ORIGINAL RESEARCH ARTICLE

Pathway and interaction analysis of IMCHA Model: An initiative of implementation research in Uganda and South Sudan

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Abstract

The Innovating for Maternal and Child Health in Africa (IMCHA) initiative implemented research to improve maternal, newborn and child health and adopted a research model that was composed of: Principal Investigator of an African institution; Co- Principal Investigator affiliated with a Canadian institution, Co-PI in a decision-making position, and Health Policy and Research Organisation in Africa. This paper describes the IMCHA Initiative model that was used in implementing the research in Uganda and South Sudan. The methods used are documents review and experiences by BRAC (Building Resources Across Communities) Uganda in implementing the research using the IMCHA initiative model. The experiences in implementing IMCHA model show support in accessing policy space, translating data and producing outputs from the research for policy. The pathways in the model through communication and interactions in the connectedness of working with the relevant policy stakeholders was a special experience. The model contributed greatly to the grounding of research in the local context and connecting to the policy space. The Ugandan experience has exhibited the usefulness of the model. The Paper recommends use of the IMCHA Model in conducting implementation research for enabling access to policy space from study inception through the research period. *(Afr J Reprod Health 2021; 25[3s]: 55-64).*

Keywords: IMCHA, Implementation research, Uganda, South Sudan

Résumé

L'initiative Innovation pour la santé des mères et des enfants d'Afrique (ISMEA) a mis en œuvre des recherches visant à améliorer la santé des mères, des nouveau-nés et des enfants et a adopté un modèle de recherche composé de : un chercheur principal (CP) d'un établissement africain, un co-CP affilié à un établissement canadien, un Co-CP en position de décision, et deux Organismes de politiques et recherche en matière de santé, en Afrique. Le présent article décrit le modèle de l'Initiative ISMEA qui a été utilisé pour la mise en œuvre de la recherche en Ouganda et au Soudan du Sud. Les méthodes utilisées sont l'examen des documents et les expériences de BRAC (Building Resources Across Communities) Ouganda dans la mise en œuvre de la recherche utilisant le modèle de l'initiative ISMEA. L'expérience de la mise en œuvre du modèle de l'ISMEA démontre un appui pour l'accès à l'environnement politique, la traduction des données et la production de résultats de la recherche pour les politiques. Les trajectoires dans le modèle par la communication et les interactions dans la connectivité de la collaboration avec les intervenants politiques pertinents ont constitué une expérience spéciale. Le modèle a grandement contribué à ancrer la recherche dans le contexte local et à établir des liens avec l'environnement politique. L'expérience ougandaise a montré l'utilité du modèle. L'article recommande l'utilisation du modèle de l'ISMEA dans la réalisation de la recherche sur la mise en œuvre pour permettre l'accès à l'environnement politique depuis le début de l'étude et tout au long de la période de recherche. *(Afr J Reprod Health 2021; 25[3s]: 55-64).*

Mots-clés: ISMEA, Recherche sur la mise en oeuvre, Ouganda, Soudan du Sud

Introduction

Jointly funded by the International Development Research Centre (IDRC), the Canadian Institutes of Health Research (CIHR) and Global Affairs Canada (GAC), the Innovating for Maternal and Child Health in Africa (IMCHA) initiative was launched in March 2014 for implementation research seeking to 'understand factors that determine why an evidence-based intervention may or may not be adopted within specific healthcare or public health settings and use this information to develop and test strategies to improve the speed, quantity and quality of uptake'[1]. The initiative was aimed at improving maternal, newborn and child health (MNCH) in selected countries in Sub-Saharan Africa[1]. The initiative aimed at 'improving health outcomes by

strengthening health systems, using primary health care as an entry point'[2,3].

The specific objectives of IMCHA initiative were to: 1. Address critical knowledge gaps and increase awareness among policy decision- makers about affordable, feasible, and scalable primary health care interventions to improve maternal and child health delivery and outcomes; 2. Build individual and institutional capacity for gender-sensitive health systems and solution-oriented research, and enhance the uptake of relevant and timely research that informs policy and practice; and 3. Strengthen collaborations between Canadian and African researchers, working in partnership with African decision-makers, to implement and scale up high- quality and effective services, and technologies that improve maternal and child health outcomes[4].

This paper focuses on the experiences of the IMCHA model that supported the research implementation and how the model facilitated the 'enabling policy environment'[5], one of the research themes of the initiative. The policy pathways in the model worked as 'catalysts and enablers for moving research evidence to policy and practice at the national level'[1] thus enabling connections between research and decision making. The model further presents pathways to enabling 'knowledge translation and making a connection to policy that is usually challenging for individual researchers'[1], and portrays how 'support from an entity that had expertise in influencing policy would strengthen these efforts'[1]. The paper thus seeks to present the;

1. Roles of the Decision makers on the research team
2. Roles of the HPRO on the research team
3. Experiences and lessons learned in implementing the research.

Methods

Documents about the study have been reviewed. The experiences in implementing the research have also been used such as the several physical meetings with the policy stakeholders, the HPRO and IMCHA management. Other methods used to facilitate the coordination among the model team players also used such as communication by email; discussions through IT means such as Skype; telephone calls; and presentations through workshops; international conferences in the study countries; and review of relevant documents supporting the experiences during the implementation. The paper thus presents roles and discusses experiences of the different players in the model in the subsequent sections.

The IMCHA research implementation model

In the model, there were key players in the Implementation Research Team (IRT). IRT was composed of a Principal Investigator (PI) of an African university, research institution or NGO; a Co- Principal Investigator (Co-PI) affiliated with a Canadian research institution and a Co-PI in a decision- making position, generally in local, regional or national government, plus a Health Policy and Research Organisations (HPROs) in East or West Africa (Figure 1).

The African Principal Investigator was to ensure that the drive and ownership of the research was from the continent. The assumptions of the initiative's design to have also a Canadian Co-PI was that 'both Canadian and African researchers would benefit from each other's experience and expertise'[1]. The African decision-maker Co-PI was expected to 'help ground the research, as they have an understanding of what is needed in their communities; and they could also play a key role to encourage uptake of the research findings'[1]. The Health Policy and Research Organizations' goal was 'to function as catalysts and enablers for moving research evidence to policy and practice at the national levels within the targeted countries, therefore enabling connections between research and decision making.'[1]. 'The rationale was that knowledge translation and making a connection to policy was challenging for individual researchers, and support from an entity that had expertise in influencing policy would strengthen these efforts'[1].

The IMCHA supported study at BRAC international

The main Grant for the research project sought to investigate the cost-effective incentive to improve

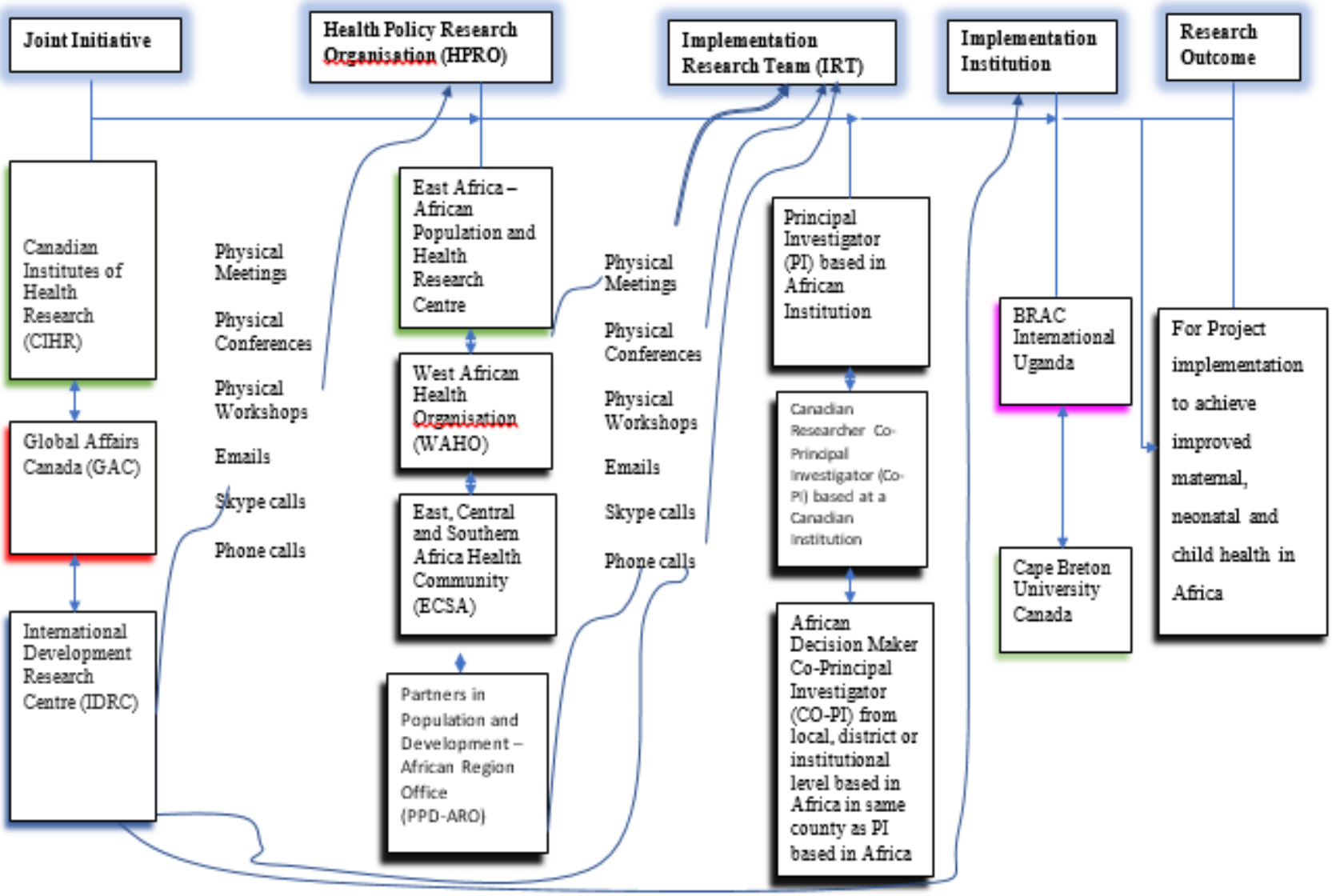

Figure 1: A diagrammatic pathway and interaction analysis of the IMCHA model in implementation

performance for community health workers as a target of reducing child mortality in Uganda[15]. And the Synergy grant sought to assesses how a gender lens can enhance maternal and child health social enterprises in Africa[19].

The research was a collaboration between researchers at BRAC International Uganda and Cape Breton University in Canada. The study targeted to answer the following research questions:

i. How do the activities of Community Health Workers (CHWs) differ by alternative modes of income support?
ii. Are these changes in activities influenced by the form of income support
iii. What are the effects of the income support models on health outcomes of target populations and on CHWs? [15].

The study was a Randomized Control Trial (RCT)[15] with three treatment arms of the different modes of incentives in delivering health care in the community. The study arms were:

Control Arm: Termed as 'business as usual' representing the usual operation of the BRAC Health Program where CHWs received medicines and a basket of health products (such as ORS, antimalarials) and non-health products (such as fortified porridge, soap).

Treatment Arm 1: CHWs received medicines and basket of health products only.

Treatment Arm 2: CHWs received medicines, a basket of health products and a monthly honorarium of $10 estimated equivalence to the non-health products.

The study was cleared by the national ethical body, the Uganda National Council of Science and Technology[18] before implementation. It is important to note that the study was at the analysis stage at the time of COVID-19 pandemic outbreak.

Inception of research with South Sudan Ministry of Health

The research had an excellent relationship through BRAC South Sudan with key people within the South Sudanese Ministry of Health (MoH) relevant to this work. These were the Director General of Community and Public Health in charge of Primary Health Care; the Director General Directorate of Reproductive Health; the Director General International Health and Coordination; and the Director General Policy, Planning, Budgeting and Research. At the inception of the project, several consultative meetings were held with these officials. Such meetings continued over the course of the project to gather input and feedback and share details of the research plan. The IRT planned to continue working closely with the Ministry of Health (MoH) throughout the project lifetime. Through regular meetings and reporting to the senior MoH staff, as well as presentations to the other stakeholders such as the South Sudan NGO Health Cluster (co-chaired by the Director General, International Health and Coordination from the MOH and a representative from the World Health Organization), the IRT was embedded into the existing technical meetings of the health care system in South Sudan.

Uganda Ministry of Health

After the 2013 conflict in South Sudan, there was no sign of a positive resolution to the conflict in the near future. The IRT avoided the risk by shifting the RCT component of the study to Uganda where BRAC has trained 4,000 CHWs. Due to the conflict, successful gathering quality data would be complicated due to attrition (*continued migrations*) of respondents between data gathering rounds. However, the IRT continued with important components of research in South Sudan and the policy decision maker from South Sudan[14,15]. The IRT had an excellent relationship through BRAC Uganda with the key people within the Ugandan Ministry of Health relevant to this work. These were the Director General of Health Services; Commissioner of Reproductive Health; Commissioner of Community Health; Commissioner of Child Health; and Assistant Commissioner of Gender.

Such meetings and presentations continued over the course of the project to gather input and feedback and share details of the research implementation. The IRT continued working closely with the MoH throughout the project lifetime. Through regular meetings and reporting to the senior MoH staff, as well as presentations to the

other stakeholders, the IRT was embedded into the routine maternal and child health technical committee meetings.

Results

This section presents the roles and experiences of the different players in the IMCHA Initiative model and how the model contributed to the research implementation through the different pathways in it.

Implementing research teams as a key player in the model

The core player of the model was the Implementation Research Team (IRT). The main role of the IRT was to 'conduct the implementation research ...'[7]. IRT's implied role was to conduct research and produce outputs for policy such as policy briefs, toolkits, research papers, reports and published articles. From the beginning, the IRT attended the inception workshop organized by the IMCHA Management. At this meeting, roles of the different players in the team were stipulated[8,3,16]. At this time, the model was not yet well understood by the IRTs for instance the role of HPRO that first sounded as duplication of work, wastage of resources, competition for outputs and other misinterpretations. However, as time went on during the research implementation by the nature of the model pathways, their great role became clearer and was appreciated by the IRTs.

The other role was conducting trainings. IRT conducted internal trainings with the policy team from mainly the Ministry of health. Previously research was always conducted in the Research Institution, there had never been this nature of involvement of decision makers in conducting research as in this IMCHA study. This was a special experience that created a bond between the Institution and the Ministry of Health (MoH). After attaining the ethical clearance[18], the IRT went ahead to make presentations of the study to the different levels of policy making in the Ministry of health with support from the Decision maker on the team. The team started with the Maternal and Child Health Technical Working Group (MCH-TWG), the first level of policy making process. Here, the Committee had to understand the research, it's importance and value addition to policy. It is this Committee that permits the IRT to proceed to another level in the order of hierarchy.

IRT had regular and continuous meetings between the HPRO and IMCHA Program Officers and amongst itself through the implementation period. This again was a different form of practice from the usual research implemented where usually the funders' role was to provide funding ONLY until other periods of remitting funds, where the basic communication was funds availability, updates on research activities done without being fully involved in implementation. What is important to note is that communication amongst the model teams was spontaneous and concurrent, in other words, there was no request for permission to talk to anyone in the team at the different levels anytime possible. IMCHA Model created an enabling environment of 'no fear', 'no superior', 'no power' but a collegial relationship and collegial collaboration. The integrity in the design of the IMCHA model,[1] was exhibited in the relationship that built a very good foundation and contribution to the positive implementation of the model itself to support the research implementation.

Decision maker co-principal investigator

It was a learning experience to have both Uganda and South Sudan decision maker representation. The team was privileged to always learn about the relevant information and updates on the policy environment in both countries. Specifically, from a policy perspective, South Sudan at the time was undergoing a major review of its policy for primary health care coverage, known as the Boma Health Initiative (a Boma is the smallest administrative Unit). This initiative was being officially launched on March 22, 2016, and included provisions to shift from a volunteer CHW to a paid CHW approach, proposing that government CHWs be trained and paid a salary of approximately $10/month for each of the country's 2,500 Bomas[14]. In South Sudan, as with community health worker programs everywhere, one of the biggest policy challenges

and debates was how to compensate and incentivize health workers. This information supported the focus of our research and became directly relevant to the effective implementation of the Ministry of Health's new Boma Health initiative.

The Uganda decision makers, who were the Director General Health Services and the Commissioner Child Health, continued to play this role because of change of location of the study in Uganda. Specifically, from a policy perspective, Uganda at the time was proposing a new policy of incentivizing community health workers known as Community Health Extension Workers Policy. However, this policy was put on hold as the President refused to approve the Bill when presented to him because he wanted its feasibility studied further. In Uganda, as with community health worker programs everywhere, one of the biggest policy challenges and debates was how to compensate and incentivize health workers. This information supported the focus of our research and became directly relevant to the cost-effective implementation of the Community Health Extension Workers Policy.

From the IDRC Synergy Grant that mainly focused on gender issues in providing health care by the community health workers, the Ugandan gender decision maker Co-PI supported the gender training content and context, and helped the study with important issues of interest to focus study on. Embedding these decision makers from South Sudan and Uganda enabled access to policy forums. Several meetings and workshops with the relevant stakeholders in the field of maternal, neonatal and child health were influenced majorly by this Policy team in the spirit of relationship building with Policy decision makers. Examples include participation in, for instance: High level meeting and panel discussions on Uganda FP 2020 and Every Woman Every Childs' Global Strategy (EWEC) Commitments towards UHC; Stakeholder Breakfast meeting to operationalise the Uganda Civil Society Organisations (CSOs) RMNCAH engagement Framework; Ministry of Health Breakfast meeting of the dissemination of National HealthAccounts Report; Ministry of Health Symposium; Half day dialogue as a build up activity for Civil Society Organisations (CSOs) working on RMNCAH to review progress on implementation; Half-day Ministry of Health MNCH and Fistula Campaign dissemination; Ministry of Health RMNCAH Annual Assembly; International Symposium on Community Health Workers; to mention but a few.

The Policy decision makers' role in accessing policy space, further enabled and influenced important relationships with useful relevant stakeholders in this area such as Uganda National Population Council; PATH Uganda; JHPIEGO Uganda; UNICEF, Prime Ministers' office, of course the biggest being the Ministry of Health itself. The IRT had constant calls from these stakeholders because of interest in the study and need for information about updates. From this relationship, the IRT could easily approach the highest offices of these important organisations. This has been a great opportunity for BRAC too as an Organisation despite the fact that the Research and Evaluation Unit[17] always produced research evidence that could make significant contributions to policy. Such a collaborative opportunity had never been reached as the current IMCHA research implementation level.

Health policy research organisation (HPRO)

The HPRO's relationship with the team in the model was an ongoing engagement. The HPROs role was to help the team access the policy space. The support mainly dwelled on facilitating 'translation of research evidence and learning into policy and practice for effective Maternal, Neonatal, and Child Health (MNCH) interventions'[8,9]. Further support was rendered in facilitating early contact between decision makers and researchers and continued collaboration because evidence informs policy. It was tasked with supporting knowledge translation and raising the profile of the research in order to facilitate the adoption of the results at scale in national and regional health policies, supporting capacity-building of research teams and facilitating mutual learning across IMCHA[4].

The HPRO's emphasis was on creating linkages between researchers and policy

makers. This was exhibited in the number of meetings that were conducted with the IRT emphasizing continued and sustained relationship with policy makers. For example, through engaging in simple meetings that would facilitate easy reach to policy space to disseminate evidence. The HPRO was very effective in connecting the IRT to decision makers. An example is a meeting that HPRO organized with two MoH commissioners, for Child Health and Reproductive health, to prepare for a stakeholders' meeting through the Maternal and Child Health Technical Working Group. The Commissioner Child Health was the Chairperson of the MCH-TWG Committee, the first level in decision and policy making at the Ministry of Health. BRAC has conducted great and useful research with action results that had never got an opportunity to be disseminated in the relevant levels of policy making process especially the health-related research. This project was the first of its kind to create this engagement with government through the ministry to a deeper level. The IMCHA model created the environment of research informing policy. This IMCHA study has created a strong relationship and engagement between the IRT and the Ministry of Health Policy makers, by responding to invitations and actively participating in the monthly MCH Technical Working Committee meetings.

IRTs' team networking and sharing research work was enabled by the HPRO. The Ugandan team was connected to the South Sudan IRT and several workshops were conducted both in Uganda and Torit, the research area in South Sudan. This provided an opportunity of sharing research implementation experiences, good practices and areas of improvement. This was always done in connection with the IMCHA Program Officer or Management in Ottawa, Canada, the base of IMCHA. This created a 'feel at home' environment in conducting research, and a feeling that research uptake would be possible.

As reported in the evaluation report[1], 'The HPROs provided an important contribution to linking the projects to national high-level health authorities and to introducing the project results in national and regional discussions of MNCH policy'[1]. It goes without saying that the Uganda's IRT benefited from the well organised and skilled HPRO in organising workshops and arranging invitations for national workshops through local HPRO in Uganda (PPD-ARO) and international workshops through East African HPRO in Nairobi (APHRC) and IMCHA Management (IDRC) for sharing the ongoing research implementation. The IRT got a couple of opportunities of accessing the policy space such as the Network of African Parliamentary Committees of Health Conference (NEAPACOH) in Uganda and several international conferences such as such as Canadian Conference on Global Health; Global Adolescent Health Conference; to mention but a few. Such workshops created the IMCHA family in East, Central, South and West Africa. This IMCHA family understood each other's research work, shared experiences and advice on challenges and continuity enabled by the model. IDRC conducted a survey to clarify the roles of HPRO in the research implementation and among the findings, the report mentions that HPROs 'are in good position to advance the IMCHA goals'[8]; and that 'for the IMCHA partnership to be successful, HPRO-IRT collaboration needs to be a two-way process based on common understanding of the goals and greater collaboration'[8]. This was true for the case of Uganda and South Sudan IRT.

HPROs conducted training as one of their roles for capacity building of IRTs in the research implementation. The IRT benefited from these trainings. Several refreshers were conducted on skilling in interpreting data and translating it to support policy makers[9]. This was always a tedious exercise that required patience and resilience by the HPRO as IRT mastered the skill especially for policy space. Some examples were a couple of stakeholders' workshops that were conducted to: Share knowledge about IMCHA projects in general and the specific projects in Uganda and South Sudan; Share preliminary findings on MNCH context assessment and deliberate on further issues to be addressed including research to policy issues, health systems gaps as well as gender and equity issues affecting MNCH programs; and Identify MNCH

stakeholders to be engaged further in influencing change in MNCH decisions in Uganda and South Sudan[9,11].

During research implementation, the HPRO, as one of their roles was grounding the research in the local context[8], conducted context mapping exercise[12]. This was specifically meant to survey the policy landscape at country level to: Assess MNCH policies and identify health system gaps, equity concerns and other barriers to access; Find entry points at the stakeholder and policy level where research evidence could be used to inform policy change or programmatic intervention; and Assess capacity of national-level decision-makers and MNCH researchers for knowledge translation. This exercise was a very important activity in our research implementation as the output supported IRT research activities by identifying the stakeholders to work with, how to access them and to what extent to involve them. The model enabled the IRT to understand the maternal and child situation in the country, the people involved in MNCH issues, the Ministry of Health plans for MNCH, and what the different policies presented about MNCH at the time.

IMCHA management team

The IMCHA grants team worked under the leadership of the IDRC Programme Leader for Maternal and Child Health; and Grants Administrator. In regard to their role, the team provided to IRT frequent support in 'promoting, publishing and presenting the research, networking with other institutions, financial reporting, refining the research protocol and implementation plan, and also addressing gender equality issues'[1,15]. Meanwhile, as the research was being conducted, the IMCHA Grants Administrator was engaging and guiding the IRT (BRAC) colleagues in Accounts as the model stipulated. It was an appreciated practice that was useful in training and providing guidance to limit errors in accountability. This role does not appear directly in the model pathways but the financial technical support falls under the IMCHA Management.

The IMCHA model involved the Program Officer who supported IRT in form of monitoring and supervision through emails, physical visits and virtual meetings. The Officer further supported the writing of quarterly and annual technical and financial reports. The exercise of writing these reports was very useful as it acted as a wake-up call to the IRT on the expected research work activities. The reports especially the technical one was detailed to the level of reporting about meeting dates and venues. These reports were always written by the IRT but in consultation with IMCHA management. This exercise also created and sustained the cordial relationship between the team players in the model.

The IRT was enabled to participate in relevant international conferences to access policy space and for research uptake by the IMCHA Management. The practice kept the IRTs together as a 'family' in maternal and child health matters in Africa. All IRTs almost knew each other's study and attached the faces to the studies in the region. This was a special motivation in the whole team players in the model. The model created an environment of all IRTs and HPROs knowing each other by 'name' and 'face' thus enabling sharing all possible experiences and pieces of advice on addressing implementation challenges with support from the IMCHA Management.

Discussion

The IMCHA model of embedding decision makers as Co-PIs and HPROs in the research team with IRT contributed greatly to the grounding of research implementation in the local context and connecting to the policy space. The expectation of results in South Sudan to inform the Boma policy[14] is evident by the role of Decision makers on the team. Much as the Policy was in place, evidence on how incentives improve on CHWs' performance was vital. Like South Sudan, the Uganda counterpart Ministry of Health, was equally anxious for results from the study about the incentivizing CHWs and how this evidence would inform the CHEWs (Community Health Extension Workers) policy. It is important to note that the relationships

of decision makers, HPROs, IMCHA Management and the IRT in the model pathways was very constructive. Decision makers' role was paramount in supporting the IRT about the local context and facilitating research uptake in local and international audiences. By the nature of the model, decision makers further involved their office staff in supporting the research team. This practice made work much easier as these decision makers were definitely very senior, influential and busy individuals and access to them became better.

The HPRO's role of connecting research to policy energized the IRT in anticipation of research uptake. The relationship created between the IRT and the policy environment was a good experience through constant updates about the policy in relation to the research implementation. The IRT was motivated to work hard and produce evidence that would support a policy to improve maternal, neonatal and child health outcomes. The local and international relationships through these connections created by the model enabled the IRT to link to the world in this area. Support and involvement of the funder as shown in the IMCHA model in implementation of research is critical. The pathways of IMCHA Management exhibit actions that show training, motivation and interest in the eyes of IRT. The created relationship amongst the team players 'moves' the research work.

Conclusion

The Ugandan experience has exhibited the usefulness of the IMCHA model as all the players in it play their roles. This example shows that working as a team of IRT, HPRO, Decision Maker as Co-PI and the IMCHA Management, as indicated in the model, creates a conducive environment in research implementation. Ability to access policy space from inception as an IRT through the research period is useful for hope of research uptake.

Contribution of authors

Jenipher Twebaze Musoke conceived the presented idea, developed the IMCHA research implementation model graphic design, leader of the implementation research and model, carried out the documents review, analysis and writing of the manuscript. *Patrick Mugirwa* and *Eva Nakimuli* participated in the implementation of the IMCHA research model, identified and guided the research team in the implementation of the model in the period of conducting research, and contributed to the writing of the manuscript. All authors provided feedback and helped analysis and shape of the manuscript. All authors mentioned approved the manuscript.

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References

1. Thorsteinsdoóttir H, Bell JM and Bandyopadhyay N. 2018. Innovating for Maternal and Child Health in Africa: A Mid-Term Formative Evaluation.
2. The Global Health Research Initiative. 2014. Call for Proposals: Innovating for Maternal and Child Health in Africa. Health Policy and Research Organizations.
3. IDRC. 2016. Call for Proposals for Synergy Grants, Innovating for Maternal and Child Health in Africa.
4. IDRC https://www.idrc.ca/en/initiative/innovating-maternal-and-child-health-africa
5. IDRC. Program Overview. https://www.idrc.ca/sites/default/files/sp/Documents%20EN/Maternal-Online-ENG.pdf
6. Sridharan S, Maplazi J, Vijendran M, Richardson E, Nichols J, Parekh H. 2015. Final report: Evaluation of Teasdale- Corti Initiative.
7. GHRI. 2014. Overview of Call for Proposals, Health Policy and Research Organizations, Innovating for Maternal and Child Health in Africa, Global Health Research Initiative.

8. IDRC. 2016. Findings from the Survey on the Role of the Health Policy and Research Organizations—Innovating for Maternal and Child Health in Africa. White Paper.
9. CIHR. 2015. A Guide to Researcher – Knowledge User Collaboration in Health Research. Available at: http://www.cihr-irsc.gc.ca/e/44954.html
10. HPRO. 2017. Report of a Meeting for Maternal, Newborn and Child Health Stakeholders in Kampala, Uganda.
11. HPRO. 2018. Report for the Forum with Maternal and Child Health Technical Working Group in Uganda.
12. HPRO. 2017. Uganda Maternal, Newborn and Child Health Policy Context Mapping Report.
13. CIHR. 2015. A Guide to Researcher – Knowledge User Collaboration in Health Research. Available at: http://www.cihr-irsc.gc.ca/e/44954.html
14. South Sudan NGO Forum Document Repository. http://southsudanngoforum.org/. Acces sed 19th February, 2021.
15. Musoke TJ, McKague K, Chowdhury R, IDRC. 2015. Social Enterprise Models for Community Health Workers Project Implementation Plan.
16. HPRO. 2017. Situational Analysis Report. http://ea-imcha.com/images/easyblog_articles/77/Uganda-Situational-Analysis-Report-2017.pdf
17. Empowerment of Women and Girls, BRAC Research and Evaluation Unit. http://interactions.eldis.org/organisation/brac-research-and-evaluation-unit Accessed 23rd February, 2021.
18. Uganda National Council of Science and Technology. 2017. Ethical Approval Letter.
20. Musoke TJ and McKague K. 2017. How Can a Gender Lens Enhance Maternal and Child Health Social Enterprises in Africa? Proposal for the Synergy Grant from IDRC.