities to participate in the health sector policy formulation and implementation processes. Although there seems to be a large array of partners, coordination remains weak.
- The organizations surveyed have been underperforming in the four activity areas key to network improvement efforts: strategy development, capacity building, accountability and implementation.
- ONA findings show that currently, most international non-government organizations (INGOs) are on the periphery of the networks and often work in semi-autonomous fashion.
- Participating organizations need to further align goals and effectively coordinate and collaborate to produce impactful results, especially in the critical area of implementation. A need remains for an appropriate level of governance, leadership, and attention to network processes and performance.

RECOMMENDATIONS

Based on our findings, we offer the following priority recommendations:

RECOMMENDATION 1: The MoH and partners should work to strengthen national and subnational child health networks to accelerate capacity for joint action.

A network's purpose, member composition, size, and value propositions determine its effectiveness. Many inter-related factors shape network performance and capacity to generate resources and impact. The capacity for collective action is affected by: 1) building knowledge about how network relationships operate and recognizing the unique inter-disciplinary skill-sets needed to build stronger collaborations; 2) having well-resourced and sustainable governance structures; and 3) providing incentives to reduce self-interests and aligning individual organizational goals with the goals of the broader child health network. A more functional network will generate organizational commitments to shared network goals and accelerate the capacity for strong, equity-based child health programming in the country.

Short funding cycles impair INGOs' capacity to focus on sustainability, thereby creating an environment characterized by interorganizational competition rather than cooperation. Setting up funding networks and evaluation criteria that prioritize joint work activities will enable INGOs to cooperate when working toward shared goals. Donors could exert leverage by shifting their resources to funding networks and collaborations, committing long-term support to network governance structures and providing criteria to direct individual grantees to work more collectively. Developing mixed methods monitoring systems and studies to measure the "black box" of network performance and associated child health policies, plans and interventions could be a game changer to child health progress.

RECOMMENDATION 2: The government, its partners and CSOs should ensure political commitment to SDG while maintaining a realistic focus on what is possible with the available current and future resources for child health.

Similar to the MDG era, political commitment is needed for the SDGs to be fully embraced in Uganda to drive momentum for further health and health-related investments. Uganda spends about USD 44 per capita (2016 data)[2] for *all* health services, and maybe 5-10%[3] of this amount is spent on maternal and child health.[4] Recent estimates suggest that to ensure scale up of first level of primary health care including public health interventions focused on prevention and outpatient care would require USD 66 per capita. Adding in-patient hospital services and cross-sectoral interventions would require more resources which may not be possible in Uganda and other low-income countries. To this end,

---

[2] Global Burden of Disease Health Financing Collaborator Network. (2019) Past, present, and future of global health financing: a review of development assistance, government, out-of-pocket, and other private spending on health for 195 countries, 1995–2050. *Lancet*; 393: 2233–60
http://dx.doi.org/10.1016/ S0140-6736(19)30841-4

[3] Authors' estimate based on recent WHO analysis: see Stenberg, et al, 2019 (below).

[4] Stenberg K, Hanssen O, Bertram M, Brindley C, Meshreky A, Barkley S, and Edejer TT. (2019) Guide posts for investment in primary health care and projected resource needs in 67 low-income and middle-income countries: a modelling study. *Lancet Glob Health* 2019; 7: e1500–10
https://doi.org/10.1016/ S2214-109X(19)30416-4

government, donors, global partners and CSOs should work to increase awareness and understanding of how to prioritize SDG interventions across sectors and governance levels to synergize the cumulative gains from multisectoral collaboration. Leaders should be encouraged to implement and/or act on existing child health strategies and commitments, while ensuring that new national policies are well aligned with placing children at the center of SDG implementation.

RECOMMENDATION 3: Identify and support leaders and champions for social determinants of child health (women's empowerment, maternal education, family planning) with a special focus on more vulnerable groups (e.g., newborns) that could have a major impact in reducing overall U5 morbidity and mortality.

Children are a vulnerable population that need champions to advocate, rally support, and effect prioritization of child health issues. These efforts have the potential to attract commitment and increased financial allocations. Child health leaders can learn from examples of other champion-led campaigns (e.g. HIV arena) that have been successful at garnering support and commitment. These champions can be used to raise public awareness, mobilize resources and empower citizens to demand the health services they need.

RECOMMENDATION 4: The government should increase funding to the health sector, especially at the subnational level where implementation occurs.

Many respondents agreed that districts are key to driving Uganda's child health agenda. In order to ensure equity and effectiveness in child health, greater funding will be needed for districts and human resources beyond the 6% of GDP that has been recently reported. Donors may consider providing incentives for government to expand their 6% contribution to overall health spending in order to receive more counterpart funding. Increased support to at least 8.5% of GDP[5] is needed to help bridge the policy-implementation gap for basic primary health care.

RECOMMENDATION 5: The government and its partners should continue strengthening equity focused primary health care (PHC) around the country, while building capacity for clinical care for mothers, newborns, and children as well as addressing broader social and gender empowerment strategies for sustained impact.

Uganda's past successes in reducing U5 mortality and failure to reduce newborn mortality highlight the need for improved equity in the distribution of preventive and clinical care systems. Preventing neonatal mortality on a large scale can be accomplished by addressing women's empowerment, women and children's nutrition, food security, maternal education, improving livelihoods, family planning, increasing birth intervals, and delaying the first birth. Strengthening neonatal care, that has stifled further reductions in IMR and U5MR, requires timely access to functional clinical care facilities and improvement in the quality of services for mothers during pregnancy, labor, and after delivery. These efforts should be on top of further strengthening primary health care, recognizing the vital role of preventive care as an entry point into a broader constellation of services and referral systems. The support for more

---

[5] Stenberg, et al. (2019) op. cit.

integrated and coordinated multisectoral approaches will address the stagnated reduction in the number of mothers and babies dying and facilitate achievement of related SDG targets.

INTRODUCTION AND STUDY BACKGROUND

Despite heavy financial investment in improving child health outcomes and significant steps forward taken by the Government of Uganda and its partners, the Neonatal Mortality Rate (NMR) has remained more or less constant for more than a decade: 33 per1000 in 2000 to 27 per 1000 in 2016. As the country aims to significantly reduce under-five mortality by 2030, a need has emerged to assess the current status and countdown to targets established for 2030, as well as understand the barriers, facilitators, and contextual factors impacting Uganda's progress on child health.

In 2015, USAID commissioned a mapping of global child health leadership to better understand the evolution of child health since the year 2000; the current network of global stakeholders and leaders; and potential implications for its future investments in child health. This landscaping exercise explored how the global child health community could strengthen leadership and reposition child health to improve outcomes. To reach the vision expressed by the Sustainable Development Goals (SDGs) for 2030, it was recommended that countries be at the center of reframing the future child health agenda. Further, countries with weaker health systems and governance would require a different donor and partner engagement approach to sustainably improve child health. The USAID CIRCLE Project conducted the Child Health Country Perspective Study to complement the global findings with perspectives from country-level stakeholders.

STUDY OBJECTIVE AND RESEARCH QUESTIONS

The Child Health Country Perspectives Study aimed to broaden understanding of national-level child health leadership, networks, and political commitment in three USAID priority countries: Mozambique, Tanzania, and Uganda. The objective of the Uganda country case study was **to understand the effectiveness of leadership and stakeholder networks in improving child health over the past fifteen years and how these and other drivers of change can advance child health going forward.** Findings are intended to inform investment, policy, and programmatic decisions and to enhance collaboration of stakeholders in Uganda to improve child health outcomes. The study addresses the following questions:

- What strategies were employed to improve child health over time?
- What were the key facilitators and barriers to progress in child health since the year 2000?
- Since the year 2000, who were important leaders and organizations in child health in Uganda and how did they influence progress and results?
- What have been the structures, relationship characteristics, and dynamics of Uganda's child health organizations and networks since 2015 (end of MDG period) to the present?
- What role did USAID play in supporting progress in child health, particularly with the Call to Action for Child Survival, A Promise Renewed (APR), and Ending Preventable Child and Maternal Death (EPCMD) initiatives?
- What factors in the Shiffman, et. al. framework shaped the development of child health networks? What was their influence on priorities, policy and results in Uganda?

METHODS AND ANALYSIS

This study employed a mixed-methods approach including a desk review and secondary data analysis, in-depth interviews (IDIs) with child health stakeholders at the national level, and an organizational network analysis (ONA).

DESK REVIEW

A desk review was conducted to document existing evidence on the drivers of child health in Uganda. Using a comparative case-study method, data on the health of children (ages 0-5), outcomes and associated problems were collected from peer-reviewed literature, global and local reports, and policy documents. Data included historical trends of mortality rates and coverage of key-related interventions, as well as information describing barriers and facilitators to developing, implementing, and scaling-up child health interventions. A comprehensive desk review report is included in Annex A.

IN-DEPTH INTERVIEWS

The study team conducted IDIs with national level child health experts representing MOH, academia, bilateral and multilateral agencies, and non-governmental organizations (NGOs). Respondents were selected based on their depth of knowledge and specific areas of expertise (e.g., nutrition, immunization, HIV, newborn health, and IMCI-iCCM). The interview instrument (see Annex B) was adapted from the global child health leadership study and refined by desk review findings, input from the USAID mission, and local researchers. Interviews covered factors that contributed to or impeded achievement of child health, including what and how key strategies worked (or didn't); the role of leaders and leadership processes; and how factors such as governance and coordination, policy environment, and the framing of child health influenced progress.

ORGANIZATIONAL NETWORK ANALYSIS SURVEY

This study utilized organizational network analysis (ONA) to determine how organizations interact and communicate and to identify which showed the most potential for successful collaborations. To measure this potential, the ONA focused on how organizations worked in four major child health activities: 1) developing strategies, plans, policies, or legislation; and knowledge management; 2) capacity development; 3) implementation of child health programs; and 4) developing, monitoring, or implementing accountability mechanisms. In addition, the process mapped the dynamics of relationships and their influence in Uganda's child health network.[6]

The study team used an open data kit (ODK) platform on a tablet to administer the ONA survey. A matrix of questions were used to gather information about organizational connectivity and relationships. If a bilateral relationship was reported, follow-up questions focused on obtaining a description of working relationships since 2015. Measures include frequency of overall interaction[7], degrees of exchange (communication, coordination or collaboration), and how many of the four activities

---

[6]Although this method refers to multi-organizational relationships as "networks," we acknowledge that the way organizations operate together is often labeled in other ways, such as groups or partnerships.

[7] Frequency of interaction was measured using a 5-point Likert scale with answer options: not at all, rarely, sometimes, often, and very often.

organizations were jointly working on (multiplexity). The survey also assessed overall quality[8] based on how well the relationship fulfills expectations and needs of the involved parties.

Additional whole network measures include density and centralization. Density, for which there is no one ideal range for organizational networks, is a measure of the ratio of actual linkages between organizations. A dense network signifies many channels for communication; however, an overly dense network may lead to inefficiency as relationships require time and resources to maintain. Density value must be interpreted by comparing across networks or in relation to a particular type of activity. For example, higher density may be better for capacity building, because more ties mean more paths for information to flow, preventing bottlenecks. However, a highly dense network might make decision-making more difficult as more organizations are involved in the process. Therefore, lower density may be better for policy-related networks that require building consensus.

Centralization, another important network measure, indicates the degree to which organizations rely upon passing through a central node in order to access other organizations. Some degree of centralization may be necessary for the network to function effectively; however, similar to density, an overly centralized network may impact effectiveness (see Annex D for complete definitions).

Additional questions were included in the ONA survey to obtain organizational background information, such as respondents' length of service within an organization and the areas of child health programming and types of activities in which they engage. Respondents were asked to identify which organizations they viewed as key players in the child health arena. The questionnaire was developed and revised with inputs from the study team and USAID.

DATA COLLECTION

The desk review and inputs from key informants and USAID were used to identify organizations and individuals working in child health in Uganda at the national level. A total of 25 organizations were identified, of which 23 were interviewed for the ONA for a response rate of 92%. Twenty-one (21) participated in IDIs at a response rate of 78.6%. (See Annex C for a list of participating organizations.) The study team, a global researcher and a Ugandan academic, collected data with ongoing support from the study's principal investigator (PI), USAID, and the CIRCLE project. The team mostly conducted organizational network surveys and IDIs through face-to-face meetings held in Kampala in May and June 2019. A few interviews were conducted by Skype or email. Respondents are individuals acting on behalf of their organization.

ANALYSIS

Spreadsheets were used to organize desk review information for analysis. Quantitative information extracted from other studies was compiled in standard graphs. Secondary qualitative data were analyzed iteratively by questionnaire themes and factors and combined with IDI data.

In-depth interviews were recorded with permission and transcribed, coded, and excerpted in Dedoose, a web-based qualitative data analysis platform. A priori codes were developed based on themes related to study objectives. First-level coding aligned with the questionnaire and included child health enablers

---

[8]Overall quality is measured on a 5 point Likert scale with answer options: poor, fair, good, very good or excellent.

and barriers, strategy themes including tracer interventions, leadership, coordination, effects of specific global initiatives, and future directions. Second-level coding focused on identifying drivers of policy and priority for child health, including factors from the Shiffman et al. framework.[9]

The ONA analysis followed a systematic process aligned with the structure of the questionnaire. Background data were analyzed using descriptive measures and the relationship data was analyzed using common social network analysis methods.[10] The first relationship question in the series established whether a relationship existed between two organizations, and if so, whether a relationship existed related to a particular child health activity. It is highly likely that many of the respondents knew each other as they work in child health or related sectors, but do not always work together on a particular child health issue. Any positive response from either or both parties formed an unconfirmed relationship in which reciprocity was not required. A second-stage process established whether both parties acknowledged the relationship forming a confirmation; up to half of the relationships are usually dropped during this confirmation process. This is one indicator of the stability of a relationship based on the strength of mutual recognition.

Data obtained from the ODK platform were analyzed by developing a special script in "R." This process provides multiple network statistics and facilitates the construction of visual plots to examine organizational relationships. In the formation of the plots, nodes color represents the types of organizations and node size depicts betweenness centrality, defined as the extent to which certain organizations connect organizations not in direct contact with each other. These positions signify potential influence capacity as these organizations often control information flow, resources, and a host of other network opportunities (see definitions of all network measures in Annex D). The report integrates ONA findings with the results of qualitative interviews to provide a more comprehensive portrayal of a particular theme or topic. The juxtaposition of the mixed-methods approach creates multiple points of reference and allows for comparing and contrasting findings to broaden understanding of child health evolution in Uganda.

The study protocol was submitted to and received ethical approval from institutional review boards in Uganda and the United States.

STUDY LIMITATIONS

While this mixed methods study provides insight into the experience and perspective of Ugandan and international organizations and their experience working in child health networks, there are still some limitations. The findings are drawn from a defined number of interviews that had to be limited in length which may have precluded more in-depth consideration of child health morbidities such as the persistent causes of neonatal mortality, the successes of HIV/AIDS or malaria strategies, and related multidimensional topics (e.g., health systems, quality of care, multisectoral engagement and social determinants of child health).

---

[9] Shiffman, Quissell, Schmitz, Pelletier, et al. A framework on the emergence and effectiveness of global health networks. Oxford University Press: Health Policy and Planning, August 29, 2015.
[10] Wasserman, S. and Faust, K. Social network analysis: Methods and applications. Vol. 8. Cambridge University press, 1994.

Another constraint was the lack of multisectoral interviews beyond health and nutrition. While some insight into funding constraints was gained, additional data from secondary sources would have been more definitive. Also, given available resources, it was not possible to interview respondents from the district or community levels. At these levels more direct information might have been uncovered on the effects of national programs, the differences that arise from inequities, and the strength of local leadership and networks. Despite these limitations, the information provided does improve the understanding of the effectiveness of leadership and stakeholder networks in improving child health.

BACKGROUND CHARACTERISTICS OF STUDY RESPONDENTS

We collected information on the characteristics of respondents and the organizations that they represent. Most respondents worked for their organizations for 6 years or longer (66.5%) and have been in their current positions for 3–5 years (43.5%), while 34.8% worked for 6 years or more in their current position. The longevity of service signals a group with extensive experience in their organizational roles and responsibilities. However, the amount of time spent on specific child health activities varied. Less than half of respondents (43.5%) reported that they worked on child health 75% of the time, and an additional 17.4% were engaged between 50% to 74% of the time. Only two respondents (8.7%) worked less than 25% of the time on child health issues. When asked to rate the importance of improving child health to the overall mission of their organization using a scale of very little importance (1) to great importance (5), most selected 5 (mode) and there were no responses of less than 3 (see Annex E for complete background results).

In order to understand the type of work that organizations engage in, respondents were asked to indicate their organizations' program areas and key activities (Annex A, questions 10 and 11). Most worked in many of the same child health program areas[11] including: essential newborn care and immunizations (87% each); food security, post-natal care, prevention and treatment of childhood illnesses, routine child health information systems and reporting (82.6% each); breastfeeding (78.3%); and child health surveys, complementary feeding, growth monitoring and promotion, and prenatal care (73.9%). When subsequently asked to prioritize the top three leading areas of child health work, organizational respondents selected the following: immunizations and prevention and treatment of childhood illnesses at 56.5% each; essential newborn care (39.1%); and child health surveys, prenatal care, and routine child health information systems and reporting (21.7% each). Similar questions were asked about the type of organizational engagement in child-health related activities. All 23 organizations work on capacity development/training and policy dialogue and advocacy. Most organizations also work in evidence generation, program strategies and design, technical advice, service delivery/program implementation (95.7% each). An additional 87% prioritize coordination, scaling-up implementation, social and behavior change, and providing support to their field offices. The top three priority areas of work include: policy dialogue and advocacy (73.9%), capacity development/training and service delivery/program implementation (43.5% each) and providing technical advice (39.1%). See Annex E for complete results.

---

[11] These measures are not mutually exclusive, i.e., organizations may have listed multiple activities that they participate in. For every activity listed, the numerator was the number of organizations engaged in that specific activity and the denominator was the number of organizations in the survey.

CHILD HEALTH IN UGANDA

Over the past two decades, Uganda made steady progress in improving child health and was one of the few countries in sub-Saharan Africa to *almost* meet MDG4. The overall trend has been a reduction in child mortality rates from 181 in 1990 to 58 in 2016 (Figure 1).

**Figure 1. Trends in U5MR and U5 deaths, Uganda, 1990 - 2016**

Source: UN Inter-agency Group for Child Mortality Estimation, 2017 (http://data.unicef.org)
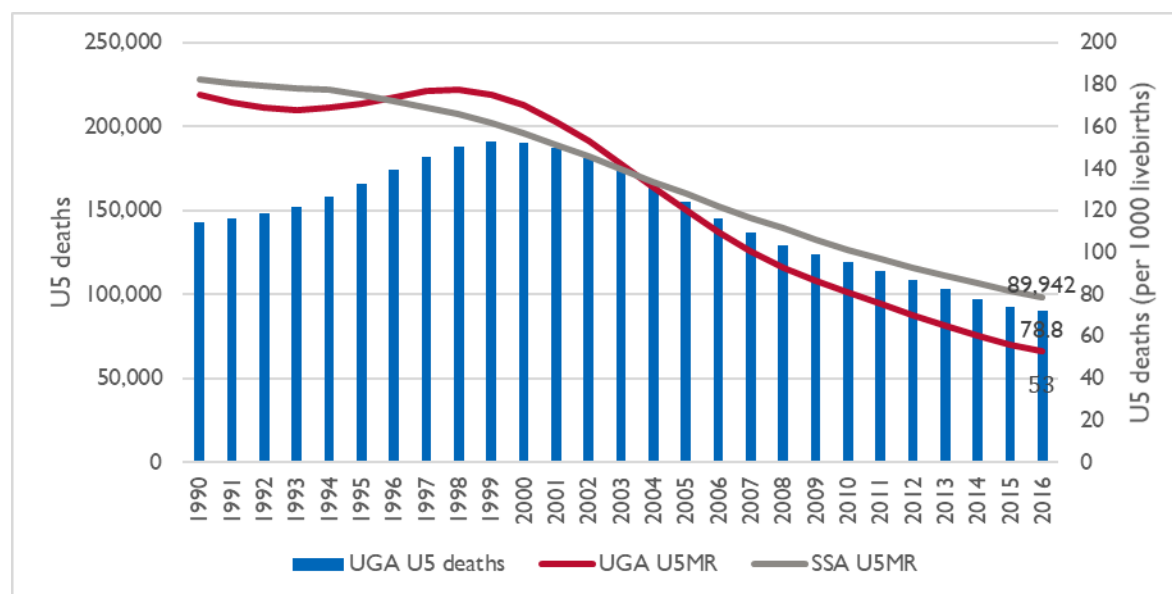
However, while the infant mortality rate has followed a similar downward trend, neonatal mortality is decreasing at a slower pace, with a disproportionate burden of deaths among this age group. In 2016, the neonatal mortality rate per 1000 live births was 21.4 (Figure 2).[12] The national target is to reduce NMR to 15 by 2020 and to meet the SDG target of 12 or fewer by 2030. The main causes of under-five mortality are mostly attributable to neonatal conditions as well as to three common childhood illnesses: malaria, pneumonia, and diarrhea, often in tandem with underlying malnutrition.

---

[12] Mortality rates are estimates based on using different data sources and analytic methods. For example, the Ugandan DHS places NMR at a higher rate of 27/1000.

Figure 2. Trends in NMR and Neonatal deaths, Uganda, 1990 – 2016
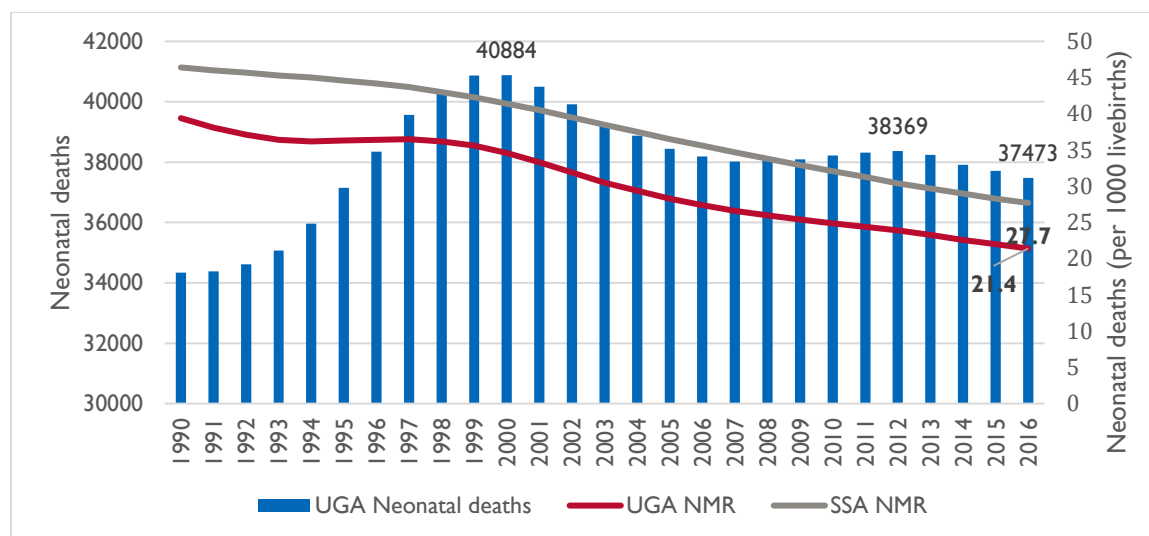
Source: UN Inter-agency Group for Child Mortality Estimation, 2017 (http://data.unicef.org)
The top causes of death for children under 5 has shifted from predominantly infectious diseases in 2000 to largely neonatal causes in 2016 (Figure 3). In 2000, malaria, pneumonia, and diarrhea together accounted for 50% of under-5 deaths. In 2016, those causes accounted for 31% of deaths. AIDS caused 2% of deaths in under-5 children in 2016 (down from 9% in 2000). However, the causes of neonatal mortality between 2000 and 2016 persistently remain preterm, intrapartum, sepsis, and congenital anomalies (Figure 4).

Figure 3. Cause of Death in Children Under 5, Uganda 2000 & 2016
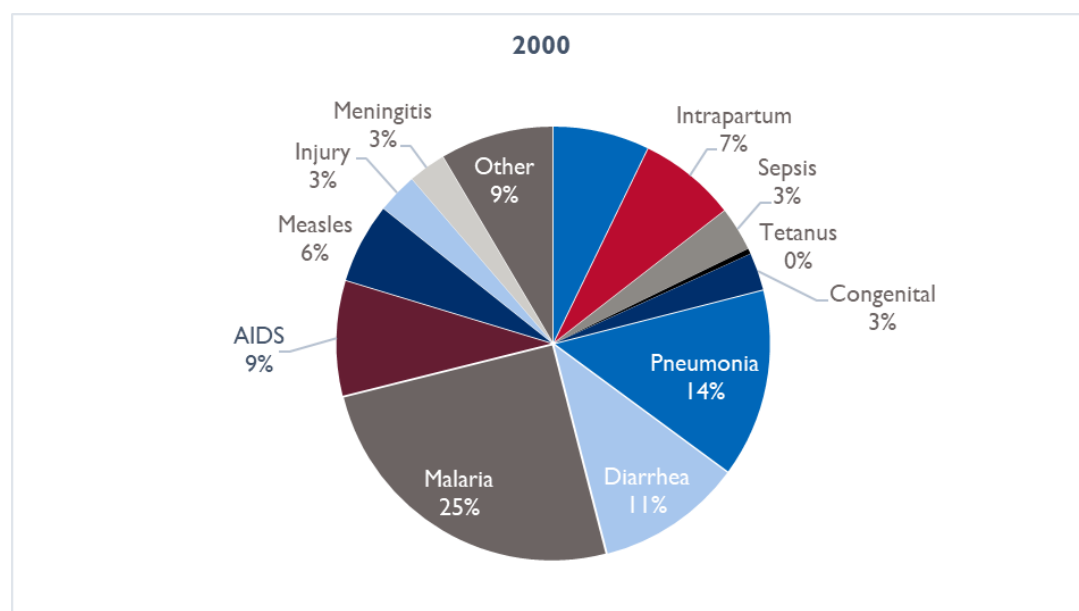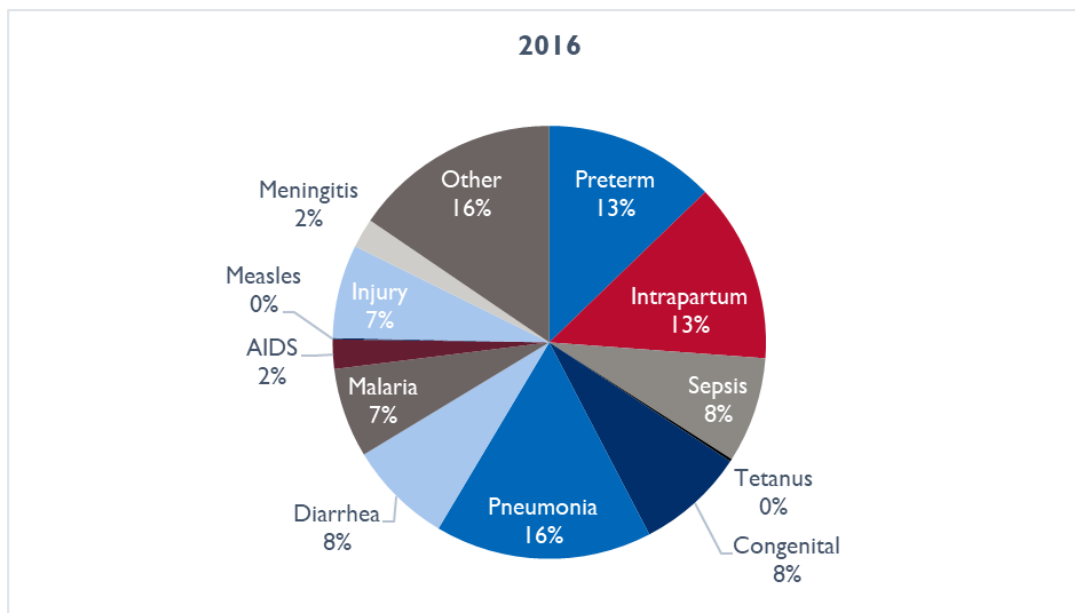
2016

Source: WHO and Maternal and Child Epidemiology Estimation Group (MCEE), 2017 (http://data.unicef.org)

Figure 4. Cause of Death in Newborns (first month of life), Uganda 2000 & 2016

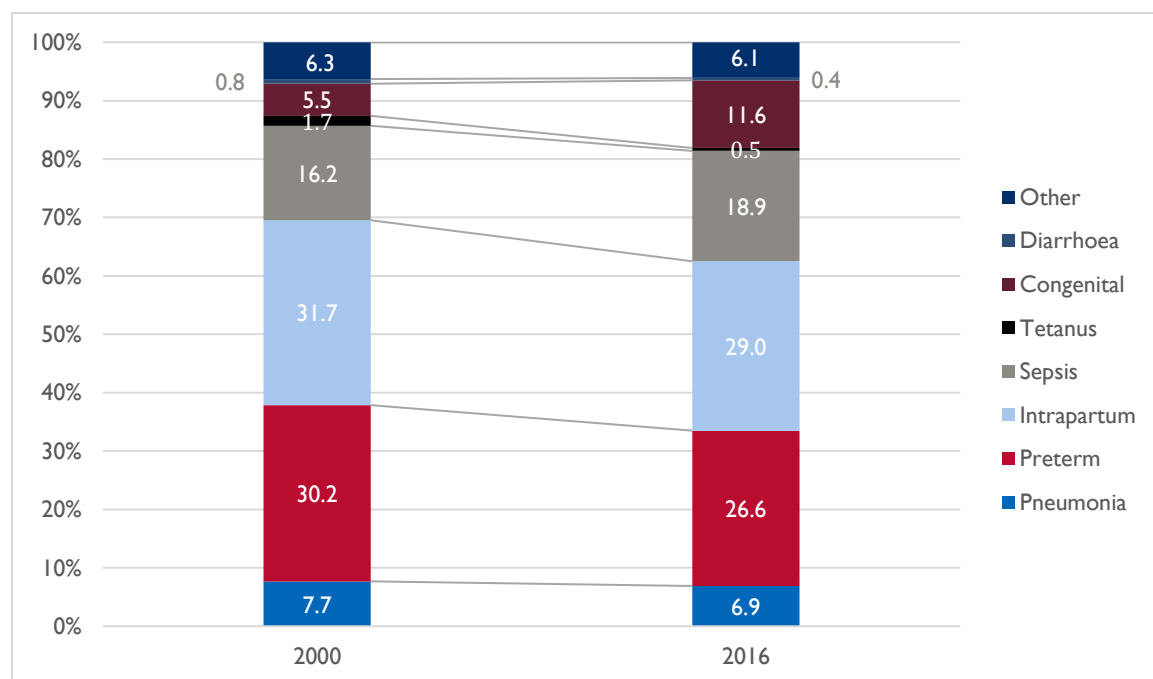Source: WHO and Maternal and Child Epidemiology Estimation Group (MCEE), 2017(http://data.unicef.org)

FINDINGS: PERCEPTIONS OF CHILD HEALTH PROGRESS

SUCCESSES AND FACILITATORS OF PROGRESS

Consistent with the desk review findings, many respondents identified a reduction in child mortality which led to almost meeting MDG4 in 2015 as a major success. The reduction in multiple childhood illnesses was often cited as a key contributing factor to this trend. An academic respondent described this significant accomplishment: *"I think 2000 marks an important period when Uganda begins investing in child health…the immunization program got re-organized, immunization, malaria, HIV and diarrhea and pneumonia I think [they have] been important contributions in Uganda."* Table 1 further illustrates respondents' perspectives on this accomplishment.

Table 1. Reduction in Childhood Illnesses and Nutrition Disorders: Voices of the Respondents

Illness	Respondents
Malaria	*"…malaria has drastically come down…2009 malaria indicators were at 42% for the country, 2014 half that 19%, we hear that [by] 2018 malaria has come down…so hopefully it may be about 10%."* [INGO] *"I think the mortality due to malaria has been significantly addressed in terms of case management, especially when the ACTs came, and also that is closely related to the home based management of fevers, the advent of village health teams and then being able to manage fevers at home really changed the disease burden and mortality due to malaria among children."* [INGO] *"We used to see a lot of children with malaria, complicated malaria and all that, but these days there has been, because of the programming in preventing malaria, use of treated mosquito nets and all the campaigns we had about malaria we are seeing less children with malaria, of course there may be some pockets where there are epidemics here and there but really speaking we are seeing less children with malaria."* [Other–local organization]
Vaccine preventable diseases	*"…improving immunization coverage, I think that we are much better placed than where we [were] at fifteen years ago though there are still some gaps but immunization coverage, I think it has dramatically improved, coverage across all districts."* [Government] *"New vaccines have reduced the number of children…getting pneumonias…"* [Academic]
HIV/AIDS	*"In terms of HIV I think there has been [an] even…bigger change in that the prevention of mother to child transmission programs were implemented and it started from 2000 and now they [are] all over the country with elimination of mother to child transmission programs. [S]o there has been a significant drop in the number of babies born infected with HIV from about 30% from 2000 and now it is about 7% at eighteen months [and] that less than 5% at six weeks testing."* [Academic]

Illness	Respondents
Diarrhea	*"…the diarrhea program, the ORT which went across the board all contributed to teaching people how to give fluids at home, I think for me it is a success that is under [recognized], [and] not talked [about]."* [INGO]
Newborn health	*"…helping the babies breathe, it is not very old, it is about maybe nine years here and that has changed the landscape of managing [and reducing] birth asphyxia."* [INGO]

Broader global movements to accelerate human development spurred changes in political, economic, and educational climates and prompted significant changes to health policy and programs. The government's multisectoral approach included infrastructure development such as roads and connectivity resulting in more access to information through radio, cell phones, TVs and other media products. Educational opportunities, especially for mothers, were related to stimulating the demand side which has the potential to change behaviors at the household level and recognize the accountability of providers and health systems. Attention to water and sanitation was also part of a comprehensive development plan. Improving health infrastructure and human resources were foundational to development of clinical protocols with a focus on improving quality of care.

Privatization was also considered a component in some notable areas such as training of health workers, shops where medicine can be purchased privately, and expanded access to media. In reference to the private sector contribution to the workforce, one academic participant reflected that: *"now a lot of training schools…have expanded the productivity of health workers in terms of nurses and other cadres even doctors."*

Increased awareness about the needs of children raised aspirations for the next generation. An INGO representative said: *"I would imagine if we look back in our villages, people are aspiring to do better, to live better and to have their children [do] better…I can't credit the government so much, there are people at the individual level and everybody is aspiring, when you go to the village everybody is aspiring to live a better life."*

MAJOR CHILD HEALTH POLICIES AND PROGRAMS. The introduction and implementation of major policies and programs was often cited as contributing to improvements in child health. Uganda developed the Child Survival Strategy that provided a blueprint for many child health programs and interventions. As summarized by one academic respondent: *"[of] the most important successes, one is a policy…then resources were put [in place] and then of course bringing a lot of these highly effective evidence based interventions… [to the community while] improving, [and] reducing inequity. So, this led to [an] actual reduction in under-five mortality to almost Uganda achieving MDG four."* Unfortunately, Uganda's Child Survival Strategy expired in 2015 and developing a new one has taken time. However, many respondents spoke of support for and willingness to finalize it in alignment with Uganda's third Health Development Plan.

Respondents most often discussed IMCI-iCCM which they viewed as having, together with the Expanded Program on Immunization (EPI), strengthened the platform for greater nationwide access and delivery of effective interventions. They identified the year 2000 as a milestone that marked the beginning of Uganda making greater investments in child health. As a government official said: *"IMCI, Integrated Management of Childhood Illnesses, I think it was one of the final policy determinant[s] when it comes*

to improving child health and just breaking down how to holistically manage a child for the health worker and show them that with a few simple interventions you can actually save a life, so I think that was a major driver in improving mortality."

Respondents credited government leadership, strongly supported by the Malaria Program and the Prevention of Mother-to-Child Transmission (PMTCT) initiative with further reducing child deaths due to malaria and HIV. They perceived the emergence of the Global Fund as critical to the battle against malaria. As a UN respondent noted: *"Knowing that…about 40% of the children die because of the three killer diseases of malaria, pneumonia, and diarrhea, the Global Fund came in to [help] tackle the most important killer which is malaria."* The Partnership for HIV Free Survival was identified as another important initiative that integrated "*nutrition assessment, counseling and support services, nutrition interventions generally in PMTCT, using the quality improvement approach to achieve a well-nourished HIV free generation,*" according to a government representative.

BUILDING CAPACITY OF HEALTH SYSTEMS. Decentralization of Uganda's health sector was among the many reforms that took place beginning in 2000. Districts were given responsibility for health service delivery, and health sub-districts were introduced, expanding Uganda's ability to provide services to the wider community. Health centers were upgraded with a doctor-to-population ratio of about 1 to 150,000; laboratory services were improved; drugs and other supplies were made more available; and the community health worker program was reactivated. Further, the MOH's capacity was strengthened to support the primary health care agenda. A government official described the improvement:

"*…immunization is the platform where these interventions can actually be delivered. Although the resources are minimal, but it is what has sustained child health… the government commits every quarter to contribute to a primary health care fund…that is really what has maintained the momentum over the years with even the other partners it is just added to that.*"

Partnerships between academia and programs have led to research on child health, specifically on malaria and pneumonia. In addition, a major program delivering primary health services at the local level (ICCM) was launched. According to one academic: *"The Swedish [government has] invested a lot in PhD training, and most of these PhD are in health sector with over fifty PhDs working on child health to generate evidence…guiding implementation, but some of the areas newborn health have not been a focus either in terms of research or program implementation at scale…*"

Capacity building was recognized as a critical pathway to providing the management and technical skills needed to develop effective and high performing health systems. The ONA explored capacity as a driver of child health progress to further understand how it is coordinated in Uganda. Findings indicate that the capacity building network is led by MOH-Child Health (CH) with 16 ties and UNICEF-MCH with 15, closely followed by UNICEF-Nutrition Department (NUT) and WHO (13 each). This finding reinforces the key role played by the MOH in health systems strengthening with coordinated support by UN agencies. The next tier of most connected organizations involved in capacity building include: Makerere University School of Medicine Department of Pediatrics (MAKU SMED-PCH) (12) and the Uganda National Expanded Program on Immunization (UNEPI), USAID-CSP, and WB (at 10 connections each). (See Annex C for a complete organizational listing.) A similar group of leading players enabled organizations not directly involved to connect to the network. This group included MOH-CH with the highest betweenness centrality score (58.08) and WHO, with a score of 52.22 (See Annex E for

complete results). They are followed by WB (45.76), UNICEF-MCH (38.62) and MAKU SPH-HPPM and MOH-NUT (both scoring 29 for betweenness centrality).

Although all 23 organizations identified capacity building as an activity they participate in, less than half (43.5%) listed it as an organizational priority. This separate finding is in congruence with the ONA visual plot which shows MOH-CH together with WHO and UNICEF-MCH at the center of the capacity building network (Figure 5). MAKU, USAID-CSP, and WB play key roles either as financiers or as providers of research and evidence for decision making. They connect peripheral organizations with the rest of the network. All INGOs are at the periphery of the plot and IntraHealth, with only one connection, is at risk for dropping out of the network. The distribution of roles in the capacity building network warrants further study to explore potential for future capacity building opportunities. For example, organizations may be open to take on greater responsibilities if a transparent process to rationally agree on mutual goals and coordination of joint action is established.

Figure 5. Confirmed capacity building relationships with nodes sized by betweenness centrality
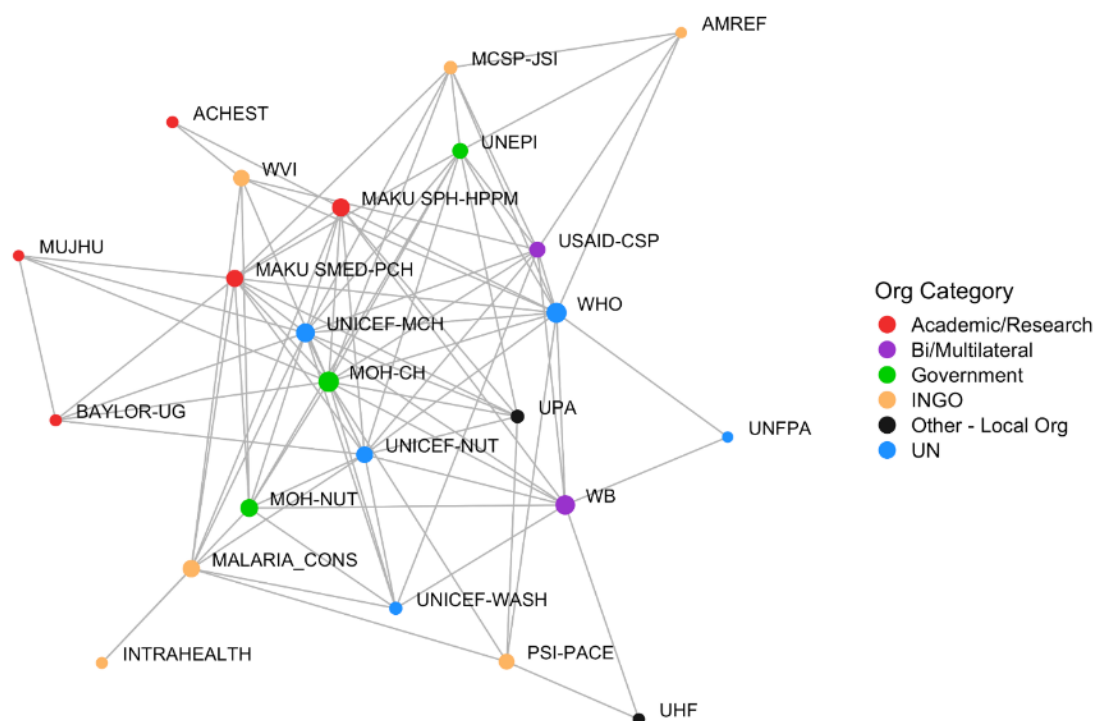
CHALLENGES TO PROGRESS

Uganda continues to face challenges as evidenced by continuing child health illnesses, limited nutrition improvements, epidemic outbreaks, and a stagnant neonatal mortality rate. Respondents pointed to recurring measles outbreaks due to poor immunization coverage in specific geographic areas as related to general inequity in resource distribution and less focus on sub-national implementation and related metrics. One academic described: *"…very many missed opportunities [and] we don't seem to be reaching our targets for the children who want to be immunized that is why we have the measles outbreaks."* Respondents

observed that the health system spends resources on managing and treating sick children but does not focus on prevention efforts.

High levels of childhood malnutrition present another major challenge to improving child health as organizational respondents pointed out. Some respondents attributed malnutrition, in large part, to the country's intractable problem of high poverty levels that affects household purchasing power and continues to produce food insecurity. Inequity due to project-based donor funding, reduced programmatic attention, with variable levels of quality, quantity, and continuity of services was also perceived as affecting progress.

Respondents also discussed multiple issues related to constraints in health system development. As one INGO respondent described: *"Uganda's population is growing exponentially, and the design of the health system used to be such that…people can reach the health facility from a distance of about five kilometers. [B]ut because of the population growth, people are settling in new areas, former wetlands, lake shores where originally health facilities were not put, and now the infrastructures are not growing to respond to these new settlements. [T]herefore children who are born there have challenges getting health care."*

Uganda relies on donor funding which often leads to a perception that donors too often dictate programs and are not open to new, promising ideas. Donor funding, respondents said, often causes partners to compete, rather than collaborate, to achieve a mutual goal.

Community leadership in health programming presents an often overlooked opportunity to improve child health. Already held in high regard by community members, leaders and gate keepers can leverage their influence to promote healthy practices among community members and accountability among health workers. With regard to status and empowerment, women, especially those in rural communities, may not have as much power as their male counterparts. One academic described the dilemma: *"Most of the time they have [to] rely on their husbands [who] make the decision, whether to go to the facility for treatment and how to manage business at home. If the woman is not aware or doesn't have information about her baby you don't expect a lot of support from the man, she might need to get the support from the mother, the peers and other community people. She needs to be empowered."*

IMPORTANCE OF CHILDREN AS AN AFFECTED GROUP

Some respondents credited the MDG targets and the global focus on child mortality reduction with bringing attention to child health at the regional and country levels. Systematic measurement of indicators provided an additional incentive to deliver as countries were held accountable not only to citizens, but to global partners. Global initiatives such as a multi-country immunization effort and a call for polio eradication provided the momentum needed to move these goals forward.

Another academic respondent emphasized this perception: *"…Successes and failures in Uganda are both related to the global [priorities] because the global [partnership] mobilizes policy, it mobilizes political leadership, and technical leadership like the whole thing around MDGs. And when they [child health interventions in the MDGs] were prioritized globally, they were [also] prioritized regionally and locally."* A government respondent said: *"I think the global initiatives also provided momentum globally in terms [of] resources and also holding government accountable to moving towards some of the key targets global targets in terms of child survival."*

FINDINGS: EVOLUTION OF CHILD HEALTH

The global wave to improve child health indicators during the MDG period (2000–2015) created momentum for using country data and prompted renewed investment in child health programing. This wave shed light on the high rates of childhood mortality globally, and, in Uganda, it incited public outcry regarding the need to reduce child deaths. The period marked the start of significant investment in proven child health interventions such as IMCI and increased research in child health. Noteworthy, however, is that the shift to child health came later as the country—and global community—initially placed the focus on the HIV/AIDS epidemic devastating the country.

During the MDG period, interest and focus shifted to child health initially, and much later, to newborn health. As shifts in focus occurred, so did funding. One NGO respondent described these pivotal shifts: *"Mortality rate had stagnated so there was a global outcry and everyone was trying to do something about changing the indicators for child health that is when we had the introduction of the expanded program for immunization in Uganda, more strengthening of that, more investment in that, and also a lot of investment in the integrated management of childhood illness program…."*

Respondents reported that, at the national level, global momentum led to formulation of the National Health Policy, and later, the National Child Health Policy. These policy reforms significantly advanced child health goals, paving the way for decentralization from the district to the sub-district level and establishing a minimum acceptable health care package. New child health interventions included establishment of village health teams which later became key to improving child health throughout the country. With its growing focus on child health, Uganda saw an increase in project-based funding to implement interventions in key priority areas, especially in HIV, malaria, pneumonia, diarrhea and immunization.

A multilateral agency respondent described how policy reforms guided interventions to drive child mortality reduction. Health sub-districts were introduced as "*a concept designed to improve delivery of services at the community level.*" Further introduced were "*a doctor at the county [sub-district] level…and something like a hospital, health center health center IV.*" Especially important to reaching communities, the respondent said, "*we introduced the village health team…a [cadre] of community volunteers… to do health promotion at community level.*"

FINDINGS: STRATEGIES AND FACTORS THAT AFFECTED MOMENTUM OF CHILD HEALTH

INFLUENCE OF GLOBAL AND REGIONAL INTIATIVES: A CALL TO ACTION AND A PROMISED RENEWED

The majority of respondents viewed the global initiatives as one entity and were not able to attribute a specific impact to a single initiative. Most agreed that global initiatives had huge impacts but were not able to name specific initiatives. A perception held that global initiatives provided momentum to affect MCH resource allocation and the need to hold governments accountable. As one MOH representative noted: *"So I think the global initiatives also provided momentum globally in terms of resources and also holding government accountable to moving towards some of the key global targets in terms of child survival."* The few respondents who did attribute influence to a particular initiative highlighted the Call to Action and APR as having brought multiple players and sectors on board.

An MOH respondent said that these initiatives changed the programing landscape by emphasizing integration, stating: *"A Promise Renewed at the global level highlighted the importance of maternal and child health and had an effect on country level programming—more integration of programs."*

The APR initiative was thought to have guided development of national guidelines, such as the Reproductive Maternal Newborn Child and Adolescent Health (RMNCAH) investment case; heightened the voice of advocacy; and highlighted a need to focus on newborn care. An NGO respondent noted that *" [the] child survival strategy formed the framework on how we then developed the Promise Renewed and…went beyond just child survival strategy but also looked at the other MCH indicators…our experience developing child survival strategy informed how we then went ahead developing the Promise Renewed and later the RNMCH…which includes child health…as a key component. So, I think…what all those contributed to [was]…helping the country have a clear strategy."* A respondent from a multilateral agency, however, noted that influence of global initiatives has been curtailed because they usually had not been fully implemented at scale in the country. *"They have been implemented to a certain extent in the country, but if they had been implemented to a full extent…we would be far ahead…"*

POLICY AND STRATEGY DEVELOPMENT NETWORK

Respondents were asked to assess their organizations' roles and working relationships with other partners in developing and implementing policies. ONA results demonstrate that MOH-CH and WHO have the highest number of direct connections in the strategy network (16 each) closely followed by UNICEF-MCH (15) (Appendix E Table 3). The next tier of organizations includes UNICEF-NUT (12); MAKU SPH-HPPM and MOH-NUT (11 each); and MAKU SMED-PCH, Malaria Cons, UNEPI and WB (10 each). MOH-CH has the overall leadership role and most UN agencies (except UNFPA), as well as MAKU SPH and MAKU SMED, are central to the network (Figure 6).

The continuing leadership of MOH-CH is evidenced by their highest betweenness centrality score (83.56) followed by UNICEF-MCH and WHO (44.60). All the INGOs are on the outer distant circle of the strategy network as are the other academic/research organizations, except for the two MAKU schools. USAID-CSP has only four connections including ties with the Maternal and Child Survival Program at John Snow Inc. (MCSP-JSI), and the three government agencies (MOH-CH, MOH-NUT, and UNEPI). The position of USAID may reflect donor policies which dictate how to engage in country level child health policy and strategy dialogues. USAID may, for example, choose to operate through their grantees, mostly INGOs, which have low levels of direct network influence but may be conduits of new ideas that are routed through their bridging ties with key organizational players.

Figure 6. Confirmed overall strategy relationships with nodes sized by betweenness centrality
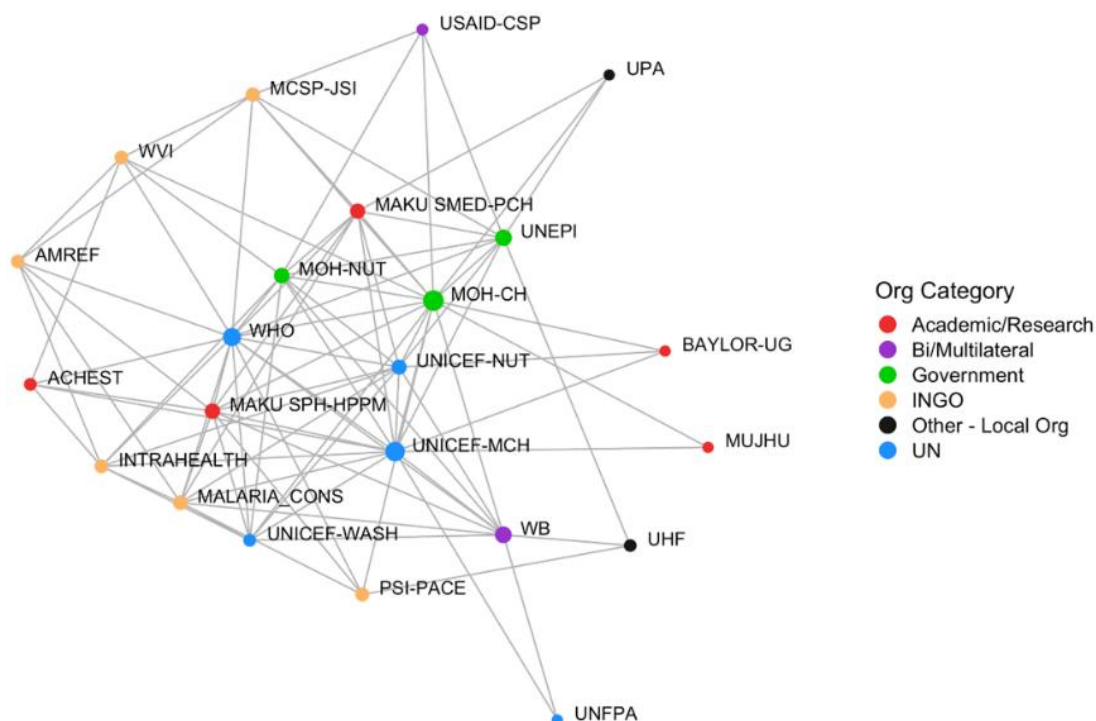
EFFECTIVE STRATEGIES: IMCI-ICCM AND IMMUNIZATION

During in-depth interviews, respondents were asked to discuss key strategies that made a significant impact on child health in Uganda. In general, they described the role of IMCI-iCCM as interrelated; neither strategy was mentioned without the other. It was apparent to respondents, that IMCI-iCCM and immunization strategies worked in tandem to advance child health.

Overall, IMCI-iCCM was seen as a good strategy that led to improvement in child health at both the facility and community level. The strategy's major strength was its ability to diversify access to critical care for children from the health facility to the community level, thus addressing both the curative and preventative aspects of the common causes of child deaths. A respondent representing a local organization underscored the importance of the IMCI-iCCM strategy to child survival:

> "… I think that strategy (IMCI-iCCM) was a game changer to a larger extent because it moved us from looking at children as cases of diarrhea to looking children as a whole… you could not miss out [on] certain things, so you are able to assess the child and look at all the different aspects of the child, the critical things that kill children anyway, and provide care in that perspective."

The respondent further emphasized that the strategy's integrated nature enabled children to access both prevention, such as immunization and nutrition, and treatment services. IMCI-iCCM was also perceived as an intervention that was easily utilized by lower cadres to deliver quality services in a timely manner, even in the absence of trained health workers. It addresses the challenges in accessing and receiving care

in lower-level health facilities. As one INGO respondent noted, "… *I know IMCI started a little earlier but it has continued to have impact because it equips skills even irrespective of your level of education, so that has taken away the pressure and demand for senior doctors and pediatricians to the lower level cadres while at the same time assuring quality of care that patients can receive both for treatment of illnesses, support for those with chronic illnesses and even the prevention aspect.*"

Some respondents reported that iCCM at the community level has greatly improved access to primary health care services in the initial hours of onset of symptoms. One INGO respondent illustrated this observation: "…. *children are at the community level, they get sick and by the time they get to the health facility probably it is more than twenty-four hours which could lead to worse outcomes; iCCM ensures that children get treated within the first twenty-four hours of symptoms… I think that is one of the biggest breakthroughs that we have made as a country.*"

Some respondents reported that, in addition to the MOH as a champion of iCCM at the community level; other partners such as the Malaria Consortium and Population Services International (PSI) have played a key role. One respondent mentioned that the private sector, through drug shops, was also a contributor to iCCM scale up.

Immunization was another key strategy perceived as having greatly contributed to improving child survival. Over time, the number of immunization vaccines available to children have increased from six to twelve. Vaccines; including pneumococcal conjugate, pentavalent, and Rota; were seen as having contributed to a drastic reduction in occurrence of preventable diseases. A multilateral agency respondent described the improvement: "… *due to support from Gavi we were able to introduce a lot of new vaccines which was good for the children. [R]emember we were able to introduce the pentavalent vaccine, the hepatitis vaccine, rotavirus vaccine. [S]o that was the time we got the support from Gavi to introduce new vaccines, basically we were using these five basic vaccines, but now we are able to expand the vaccines of children and it has actually helped us to improve child health in Uganda.*"

Respondents reported that political commitment has grown, and influential champions emerged to get children immunized. Through funding and support from Gavi, UNICEF and other organizations, immunization coverage has been high in Uganda. Respondents emphasized that funding from Gavi enabled the MOH, through the Uganda National Expanded Program (UNEPI), to be highly effective at improving immunization coverage. This has been a major step in ensuring that children neither develop nor die from vaccine preventable diseases. A multilevel agency representative noted that "…*along the same way, there was the creation of global alliance for vaccines and immunization which brought in a lot of resources for child health.*"

Over the last decade, Uganda implemented multiple mass immunization campaigns especially to boost measles and polio immunization. Some respondents reported that scale-up efforts could partly be attributed to global initiatives like the Call for Eradication of Polio which invested significant resources. They also reported that the immunization program benefitted from lessons learned through the polio eradication campaign.

Other initiatives like Reach Every Child and Child Health Days have made a difference for children in Uganda and have been critical in ensuring that herd immunity is attained for vaccine preventable diseases across the country. According to one academic:

"[Child Health Days program] is being implemented in quite a number of countries but it helps us really to accelerate uptake of the immunization services [by]…identify[ing] and ensur[ing], every child gets fully immunized."

These approaches were perceived as having improved service delivery systems. Consequently, Uganda has maintained persistently high immunization rates compared to its neighbors in east Africa. This achievement was described as a source of pride for the country. An NGO representative said: *"… the prevalence of immunization has been good, and the statistics speak for themselves, we are proud to be one of the best countries in the region*."

A policy maker also recounted how different strategies have facilitated improvements in immunization: *"…[H]aving the coordination committees, setting up systems…for monitoring and tracking coverage and performance of various districts, then obviously JSI working with UNEPI to improve systems for delivery of routine immunization…using the reaching every child approach at the district, [and] but also at the national level setting guidelines frameworks which are needed to guide and push and improve routine immunization…[Y]ou know you can actually…roll it out using innovative approaches so reducing to new thinking and contribution of new approaches that can support this agenda*."

PUTTING POLICIES AND STRATEGIES INTO ACTION: IMPLEMENTATION NETWORK

The results of the relationship ties within the implementation network identified UNICEF-MCH with the highest degree centrality or number of connections (19) closely followed by MOH-CH (16), and UNICEF-NUT (14) (see Annex E). The next tier starts with WHO (13), MAKU SPH-HPPM (Department of Health Policy Planning) and UNICEF-Water Sanitation and Hygiene (WASH) (12 each), USAID-Civil Society Project (CSP) and WB (10 each). Four organizations (MOH-NUT, MCSP-JSI, UNEPI and World Vision International (WVI)) had a score of nine linkages each. UNICEF-MCH also had the highest betweenness centrality (71.51) and was set apart from WVI, the next highest, with a score of 44.22. MOH-CH had the third highest score (37.60), followed by UNICEF-NUT (27.42), WB (26.56), and USAID-CSP (20.93). The visual plot portrays a dense inner core of organizations surrounded by a spread-out structure with a mix of INGO's, academic institutions, local organizations, and UNFPA (Figure 7). UNFPA has connectivity with three of four other UN agencies and MAKU SPH-HPPM. The overall density is 39.9%, meaning that almost 40% of the possible relationships in the network have been formed.

Figure 7. Confirmed implementation relationships with nodes sized by betweenness centrality
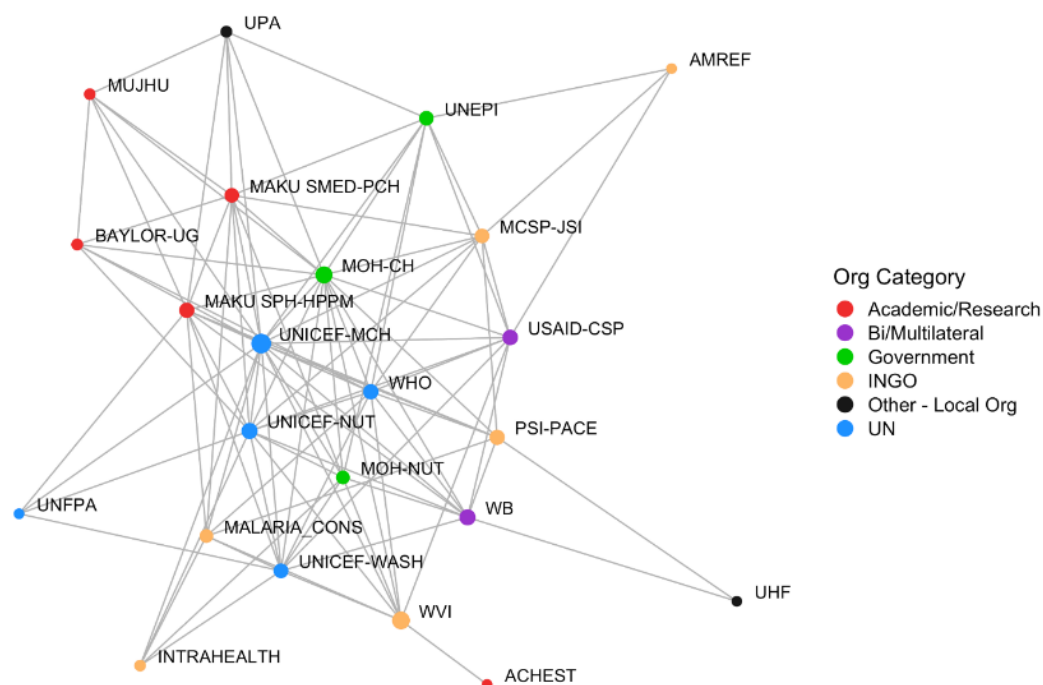
INCREASED GOVERNMENT AND DONOR FUNDING TO THE HEALTH SECTOR

Many respondents reported that, in years after 2000, health-sector funding increased. This came mainly from the government of Uganda, USAID, Gavi, the Global Fund, PEPFAR, PMI, UNICEF, DFID, NORAD, SIDA, and the multi-partner trust fund (that supports lifesaving commodities). In addition, the Global Financing Facility (GFF), introduced in 2016, provided funding for Health Systems Strengthening (HSS), strengthening of civil registration and vital statistics, and Result Based Financing (RBF). It is critical to note, however, that with funding coming from a large number of donor organizations, the focus shifted to specific programming areas based on donor conditions and areas of interest. This shift created an uneven financing landscape, in which the areas that received more donor funding received more attention. Those that were not a focus were ignored. Other respondents feared that if donor funding is not adequately supplemented by increased government spending, it will create dependency, affect sustainability of child health programs, or even reverse positive gains. One multilateral agency respondent described the phenomenon:

> "…right now you can see … we have achieved the reduction in child mortality but if we don't invest more as a country because most of the interventions are donor supported, we need to see more of domestic resources being channeled towards survival of these children…if we don't there will be a downward trend."

Some respondents described how advocacy efforts were successful, for example a minimum health care package is regularly delivered to health facilities in different districts. An observed reduction in number of days of stock out of essential commodities has attributed to this change.

Within the country's fragmented health system, several attempts have been made to increase private sector involvement in delivery of health services with mixed results. Private sector involvement has contributed to an increase in coverage of health services such as immunization, malaria, diarrhea and pneumonia treatment—largely because many private facilities have been encouraged to provide these services to the public. Another organizational respondent talked about this involvement:

> "[W]hat is key …if you are looking at other child health problems, [is] you think of bringing a private health provider on board. [W]e have many people providing care as private [for profit] providers…I think…Ministry of Health or programs were focusing a lot on public sector and yet probably 50% or more their first point of care may be the private sector. [S]o the move to empower the private sector either through training or through subsidies or through supervision…is a good move but we need to strengthen it in all aspects."

MAJOR BARRIERS OR BOTTLENECKS THAT AFFECTED THE MOMENTUM OF CHILD HEALTH

NUTRITION

In Uganda, malnutrition remains high especially among children as indicated by the high levels of stunting, wasting, and underweight. Key underlying factors include poor infant and young child feeding practices which is reflected in the high levels of stunting and wasting. One government respondent attributed this to poor advocacy in these areas saying:

> "**…**advocacy…has been a bit weak but we are going to improve [it]. [O]ne of the areas of course that we look at is the world breastfeeding week [to]…really intensify our advocacy campaign for promotion of breastfeeding and complementary feeding practices. [I]t is not really to a level that I would like [it to be] so we want this time to make it more vigorous."

NEWBORN HEALTH

In response to the stagnant NMR, Uganda formed a National Newborn Steering Committee which has been instrumental in advocacy, setting policy, and developing guidelines. However, almost all respondents agreed that implementation has been weak. Community interventions such as iCCM focused on provision of treatment and lifesaving care for older children. The causes of mortality in newborns which require facility-based care, did not benefit from these interventions. The increase in access to health facilities has not been matched with improvements in clinical care, which has led to a compromised level of quality of care especially for newborns. One academic respondent described the impact of slow improvements in clinical care as detrimental to newborns in Uganda, saying that efforts so far have been almost a failure:

> "The last fifteen years we have not seen a reduction in neonatal mortality, it has stagnated [at] 27 [per 1000 live births] for the last three decades. And in reality, it is not surprising because…[for] improving neonatal health [and] …child health generally the focus has been at community. [This]… is perhaps good but a lot of the neonatal interventions require access to clinical care. [A]nd one of the disappointments in Uganda is that…[while] we have good physical access to health facilities; we have very poor quality of care and the capacity is so limited. [S]o that is a major disappointment that clinical care has not been a major focus."

Some respondents said that for decades neonatal health has not been a government or donor priority. As one healthcare respondent said:

"…from my memory way back when I was still working with the communities, I think we used not to focus a lot on newborn care until there were specific policies and guidelines and programs that really focus on newborn care and became high on agenda. [A]nd …that may explain why looking at our performance in the MDG had some good gains under five and infants but when you look [at] neonatal mortality we hadn't moved a step. I think largely because we hadn't focused much on…the first month of life."

To address deficits in newborn health care, some respondents reported that several strategies were put in place. The strategies mainly sought to increase integration of nutrition into newborn health care and to raise awareness and generate better care-seeking practices (e.g., attending all antenatal care visits and seeking facility delivery). By encouraging mothers to seek medical interventions for their children and themselves, these strategies had a large impact on increasing coverage of care. Efforts in health facilities, have largely been on improving care at birth; neonatal resuscitation, especially helping babies breathe (HBB) and kangaroo mother care (KMC) with limited inpatient care for small and sick newborns.

However, all interventions had limited comprehensiveness, scale, and quality. Despite the MOH and partners' efforts to integrate health services and programs, silos persist, e.g. immunization and family planning. One multilateral agency respondent described the need to integrate services:

"So how do you use the platform for example of let's say IMCI or platform of iCCM to integrate all the other services[?] [O]r how do you use the platform of the maternal service provision, for example the ANC or maybe the immunization clinic[?] [H]ow do you use the platform of family planning when the mother comes to ask for family planning, …[as] most time[s] she will be coming with the child, [to] make sure that the child get the services, vice versa[?] [I]f you have a child being brought for immunization how do you make sure that you target this mother with the family planning[?] So the mindset has changed that we need to actually integrate the services and don't lose the opportunity."

INADEQUATE AND FRAGMENTED FINANCING OF CHILD HEALTH

Although most respondents reported improved financing for child health, levels were still considered not adequate. A few noted that the lack of adequate government funding to the health system curtails the potential for improvement in child health. Respondents reported that government fiscal allocation to health is small and has fluctuated over the years. As a result, most health programs have been supported by donors and unfunded programs are often not implemented. The nature of the funding environment has contributed to an uneven reduction in mortality, as various regions tend to have different concentrations of child health interventions, donors, and actors. As one multilateral agency respondent said:

"You see in Uganda as much as you have national programs that are under government, you depend mainly on donors, so a donor may just focus on a component, so if one component is not looked at that will go despite the fact maybe it is contributing to the survival of the baby or the child but still if it does not get funding, it will not be implemented."

Beginning in 2000, most donors aligned with government set goals and priorities by agreeing to put money "in a basket" which was referred to as sector-wide approaches (SWAPs). Instead of vertical

funding, donors supported the government budget, which enabled better planning and financing of prioritized interventions. However, proliferation of multiple donors and concerns over government's accountability for resources in-country led to the abandonment of the SWAPs strategy, and most reverted to project-based implementation. The approach was presumed to have created challenges for the health system by creating parallel project implementation streams which led to inequity in funding. Respondents believed that this strategy disorganized an already ailing health system. As a representative from other/local organization said:

> "…. Yes, yes, at the same time there was emergence of Global Fund which used to bring in a lot of resources and these resources were mainly focusing on HIV, TB and malaria. But of course, you know TB, malaria and HIV affect children, so it was good resources, but it disorganized our health system…. Global Fund refused to be part of the budget support, so it fragmented the system and we went back to the project mode."

Limited government financing has also affected human resources for health, resulting in negative impacts on health service delivery from the planning stage to actual implementation. Although staffing levels have increased since 2000, they are still below the recommended norms.

CHALLENGES IN COORDINATION AND MANAGEMENT OF DECENTRALISED HEALTH SERVICES

Decentralization, which started in early 2000, was initially welcomed as a means to improving planning, management, and health services delivery. However, it later led to formation of too many small and unviable districts that could not mobilize adequate resources. An INGO respondent noted that this districting is problematic for service delivery:

> "…. when I started working in the sector, we had 56 districts, now we have 128. One time, CIDA gave us resources to implement iCCM in three districts, that was Mpigi, Masaka and Wakiso. [T]hen one and a half years after the project started Masaka was broken down into five districts…. so [the] administrative units became eight, from three which caused unnecessary transaction costs"

Further as one noted, an increase in donors, resulted in projects that were not well regulated and created a silo-like approach to implementation with many pursuing their own agenda. Monitoring and reporting guidelines also became a challenge. A UN representative described this result:

> "…I think what has happened [is that] there are more planners but they are pursuing their own agendas like at first between 2000 and 2007/8 before the SWAP has collapsed there was this whole common purpose of chasing a similar goal. Now, I have a feeling it is [disorganized], people chase their own agendas, get their funding from elsewhere. [Y]ou don't know whether it is coming into the common, so…the whole system is disorganized and with the further fragmentation of the districts people can [be] working [i]n one sub-county and they will claim that they are covering the whole district…I think it is more disorganized now than before."

Many respondents reported that although Uganda has a proliferation of implementing partners, i.e. NGOs and CSOs, operations were poorly coordinated and inefficient. Improving partner collaborations and coordination mechanisms for MCH in general was cited as one of the critical ways to help the country achieve child health goals. In most cases, organizations share a focus on children as the sole priority, however, interventions are fragmented or offered in an uncoordinated way. A local organization respondent suggested an alternative approach:

"...at the end of the day they are looking at that one individual who is the child, so I believe if the implementing partners or organizations came to have synergies, everyone brings in different maybe skills, ideas, which they bring on board and then focus, that holistic approach to looking at the child I think it could help a lot. [F]irst of all, it could probably ...[reduce] duplication of certain things, and maybe hav[e] more synergies, it will create stronger evidence of probably what works best." These synergies could be achieved through inclusive planning mechanisms as noted by an academic respondent: "...it is planning at all levels so that all people are involved, the partners, the ministries, the community we have the same vision for the child..."

FINDINGS: LEADERSHIP

### ORGANIZATIONAL LEADERSHIP AND ACCOUNTABILITY

All respondents agreed that the MOH has been critical in providing leadership and guidance for child health actions. In 2000, the MOH, exercising strong political and technical leadership, operationalized major policy reforms, which brought partners, donors, and districts on board. The majority of respondents also said that the MOH worked with a multitude of organizations that provided financing, technical aid, commodities, and data to guide its mandate to provide health services. Global-level organizations that were mentioned include WHO, PEPFAR, UNICEF and the Clinton Health Access Initiative. Respondents also recognized the British and American governments and foundations as the main child health supporters. At the national level, organizations like Makerere University were mentioned as being critical to contributing evidence needed to drive policies. One academic credited the organizations:

"I must say the Ministry has been an important party providing the leadership, policies, mobilizing resources. They definitely provide all the human resources and they pay for them. UNICEF has been a major actor to provide a lot of resources, they have given a lot of the child health work [to] iCCM and...immunizations. Then organizations like WHO are quite important, [and] to a greater extent UNFPA especially in the area of maternal health and adolescent health and family planning...But also organizations like Malaria Consortium, Save the Children, AMREF, USAID contractors...[and]...MCH, these have been quite important in areas of implementation and system strengthening and sort of bridging gaps. Then there are a few other organizations like the media...[that] is quite involved in health and almost on a daily basis in the last fifteen years. [Y]ou find articles in the newspapers and on TV every day. Then of course academic institutions I must say, organizations like Makerere University they have trained people...they have provided evidence and they have given advise to the government."

In order to develop a more systematic picture of the perceptions that organizations had about the leadership qualities important to influencing child health, respondents were asked to nominate other organizations in ranked order for: a) best coordinator; b) most influential; and c) conveyer of best evidence. MOH received the most number one votes for the "best child health coordinator" (60.7%). UNICEF was a distant second receiving 21.7% followed by WHO (8.7%). In the "most influential" category, UNICEF at 39.1% received the most votes but was closely followed by MOH (39.1%) and WHO (26.1%). For having the "latest evidence on child health", WHO took the lead with 56.5% of organizational votes, MOH came in second with 21.7%, and UNICEF followed with 17.4%.

ACCOUNTABILITY NETWORK. Further ONA results contribute to understanding the accountability network of organizations that work together to engage in joint activities of the group. The accountability network has the lowest level of connectivity of all specific activity networks studied, as only 23.7% of potential connections were reported. This may be related to a weak or non-existent governance structure where network purpose and goals are not well-defined. This results in lower levels of trust and reduced commitment as organizational and network roles, expectations and outcomes are difficult to monitor and enforce. MOH-CH has the highest number of connections (15) followed by UNICEF-MCH (11), WB (10), UNICEF-NUT (9), USAID-CSP and WHO (at 8 each) (Annex E: Table 2). MOH-CH has, by far, the highest betweenness centrality as it can create linkages between unconnected organizations (Annex E: Table 3). However, the INGOs, except for MCSP-JSI, show low involvement in forging coordination of accountability processes and outcomes. As shown in Figure 8, and consistent with findings from other activity networks, INGOs are widely dispersed around a denser core of the main organizations and show a moderately high level of centralization (46.5%). Some INGOs are linked onto the network through only one connection (AMREF, IntraHealth, UPA) and two connections (ACHEST, UNFPA). These data suggest that INGOs do consider coordinating with other organizations on accountability as a priority, a premise reinforced by other survey results. Of surveyed organizations, 65.2% list accountability and governance mechanisms as activities that they engage in, but only one (4.3%) listed it as a priority (Annex F: Table C).

Figure 8. Confirmed accountability relationships with nodes sized by betweenness centrality
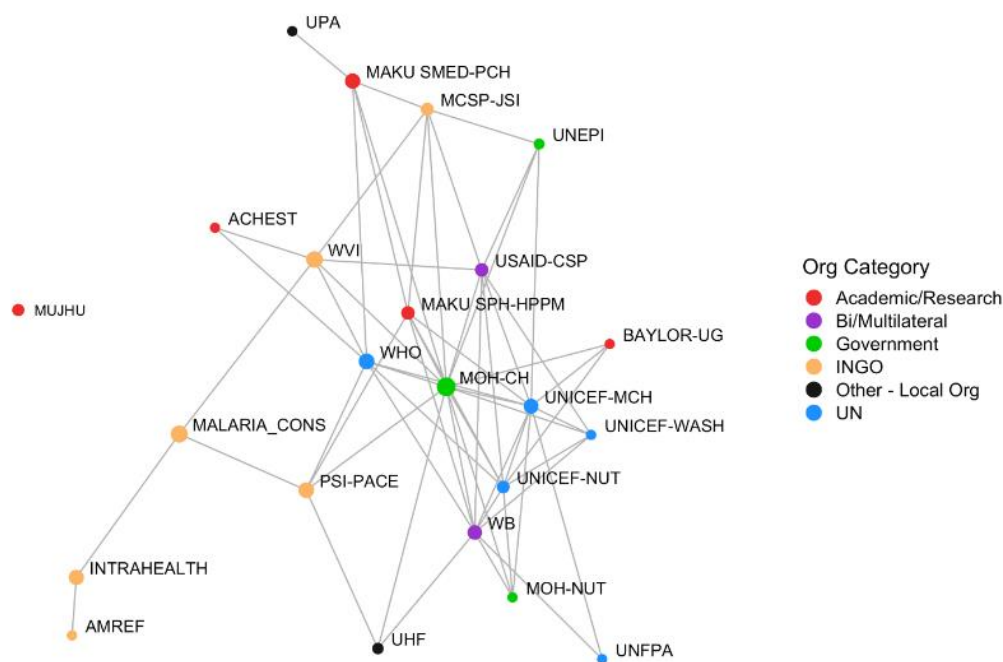
Uganda has witnessed an increase in civil society groups embracing the welfare of mothers and children, which has led to a rise in advocating for women and children's rights. Due to sample size constraints and the focus on national level organizations, CSOs/local NGOs were not included in the study. However, study respondents expressed varying views of the role of NGOs in Uganda. One NGO respondent

recognized their contributions stating: *"Some rights-based NGOs have helped to push forward the rights of children especially accessing health education and other social amenities that they deserve."* These groups, through technical committees, have created influence at the MOH and have promoted accountability and influenced politicians to include MCH indices as performance metrics. An NGO respondent remarked that these NGOs are pushing the government to be accountable:

> *"…so you find that there is that commitment, however, how we translate it into action and the deliverable and outcome is something we are yet to see… [T]he government feels accountable for the commitment it has made globally, nationally, and the commitment to improve the SDGs. [T]here are many CSOs that are always bringing up accountability issues."*

PERCEIVED EFFECTIVENESS OF GOVERNANCE

Respondents perceived deficiencies in governance as reflected in a less dense network structure for coordination and low levels of multi-stakeholder prioritizing of accountability. They cited systemic issues related to corruption, limited use of data by political leadership, low political commitment by district leaders, and management deficiencies as affecting both infrastructure and human resources. These issues translate into poor training of workers, unreliable supply chain of drugs and supplies, and inability to scale up evidence-based interventions in some areas. A bi/multi-lateral agency representative illustrated this perception:

> *"The big challenge was…poor governance of the sector… [O]nce the government stays in power for a long time, they lose grip of what they are planning to do…[T]hat governance runs through the entire system, from the Ministry to the district, health sub-district. Secondly, with loss of trust by the partners in government and moving the money from budget support we saw a decline in resources for the sector. That decline for resources was translated into so many things. One the salaries became so inadequate, so we saw staff de-motivation. We saw staff leaving facilities… the ones we had recruited started leaving. Then the other one. Gavi was not actually giving us new vaccines they required us to co-finance, we were supposed to make contribution but at times we were not able to pay for our co-financing, because of lack of the resource."*

Weak partnerships and inadequate coordination were further attributed to poor management practices and accountability mechanisms. Some respondents felt that the MOH was too fragmented and did not promote a multi-sectoral approach to child health as coordination was limited between the Ministries of Health, Agriculture, and Women. Some also recounted that too many small meetings organized by partners usurp the energy and focus of the MOH. When valuable time is taken from the MOH's main mission, the government's ability to carry out its policies and programs efficiently and effectively can be negatively impacted. Potential solutions such as strengthening partnerships and networks and a reallocation of more rational roles and responsibilities in the health sector were discussed.

> An academic respondent described the challenge: *"Well I think the MOH takes on too much but some things they are not the best people to do it. When you look at malnutrition what is a role of Ministry of Health, it might be clinical care and a few preventive parts but otherwise this is a role that is cleared for agriculture…so there are many things that the Ministry just needs to work in a partnership to ensure that the things are happening. [B]ut we are having situations where we are getting doctors to distribute mosquito nets. Why don't you use those doctors in a better way and let other people distribute the nets? So, I think can I say either we have been short sighted as people in health sector."*

INDIVIDUAL LEADERSHIP ACTION OR INFLUENCE

A few respondents mentioned individuals who have championed and advocated for action in child health at national, regional, and global levels. However, they suggested that it was sometimes hard to separate an individual from their office. Often individuals perform certain tasks because they are compelled by their position. This notion was expressed by an academic:

"Really it has been a collective effort led by the people who work in the ministry…I can't give names because people contribute differently depending on where they are located … [and] what their core business is in…Sometimes people give names of people who have been working in research, HIV/AIDS and all that but may not be the one that impact on child health."

FINDINGS: POLITICAL COMMITMENT AND POLICY SUPPORT

Many respondents observed that, since 2000, Uganda has shown a strong political resolve to improve child health; a commitment that has been expressed by the President, members of the cabinet and Parliament as well as by district and local level representatives.

As mentioned by one government respondent: *"Here in Uganda we enjoy political support for immunizations. [The president] increasingly identifies immunization and he keeps it in his manifesto agenda and really identifies with the benefits of immunization; that is one key so when it comes to lobbying for resources, having someone to identify program activities, always the political leadership is on top of the agenda."*

An NGO respondent also observed the president's commitment: *"I know there is a political commitment from the president himself, like I said for immunization that is a priority for him. It has to work. [A]nd for him, it has been a key deliverable. [I]t gives him pride when he travels around the global because they are health accountable to that as leaders…[H]e doesn't want to fail on that one; it is like one of the key achievements he believes he has contributed to for this country ever since he came into power."*

POLITICAL COMMITMENT TO MILLENIUM DEVELOPMENT GOALS (MDGS)

Respondents pointed out that the government's commitment to meeting the MDGs has been substantiated by enabled policies and committed resources (human, financial, commodities, and infrastructure). They largely agreed that good technical skills and capacity have complemented a strong political will. When government leaders were provided with resources from global initiatives, they were able to accelerate implementation of child health activities. A multilateral agency representative described the perceived commitment:

"…the political leadership up there has been very instrumental. I told you that the cabinet briefing paper raised alarm on the very high maternal and child mortality and the slow straggle towards achieving the MDGs… to this plan for reduction of maternal and child mortality….[T]he political leadership in this country even the office of the highest level has been …very much involved in this HIV campaign and… access to prevention services … and HAART for mothers and their babies…"

The emergence of advocacy groups supported the political will to keep child health issues on the agenda, respondents said. An INGO respondent described the groups' impact:

"… I think on the political front is where people have really embraced the welfare of mothers and children and in relation to that we….had emergence of advocacy groups that have…talk[ed]about child and mother's right. I think they have played a big role. [T]hen political leadership has taken on those key maternal and child health indices…. [Y]ou hear parliamentarians talking about deaths of the mothers, but they also talk about the deaths of children as well."

However, other respondents thought the so-called political will was just rhetoric, as it did not translate into adequate financial and other resources from government. Many initiatives are donor funded, which poses a major risk to the sustainability of efforts.

"…No, I told you right from the beginning that I don't think there is any political commitment. If it is there, it is the routine indirect commitment [to] health care… I don't know whether there has been any special focus to give the children the focus they deserve politically. If you even look at the political pushes that have been happening, a lot of them have nothing to do with childcare." [INGO]

POLITICAL COMMITMENT TO SUSTAINABLE DEVELOPMENT GOALS (SDGS)

The majority of respondents suggested that some political commitment to SDGs in Uganda does exist, as evidenced by the development of indicators. The Uganda Bureau of Statistics (UBOS) leads the SDG measurement process which will be done through Demographic and Health Surveys (DHS). The MOH is leading finance planning and economic development efforts. SDG units were established and there is an implementation framework and an SDG inter-ministerial coordinating committee that meets regularly. This process is meant to be replicated in all ministries and districts.

However, a number of respondents thought that the SDGs were generally perceived as an elitist issue and the actions required at the community level were not well understood. This is especially true in districts as they have not been adequately engaged on SDGs—either what they are or how can they be integrated in district planning. In addition, there is an NGO SDG implementation framework to promote advocacy, but its activities are mainly limited to organizations at the center. In summary, most respondents thought that the current leadership's political commitment to SDGs still needs to be strengthened and translated into action. The need for further action is reflected by comments from an academic:

"…[W]e have…the SDGs even in the national plans, but countries have not worked out the details…on how much programming we need in order to make this progress [towards SDG targets achievement]. I think that is going to be important otherwise results can't be gotten just by chance…Some of the measurement work we have been doing shows that to achieve the SDG[s] child health targets, we need to be reducing under five mortality about ten to twelve times faster. [T]hat means that if countries are serious, then implementation of programs needs to be more comprehensive."

POLICY SUPPORT IN PRACTICE

Many respondents thought that Uganda, during the MDG era, had a good policy framework to drive improvements in child health. Policies prioritized and highlighted key areas in child health. However, challenges persist in government fiscal allocation of resources. Indeed, the national budget monitoring shows that the government's budget allocation to health has been continuously reduced over the last five years. Clearly, respondents said, the government has prioritized other sectors as evidenced by

increased allocations to security, energy, and national infrastructure. One respondent from another local organization offered an observation:

> "I don't think it is there [political commitment], because you can see it clearly. [T]he policies are fine, [and] they are prioritized in the work plans, … but resource allocation zero. [For example,]…when I left the Ministry, we were allocating health sub-districts about forty million shillings for health. [T]en years after it is still the same amount of money, [even] with all the inflation, increased population, increase in the cost of living …" [Other]

Poor fiscal allocation impedes implementation of key health policies and too often results in reduction of child health services. For example, although its contribution to a complex, primarily donor-funded, immunization program has been limited, the government has still been slow to put critical policies in place. Further, the government and other stakeholders developed an Immunization Fund through an Act of Parliament but have yet to operationalize it. An academic expressed concern:

> "The immunization policy…we are yet to see the impact of that policy. You know children are affected by almost everything, almost every policy that affects the population in the community will eventually affect children. Decentralization…[of] implementation…continues to affect child health. I feel that we have lost many of child promotion activities and supervision, maybe not because of the policy but because of the [limited] funding."

Further, political events, such as elections, even further affect fiscal allocation to health policy implementation. According to one participant, "…as we go to 2020/2021 you are going to see a lot of shift of resources to politics, it is going to reduce service delivery, so we are going to suffer."

FINDINGS: COORDINATION AMONG ORGANIZATIONS AND STAKEHOLDERS

LANDSCAPE AND COORDINATION MECHANISMS

Application of a mixed-method approach is useful in documenting and understanding the reciprocity and validation of organizational linkages and broader network structures.

The overall confirmed relationships, as depicted in Figure 9, convey a high degree of connectivity measured by degree centrality scores. MOH-CH, UNICEF-MCH, and WHO have the highest level of connections—with 20 of 23 organizations—and form the inner core of the network, signifying their central leadership role. The overall network has the highest density score, with 57.3% of all possible ties acknowledged and confirmed. The data show a robust network with high potential for further strengthening. This finding aligns with respondents' perceptions, as one INGO respondent described:

> "Government institutions have been on the forefront like Ministry of Health and other ministries and then we have development partners, UNICEF, WHO, UNFPA that have been at the forefront [in] developing policies, coordinating partnerships…[on] how to move forward in child health."

The second tier is comprised of UNICEF-NUT (18), MAKU SPH-HPPM (16), and Malaria_Cons (15). The INGOs surround the inner core in two separate plot areas: Malara_Cons, WVI and PSI-Pace

forming a triangle at the bottom and MCSP-JSI, IntraHealth, and AMREF on the right. Academic research organizations are clustered on the periphery with MAKU SMED-PCH, Baylor-UG, and MUJHU connected; while MAKU SPH-HPPM, located within the INGO circuit, connects with ACHEST, MUJHU and MAKU SMED-PCH. (See Annex E for complete results.) As observed in many network studies, a "birds of a feather phenomenon" of clustering homogenous organizations is a typical finding because similar organizations lean towards working together.[13] MOH-CH, WHO, and UNICEF-MCH have the highest betweenness centrality as they are positioned to link organizations not directly connected with each other. The high direct connectivity of organizations is reflected in a lower centralization measure (35.1%) as organizations do not necessarily rely on a main organizing authority to be able to interact.

Figure 9. All confirmed relationships sized by betweenness centrality
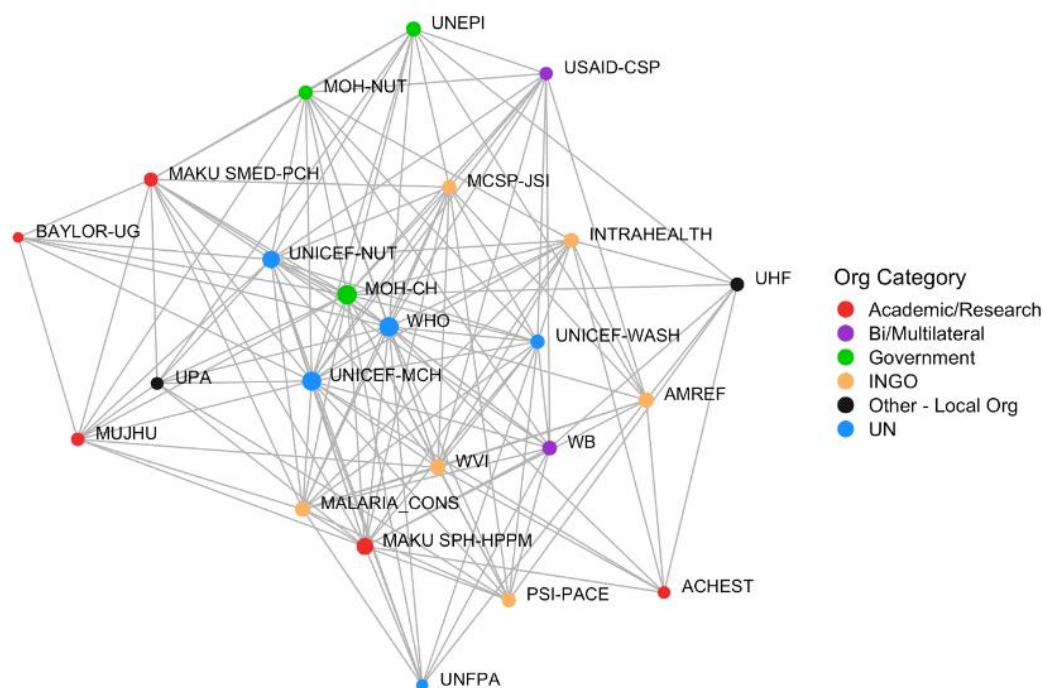
The study's qualitative component explored respondents' perceptions of key child health stakeholders and how they worked together.[14] Respondents agreed on how networks and partnerships were organized but had varied perceptions on the way the networks functioned and what they were able to accomplish.

13

McPherson M, Smith-Lovin L, Cook JM. 2001. Birds of a Feather: Homophily in Social Networks. Annunciations. Rev. Sociol. 27:415-444.

[14] IDI interview questions included: 1) Who were leading organizations in earlier years in child health? What did they do? How were they influential? and 2) How did the key stakeholders for child health work together? How effective was this coordination?

However, developing strong relationships was an important component of working together. As another local organization representative said: *"I think maybe the collaboration is beyond this information sharing, or discussions, because by the time you come into the same room to talk, maybe there is another relationship and you [have] worked together…"* Many conveyed that the health sector was well organized, with divisions covering enough areas to engage stakeholders. The MOH had established technical working groups along thematic areas such as human resources, medicine, and service delivery. These groups were sub-divided into specific areas such as MCH, a newborn steering committee, communicable diseases (polio and malaria), non-communicable diseases, etc. Group participants included representatives from development partners, private sector, local government, and civil society. One respondent presented a detailed summary of the structures and related functions (See Box 1).

Box 1: Summary of coordination structures in Uganda

"The health advanced committee, in fact this was a high level committee chaired by the permanent secretary Ministry of Health but with participation of development partners civil society, private sector, beyond that. We have what we call health sector working group, this was a big one composing all the key stakeholders…They would discuss the issues concerning the health of the people of Uganda including children, and they will come up with priorities and issues and recommendations for improvement. Beyond that we used to have quarterly meetings and then every year we had a joint review mission, a joint review mission whereby you prepare a sector plan including other plans look at the targets, look at their performance for the year and you present it to the joint review mission which will be participated in by all the key stakeholders, all the districts used to be there, civil society…and donors. Then finally the health assembly…would be held every year, whereby you would…present a sector plan to the leaders, they would discuss it, what are the issues, what are the priorities and they will decide, and the issue they have decided or the recommendation they have decided then they will feed it into the annual work plan. Under resource allocation plan so you will be having Ministry of Finance there, you will be having donors there, so once the meetings have decided that the following are the things to be addressed in the sector including children, mothers and the others…Financing will be requested and donors will bring money so it helped, we would discuss with partners, agree on the issues and the challenges, the recommendations, then whatever you decide feed into the budget process and then finance and partners will be requested to allocate resources for that, those." [Bi/Multilateral]

Most organizations interact frequently either on a monthly or quarterly basis (see Figure 10). The MOH-CH cluster, which holds monthly meetings, had the most active level of interactions. There were few infrequent levels of interaction between organizations. The high frequency of interaction creates an opportunity for working together but also poses a risk for potential inefficiency.

Figure 10. Confirmed overall frequency of interaction with nodes sized by betweenness centrality
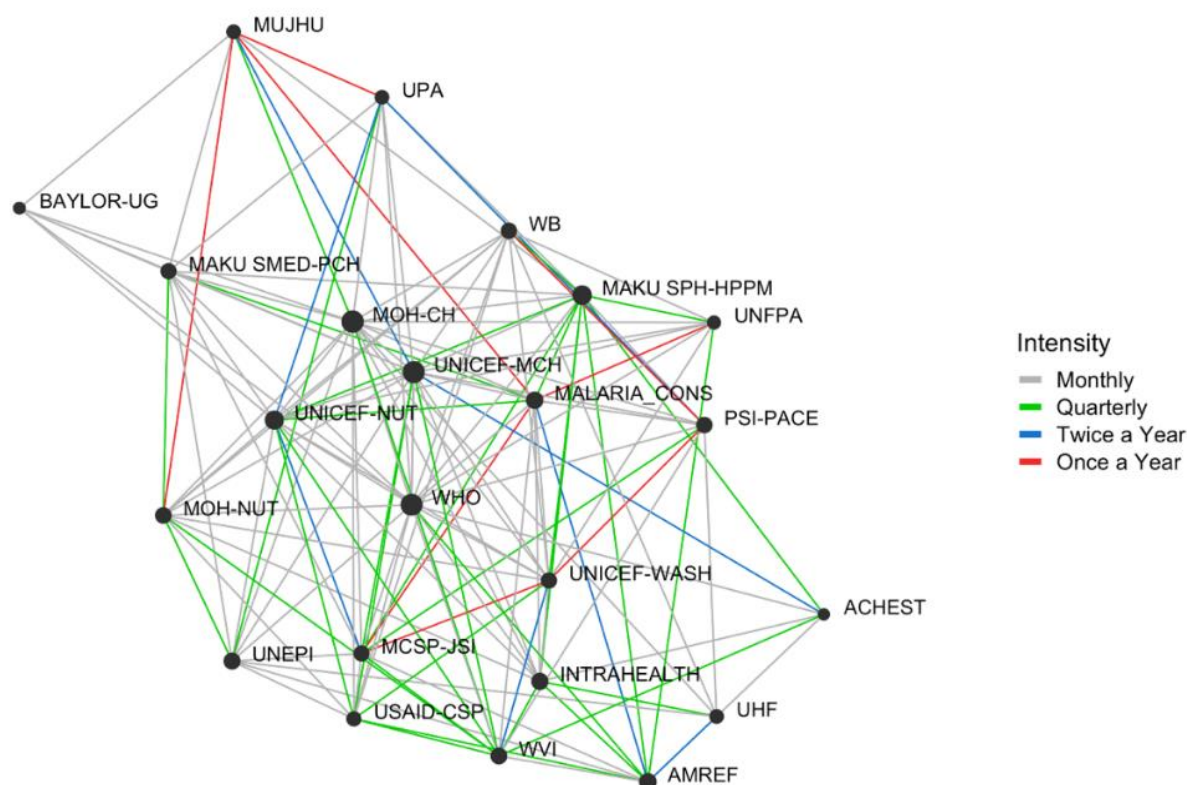
Both qualitative and quantitative study components demonstrate that coordination structures have been established and that the MOH, through technical working groups, provides the overall leadership. In addition to the broad network, it was noted that the development partners, NGOs, and the private sector have their own working groups. According to one UN representative, WHO, UNICEF, UNFPA, and UNAIDS work jointly *"to try and harmonize what they are doing."* WHO chairs a development health partners' group, that involves donors and UN agencies. The "H6" comprised of only UN agencies, including WB, also meet regularly. Basic systems are in place to advance to higher levels of network performance.

ADDITIONAL COORDINATION STRUCTURES AND MECHANISMS. Respondents talked about how district level coordination with the newborn health technical working group brings attention to this often-overlooked area.

"At the national level, we all sit, and we sort of drive the agenda…and see what is being done, who is doing what, what are the partners, how do we collaborate." [Other Local Organization]

Many respondents reported that the MOH has improved coordination of district-level activities. In the past, to streamline their work, some agencies would sign a memorandum of understanding with the district without conferring with the MOH. Duplication of services resulted, and other districts were neglected. One respondent said that the MOH is now "demanding" that all agencies involved in

implementation activities at the health center first report to the MOH. The Ministry is then able to direct them to follow programming priorities and to the geographical locations with the most need. Creating an NGO forum to align work at the district level and develop a district-level plan was suggested as a way to improve coordination among partners. Global players contribute to district-level inequities as *"they focus so much at the national, they didn't focus so much on sub-national like measurement and…you could not [even assess] these inequities…[and be]able to respond to them with targeted interventions…[in] some regions."* [Academic]

The Global Fund also focused on trying to establish regional performance monitoring teams to support regional referral hospitals to supervise a number of districts. However, as a UN respondent said, *"they were never strengthened…For example, the community health department within that regional referral hospital which is really supposed to coordinate the supervision, you will only find only one or two people to supervise eight districts. Sometimes they don't have somebody to take charge maybe a senior doctor, like you would expect that you would have somebody with a 'Master's in Public Health' deployed there, but…there is no incentive for them to take up that position."*

PERCEIVED EFFECTIVENESS OF WORKING TOGETHER

Effective working relationships are built on trust and quality of interactions that create a foundation for developing the capacity to productively work together. Respondents were asked to rate overall relationship quality on a scale from 1 (poor quality) to 4 (very good/excellent). Response data were validated using a minimum confirmation process, i.e. the lowest rating provided by either organization in a pair. Most relationships were in the "good and very good" categories with no reported "poor" relationships (Figure 11). These organizations can utilize this network map to reflect on their relationship quality, especially those perceived as "fair" as well as to maximize the good will engendered through effective working relationships.

Figure 11. Confirmed overall quality of relationships with nodes sized by betweenness centrality
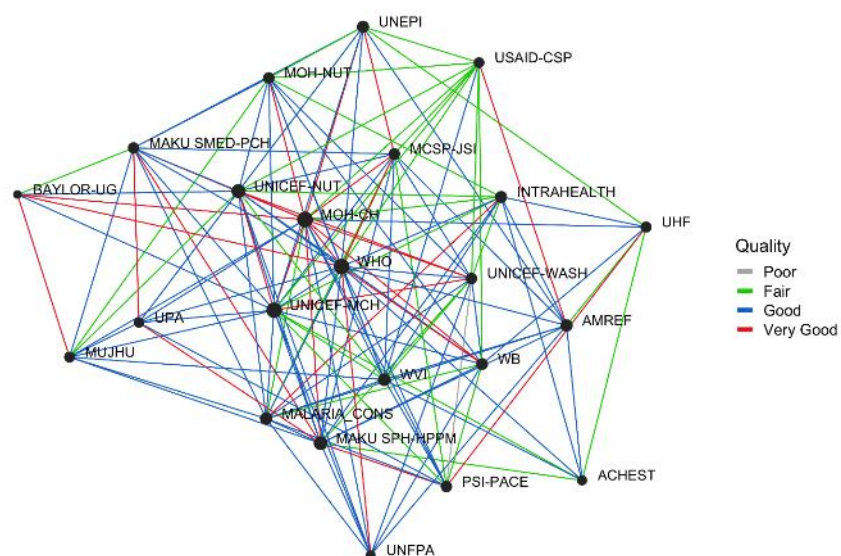
Developing a structure for network communication through scheduling and organizing regular meetings and building good relationships represents an initial stage of network formation. However, it then becomes critical to address network processes, to ensure that participants adhere to shared and agreed-upon values, and to build a consensus on the vision or purpose of the group. Throughout interviews, respondents offered mixed reviews of the performance of partnerships and coordination networks. One respondent reflected on the need for a unified vision for these coordination structures and activities.

"I feel that now I said we are setting up that platform for private sector Global Financing Facility (GFF) for maternal and child health, [the] vision is a bit different [from what] we are thinking of as complementing what we are doing in terms of actual work. We don't discuss what we would like to see, we discuss what we are doing and where we are going and how we can synergize and pull resources to be more impactful." Adding further to this theme, an INGO respondent felt that the government is too *"…driven by what comes from elsewhere like we bend to…wherever the wind is coming from and what the wind is bringing."* [Other/Local Organization]

A Promise Renewed was cited as an example when INGO respondent said, *"everyone believes that maybe there is money going to be attached if this new thing is coming…and if the money doesn't come then people lose interest."* Main thematic areas that emerged from the interviews included reflections on creation of parallel structures, resource-driven coordination and influence, benefits derived from MOH's leadership role, newborn health services coordination, and ideas about improving coordination.

STRENGTH OF NETWORK TIES AND INTENSITY OF WORKING TOGETHER. The ONA and qualitative interviews assessed the strength of network ties. The ONA asked about perceptions regarding the highest level of relationship intensity that was measured by a hierarchy of three ties. **Communication** was defined as an interaction necessary to inform others or to check on specific issues, **coordination** as a moderate-intensity interaction to share new ideas and ensure that duplication or overlap is minimized, and **collaboration** as a close, ongoing, and reciprocal working relationship. A minimal confirmation process was used when organizations did not agree on their intensity level. More specifically, if organization A selected collaboration and organization B selected communication, the final intensity level between these two organizations was set as communication.

Figure 12. Confirmed intensity of relationships with nodes sized by betweenness centrality
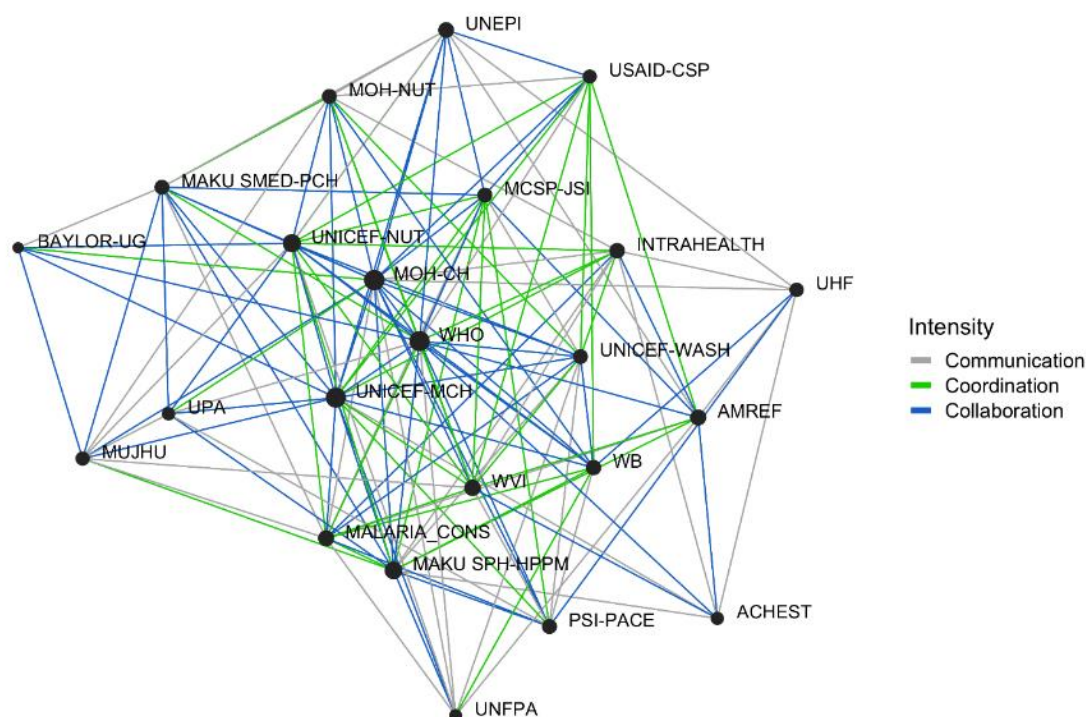
The ONA findings revealed a mix of coordination and collaboration relationships with fewer characterized at the lesser intensity communication level (Figure 12). Most of the communication relationships tend to be with exterior or peripheral organizations. MOH-CH has the most intensive relationships categorized as collaboration except for communication ties with Malaria_Cons and IntraHealth. USAID-CSP's ties fall primarily in the coordination category except for two collaboration ties with MCSP-JSI and MOH-CH and communication with WHO and MOH-NUT.

The high degree of network strength, as measured by the overall levels of intensity, did not align with the respondents' views on challenges inherent in uniting organizations in a common mission. Reports of high levels of coordination and collaboration may be skewed as organizations want to be viewed in a positive manner, as opposed to reporting on the difficulties that they might be encountering. It was unclear from the qualitative interviews whether a sense of child health network identity and common purpose exists or whether the organizations were actually acting in their own self-interest. In practice, many challenges to coordination and collaboration emerged, although most are not within an individual organization's control. For example, partners working in "project mode" means they operate on different schedules with different objectives and work stops when project money runs out. Organizations' self-interest hinders integrated resource programming and impedes strengthening health delivery systems. An academic respondent observed that: *"…more stakeholders and more partners are pulling things in different directions and to me there is no coordination at all and there is division of the country depending on who the partner is, that is my view."*

The respondent continued to reflect on the system's inefficiency: *"…there are over three hundred or five hundred CSOs or more in Kampala and each has an office with manager, with secretaries with vehicles with*

what, all this is money which is meant to be for programs wasted in duplicated administrative structures.” The system may also be impeded by duplication of human resources and dynamics characterized more by competition than by partnership: *“Organizations like UNICEF are now expanding…even USAID itself with duplication of human resource they are now competing with the government in terms of the human resources and the same titles that the government has are actually in the* NGOs.” Respondents also discussed how donors influence resource allocation and expressed that stakeholders who do not contribute substantial resources are often left out of the planning and implementation process.

Discussing the influence of financial policies on coordination, respondents compared the previous system’s benefits with the sector-wide approach (SWAP). A low GDP and weak leadership contribute to a dependence on external funders and prevent harmonization and equity of resource distribution, they said. After the SWAP, respondents noted, external resources started veering to global emergency health initiatives. They pointed to Ethiopia as a model of how strong leadership was able to effectively maintain the SWAP.

BENEFITS EXPERIENCED FROM MOH COORDINATION. Respondents expressed recognition for the key role the MOH played in developing functional structures and coordination processes. Under MOH stewardship, coordination of the current child health network structures, especially the CH technical working group, has increased. An INGO respondent said: *“There has been more synergy, [more] coalitions forming, and I think that is where it has been quite helpful.”* The MCH technical working group conducts a monthly meeting with major organizations where people share what they are doing and discuss child health issues. This dialogue feeds into the MOH health policy advisory committee (HPAC) and has the potential to influence policies and programming. Respondents further noted that coordination helped in “pulling resources together and standardizing services.” There is still a long way to go, but some observed that a certain amount of waste was reduced.

IDEAS ABOUT IMPROVING COORDINATION. Even though many respondents discussed a lack of strong coordination, they perceived that partnership forums have addressed this. Different sectors and organizations have been working in silos for a long time, resulting in friction and duplication of efforts. Only recently have partners become aware of a need to work together within and across sectors. One respondent from a local organization described this recognition: “*If we are able to have these synergies…throughout that chain maybe it could have more evidence. [M]aybe it wouldn’t be duplicating certain things, or just finding a way of working through that cascade. [S]o I believe…what is happening is better than several years ago when we used to have individual programs, UNICEF districts, UNICEF money and things like that. I think again maybe if we could strengthen it better to share these ideas, we have this problem, what can we bring on board and how do we do this? [H]ow do we generate evidence which we will share as us and then discuss it to decide where to go next? I think it will be a beautiful thing to do.*”

According to a partner, USAID has been promoting and requiring documentation on collaboration activities between grantees. An INGO representative said: *“They are trying to push that agenda and they are not only encouraging us to work with [other] USAID partners only but also other partners. So, I think there is that socialization that you need to improve collaboration and there are efforts towards it…I can’t say it has improved, it is maybe up and down…but it is moving.*”

Multiplexity is a common network relationship measure and an indicator of network level effectiveness and resiliency.[15] Multiplexity refers to the different types of relationships and the many ways, e.g. number of activities, in which organizations are connected. For example, two organizations may work together on child health strategies and may also participate with one another in capacity building. This relationship is categorized as multiplex. If they stop working together on one of the two activities, the relationship continues to build more trust and commitment between the partners, and they are able to maintain the focus on working towards a specific goal. For example, INGOs and NGOs are project based and their interrupted funding cycles may inhibit their continuity or momentum in supporting an important policy or intervention. However, if they are working on multiple tasks or projects, then that relationship continues to produce better results. The maximum number of ties that could be achieved are four.

Figure 13. Confirmed multiplexity relationships with nodes sized by betweenness centrality
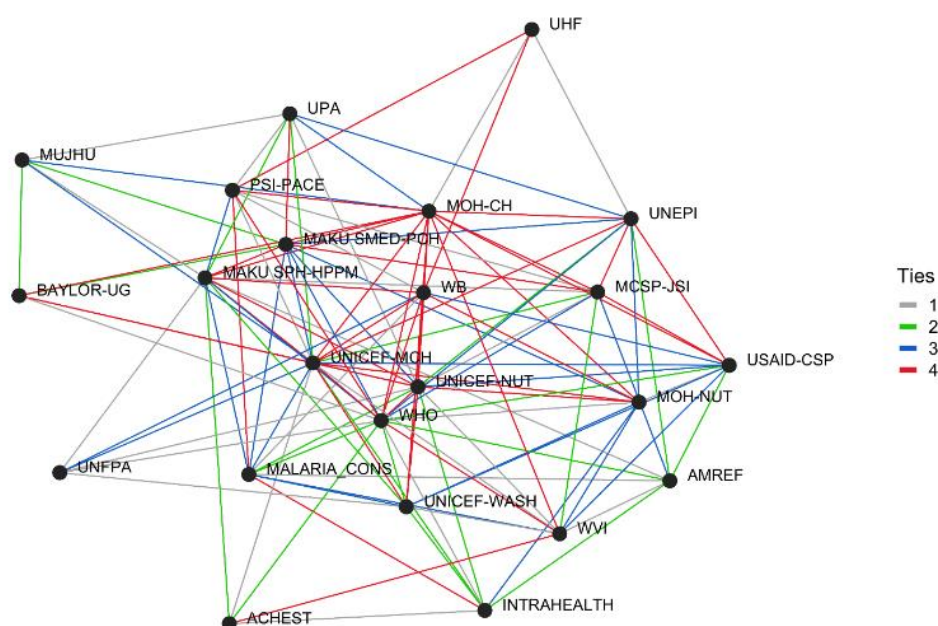
The network data revealed a mixed distribution of 2, 3 and 4 ties (Figure 13). Of the few organizations with only single ties, most are connected with UNFPA. The leadership roles of MOH-CH and UNICEF-MCH is further confirmed by demonstration of the strongest multiplex ties with most other organizations. USAID-CSP has primarily 3 ties, with fewer 2 and 4 ties.

EMERGENCE AND EFFECTIVENESS OF CHILD HEALTH NETWORKS

This section highlights case study findings based on key elements of the Shiffman et. al. framework.

---

[15] Provan K. and Milward. Do networks really work? A framework for evaluating public-sector organizational networks. *Public Administration Review* 2001; 61:414-423.

CHILD HEALTH ISSUE CHARACTERISTICS

SEVERITY. All respondents perceived child health as a critical issue. The U5MR was perceived as still high but improving; albeit slowly. Respondents noted that the NMR remained stagnant for over a decade at 27/1000 livebirths, and a high burden of malnutrition among this population contributed largely to mortality. Further, severity of the burden differed by location, socioeconomic status, and education, highlighting the need for equity in resource allocation and intervention implementation.

AFFECTED GROUPS. Respondents expressed a prevailing sense that children as an affected group are vulnerable. Until recently, there were few child health advocates and a lack of focus on specific U5 sub-groups impaired progress. Generalizations regarding age groups, even within the U5 population, clouded awareness that key populations such as newborns needed special attention. Currently, child health indicators have been expanded to include key age group targets that are routinely tracked.

TRACTABILITY. At the beginning of the MDG era, a global outcry drew public attention to issues of child health in Uganda. From 2000, the country's data analysis underscored the high burden of childhood mortality and the need to accelerate its decline. There followed a wave of increased funding and implementation of strategies and interventions such as immunization and IMCI-iCCM. However, less was done to reduce neonatal mortality because emphasis was placed on improving community health, while improving neonatal health required clinical services. In addition, strategies to address malnutrition were not clearly laid out and not aggressively implemented. A political commitment to key interventions existed; however, most were donor funded and implementation was not well coordinated.

NETWORK AND ACTOR FEATURES

LEADERSHIP. A majority of respondents perceived that, overall, MOH leaders had a clear grasp of the severity of child health problems and the need to address them. They played a pivotal role in guiding policy, resource mobilization, and advocacy, and they fostered an environment where technical groups could flourish. However, at times, MOH leadership was not especially effective, particularly when military leaders served as ministers. In the child health network, each group had a leader and notably good potential for coordination; however, findings were mixed as to the effectiveness of their working relationships on joint activities.

GOVERNANCE. The MOH's child health technical groups are organized in a cascade, with the health policy advisory committee above the MCH cluster group with the more specialized smaller technical groups such as the national newborn steering committee, the iCCM technical working group, and many others below. These groups have been critical in producing evidence and guiding implementation and policy advocacy. Each had a leader to encourage interaction between groups. However, from the discussions and ONA findings, governance structure and decision-making responsibilities appeared unclear with the network showing limited connectivity. Most organizations did not see accountability activities as a priority, a view that affected accountability mechanisms and processes including how, and at what level, to prioritize interventions and resolve disputes.

COMPOSITION. Child health technical working groups were comprised of implementers, representatives from multilateral agencies like UNICEF and WHO, academia, CSOs, NGOs, funders, researchers and private practitioners. Most of the groups have vested interest in child health, sometimes with a focus on a specific component. The groups met on a regular basis to share, discuss, and guide

implementation of child health interventions. The MOH, UNICEF and WHO were the main influencers and connectors in most child health activity networks.

FRAMING STRATEGIES. Technical committees harnessed their expertise to lead the way on policy and strategy development. Guided by international guidelines and locally generated research, the committees influenced and formulated policy and informed intervention implementation. The technical committees relied on their members to leverage resource mobilization. ONA findings showed that MOH, UNICEF and WHO jointly played a central role and provided pathways for other organizations to connect to the network.

POLICY ENVIRONMENT

FUNDING. Child health and health in general is largely donor-funded with minimal contributions from the Ugandan government. UNICEF, USAID, DFID the UK and US government were mentioned as some of the major child health funders.

ALLIES AND OPPONENTS. A majority of respondents said that political leaders, including members of parliament, the president, and the country's first lady, viewed child health issues as critically important. Such allies were vital to engaging the public in effecting key interventions such as immunizations and indoor residual spraying. Respondents noted, however, less political commitment to child health at the sub-national level. They also agreed that efforts from this level's political leaders, mostly rhetorical, had not so far been supported by actual dedication of resources and efforts. However, researchers were not able to directly interview organizations below the national level to understand their perceptions about national policies and the specific problems that they face in scaling up interventions with limited resources.

NORMS. The global wave to improve child health in the MDG period greatly challenged the country's status quo. Global policies guided promulgation of country-specific policies such as the Child Survival Policy and the integrated RMNCAH investment case. Uganda started tracking child health indicators because use of country data became critical. In fact, the wave so raised awareness and advocacy among citizenry that there was widespread energy to put in place proven child health interventions.

EFFECTIVENESS OF CHILD HEALTH NETWORKS

The child health network, steadily led by the MOH and UN agencies has been critical to Uganda's agenda; guiding policy, strategy and implementation of evidence-based interventions. INGOs, have not been as highly engaged in coordination activities. An overwhelming number of donor-funded organizations are influenced by short-term outputs while trying to move their own agendas forward. This has placed limits on their influence on equitable distribution of key interventions across the country.

Despite challenges, networks have created momentum for child health advocacy. CSOs' engagement in national-level child health networks is less understood as they have not been part of this case study. However, CSOs have been critical to lobbying and advocacy efforts. This has thus led to an increase in awareness and political commitment. However, political commitment has so far not translated into fiscal allocations and is not well established at the sub-national level.

CONCLUSIONS: ADVANCING CHILD HEALTH

The period from 2000 to 2015, revolutionary for child health in Uganda, witnessed unprecedented reductions in child health mortality and morbidity in the country. The United Nations Millennium Declaration, in 2000, generated new global policies and initiatives and a subsequent influx of resources that helped strengthen the country's political resolve to undertake sweeping changes to its health-care system. Despite improvements among children under five years of age, the system failed newborns, mainly due to poor clinical health systems and quality, inequitable distribution of health resources, high fertility, and poverty. As a result, the SDG era began with having seen progress for child health but not for newborns. Countries have generally embraced, but not understood, the SDGs, which, according to respondents, have not been widely popularized beyond elite segments of the population. Communities and subnational level leaders and implementers have not been brought on board and political will and commitment remains limited.

ONA findings show a solid child health network structure which holds potential to further tackle the myriad problems that require multi-organizational and multi-sectoral solutions. More than half of potential overall relationships have already been forged. Therefore, organizations in Uganda, already familiar with each other, have a head start that enables them to continue to build working relationships that involve strategy development, capacity building, accountability and implementation.

The MOH, the most dominant organization in the child health networks, has developed a monthly technical meeting structure that can be utilized for further network building or strengthening. Successful network builders must know which elements of a network can be re-designed, which design choices are available within institutional constraints, and the implications of each choice. In the first stage of network building, the MOH has led child health organizations to successfully connect with other organizations. Future goals require skill building to align network goals and governance structure to facilitate collective results.

In most cases, UNICEF and WHO, closely aligned with the MOH, constitute the core leadership that will drive the network building process forward. Often other government agencies and UN are also closely aligned with each other. Another tier of organizations including USAID-CSP, MAKU-SPH, and WB are also well connected into primary child health network activities and have an important role in promoting child health progress. Currently, most of the INGO's are on the periphery of the networks and work semi-autonomously but are connected into the network mainly through key government offices or UN agencies that served as "bridges" for information transmission about child health. There are many roles to play in a network and some network theorists acknowledge the importance of "weak ties" or "structural holes."[16] The presence of less direct ties may be a conduit for innovative ideas as these connections are usually more heterogenous and have the potential to expand the network's access to different ways of thinking or functioning. The down-side of very close ties between groups is that it may inhibit innovation as it is more difficult to risk the trust and prestige within a group when there needs to be a change in direction. So there always needs to be balance of closer and weaker ties to maintain optimal performance of a network.

Building pathways to working together creates capacity to address the many barriers to progress. Organizations should address this critical question: Are network members forging the quality of connections and building shared information and trust that will enable them to undertake the more

---

[16] Granovetter, MS (1973) The Strength of Weak Ties. *American Journal of Sociology* Vol. 78, No. 6: 1360-1380 and Burt RS. (1992) Structural Holes. Harvard University Press, Cambridge, MA.

difficult work of aligning around goals and producing results? The process of developing a highly functional goal-oriented network needs to be periodically revisited as the network matures and adjusts to new sets of opportunities and constraints.

The shift to a network-oriented approach characterized by inter-organizational sharing of decisions, resources, and acceptance of collective credit is a work-in-progress. While aligning members around a goal involves connecting individuals and organizations, the collective-action phase requires clusters of organizations to work together using agreed-upon procedures. Network priorities need to be aligned with institutional goals in order to create balance and continuity and address concerns about "loss of turf, power, prestige and money".[17] Surrendering dominancy, promotion of multiple methods, and clusters of connectivity empowers a network to flourish and fulfill its mission. However, there remains a need for an appropriate level of governance, leadership, and monitoring of network processes and performance.

---

[17] Plastrik, P., Taylor, M. & Cleveland, J., 2014. *Connecting to Change the World: Harnessing the Power of Networks for Social Impact*, Washington, DC: Island Press. Available at: https://books.google.com/books?id=8BQ-BAAAQBAJ&pgis=1.

RECOMMENDATIONS

Based on the findings, we offer the following recommendations for improving child health in Uganda:

PRIORITY RECOMMENDATIONS

RECOMMENDATION 1: The MoH and partners should work to strengthen national and subnational child health networks to accelerate capacity for joint action.

A network's purpose, member composition, size, and value propositions determine its effectiveness. Many inter-related factors shape network performance and capacity to generate resources and impact. The capacity for collective action is affected by: 1) building knowledge about how network relationships operate and recognizing the unique inter-disciplinary skill-sets needed to build stronger collaborations; 2) having well-resourced and sustainable governance structures; and 3) providing incentives to organizations to reduce their own self-interests by aligning their organizational goals with the goals of the broader child health network. A more functional network will generate organizational commitments to shared network goals and accelerate the capacity for strong, equity-based child health programming in the country.

Short funding cycles impair INGOs' capacity to focus on sustainability, thereby creating an environment characterized by interorganizational competition rather than cooperation. Setting up funding networks and evaluation criteria that prioritize joint work activities will enable INGOs to cooperate when working toward shared goals. Donors could shift their funding strategies to prioritize networks and collaborations, commit to long-term support to governance structures and provide criteria to direct individual grantees to work more collectively. Developing mixed methods monitoring systems and studies to measure the "black box" of network performance and associated child health policies, plans, interventions and outcomes could be a game changer to child health progress.

RECOMMENDATION 2: The government, its partners and CSOs should ensure political commitment to SDG, while maintaining a realistic focus on what is possible with the available current and future resources for child health.

Similar to the MDG era, political commitment is needed for the SDGs to be fully embraced in Uganda to drive momentum for further health and health-related investments. However, Uganda spends about USD 44 per capita (2016 data)[18] for *all* health services, and maybe 5-10%[19] of this amount is spent on maternal and child health.[20] Recent estimates suggest that to ensure scale up of the first level of primary health care including public health interventions focused on prevention and outpatient care would require USD 66 per capita. Adding in-patient hospital services and cross-sectoral interventions would require more resources which may not be possible to realize in Uganda and other low-income countries. To this end, government, donors, global partners, and CSOs should work to increase awareness and understanding of how to prioritize SDG interventions across sectors and governance

---

[18] Global Burden of Disease Health Financing Collaborator Network. op. cit., 2019.

[19] Authors' estimate based on recent WHO analysis: see Stenberg, et al, 2019

[20] Stenberg K, et al. op. cit., 2019.

levels to synergize the cumulative gains from multisectoral collaboration. Leaders should be encouraged to implement and/or act on existing child health strategies and commitments, while ensuring that new national policies are well aligned with placing children at the center of SDG implementation.

RECOMMENDATION 3: Identify and support leaders and champions for social determinants of child health (women's empowerment, maternal education, family planning) with a special focus on more vulnerable groups (e.g., newborns) that could have a major impact in reducing overall U5 morbidity and mortality.

Children are a vulnerable population that need champions to advocate, rally support, and effect prioritization of child health issues. These sustained efforts have the potential to attract commitment and increased financial allocations from government and the donor community. Child health leaders can learn from examples of other champion-led campaigns (e.g. HIV arena) that have been successful at garnering support and commitment. These champions can be used to raise public awareness, mobilize resources and empower citizens to demand the health services they need.

RECOMMENDATION 4: The government should increase funding to the health sector, especially at the subnational level where implementation occurs.

Many respondents agreed that districts are key to driving Uganda's child health agenda. In order to ensure equity and effectiveness in child health interventions, greater funding will be needed for districts and human resources beyond the 6% of GDP that has been recently reported. Donors may consider providing incentives for government to expand total health spending in order to receive more counterpart funding. Increased support to at least 8.5% of GDP [21] is needed to help bridge the policy-implementation gap for basic primary health care. Upgrading and expanding in-patient care and multisectoral interventions will require further investments.

RECOMMENDATION 5: The government and its partners should continue strengthening primary health care (PHC), while building capacity for clinical care for mothers, newborns, and children as well as addressing broader social and gender empowerment strategies for sustained impact.

Uganda's past success in reducing child mortality and failure to reduce newborn mortality highlight the need for improved clinical care systems. Preventing neonatal mortality on a large scale can be accomplished by women's empowerment, women and children's nutrition, food security, maternal education, improving livelihoods, family planning, increasing birth intervals, and delaying the first birth. Strengthening neonatal care that has stifled further reductions in IMR and U5MR, requires timely access to functional clinical care facilities and improvement in the quality of services for mothers during pregnancy, labor, and after delivery. These efforts should be on top of further strengthening primary health care recognizing the vital role of preventive care as an entry point into a broader constellation of services and referral systems. The support for more integrated and coordinated multisectoral approaches will address the stagnated reduction in the number of mothers and babies dying and facilitate achievement of related SDG targets.

---

[21] Stenberg, et al. op. cit., 2019.

OTHER RECOMMENDATIONS

RECOMMENDATION 6: The government and its partners should improve MCH and multisectoral partner collaboration and coordination mechanisms, as the social determinants of child health are key to addressing complex problems.

Effective implementation is critical to the country's achievement of its child health goals. In most cases, organizations share a common focus—the health of the child. However, fragmented interventions or uncoordinated services reduce efficiency of scarce financial and human resources. There is a tension between vertical interventions that can be easily tracked and measured and more elusive multisectoral efforts and outcomes that require development of more complex network structures and accountability methods. However, child health needs to be addressed within a wider SDG context by bringing on board sectors other than health such as education, agriculture, water and sanitation, and labor. An inclusive multisectoral plan is critical for the country to achieve its child health goals. But before multisectoral coordination processes are deemed effective given multiple demands on resources, the child health network must prioritize which plans and interventions to roll out as well as when and where to do so.

RECOMMENDATION 7: The government and its partners should develop a governance structure and network capacity building plan to facilitate the emergence and accountability of groups.

The MOH is the leading player in child health in most activity networks. Many key organizations participate in meetings, but it is unclear whether they are working toward a specific goal, how they are communicating, and whether they have the networking skills to create momentum for joint ownership and action. An explicit governance structure appropriate to the network's size and funding level can unite organizations to work collectively and generate accountability for results. Mutually agreed upon work-plans including expectations regarding outputs and outcomes can lead to development of more trust and commitment to network goals. Support is warranted for a facilitated process to disseminate and use these study results to generate ideas, strategies and build organizational and managerial network capacity to improve the performance of the child health network and groups.

FOR MORE INFORMATION