

INNOVATING FOR MATERNAL AND CHILD HEALTH IN AFRICA INITIATIVE



Photo IDRC / Andrew Esiebo

Final Narrative Report

March 14, 2014 – April 30, 2022

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LIST OF ACRONYMS

CEmONC	comprehensive emergency obstetric and newborn care
CIHR	Canadian Institutes of Health Research
CRVS	civil registration and vital statistics
EA-HPRO	East Africa Health Policy and Research Organization
ECOWAS	Economic Community of West African States
FIAP	Feminist International Assistance Policy
HPRO	Health Policy and Research Organization
IDRC	International Development Research Centre
IMCHA	Innovating for Maternal and Child Health in Africa
IRT	Implementation Research Team
MoHCDEC	Ministry of Health, Community Development, Gender, Elderly and Children
PI	principal investigator
PO-RALG	President's Office, Regional Administration and Local Government
SDGs	Sustainable Development Goals
WA-HPRO	West Africa Health Policy and Research Organization
WHO	World Health Organization

IMCHA BY THE NUMBERS

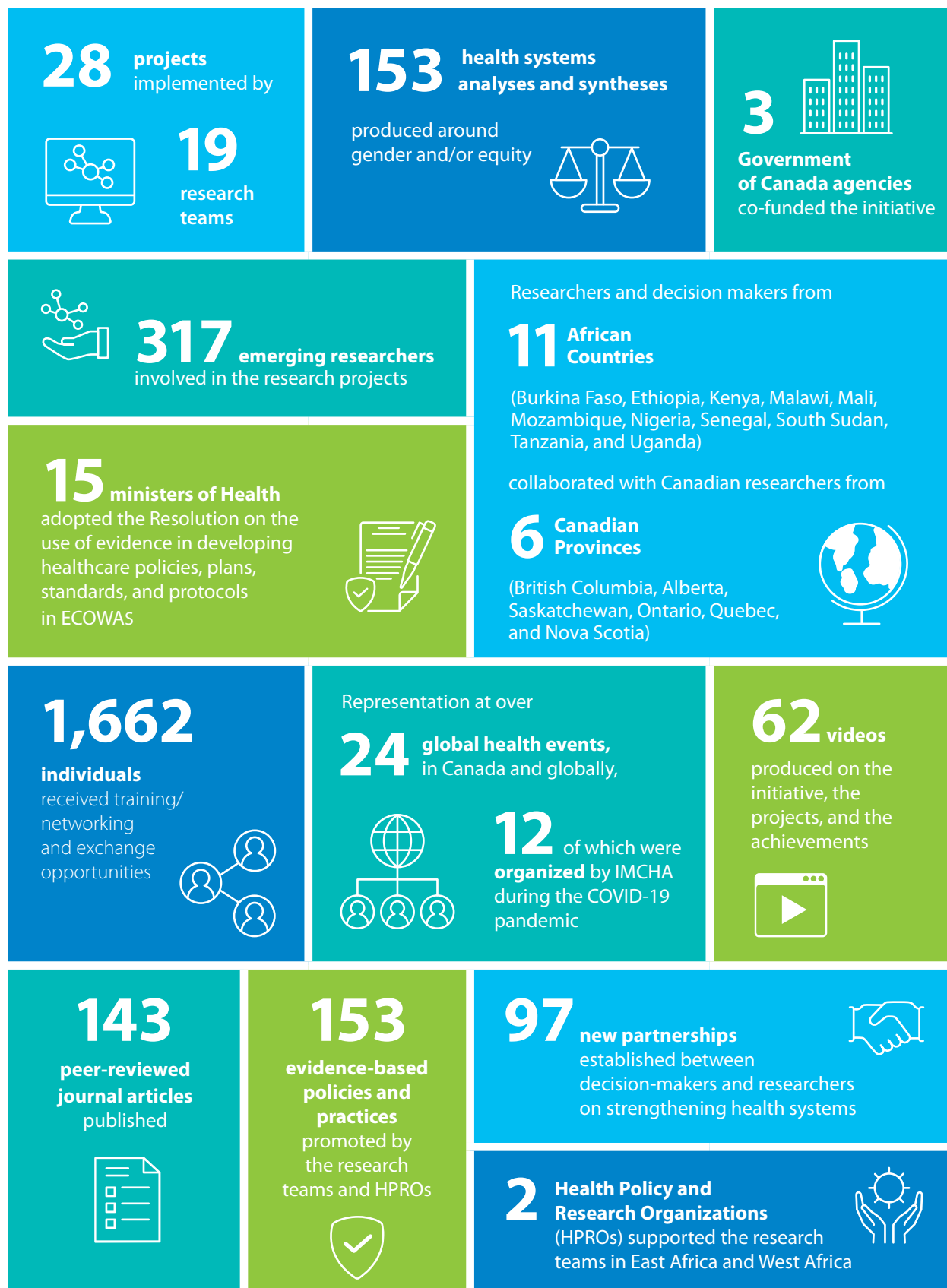




Photo credit: Joy Obuya / APHRC

EXECUTIVE SUMMARY

This final narrative report for the Innovating for Maternal and Child Health in Africa (IMCHA) initiative presents the story of IMCHA, our results, outcomes, and outputs from 2014 to 2022. The report was prepared for and submitted to Global Affairs Canada in accordance with the terms of the grant agreement between the International Development Research Centre (IDRC) and Global Affairs Canada. IMCHA built on previous collaborative efforts between three donor agencies of the Government of Canada: the Canadian Institutes of Health Research (CIHR), Global Affairs Canada, and IDRC.

IMCHA was launched in March 2014 as a CAD36 million, 7-year flagship initiative to improve maternal, newborn, and child health outcomes by strengthening health systems, using primary healthcare as an entry point. Due to disruptions caused by the COVID-19 pandemic, IMCHA was granted two no-cost extensions. The initiative closed on April 30, 2022.

Objectives

IMCHA was designed to meet the following objectives:

- Address critical knowledge gaps and increase awareness among policy decision-makers about affordable, feasible, and scalable primary healthcare interventions to improve maternal and child health delivery and outcomes.
- 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.
- 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.

The IMCHA Model

The IMCHA model used a novel approach to embed research and engage decision-makers in local and national health authorities, respond to national priorities, promote a multisectoral approach in participating countries, and build on African–Canadian research capacities and collaboration. The initiative included 19 research teams, 2 Health Policy and Research Organizations (HPROs), and an IMCHA management team.

RESEARCH TEAMS

Research teams conducted 20 original implementation research projects in 11 African countries. Each research team was led by an African principal investigator (PI) working closely with a local decision-maker co-principal investigator (co-PI) at the national or subnational level, and a Canadian researcher co-PI.

HPROS

Two HPROs were established to assist with capacity development and knowledge translation. One HPRO worked with research teams in West Africa (WA-HPRO), and the other worked with research teams in East Africa (EA-HPRO). HPROs leveraged regional and international clout to raise the profile of the research and promote uptake of evidence into policy and practice.

MANAGEMENT AND GOVERNANCE

The IMCHA management team was housed at IDRC and carried out daily management. The team was supported by IDRC staff and consultants.

IMCHA's governance structure included a Governance Committee, a Technical Committee, and a Management and Operations Committee.

Approach

IMCHA research projects were designed around four priority research themes:

- High-impact community-based maternal, newborn, and child health interventions
- Quality facility-based maternal, newborn, and child health interventions
- Policy environment to improve maternal, newborn, and child healthcare services and outcomes
- Human resources for maternal, newborn, and child health

The projects were varied in topics and scope — while some focused on only one of the priority themes, most explored two or more themes to maximize positive health outcomes. IMCHA also emphasized gender equality and health equity as key cross-cutting dimensions.

SYNERGY GRANTS

In 2016, six additional synergy grants were provided to well-performing research teams to expand the scope and depth of their work. This allowed them to investigate sexual and reproductive health rights, family planning, and adolescent health, which were new areas of focus in Canadian and international priorities. The addition of the synergy grants contributed to increasing acceptability and uptake of sexual and reproductive health rights/family planning and adolescents' health services in participating countries.

Outcomes

We monitored project performance through the review of technical reports, virtual calls, and field visits, where possible. We also applied a continuous learning process, including knowledge translation activities and all-of-IMCHA events. In addition to ongoing monitoring, we commissioned an external mid-term evaluation (2017–2018) and final evaluation (2019–2020) of IMCHA's work. Both evaluations were designed and implemented in close collaboration with Global Affairs Canada and CIHR. They have been shared with stakeholders and made publicly available.

IMCHA successes are measured against outcomes and output indicators from the performance measurement framework agreed upon by the three donors.

Overall, IMCHA contributed to improving health systems and people's lives. The initiative

- raised awareness among policy decision-makers about affordable, feasible, and scalable primary healthcare interventions
- helped share knowledge among stakeholders and drive uptake of research findings into policy and practice to make a difference in people's lives
- supported the creation of the Global Health Researchers' Directory to foster connections and networking as well as facilitate equitable collaboration and partnership among global health researchers based in Canada and low- and middle-income countries
- placed a strong emphasis on assessing and managing risks, starting with the Technical Committee peer-reviewing proposals received in response to the call related to the research teams' original grants

Each of our priority themes also saw specific achievements:

HIGH-IMPACT COMMUNITY-BASED MATERNAL, NEWBORN, AND CHILD HEALTH INTERVENTIONS

IMCHA research teams engaged with the community to actively improve their health outcomes. Interventions included

- conducting home visits
- working with specific groups and champions
- heightening the role and skills of community health workers
- adopting new strategies and tools, such as mobile technology

QUALITY FACILITY-BASED MATERNAL, NEWBORN, AND CHILD HEALTH INTERVENTIONS

Research teams successfully tackled issues such as

- workspace organization and efficiency
- respectful care
- quality standards
- training to improve clinical practice

POLICY ENVIRONMENT TO IMPROVE MATERNAL, NEWBORN, AND CHILD HEALTHCARE SERVICES AND OUTCOMES

Research teams worked with decision-makers to

- assess the effectiveness and strengthen the implementation of policies that aim to improve health outcomes, with a particular focus on vulnerable groups
- inform policy and practice uptake based on proven solutions
- improve health information systems for evidence-informed policies and practices

HUMAN RESOURCES FOR MATERNAL, NEWBORN, AND CHILD HEALTH INTERVENTIONS

Research teams that worked on quality facility-based interventions also contributed to enhancing human resources skills. Interventions covered the continuum of healthcare provision to assist in delivering quality, safe, and respectful care. Some were also trailblazers in training and coaching in leadership skills for mid-level health managers and exploring task shifting of primary healthcare providers.

Impact of the COVID-19 Pandemic

IMCHA first obtained a 7-month no-cost extension to July 2021, which allowed us to extend the grants for research teams and HPROs. Grantees were required to provide strong justification for a need for an extension. We assessed the administrative and financial feasibility of an extension case by case. As COVID-19 disruptions continued, we obtained an additional 9-month no-cost extension with the revised end date of April 30, 2022, to emphasize knowledge translation and increased visibility of IMCHA's achievements.

Conclusion

IMCHA tested a new model of implementation research that assigned research leadership to African researchers working in collaboration with Canadian researchers and decision-makers embedded as key members of each research team. HPROs provided South-South support to the research teams for capacity strengthening and evidence uptake into policy and practice. Although changing policies and practices is a long-term goal and takes time to show impact, IMCHA teams promoted and followed up on 153 evidence-based policies and practices in primary healthcare. Many of them were endorsed at the national and subnational levels.

IMCHA performed well against its outcome and output indicators. Progress continued after the end of the initiative toward reaching some high-level outcome indicators. We also contributed to the ultimate goal of improved maternal, newborn, and child health outcomes, although the IMCHA initiative was not mandated to report on this, according to the performance measurement framework. The multiple examples included in the report are testimonies of our contributions to improving maternal, newborn, and child health where we worked.

We achieved and even surpassed our output indicators. Stories of change and examples from specific projects throughout the report illustrate how IMCHA contributed to improving health systems, community engagement, and policy and practices for better maternal, newborn, and child health outcomes.

IMCHA was a flagship partnership that allowed CIHR, Global Affairs Canada, and IDRC to go above and beyond what they could achieve on their own. Furthermore, the partners have built on lessons learned from IMCHA to design new multi-donor initiatives.

1 SETTING THE CONTEXT



Photo credit: IDRC / Andrew Esiebo

1. SETTING THE CONTEXT: MATERNAL, NEWBORN, AND CHILD DEATHS

In 2013–2014, as the Innovating for Maternal and Child Health in Africa (IMCHA) initiative was being designed, a high number of preventable maternal, newborn, and child illnesses, disabilities, and deaths burdened low- and middle-income countries, particularly in sub-Saharan Africa. In this region, nine countries (Ethiopia, Ghana, Malawi, Mali, Mozambique, Nigeria, Senegal, South Sudan, and Tanzania) had some of the worst key maternal, newborn, and child health indicators in the world. For example:

- Child mortality rates ranged from 74 to 178 deaths per 1,000 live births
- Infant mortality rates ranged from 47 to 99 deaths per 1,000 live births
- Maternal mortality rates ranged from 350 to 840 deaths per 100,000 live births (WHO, 2013)

Designed during the first phase of the Muskoka Initiative,¹ IMCHA was set up in response to the Government of Canada's commitment to improve maternal, newborn, and child health in low- and middle-income countries. IMCHA also reflected a heightened emphasis on performance indicators and on showing measurable impacts, as expressed in the United Nations' Millennium Development Goals.

IMCHA built on previous collaborative efforts between three agencies of the Government of Canada: CIHR, Global Affairs Canada,² and IDRC.³ The new initiative was launched in March 2014 as a CAD36 million, 7-year flagship initiative (ending in December 2020) to improve maternal, newborn, and child health outcomes by strengthening health systems, using primary health care as an entry point. Due to disruptions caused by the COVID-19 pandemic, IMCHA received two successive no-cost extensions, with a final end date of April 2022 (see section 5.3).

1 In 2010, the leaders of the G8 countries endorsed the [Muskoka Initiative](#) and pledged to allocate USD5 billion in new funding for maternal, newborn, and child health over 5 years. Canada committed to CAD1.1 billion in new funding for maternal, newborn, and child health from 2010 to 2015. The Muskoka Initiative represented a shift in Canadian international assistance toward a focus on reducing morbidity and mortality rates in mothers, newborns, and children.

2 Global Affairs Canada was called the Department of Foreign Affairs, Trade and Development until 2013, when the Canadian International Development Agency amalgamated with the Department of Foreign Affairs. The Department officially became Global Affairs Canada in 2015.

3 Prior to IMCHA, the three agencies, along with Health Canada and the Public Health Agency of Canada, partnered to fund the Global Health Research Initiative to tackle global health challenges. IDRC was designated to manage that initiative as well as IMCHA.

1.1. Objectives

IMCHA was designed to:

- address critical knowledge gaps and increase awareness among policy decision-makers about affordable, feasible, and scalable primary healthcare interventions to improve maternal and child health delivery and outcomes
- 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
- 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

1.2. Priority themes

We designed our programming around four priority research themes:

- High-impact community-based maternal, newborn, and child health interventions
- Quality facility-based maternal, newborn, and child health interventions
- Policy environment to improve maternal, newborn, and child healthcare services and outcomes
- Human resources for maternal, newborn, and child health

We also emphasized gender equality and health equity as key cross-cutting dimensions.

1.3. The IMCHA model

Figure 1 displays the IMCHA model. We funded 19 research teams to conduct original implementation research projects. The projects were implemented in 11 African countries, with some projects spanning more than 1 country. The call for proposals for selecting the research teams was launched on August 13, 2014.

FIGURE 1: THE IMCHA MODEL.



To improve the health of women, newborns, children, and adolescents

In 2016, we gave well-performing research teams the opportunity to apply for additional funding, on a competitive basis, to implement a synergy grant to expand the scope and depth of their work. This allowed for investigating sexual and reproductive health rights, family planning, and adolescent health. These were new areas for Canadian and international priorities, such as Canada's Feminist International Assistance Policy⁴ and the United Nations' Sustainable Development Goals (SDGs).⁵ The call for proposals for the synergy grants was launched on October 28, 2016.

RESEARCH TEAMS

The IMCHA model required each research team to be led by a principal investigator (PI) affiliated with an African university, research institution, or non-governmental organization (NGO). PIs were responsible for the overall implementation of the project, working closely with a relevant local, regional, or national level decision-maker co-PI embedded as key member of the research team, and a Canadian researcher co-PI affiliated with a Canadian research institution.

HEALTH POLICY AND RESEARCH ORGANIZATIONS

In addition to the research teams, we supported two Health Policy and Research Organizations (HPROs): one worked with the research teams in West Africa (WA-HPRO), and the other worked with the research teams in East Africa (EA-HPRO). HPROs were powerhouses with regional and international clout.

- The WA-HPRO is the division of the Economic Community of West African States (ECOWAS) responsible for health issues. The constituencies for the WA-HPRO are decision-makers in 15 countries, including ministers of health and other high-level decision-makers. The WA-HPRO provided support to six research teams in Burkina Faso, Mali, Nigeria, and Senegal.
- The EA-HPRO was a consortium led by the African Population and Health Research Center. Other members included the Partners in Population and Development Africa Regional Office and the East, Central and Southern Africa Health Community. The constituencies for the EA-HPRO in over 44 countries included ministers of health, parliamentarians, and other high-level decision-makers. The EA-HPRO provided support to 13 research teams in Ethiopia, Kenya, Malawi, Mozambique, South Sudan, Tanzania, and Uganda.

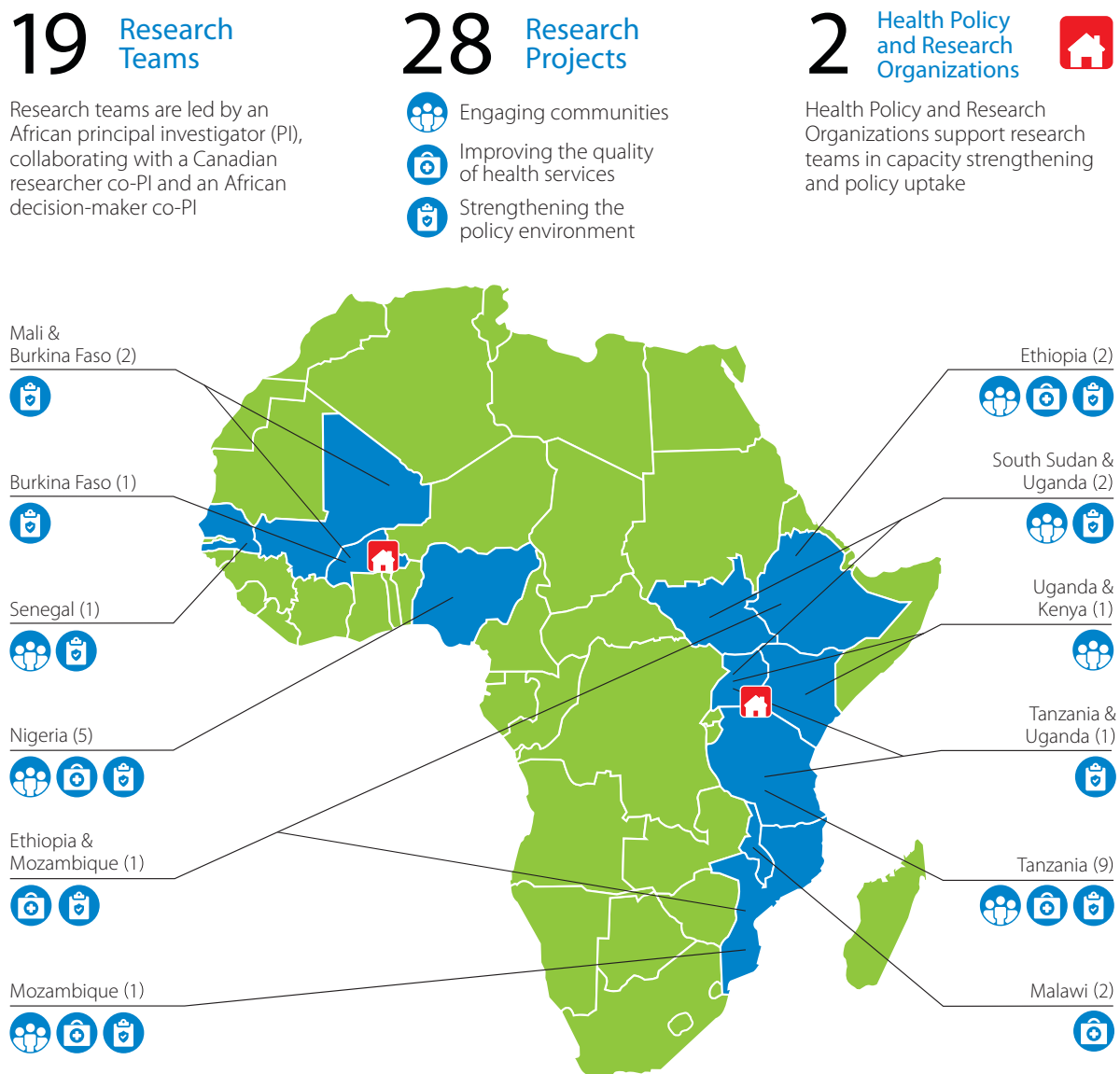
4 The [Feminist International Assistance Policy](#) was officially launched on June 9, 2017 by The Honourable Marie-Claude Bibeau, Minister of International Development and La Francophonie. However, the 2016 review of Canada's international assistance established a feminist approach to development efforts, addressing the gender equality goal of the 2030 Agenda for [Sustainable Development Goals](#) and emphasizing women's and girls' sexual and reproductive health rights.

5 The SDGs are at the heart of the [2030 Agenda for Sustainable Development](#) adopted by all United Nations Member States in 2015. The SDGs are an urgent call for action by all countries — developed and developing — in a global partnership. They recognize that ending poverty and other deprivations must go hand in hand with strategies that improve health and education, reduce inequality, and spur economic growth — all while tackling climate change and working to preserve our oceans and forests.

HPROs assisted with capacity development and knowledge translation to raise the profile of the research and promote uptake of evidence into policy and practice. They supported research teams in sharing findings at the national, regional, and global levels. Details on each of the 19 research projects and 2 HPROs are provided in [Annex 1](#).

Figure 2 presents an overview of the research teams and HPROs as well as the research themes they explored.

FIGURE 2: GEOGRAPHIC AND THEMATIC OVERVIEW OF IMCHA GRANTS.



IMCHA TEAM

IMCHA daily management was carried out by a core team hired by IDRC specifically for this initiative. It was originally comprised of a lead senior program specialist, a senior program officer, and a knowledge translation program officer. Over time, the team went through staff changes, including the replacement of the senior program officer by a senior program specialist, and the recruitment of a second knowledge translation program officer. The team was also supported by IDRC program officers from the Maternal and Child Health program who managed some IMCHA projects as part of their portfolios. Also, as needed, we contracted consultants for support with the workload or for specific activities to avoid delays in implementation.

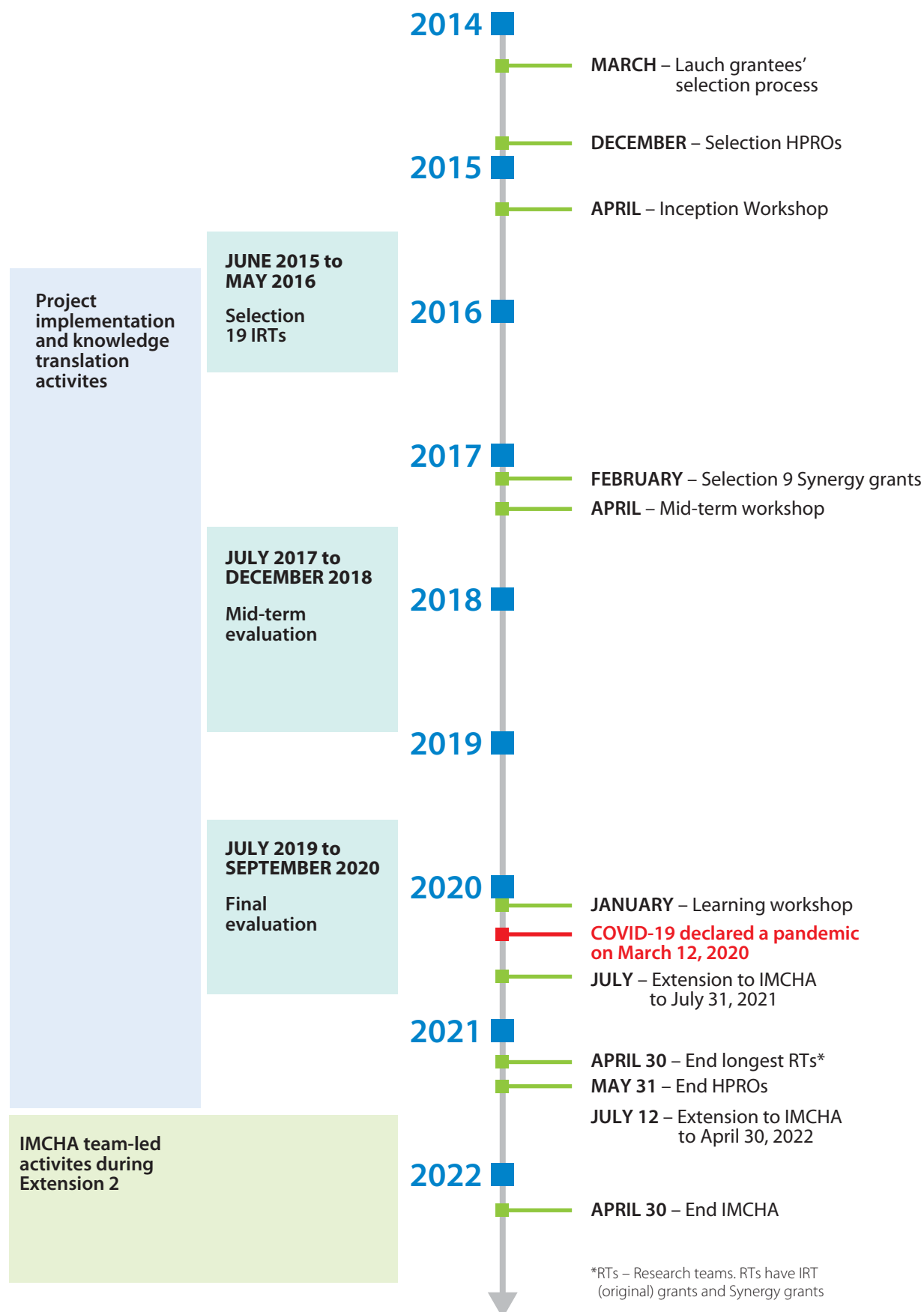
The IMCHA team reported initially to the IDRC program leader for Maternal and Child Health and later to the director of the Global Health Division. IDRC's Grant Administration Division provided administrative and financial management. IDRC's Communications and other divisions also gave support as needed throughout the life of the initiative.

In addition to the daily management, we organized all-of-IMCHA convenings where all PIs and co-PIs (decision-makers and Canadian researchers), key members of the HPROs, members of the three donor agencies, and the IMCHA team gathered for several days. The meetings provided space for taking stock, networking, brainstorming of common topics, sharing results and learning with each other, and organizing capacity development sessions. We organized three such events:

- inception workshop in Nairobi, Kenya in 2015
- mid-term workshop in Dakar, Senegal in 2017
- learning workshop in Kigali, Rwanda in 2020

Figure 3 shows IMCHA's timeline and highlights key phases in its implementation.

FIGURE 3: IMCHA TIMELINE AND KEY PHASES.



1.4. Program governance and management

The governance structure consisted of several levels of management, including three committees:

- **The Governance Committee** provided strategic direction. For the first years of IMCHA, the committee included the presidents of CIHR and IDRC and an assistant deputy minister at the then Department of Foreign Affairs, Trade and Development. This reflected the importance of the initiative to partners. As we progressed without major challenges, the leadership transitioned to senior-level representatives from each agency. At the end of IMCHA, the agencies were represented by CIHR's scientific director of the Institute of Population and Public Health, Global Affairs Canada's director general for Global Health and Nutrition, and IDRC's vice-president, Programs and Partnerships.
- **The Technical Committee** was comprised of Canadian and African experts in maternal, newborn, and child health and health systems. The committee provided technical guidance and conducted peer reviews of proposals submitted in response to the calls for proposals for the research teams' original grants and the synergy grants. With no new calls for proposals, the committee was dissolved.
- **The Management and Operations Committee** was created to oversee the implementation of IMCHA and was comprised of representatives from CIHR, Global Affairs Canada, and IDRC. The committee met approximately every two months until the end of the initiative.

1.5 Monitoring, evaluating, and learning

We monitored the performance of projects through a review of technical reports, virtual calls, and field visits, where possible. We applied a continuous learning process, including through the knowledge translation approaches described in section 4.2 and the all-of-IMCHA workshops (section 5.2).

In addition to ongoing monitoring, we commissioned an external mid-term (2017–2018) and final evaluation (2019–2020) of IMCHA work. Both evaluations were designed and implemented in close collaboration with Global Affairs Canada and CIHR. They have been shared with stakeholders and made publicly available.

The final evaluation found that we achieved several of the outcome targets set for the initiative and we are moving well on others. The evaluators recommended that, when feasible, we commission and publish a meta-analysis to document the novel IMCHA model; in particular, embedding decision-makers as co-PIs in research teams. While a meta-analysis was not feasible before the end of IMCHA, we published a special edition of the *African Journal of Reproductive Health* to provide insight into the IMCHA model and project evidence (see section 4.2.3.3). The evaluation also made recommendations for potential future initiatives. The donor partners responded to the final evaluation report through the [Donor partners' management report and action plan](#). They agreed with the evaluators' conclusion that IMCHA is a relevant investment for the Government of Canada.

Outputs from the mid-term and final evaluations include

Mid-term evaluation

- [Mid-term formative evaluation](#)
- [Issue brief: Working with decision-makers](#)
- [Issue brief: Equity in the IMCHA initiative](#)

Final evaluation

- [Summative evaluation: Main report](#)
- [Issue brief on knowledge translation and policy/practice influence](#)
- [Issue brief on gender integration](#)

These outputs are also available on IDRC's website.

2 RESULTS BY PRIORITY THEMES



Photo credit: Joy Obuya / APHRC

2. RESULTS BY PRIORITY THEMES

IMCHA contributed to improving health systems and people's lives through all four priority themes. Most research projects explored more than one theme. Achievements for each theme are highlighted below.

2.1. High-impact community-based maternal, newborn, and child health interventions

Sixteen IMCHA research projects engaged with the community to improve their health, with a range of interventions:

- Using home visits to sensitize pregnant women, their spouses, and other key decision-makers in the family on the importance of prenatal care and delivery in health facilities
- Working with specific groups and champions
- Heightening the role and skills of community health workers so they can educate the community on harmful practices that may impede on women's and children's health
- Using various strategies and tools, such as mobile technology, to identify and refer pregnant women in need of care

Examples of IMCHA's contribution to improving maternal and child health through this priority theme are described below.

Solutions for better health outcomes in Mozambique

In Nampula province in rural Mozambique, a research team supported local community health committees in promoting health education. They also supported traditional teachers in delivering sexual and reproductive health messages during coming-of-age ceremonies. The project also introduced a novel community-managed transportation system with motorcycle ambulances to help pregnant women and emergency patients get to the hospital faster.

IMPACT

The project reported

- **185%** increase in the number of women who made four prenatal visits
- **89%** increase in deliveries at the hospital thanks to the motorcycle ambulance system
- **89%** increase in regular health visits for children under the age of 1



A pregnant woman and a traditional birth attendant ride in a motorcycle ambulance during a simulation of how the vehicle will be used to take women in labour to hospital in Mozambique's Nampula province.

Photo credit: EA-HPRO Consortium-IMCHA Initiative
Source: *Canadian Geographic's* article on IMCHA project in Mozambique: [Designed in Canada, deployed in Mozambique](#)

Training groups of women to educate others in Tanzania

In the districts of Mufindi and Kilolo in the Iringa region of Tanzania, a research team trained groups of women to educate others about maternal and child health in their communities. By the end of the project, the women felt empowered to express their concerns in village meetings and to go to other villages to share the knowledge. The project also organized male champions to deliver important health messages and raise awareness among other men in the community about the value of taking care of women's and children's health.

IMPACT

The project reported

- **94%** increase in women receiving postnatal care within 48 hours in Mufindi district
- **70%** increase in women starting prenatal care within their first trimester in Kilolo district
- **62%** and **48%** increase in the use of modern contraceptives in the Kilolo and Mufindi districts, respectively

IMPACT STORY #1

Home visits to pregnant women in Nigeria

In Northern Nigeria, women die from complications of childbirth at a much higher rate than in other areas of the country. Access to health care is a challenge for women who live far from health services. Many facilities lack basic equipment to provide quality prenatal care or manage deliveries safely. Other challenges hinder seeking timely care, such as inadequate health information and education, lack of communication within households that affects women's ability to make decisions regarding their own health care and that of their children, lack of transportation, and security issues.

Home visits and digital tools

Two IMCHA projects were put in place by the Federation of Muslim Women Associations of Nigeria in collaboration with McGill University, Canada and the Bauchi State government. They used a home visit approach to offer universal coverage. All pregnant women and their spouses were visited on a regular basis to discuss risk factors for maternal morbidity and mortality, including exposure to domestic violence, heavy physical work during pregnancy, lack of spousal communication about pregnancy, and lack of knowledge about danger signs during pregnancy. The project also used innovative digital technology, such as video edutainment to share evidence about risk factors, (near) real-time data collection, and monitoring.

Engaging men and addressing gender norms

Engaging men and addressing gender norms contributed to measurable success. Researchers visited 36,000 households, registering over 28,000 pregnancies and resulting in a 20% reduction in maternal and child mortality. Pregnant women receiving home visits were less likely to have complications and more likely to understand at least three danger signs that required timely access to health services. These women were less likely to experience physical violence, more likely to reduce heavy work before the third trimester, and more likely to discuss their care needs with their spouse. Improved spousal communication contributed to a reduced risk of gender-based violence.

Impact

- Bauchi State Primary Healthcare Development Agency set up a home visits' unit under the Directorate of Disease Control.
- The agency formally endorsed a plan for a state-wide rollout of home visits. In its annual budget for 2019–2020, they allocated NGN20 million (CAD70,000) for home visits. They committed to developing a longer-term plan to roll out and sustain home visits with adequate resources.

For more information, see the publications for project codes 108039 and 108551 in [Annex 7](#).

2.2. Quality facility-based maternal, newborn, and child health interventions

Nineteen IMCHA research projects focused on improving the quality of facility-based services. They tackled issues such as

- workspace organization and efficiency
- respectful care
- quality standards (developing tools and testing instruments to improve timeliness and accuracy of data collected for health information systems and vital statistics)
- implementation of low-cost solutions to improve the survival of newborns, especially premature babies

Examples of IMCHA's contribution to improving maternal and child health through this priority theme are outlined below.

Training health workers to be respectful in Tanzania

In Tanzania's Mara Region, a research team developed the training curriculum Health Workers for Change. They trained 60 nurses (52 women and 8 men) to tackle disrespectful attitudes that were a significant barrier to access to care. The team also mobilized decision-makers to support the change.

IMPACT

The research team reported that this project will benefit future generations of women because

- the Mara Region health system has adopted and endorsed the Health Workers for Change curriculum
- health workers are now trained to be more respectful

Training to support premature babies in Malawi

In Malawi, a research team introduced an integrated healthcare package that includes a low-cost, mechanical continuous positive airway pressure (CPAP) device to help newborns in respiratory distress. They also introduced other simple initiatives, such as breastfeeding and skin-to-skin care for newborns, to improve the survival rate of premature babies. They worked with healthcare workers to provide related training and foster team cohesion.



[Baby on Bubble CPAP](#)

IMPACT

Photo credit: IDRC / Andrew Esiebo

The project reported

- **100%** of healthcare workers in maternity wards in three districts are trained to care for premature babies
- **41%** increase in survival of babies with respiratory distress syndrome

IMPACT STORY #2

Addressing perinatal depression among women and adolescents in Nigeria

Perinatal depression affects up to 25% of women in low- and middle-income countries during the prenatal period and 19% of women during the postnatal period — rates that are significantly higher than are reported for high-income countries. Perinatal depression is also associated with short- and long-term adverse maternal and child outcomes. These outcomes include pre-term birth, low birth weight, limitations in mother-child interactions, infant undernutrition and stunting, higher rates of diarrheal diseases, sub-optimal infant development, limitations in interpersonal functioning later in life, and insecure attachment.

The situation in Nigeria

Specific research from Nigeria suggests that children from adolescent mothers with depression have poorer outcomes, with reported rates of perinatal depression for this age cohort of 10% to 30%. Nigeria, like other resource-constrained countries, lacks adequate numbers of trained care providers as well as appropriate infrastructure to support high-quality maternal care for women and adolescents.

A screening tool for mental health

A research team led by the University of Ibadan, Nigeria — in collaboration with the Department of Psychiatry at the Jewish General Hospital in Montreal, Canada and the Oyo State Primary Healthcare Board — implemented strategies to tackle mental health issues through primary health services and help improve health outcomes for pregnant women, new mothers, and their children. The project adapted a short screening tool to identify depression in mothers receiving care at the community level and to train health workers to facilitate access to services for treating perinatal depression. A focus on supportive and respectful care, particularly addressing the needs of adolescent mothers, was added to the synergy grant for this research team.

Impact

- 38% increase in the detection rate of perinatal depression in intervention areas. Results were attributed to the inclusion of the screening tool in routine prenatal care visits.
- Oyo State Ministry of Health created a Mental Health Desk and is scaling this intervention and detection of perinatal depression to the entire state, ensuring a sustained interface between mental health and maternal and child health services

For more information, see the publications for project code 108029 in [Annex 7](#).

2.3. Policy environment to improve maternal, newborn, and child healthcare services and outcomes

Fourteen IMCHA research projects worked with decision-makers to explore ways to improve the policy environment for better applicability and impact. The projects adopted three main approaches:

- assess the effectiveness and strengthen the implementation of existing policies that aim to improve health outcomes, with a particular focus on vulnerable groups
- inform policy and practice uptake based on proven solutions
- improve health information systems for evidence-informed policies and practices

Examples of IMCHA's contribution to improving maternal and child health through this priority theme are described below.

Accelerating universal health coverage in Mali

The World Bank followed recommendations from the IMCHA research team on integrating community health workers in the design and performance assessment of a USD88 million project (CAD110.8 million) to accelerate universal health coverage in three regions.

IMPACT

The project reported

- the investment will reach an estimated four million residents, especially women of reproductive age and children



Photo credit: IDRC / Sylvain Cherkaoui

Using evidence to develop healthcare policies, plans, standards, and protocols in West Africa

In 2017, the Assembly of Health Ministers of ECOWAS adopted the Resolution on the use of evidence in developing healthcare policies, plans, standards, and protocols in ECOWAS that was tabled by the IMCHA West Africa HPRO (WA-HPRO). This resolution applies to all 15 countries.

IMPACT

The project reported

- the HPRO has since developed a guidebook for the use of evidence. This document is the first of its kind in the sub-region and will serve as a practical tool for decision-makers in their need to use evidence in the formulation or revision of health policies.

“The initiative has been able to really link researchers and policymakers. Policymakers, decision-makers, they are always coming to us, as an HPRO, to provide evidence, to provide findings which they can use in their routines regarding the policy they want to make.” – PATRICK MUGIRWA, PROGRAM MANAGER, EA-HPRO

IMPACT STORY #3

Reviewing and analyzing the causes of child and maternal deaths in Ethiopia

The issue

Most deaths in sub-Saharan Africa occur without medical attention and causes of death are unknown. This lack of information greatly limits evidence-based planning and slows progress in attaining health targets, including for improved maternal and child health services. For 2013, the World Health Organization reported 420 maternal deaths per 100,000 live births, with an estimated 220,000 children and mothers dying every year in Ethiopia. Child mortality rates were estimated at 88 per 1,000 births; 28% of all child deaths occurred in the first month of life. For most, the causes of death were unknown, as fewer than 30% of births and deaths were registered. This further affected confidence in and efficacy of evidence-based planning.

A lack of data

Various studies have been conducted in different parts of the country on causes of neonatal and under-5 deaths, but none had systematically documented causes of childhood deaths. A significant hurdle to accurately track and report on maternal and newborn mortality is that more than 80% of Ethiopian women deliver at home, without a skilled birth attendant. This means that available data from health facilities represent only a small portion of maternal and child deaths.

A low-cost, high-quality cause-of-death data collection and monitoring system

A research team led by the Ethiopian Public Health Association — in collaboration with the Centre for Global Health Research at St. Michael's Hospital in Toronto, Canada and the Ethiopian Ministry of Health — piloted a low-cost, high-quality cause-of-death data collection and monitoring system at the national level. This project conducted two systematic reviews and trained surveyors and physicians in electronic verbal autopsy data collection; it also trained physicians in cause-of-death coding to identify the underlying cause of death for newborns, children, and adults. The project was closely aligned with the Government of Canada's prioritization of civil registration and vital statistics (CRVS) systems as a public investment for safeguarding the rights of women and children, improving policy development and program delivery for maternal and child health, and strengthening accountability.

Impact

- This project provided Ethiopia with its first-ever representative review and meta-analysis of the causes of neonatal, infant, childhood, and maternal deaths. This, as well as the results of the verbal autopsies, helped inform health sector policy response and ensures more efficient use of healthcare resources for prevention and treatment.
- Furthermore, a national core team was formed to inform strategies for CRVS and incorporate cause of death as a national priority within the new national health strategies. The Ministry of Health is developing a standard operating procedure for facility deaths and using an electronic verbal autopsy approach. This approach is feasible and is included as an activity in the costed strategic plan of the Ethiopian CRVS system for 2021–2026.

For more information, see the publications for project code 108027 in [Annex 7](#).

2.4. Human resources for maternal, newborn, and child health

Ten of the 19 IMCHA research projects that worked on quality facility-based interventions also engaged in enhancing human resources skills. Interventions cover the continuum of healthcare provision, such as

- educating individuals and accompanying family members to assist health providers in delivering care
- exploring task-shifting capabilities
- training and coaching health providers and managers

Some were also trailblazers in capacity development of primary healthcare providers in neglected issues such as detecting and treating perinatal depression or performing high-quality surgeries in remote areas.

Examples of IMCHA's contribution to improving maternal and child health through this priority theme are described below.

Bajenu Gox getting women to attend prenatal visits and use family planning methods in Senegal

A research team contributed to increased social recognition and respect by health providers and the community of the role and importance of the *Bajenu Gox*,⁶ a cadre of community health workers. With their advocacy efforts and their growing leadership, the *Bajenu Gox* have contributed to changing mentality and behaviours. These health workers have been playing an increasing role in getting women to attend prenatal care visits and couples to use family planning methods.

IMPACT

The project reported

- **26%** increase in the number of women doing their first prenatal care visit between 2016 and 2019
- **64%** increase in the number of health facility deliveries during that same period
- the *Bajenu Gox* are increasingly being called to play a critical role in other areas, such as in the fight against COVID-19



A group of Bajenu Gox from Senegal.
Photo credit: Sylvain Cherkaoui, IDRC

⁶ This is an Ouolof language expression that can be translated as “neighbourhood auntie.”

IMPACT STORY #4

Strengthening human resources for obstetrical and newborn care in Tanzania

The issue

Tanzania is one of 10 sub-Saharan countries contributing to over 60% of maternal and newborn deaths globally. The country even recorded an increase in maternal mortality: from 454 per 100,000 live births in 2008 to 556 per 100,000 live births in 2015–2016. At the start of this IMCHA project, only 12% of health centres provided comprehensive emergency maternal obstetrical and newborn care (CEmONC). Because they could not access these life-saving services, many women and their newborns died during childbirth due to complications that could have been prevented.

Improving access to quality services

Bringing CEmONC closer to the community contributes to fulfilling Tanzania's commitment to improve access to quality services for women and children. A research team led by the Tanzanian Training Centre for International Health — in collaboration with Dalhousie University in Halifax, Canada and the Tanzanian Ministry of Health — addressed gaps in human resource competency. They trained healthcare providers in five health centres in the Morogoro region using e-learning, simulation labs, and sustained coaching and mentoring. With the addition of their synergy grant, they expanded their efforts to focus on strengthening aspects related to leadership development and management.

Impact

- 157% increase in deliveries across the intervention sites
- Reduction of related costs for referring and transporting women to higher levels of care — a significant factor in providing care locally and reducing costs to households, referring institutions, and the broader health system

The project also spearheaded the adoption of the following policies and practices:

- a 3-month CEmONC training curriculum at the national level
- a 6-month training curriculum in anaesthesia at the national level
- e-learning strategies for capacity building in CEmONC at the national level
- a mentorship program at the regional level
- scale-up of CEmONC to 80% of health centres in Morogoro Region

For more information, see the publications for project codes 108040 and 108552 in [Annex 7](#).

“The uptake of the model is very high in the country. The government has upgraded over 320 health centres to provide the same services.”

– DR. ANGELO NYANTEMA, PRINCIPAL INVESTIGATOR, TANZANIA

2.5. New areas of focus through the synergy grants: Adolescents' reproductive health and family planning

With the addition of the synergy grants, we were able to include a focus on adolescents' health and on sexual and reproductive health rights/family planning. We highlight two of the achievements below:

Addressing barriers that adolescents face in accessing and using services in Mozambique

A research team in Mozambique's Nampula province used community drama groups, radio broadcasts, local champions, and other initiatives to engage the community. The goal was to address barriers that adolescents face in accessing and using services. The research team delivered key messages on maternal and child health to more than 350,000 adolescents. They also trained 38 teachers, 49 activist students, 85 youth initiation ritual teachers, and 337 members of local health committees to deliver messages on sexual and reproductive health and rights.

These activities contributed to better knowledge of sexual and reproductive health among female and male adolescents and an increased use of family planning services.

IMPACT

Between 2016 and 2019, the project reported

- **523** adolescent men aged 10 to 19 accessed family planning visits in the intervention area, up from 66
- **108%** increase in adolescent and youth health visits at the intervention site hospital



Young women attending a prenatal care visit.

Photo credit: Andrew Esiebo, IDRC

Reaching adolescent girls and women in vulnerable and difficult-to-reach areas of Tanzania

In Tanzania's Mara Region, a research team trained community health workers to use mobile phones and conduct home visits to reach women and adolescent girls in vulnerable and difficult-to-reach communities. Home visits included reproductive health education, supply of short-term contraceptive methods, or referrals to health facilities for longer-term family planning.

The research team also worked with the district hospital director to create family planning days to increase and promote family planning services and the use of permanent methods. Further, district and regional medical officers committed funding to help community health workers continue promoting family planning in the region.

IMPACT

The project reported

- **8,000+ people in 89 villages** received educational messages and have access to family planning methods
- **12-percentage-point increase** in the number of people who chose long-term family planning methods, rising from 40% in 2017 to 52% in 2020 in the intervention areas

3 OUTCOMES ACHIEVED



Photo credit: © WHO / Noor / Benedicte Kurzen

3. OUTCOMES ACHIEVED

IMCHA donor partners agreed on a logic model ([Annex 2](#)) and a performance measurement framework ([Annex 3](#)) to track how the objectives of the initiative will be achieved. This section draws from the findings of the final evaluation for documenting performance toward the immediate, intermediate, and ultimate outcome indicators. However, the time gained with the no-cost extensions due to the COVID-19 pandemic allowed more analysis of findings and organization of knowledge translation activities to foster uptake of the evidence into policy and practice to progress further toward reaching our targets. We report here on the outcome indicators with examples of accomplishments and unintended outcomes. Details are provided in the outcome reporting worksheet in [Annex 4](#).

3.1. Ultimate outcome

The ultimate outcome for IMCHA was improved maternal, newborn, and child health outcomes in targeted countries. Although the IMCHA initiative was not responsible for or mandated for reporting on this according to the performance measurement framework, the multiple examples included in the report under section 2 are testimonies of our contributions to improving maternal, newborn, and child health where we worked.

3.2. Intermediate outcomes

Intermediate outcome 1: Enhanced production, analyses, and syntheses of health systems implementation research prioritizing gender and equity

This outcome was measured by two indicators:

1.1. Proportion of projects that have at least three of four processes with adequate gender and equity dimensions

1.2. Proportion of health systems research outputs and syntheses that are gender- and equity-focused

Research teams and HPROs integrated more and more gender and equity dimensions into their implementation and knowledge translation activities over time: 54% of research projects had adequate gender dimensions and 25% had adequate equity dimensions in at least three research processes. The list of peer-reviewed publications in [Annex 7](#) shows that the trend was similar for the indicator on health systems research outputs.

Intermediate outcome 2: Enhanced partnering and collaboration between decision-makers and researchers on health systems strengthening in the selected countries/regions

This outcome was measured by one indicator:

2.1 Number of total projects per country that demonstrate a high level of collaboration with decision-maker (documented by project, country, and regional levels)

IMCHA demonstrated that embedding decision-makers as co-PIs in research projects is effective for designing projects that are locally relevant and for reaching out to other decision-makers who could facilitate project implementation or sharing of project findings. All IMCHA research projects demonstrated good practices in governance and coordination between decision-makers and researchers. For example, with support from their decision-makers, most projects communicated their findings to national stakeholders, either systematically by participating in Technical Working Groups (such as on maternal, newborn, and child health), through direct contacts with the Ministry of Health officials or during HPRO-facilitated events. In Impact story #2, the head of the Oyo State Primary Healthcare Board was instrumental in establishing the state's Mental Health Desk.

Intermediate outcome 3: Enhanced integration of health systems research findings into primary healthcare policies and practice in selected countries

This outcome was monitored by one indicator:

3.1 Number (type) of influence of IMCHA research projects on policy and programming per project

Each member of the research team reported at least one instance of influence on policy or practice. By the end of the initiative, 153 evidence-based policies were promoted by IMCHA research teams and HPROs. Impact story #3 is an example of how IMCHA projects influenced policy and practice at multiple levels of the health system, from rural health centres to nationwide.

3.3. Immediate outcomes

The immediate outcomes document how IMCHA contributed to

- strengthening the capacity of researchers and research organizations to conduct gender- and equity-informed health systems implementation research
- strengthening partnerships and alliances between African researchers, decision-makers, and Canadian researchers
- increasing awareness and understanding of research evidence by decision-makers at the primary healthcare level

We review the achievements below.

Immediate outcome 100: Strengthened capacity of researchers and research organizations to conduct gender- and equity-informed health systems implementation research

The first indicator to measure this outcome is:

100.1 Proportion of total research projects that have adequately detailed gender and equity dimensions

The majority of research projects integrated gender dimensions adequately, while efforts continued with regard to equity. Here are two examples of how projects addressed gender issues:

- **Strengthening women's role and participation in health services as service providers or community members.** In particular, projects in Burkina Faso, Ethiopia, Mali, Mozambique, Nigeria, Senegal, Tanzania, and Uganda used education to empower women and increase their capacity to make decisions about their own health.
- **Engaging men as champions for delivering health messages as supportive spouses of female community health workers, as active participants in their partner's pregnancy and maternity care, or as community leaders and gatekeepers.** Male engagement strategies were mindful not to reinforce stereotypes that women need support from men to make decisions about their health. In particular, projects in Ethiopia, Mozambique, Nigeria, Senegal, Tanzania, and Uganda included strong male engagement efforts.



Activity with Chiefs and community leaders in Nigeria.
Photo credit: IRDC / Andrew Esiebo

The second indicator is:

100.2 Proportion of recommendations from formative analysis of HPROs acted upon

Each HPRO conducted situation analysis or context mapping exercises. In particular:

- The EA-HPRO commissioned a rapid review of the maternal, newborn, and child health resolutions passed by the East, Central and Southern Africa Health Community, which found that gender and equity issues were not effectively addressed in the countries covered by IMCHA. Also, the EA-HPRO conducted situation analyses for Ethiopia, Malawi, Mozambique, South Sudan, Tanzania, and Uganda, highlighting equity and gender issues in relation to health policies, health services, health system gaps, other barriers to access, and national policies related to maternal, newborn, and child health.

- The WA-HPRO commissioned a study on the role of gender and equity in maternal, newborn, and child health programs in the six countries that were originally part of IMCHA for this region: Benin, Burkina Faso, Ghana, Mali, Nigeria, and Senegal; Benin and Ghana were later dropped because they were part of a research team that was not awarded (see section 6.1.1). The study assessed how programs in the region aimed to reduce gender inequalities and inequities, including in terms of education, socio-economic status, and distance to health facilities.

The HPROs took action to address the recommendations formulated by the reviews.

Immediate outcome 200: Strengthened partnerships and alliances between African researchers, decision-makers, and Canadian researchers

The indicator associated with this outcome is:

200.1 Proportion of implementation research projects that demonstrate effective collaboration and management

IMCHA promoted collaboration between African and Canadian researchers and between researchers and decision-makers. About 75% of PIs and Canadian co-PIs considered their collaboration to be successful. Regarding the collaboration between researchers and decision-makers, the connection was stronger among the Africans, probably because of the closer proximity and more regular engagement. In addition, the meetings we organized to bring all grantees and key stakeholders together, such as the inception workshop, the mid-term workshop, and the learning workshop, were special opportunities for strengthening collaboration within and between teams (see section 5.2 for more details on these workshops).

Immediate outcome 300: Increased awareness and understanding of research evidence by decision-makers at the primary healthcare level

The indicator for this outcome is:

300.1 Proportion of IRT [Implementation Research Team] decision-makers who follow up on recommendations from research into health systems planning forum(s)

Although 100% of decision-makers were engaged and promoted evidence uptake, 63% of them followed up and achieved policy informed by research evidence. Decision-maker co-PIs used policy fora and meetings with higher officials in their country to share evidence generated by their project.

“The involvement of the policymaker just gave it this angle where you cut through the bureaucracy, the policymaker pushes some of the recommendations, and then things move faster than we did in the routine research project mode.”

– DR. QUEEN DUBE, DECISION-MAKER CO-PI, MALAWI

3.4. Unintended outcomes

Several instances of unintended outcomes influenced the strengthening of policy and health systems beyond what the projects anticipated in their implementation plans. For example:

- **Increased demand for scaling-up the project's approach to non-intervention villages and districts:** In Tanzania, in many villages where an IMCHA research team was using a participatory research action approach, women's groups organically started integrating income-generating schemes and community support systems into their activities to contribute to the interventions being sustainable. The project's approach was hailed beyond project settings. Villages, officials, and community leaders from other districts asked that the approach be implemented in their areas as well, leading to improved maternal and child health for more women in the region.
- **Uncovering of unintended consequences caused by improper application of a government policy:** The Government of Tanzania put in place the Spousal Escort Policy, which required a husband to accompany his wife to prenatal care visits so that men could be more involved in their spouse's healthcare and get tested for HIV. After being presented with evidence from an IMCHA research team of the improper application of the policy by health personnel and the related negative impact on pregnant single women and those in unstable relationships, the government committed to revising the training of health personnel to ensure that unaccompanied women can access services. This corrective measure will benefit all pregnant women in Tanzania.
- **Outstanding commitments and contributions by local authorities:** In Senegal, under supervision by the IMCHA research team and the focal point for the *Bajenu Gox* National Program at the Ministry of Health's Directorate for Mother and Child Health, the engagement of the *Bajenu Gox* and the achievements of the IMCHA project contributed to creating good collaboration with members of local health committees and local administrative, health, and political authorities. This led to several unintended results, such as:
 - » The secretary general of Kaolack City Hall committed to duplicating the initiative of the *Bajenu Gox* in other neighbourhoods of Kaolack.
 - » The prefect of Kaolack collaborated with health officials to address the issue of traditional birth attendants in one project's neighbourhood, where women were not going to health facilities for prenatal care visits, and many delivered at home with the assistance of a traditional attendant. The *Bajenu Gox* helped identify the traditional birth attendants who were still practicing at home to sensitize them and to redirect women to use skilled healthcare services.
 - » As a result of the success of the project's income-generation activity, Diaoulé City Hall gave a plot of land to the *Bajenu Gox* association. A depot was made available to them for the sale of iodized salt, which is a rare commodity in the locality.

4 OUTPUTS AND KNOWLEDGE TRANSLATION



Photo credit: Joy Obuya / APHRC

4. OUTPUTS AND KNOWLEDGE TRANSLATION

4.1. Outputs

We used the projects' annual and final technical reports to monitor and provide updates on progress for the output level indicators of our performance measurement framework. [Annex 5](#) presents year-by-year performance for each indicator and shows that all quantified targets were achieved and often exceeded. We examine each indicator below:

Output 110: Funding provided to IRTs to conduct policy-relevant gender- and equity-sensitive health systems implementation research

The indicator associated with this output is:

110.1 Number (and title) of health systems analysis and synthesis that is gender- and/or equity-focused produced by IRTs

Compared to the target of 20, IMCHA produced 153 analyses and syntheses, such as the article Community member and policymaker priorities in improving maternal health in rural Tanzania (publication 23 in [Annex 7](#)), which explores equity in access to healthcare services, or the article How culture shapes the sexual and reproductive health practices among adolescent girls in Eastern Equatoria, South Sudan (publication 28 in [Annex 7](#)).

Output 120: Funding provided to research teams that include emerging researchers

Two indicators were defined to measure this output.

The first indicator is:

120.1 Number of funded IRTs housed in research institution

The target for this indicator was 20, meaning that each research team should respect this criterion. All 19 research teams funded met this indicator.

The second indicator is:

120.2 Number of emerging researchers involved in the IRT research

We emphasized to the research teams the importance of involving emerging researchers at all stages of their research projects, including graduate students and new researchers starting their career in the health systems field. As a result, a total of 317 emerging researchers participated in IMCHA projects. This contributed to developing the capacity of the next generation of leaders in global health research.

“This initiative has helped a lot of students. Some of them found employment opportunities as a result.”

– LUC SERMÉ, EMERGING RESEARCHER, BURKINA FASO

Output 130: Synergistic research opportunities identified and supported

The indicator for this output is:

130.1 Number of synergistic research opportunities identified and funded

This indicator relates to new, but related, funding received from other organizations. The target was 3 per region. The West Africa region performed more than four times better and reported 13 such opportunities. In East Africa, the number is 10.

Output 140: Provide training, networking, and exchanges of HPROs and IMCHA research teams to strengthen the capacity of organizations funded through IMCHA

Two indicators were defined to measure this output.

The first indicator for this output is:

140.1 Number of individuals who received training/networking and exchange opportunities (by type and by participant)

A total of 1,662 members of research teams benefited from such opportunities, compared to the target of 40. Examples of activities are the training sessions organized by the HPROs for research team members on qualitative methods, scientific writing, gender, or knowledge translation, or the mentoring of graduate students and emerging researchers by more senior members of their research teams for presentations at international conferences.

The second indicator to measure the output is:

140.2 Number of networking and exchange opportunities supported through IMCHA

A total of 167 opportunities were reported, compared to the target of 10. An example is a research team competing at an exhibition during the University of Dar es Salaam Research Week, which recognizes excellence in research across the university. The research team ranked first. The competition was an opportunity for junior members of the team as well as other students and faculty from the university to learn from the project's research methodology and to appreciate the powerful contribution that community engagement can make to maternal and child health and to saving lives. There were also opportunities created by the IMCHA team or the grantees. For example, the IMCHA team and the HPROs recognized the similarities of work between two research teams from Tanzania and a team from Nigeria. We worked together to bring Tanzanian researchers to Nigeria to participate in the Nigerian team's interventions design workshop. We also invited the other two research teams from Nigeria. This collaboration contributed to cross-learning and fostering relationships.

Output 210: Collaborative mechanisms established between IRTs and HPROs

The indicator for this output is:

210.1 Number of types of communication between IRTs and HPROs

The target was quarterly contacts. The HPROs engaged in contacts with all the research teams in their region for updates and collaboration opportunities. Communications intensified over time as research teams requested HPROs' support for capacity development activities and for knowledge translation as projects findings became available.

Output 220: HPROs and IRTs facilitate regional and national decision-makers to engage in IMCHA implementation research

Two indicators were defined to measure this output.

The first indicator is:

220.1 Number of new partnerships/collaborations between decision-makers and researchers on health systems strengthening

The target was 20. We reported 97 — nearly five times more. Examples of partnerships and collaborations include the experience-sharing meeting in Senegal between the IMCHA research project, various departments of the Ministry of Health, representatives of USAID, the French Research Institute for Development, local NGOs, and other stakeholders. At the end of the meeting, participants decided to continue this type of exchange through periodic meetings. In Mozambique, a new collaboration between the project team, the District Health Directorate, and the Catholic Church at the district level resulted in the archbishop co-financing a mothers' waiting house for pregnant women coming from afar so they can stay near the maternity centre until delivery.

The second indicator is:

220.2 Number of existing partnerships/collaborations enhanced between decision-makers and researchers on health systems strengthening

The target was 15; the number reported at the end of the initiative was 15. One such example is the collaboration between a research team in Edo State, Nigeria and the Federal Ministry of Health. The ministry's director of planning and research joined one of the meetings between the research team and their contact officer at the ministry. One outcome of the meeting was that they planned a follow-up meeting to consolidate their partnership and develop an action plan.

Output 230: Linkages formed outside of the IMCHA initiative by HPROs and IRTs with like-minded organizations

The indicator for this output is:

230.1 Number of times HPROs and/or IRTs established connections with organizations outside of IMCHA

No number was set for this indicator; we reported 142 such connections. For example, in Uganda, the EA-HPRO focal point met with the UNICEF health officer for the Child Survival and Development program to understand the government's approach regarding community health extension workers. UNICEF is one of the leading partners of the Ministry of Health in the country.

As a result, UNICEF invited the EA-HPRO and the IMCHA research team in Uganda to attend a meeting with the Ministry of Health and the Rockefeller Foundation on data for community health. In Malawi, a research team developed a collaboration with the Foundation for Innovative New Diagnostics in Geneva, the Burnet Institute in Australia, and Northwestern University in the United States to implement a survey of stakeholders in neonatal care in sub-Saharan Africa and identify key use cases for a neonatal point-of-care sepsis diagnostic.

Output 240: Research teams led by African researchers and decision-makers and Canadian co-PIs are funded

The indicator for this output is:

240.1 Number of IRTs with at least one Canadian researcher, one African researcher, and one African decision-maker

This was 100% met since each research team respected this requirement.

Output 310: Evidence-based policy and practice promoted by IRTs and HPROs

The indicator for this output is:

310.1 Number (and description) of evidence-based policy and practice promoted by IRTs and HPROs

The target was set to a minimum of 1 per research team and HPRO. They accomplished 153. For example, a research team in Tanzania successfully tested a model of maternal, newborn, and child health simulation lab stations in two districts of the Mwanza Region. The evidence was promoted by the regional medical officer as an important way to retain and transfer health provider skills. The districts agreed on plans to sustain the use of the stations. There is also a potential for health providers from nearby districts to visit and learn from the simulation sites. Furthermore, the research team presented the government with a recommendation for the country-wide adoption of hands-on simulation for on-the-job training at a national dissemination meeting that the EA-HPRO organized between the IMCHA research projects in Tanzania and the government.

Output 320: Knowledge translation activities and products targeting relevant local, national, and regional decision-makers conducted

Two indicators were defined to measure this output.

The first indicator is:

320.1 Frequency (by type) of knowledge translation activities (at national and regional levels)

The performance measurement framework does not give a quantifiable measure for this indicator, but it was anticipated that there will be a yearly activity to engage decision-makers at country and regional levels. By the end of IMCHA, the WA-HPRO had organized 196 activities. For example, based on a resolution for the use of evidence that the ministers of health of the ECOWAS region adopted, the HPRO developed a guidebook for the use of evidence. This document is the first of its kind in the sub-region and will serve as a practical tool for decision-makers in their need to use evidence in the formulation or revision of health policies. The guidebook has been shared within the 15 ECOWAS countries. The West African Health Organization trained champions and

is working with them on its finalization and dissemination to decision-makers. In East Africa, the EA-HPRO organized 274 activities, such as convening, in Ethiopia and in Uganda, key stakeholders working in the maternal, newborn, child, and adolescent health sector to validate findings from country-specific equity policy analysis commissioned by the EA-HPRO. The validation workshops facilitated learning, understanding, and an opportunity to foster equity in maternal, newborn, and child health.

The second indicator is:

320.2 Number (by type) of activities organized by HPROs to promote IRT research

The target was to organize at least 1 regional exchange per year. The WA-HPRO organized 35 events, such as the Nigeria Research Days for Maternal Newborn and Child Health in partnership with the Ministry of Health. All three research teams in Nigeria presented their projects and evidence to a wide range of stakeholders. The meeting was such a success that the ministry, understanding the importance of an investment such as IMCHA for Nigeria, took the lead in organizing the second edition. In East Africa, the EA-HPRO organized 22 events, including 2 meetings for Tanzania's research teams to present their work to high-level officials at the Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDEC) and at the President's Office, Regional Administration and Local Government (PO-RALG). The research teams had the opportunity to meet with the MoHCDEC permanent secretary and directors. They also met the director of Health, Social Welfare and Nutrition Services and other health directors from PO-RALG.

4.2. Knowledge translation

As the IMCHA model demonstrates, the initiative was designed with special attention paid to knowledge translation to drive uptake of research evidence into policy and practice. We used a variety of communications targeting a large range of audiences to share lessons and evidence. Knowledge translation activities were conducted by multiple actors, including the research teams, the HPROs, the IMCHA team, and other IDRC staff. Knowledge translation occurred at many levels: community engagements, sub-national and national events, and regional and global gatherings.

We prepared a communications strategy with five objectives:

- Create awareness and visibility for IMCHA with prioritized audiences.
- Communicate clearly the program's value, uniqueness, and positioning.
- Highlight the results achieved with IMCHA funding.
- Highlight the achievements of Canadian researchers and Canadian institutions in the context of IMCHA.
- Work with the media and other opinion influencers to disseminate IMCHA-supported breakthroughs and success stories.

The next sections present the approaches used to achieve the objectives.

4.2.1. ONLINE PLATFORMS

We dedicated two websites to sharing evidence and communication:

- The [IMCHA website](#) housed at IDRC provides an overview of the initiative, accomplishments, and key information about each grant (research teams and HPROs), including the abstract, duration, total funding, PI and Canadian co-PI, and their institutions. We share our communication materials, such as news items, Perspectives pieces, Research in Action articles, reports, stories and videos, journal articles, and the IMCHA newsletter on this website. The website is available in English and French and has been updated regularly.
- The [IMCHA website](#) managed by the EA-HPRO and housed at APHRC started as a way to make widely accessible the communication materials from the EA-HPRO and the research teams in East Africa. It includes the EA-HPRO newsletters, policy briefs, publications, photos, videos, and knowledge translation tools. There was also a smaller number of materials from West Africa. In the last two years of IMCHA, we put a lot of effort into reviewing the website and making it a legacy reference point for both regions.

Several research teams as well as the WA-HPRO featured their IMCHA project and outputs on their institutional websites as well. IMCHA also has visibility on Global Affairs Canada's and CIHR's websites.

4.2.2 Additional online presence

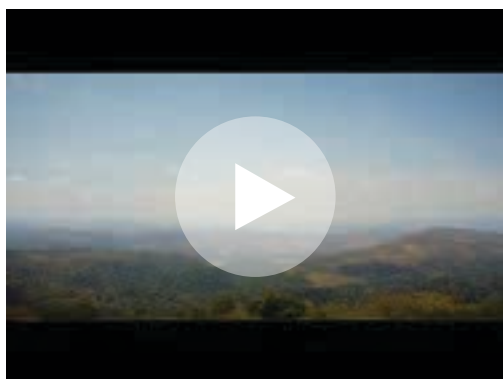
VIDEOS

We produced a series of 32 legacy videos comprised of interviews with research teams, HPROs, donors, the IMCHA team, and IDRC staff. Each of the 19 research teams and 2 HPROs is featured in a 4- to 5-minute segment. The series also includes an 8-minute overview video and 10 videos on cross-cutting themes such as gender equality, quality of services, community engagement, and policy improvement.

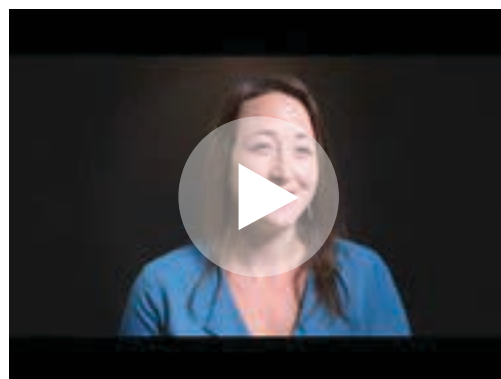
The videos can be viewed in [English](#) and [French](#) on IDRC's IMCHA YouTube playlist and through the EA-HPRO website. Links to selected videos are provided below. A shorter version of each video was developed for use on social media platforms. They have been promoted through Twitter, LinkedIn, and other social media channels.

We featured some videos during events such as the Canadian Partnership for Women and Children's Health Global Health Impact Expo (February 8–10, 2021), the Canadian Conference on Global Health (in 2020 and 2021), and virtual events organized by the IMCHA team or the HPROs. Also, the Canadian Mission in Zimbabwe screened the video of the research project in Senegal at the Francophonie Scientific Research session during the Semaine de la Francophonie (March 15–20, 2021). Some of the cross-cutting videos were featured by the Réseau francophone international pour la promotion de la santé in its newsletter and on their website.

In addition to the legacy videos, our grantees produced and distributed 30 videos separately.



[Overview of the Innovating for Maternal and Child Health in Africa Initiative](#)



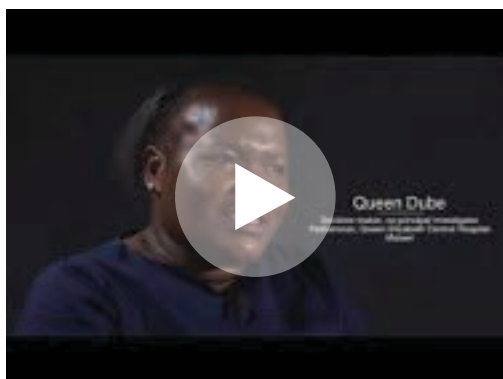
[Making a difference in maternal and child health](#)



[Promoting gender equality](#)



[Promoting equity](#)




[Improving policies for better maternal and child health](#)



[Testimonials from research team members](#)

BLOGS AND ONLINE ARTICLES

Blogs and online articles added to the visibility of the impact of IMCHA. In particular:

- **Canadian Geographic's Charting Change** featured the work of one of the Nigerian research teams in its November/December 2018 issue, in the article [Dramatic delivery](#). The magazine also featured the project in Mozambique in its May 2019 issue: [Designed in Canada, deployed in Mozambique](#).
- The EA-HPRO published three articles in *The Conversation*:
 - » [How Tanzania's spousal escort policy frustrates antenatal healthcare](#)
 - » [Malawi is taking steps to improve care of preterm babies. But gaps remain](#)
 - » [Research sets out key obstacles to maternal health in rural Tanzania](#)
- The EA-HPRO produced several **blog posts**. Also, some research projects were featured in news outlets in their country of implementation.
- **4 Perspectives** pieces were published that presented the authors' insights on specific issues (available in English and French, see [Annex 6](#)).
- **15 Research in Action** articles published that highlighted achievements of IMCHA projects based on specific themes (available in English and French, see [Annex 6](#)).

TWITTER

Since December 2015, IMCHA has developed a strong presence on Twitter, where we promote research activities and knowledge translation events as well as share learning. As of April 30, 2022, [@IMCHA_ISMEA](#) had:

- **2,221 tweets**, with higher peaks of postings associated with periods of high advertising, such as conferences, high-level meetings, or when the Legacy Video series was launched.
- **807 followers**: individuals, research institutions, and NGOs working in maternal, newborn, and child health, global health, or health research. Engagement of followers has increased, with followers retweeting our content and actively engaging with various messages.

GLOBAL HEALTH RESEARCHERS' DIRECTORY

Both at the mid-term and final evaluations, grantees, particularly those based in Africa, expressed the difficulties they face in finding Canadian researchers to partner with in bids to apply to calls for proposals issued by Canadian donors. Some Canadian researchers had the same challenge finding researchers in Africa (or the Global South). They requested assistance in connecting with researchers from Canada and the Global South. In response, during the second no-cost extension, we spearheaded the creation of the [Global Health Researchers' Directory](#) to foster connections and networking and to facilitate equitable collaboration among global health researchers based in Canada and in low- and middle-income countries. The Directory is housed at and maintained by the Canadian Association for Global Health. It was officially launched in March 2022.

4.2.3. Publications

This section highlights infographics, academic publications, literature reviews, country-specific case studies, and other general dissemination materials produced by IMCHA.

4.2.3.1. INFOGRAPHICS

We followed the [Program Overview](#) fact sheet developed in 2014 with an infographic in 2020. The updated document provides an overview of IMCHA's objectives, model, reach and impact; it is available on the IDRC website in [English](#) and [French](#). Grantees produced infographics to showcase specific projects, topics, or regions. Infographics were circulated widely online and at national, regional, and global fora.

4.2.3.2. IMCHA NEWSLETTERS

We produced 14 newsletters to share research findings, demonstrate strategic linkages with local and global priorities, and promote the visibility of research conducted through the initiative. Each newsletter started with an introductory note followed by news items detailing conference participation, highlighting ongoing research, and featuring recent publications. We shared the newsletters with Global Affairs Canada and CIHR. Each newsletter was opened between 20 and 50 times, with subscribership increasing by 64% between 2017 and 2020. The HPROs also established their own newsletters.

4.2.3.3. RESEARCH PUBLICATIONS

[Annex 7](#) lists IMCHA peer-reviewed publications. IMCHA provided a substantial contribution to the field of maternal, newborn, and child health in sub-Saharan Africa. The volume increased over time, especially during the last few years, as more findings from the research projects became available and the research teams worked closely with the HPROs to create strong knowledge translation products. Furthermore, many projects continued writing and submitting manuscripts to peer-reviewed journals months after their projects officially ended. With the second no-cost extension, we were able to cover open-access fees for manuscripts accepted for publication during the extension period from August 2021 to April 2022. This allowed the publication of 12 additional peer-reviewed open-access articles.

The final evaluation recommended that, when feasible, we commission and publish a meta-analysis to document the IMCHA model. While a meta-analysis was not feasible before the end of IMCHA, we published an open-access special edition of the [African Journal of Reproductive Health](#) in June 2021 to provide insight into the IMCHA model and projects' evidence. The issue featured 11 peer-reviewed articles highlighting IMCHA grantees' work and an editorial by the IMCHA team.

We also authored a peer-reviewed open-access article in the *BMC Family Medicine and Community Health Journal* ([Fam Med Community Health](#). 2021; 9(4): e001150), on the IMCHA model and lessons learned that could be applied to building robust and equitable health systems responses and preparedness for epidemics such as COVID-19 while maintaining essential routine services.

4.2.3.4. LITERATURE REVIEWS

We commissioned two literature reviews in 2020 to contribute to the body of knowledge on maternal and child health/sexual and reproductive health rights in sub-Saharan Africa. The first literature review explored high-impact community-based interventions, while the second focused on interventions for facility-based improvements. Both reviews drew from global literature as well as publications centred on sub-Saharan Africa. The reviews identified factors of success and key challenges for the effective scaling of interventions, and, when possible, provided cost implications to inform how decision-makers and practitioners could best spend scarce resources. In addition to filling an important knowledge gap, the reviews were a good resource for informing knowledge translation.

4.2.3.5. CASE STUDIES

Among all countries, Nigeria and Tanzania received the highest number of IMCHA research projects, with 5 projects implemented by 3 research teams in Nigeria, and 10 projects implemented by 6 research teams in Tanzania. In 2021, we commissioned a case study for each country⁷ to explore the overall contribution the IMCHA-supported projects made to maternal and child health/sexual and reproductive health rights policies and practices. The case studies provided insights on the value-added of a critical mass of research projects in a single country on informing national and sub-national policies and practices.

4.2.3.6. RESEARCH DIGESTS

With more and more publications becoming available as evidence was emerging from the projects, we produced four research digests to summarize peer-reviewed publications grouped by topic and with links to the articles. The digests provided an incremental overview of publications in an easy-to-read document. We have shared them with Global Affairs Canada and CIHR, IMCHA grantees, and subscribers to IMCHA newsletters. [Annex 8](#) provides the links to the English and French versions of the research digests.

4.2.3.7. IMPACT BRIEFS

We also produced a series of eight impact briefs. These were two- to four-page synthesis publications designed for the general public to highlight in lay language how specific cross-cutting themes were addressed and some key impacts. [Annex 8](#) provides the links to the English and French versions of the briefs.

4.2.4. Representation at global health events

As findings and evidence mounted, we had more occasions to showcase our work at global events, some of which were organized by or with support from IMCHA. The global shift to virtual events since the start of the COVID-19 pandemic created challenges but also opportunities to expand our visibility, with some participants joining from various countries in Africa, North America, Europe, and Asia. The following sections present key global events that contributed to increasing our visibility.

⁷ The case studies are available online. See [Nigeria](#) and [Tanzania](#).

4.2.4.1. CANADIAN CONFERENCE ON GLOBAL HEALTH

The Canadian Conference on Global Health is the only major annual global health event organized by and held in Canada. Recognizing the importance of this conference, we have provided regular financial support to the Canadian Society for International Health,⁸ the organizing institution, since 2017. Over time, IMCHA's presence grew stronger, with more and more grantees' abstracts approved through peer-reviewed selection for presentations (oral or poster) and symposiums. In the last few years of the initiative, more than 30 people were presenting IMCHA-related work at each conference.

4.2.4.2. Women Deliver conference

Nine IMCHA teams participated in Women Deliver, held on June 3–6, 2019, in Vancouver, Canada. This high-level global conference, with more than 8,000 participants, was an excellent venue for showcasing our work and for participants to connect with other leaders. We held a panel on the importance of women's engagement in innovative research for evidence-informed change. We were also active in other ways, including two digital posters presented, two videos screened, two research teams managing booths, and one research team organizing a side event on digital storytelling.

4.2.4.3. GLOBAL SYMPOSIUMS ON HEALTH SYSTEMS RESEARCH

Since 2016, we have actively participated in each of the biennial symposiums:

- The **fourth edition** was held on November 14–18, 2016, in Vancouver. Five IMCHA research teams participated in a panel entitled "Challenges of improving maternal and child health in Africa: Is innovation the solution?" Also, several IMCHA grantees presented papers and organized panels and satellite sessions.
- The **fifth edition** took place in Liverpool, UK, on October 8–12, 2018. We organized a satellite session on "Improving health outcomes for adolescents in low- and middle-income countries: The importance of gender-responsive health systems." The session brought together researchers, implementers, and donors. A research team organized a skill-building session entitled "'Where there is no researcher': An introduction to qualitative research methods for non-researchers." Several IMCHA grantees participated in various oral and poster presentations.
- The **sixth edition** was held virtually in two phases. The first phase took place on November 8–12, 2020. More than 15 IMCHA grantees presented their work through oral presentations and e-posters. As part of a second phase of the conference, November 2020 to March 2021, we organized a skill-building session on equity in health research on February 10, 2021, where three research teams from Ethiopia, Nigeria, and Tanzania presented.

4.2.4.4. IMCHA FINAL DISSEMINATION EVENTS

We organized three special events under the title "Making the links in Canada and Africa" to disseminate IMCHA findings, with an emphasis on reaching out to stakeholders in Canada. Due to disruptions caused by the COVID-19 pandemic, we switched from in-person gatherings in Western and Eastern Canada to virtual attendance.

⁸ The Canadian Society for International Health amalgamated in 2021 with the Canadian Coalition for Global Health Research to become the Canadian Association for Global Health.

- **Event 1: Making the links in Canada and Africa: Community engagement to improve maternal and child health.** We co-hosted this Western Canada event with the University of Saskatchewan's Department of Pediatrics in Saskatoon. On October 15, 2020, more than 120 researchers, students, health workers, donors, decision-makers, community members, and civil society organization members participated in the three-hour virtual global conference. [Recording of the event](#)
- **Event 2: Making the links in Canada and Africa: Health systems strengthening to improve maternal and child health.** We co-organized the Eastern Canada event with Dalhousie University in Halifax, Nova Scotia. On February 25, 2021, more than 150 global researchers, donors, decision-makers, health workers, and international organizations attended the two-hour virtual conference. [Recording of the event](#)
- **Event 3: Making the links in Canada and Africa: Evidence-informed policies and practices to improve maternal and child health.** We co-hosted the final event with the Canadian Partnership for Women and Children's Health on June 3, 2021, to reach Canadian NGOs and civil society organizations working in the field of international development and global health. A panel of IMCHA grantees discussed the use of evidence for decision-making to improve maternal and child health from the perspective of a Canadian researcher, an African decision maker, an HPRO representative, and a Canadian user of evidence. The webinar was attended by 94 participants. [Recording of the event](#)

All recordings can be found on [IMCHA's YouTube events playlist](#).

4.2.4.5. SYMPOSIUM ON GLOBAL HEALTH AND GENDER CONSIDERATIONS IN THE HUMANITARIAN-DEVELOPMENT NEXUS

Members of two IMCHA research teams participated in the Symposium on Global Health and Gender Considerations in the Humanitarian-Development Nexus, co-organized by IDRC and the Aga Khan Foundation in Ottawa, Canada, on March 12, 2020. This was an opportunity to highlight IMCHA's work in fragile contexts (South Sudan and Northern Uganda) and for research teams to contribute to shaping the discussion about how global health and gender intersect in the humanitarian-development nexus.



IMCHA presence at the Symposium on Global Health and Gender Considerations in the Humanitarian-Development Nexus.

Photo credit: IMCHA

4.2.4.6. CONFERENCES ON CIVIL REGISTRATION AND VITAL STATISTICS

In 2018, the Centre of Excellence for Civil Registration and Vital Statistics (CRVS) Systems convened two international events in Ottawa, Canada. On February 26, around 100 technical experts and policymakers attended the first event, entitled “Making the invisible visible: CRVS as a basis to meeting the 2030 Gender Agenda.” At the second event, on February 27–28, 2018, “Harnessing the power: CRVS systems for the 2030 Global Agenda,” co-hosted by the Centre of Excellence for CRVS Systems, the World Health Organization, and UNICEF, 125 participants discussed the current status and use of innovations and new approaches and technologies in CRVS. The IMCHA team and several grantees participated at both events. In particular, researchers from the IMCHA project in Ethiopia and Mozambique facilitated an innovation lab on modern data analytics. Through these engagements, we contributed to knowledge exchange and the creation of linkages between CRVS and health information systems.

4.2.4.7. WEBINARS HELD IN 2020–2022 DURING THE COVID-19 PANDEMIC

In this section, we highlight selected webinars organized during the COVID-19 disruptions. As in-person meetings were not possible, the research teams, HPROs, and IMCHA team, developed a strong collaboration to embrace virtual gatherings and make this period an intense knowledge translation phase for IMCHA. Some of the webinars held during the COVID-19 pandemic include:

Webinar	Date	Description
Responding to the challenge of adolescent depression	August 26, 2020	IMCHA co-hosted with the Canadian Partnership for Women and Children’s Health, with presentations by the research team from Oyo State, Nigeria.
Accessing maternal and child health services during the COVID-19 epidemic in Mozambique	September 15, 2020	IMCHA organized the webinar, with a presentation by the research team from Mozambique.
Examining effects of user fee abolishment for women and children in Burkina Faso	November 25, 2020	IMCHA organized the webinar, with a presentation by a research team from Burkina Faso.
Replicating Mama na Toto: Barriers and enablers to gender, equity, and scale-up in Tanzania	December 3, 2020	IMCHA organized the webinar, with presentations by a research team spanning Tanzania and Uganda.
Bajenu Gox: A community approach to maternal and child health in Senegal	January 28, 2021	IMCHA organized the webinar, with presentations by the research team from Senegal.
Repeat of IMCHA’s skill-building session at the Global Symposium on Health Systems Research	March 4, 2021	IMCHA organized the webinar, with presentations by research teams from Ethiopia, Nigeria, and Tanzania.
Universal home visits empower households to protect maternal and child health	March 25, 2021	WA-HPRO organized the webinar, with presentations by the research team from Bauchi State, Nigeria.
Optimizing primary health care for skilled maternal healthcare in rural Nigeria	November 26, 2021	WA-HPRO organized the webinar, with presentations by a research team from Edo State, Nigeria.
Learning from the Health Policy and Research Organization’s model for enhanced collaboration between researchers and decision-makers on maternal and child health in West Africa	January 25, 2022	WA-HPRO organized the webinar, with participation by the IMCHA team, the WA-HPRO final evaluation team and the research team in Senegal.

5 PROGRAM GOVERNANCE AND MANAGEMENT



Photo credit: IDRC / Andrew Esiebo

5. PROGRAM GOVERNANCE AND MANAGEMENT

The final evaluation pointed out the complementarity of Global Affairs Canada's, CIHR's, and IDRC's missions as government agencies.

“The partnership allowed the three institutions to go above and beyond what they would be able to achieve on their own, while bringing a unique asset to Canadian researchers and the international research community.”

– IMCHA FINAL EVALUATION TEAM

5.1 Administrative considerations

IMCHA was originally set to close on December 31, 2020. However, IDRC requested two no-cost extensions from Global Affairs Canada:

- **First extension:** On February 10, 2020, IDRC submitted a request for a three-month no-cost extension to March 31, 2021. With the onset of the COVID-19 pandemic (declared on March 11, 2020), the two agencies agreed to extend IMCHA for seven months (to July 31, 2021) to continue documenting and increasing visibility of the IMCHA model and its achievements. The longer extension also allowed us to extend the grants of the research teams and HPROs to catch up on activities delayed by COVID-19 restrictions (see section 6.3). Global Affairs Canada approved the no-cost extension to July 31, 2021 on July 15, 2020.
- **Second extension:** As COVID-19 disruptions continued, IDRC submitted a request for a nine-month, no-cost extension on June 30, 2021. It was granted on July 12, 2021, with a revised end date of April 30, 2022. The focus for the no-cost extension remained on knowledge translation and increased visibility of our achievements.

Although the memorandum of understanding between CIHR and IDRC for IMCHA did not require formal requests to CIHR for approval of no-cost extensions, we always kept CIHR informed of such requests, and they consented to the outcomes.

6 RISK MITIGATION TOOLS AND ANALYSIS



Photo credit: IDRC / Andrew Esiebo

6. RISK MITIGATION TOOLS AND ANALYSIS

From the start, IMCHA placed a strong emphasis on assessing and managing risks. Research teams and HPROs were required to stipulate risks to implementing their activities and state how they planned to mitigate those risks. Below, we explain some of the measures put in place at the IMCHA management level to address challenges as they emerged.

6.1. Technical management

6.1.1. RISK ASSESSMENT AT THE BEGINNING OF THE PROJECTS

The Technical Committee peer-reviewed the proposals received in response to the call related to the research teams' original grants, and the 20 most promising were shortlisted. We then devoted important efforts to working with those teams to finalize their proposals, based on critical review of weaknesses flagged by the reviewers. By the end, one of the research teams was not able to establish a contract due to challenges in coordination between the project partners. Also, after a review of project engagement during and following the IMCHA inception workshop, 2 of the remaining 19 research teams were approved for a two-phase granting process to give them the opportunity to strengthen their research proposals and ensure they could implement the full scope of their interventions over time.

6.1.2. RISK MITIGATION DURING IMPLEMENTATION

In addition to the close monitoring of each project, IMCHA program officers and the HPROs played an active role in addressing areas of concern and maximizing support for project performance. For example, we paid special attention to research teams facing challenges that could jeopardize the good implementation of their projects. When required, we hired independent consultants to assess bottlenecks to improve performance and develop corrective measures with the research team.

Managing risks also involved being flexible in reviewing individual project specificities, developing tailored mitigation strategies, and working with the research teams and HPROs to adjust activities and address unexpected challenges. These challenges included the need for implementation of contingency planning, staff turnover, and changes in government procedures. For example, we supported a research team in Tanzania whose PI died unexpectedly. Another example is the support we provided to a team in Uganda/South Sudan whose implementation plan was disrupted when war broke in South Sudan and the population fled to Uganda to find refuge. In each case, we worked with the team to determine the best way forward and, if necessary, to redesign some of their interventions without losing focus on the overall objectives of the research project.

6.1.3. IMPROVING COLLABORATION BETWEEN HPROs AND RESEARCH TEAMS

The inception workshop identified areas of tension between the HPROs and the research teams due in part to a lack of clearly defined roles for each of these two key components of the IMCHA model. We commissioned a survey in mid-2016 to obtain feedback from the HPROs and the research teams and took corrective steps to improve collaboration between the HPROs and the research teams.

“The HPRO, whose role in our case was only understood late, was outstanding in helping strengthen the research capacity of the project teams and facilitating the process, in our team particularly, of redesigning our implementation plan.”

– RESEARCH TEAM MEMBER, MALAWI

6.2. Administrative and financial management

Before a grant was issued, IDRC Grant Administration Division staff conducted country visits to assess institutional and financial capacity to administer the grant and make recommendations for managing risks. Based on assessments, they conducted capacity-strengthening activities for organizations rated as high risk and moderate risk. Once a grant was issued, a Grant Administration Division staff member was assigned to the project for administrative and financial monitoring and support throughout the life of the grant.

IDRC has a policy of holding back the last payment until the project is completed and all deliverables are submitted and approved. The higher an institution's risk was rated, the higher the holdback. However, this policy can make it challenging for some grantees to pre-fund activities that are critical to the success of the project, such as data analysis and knowledge translation. IDRC is aware that the policy can be a hurdle for some grantees and has demonstrated flexibility in reviewing, case by case, requests from well-performing research teams and reducing the holdback when presented with strong evidence that the project will be completed as expected.

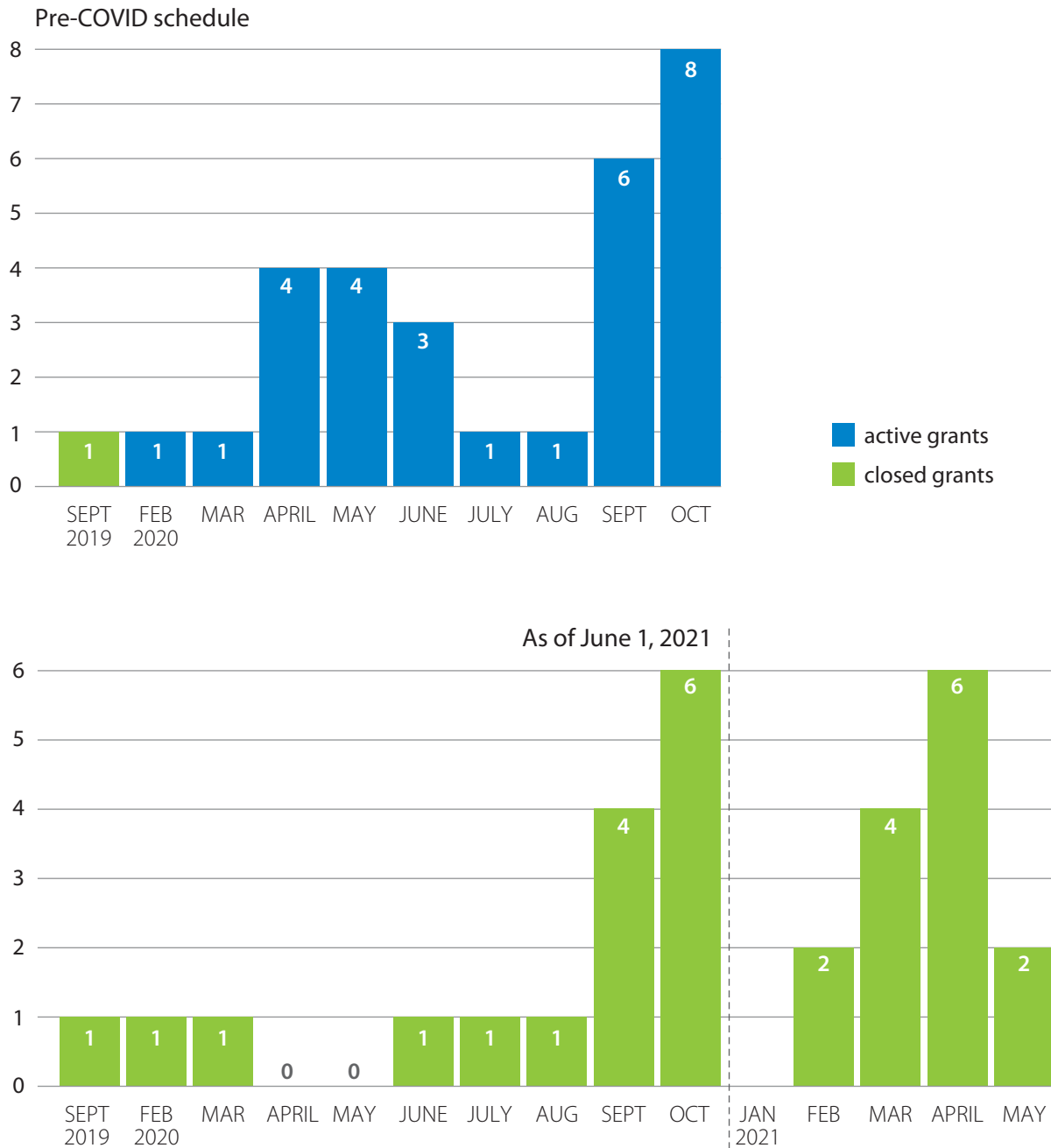
6.3. Impact of the COVID-19 pandemic on the grants

The extension to July 2021 allowed us to continue to be as flexible as possible in responding to the challenges grantees faced in implementing their activities and the disruptions of COVID-19 on their personal lives.

On the technical side, we developed risk assessment and mitigation strategies. We required grantees to provide strong justification for the need for a no-cost extension, backed by a description of what they would accomplish during the extension period. At the same time, we worked with IDRC's Grant Administration Division to ensure that projects' requests for a

no-cost extension were administratively and financially realistic. The Grant Administration Division maintained a comprehensive financial risk management database. This allowed grant administrators and program officers to monitor the grants with a high degree of precision and to work with the grantees to manage their resources optimally. We approved several project extensions on a case-by-case review. Figure 4 illustrates the shift in projects' closing dates. All grants were closed by May 31, 2021.

FIGURE 4: SHIFT IN IMCHA GRANTS' CLOSING DATES DUE TO THE COVID-19 PANDEMIC.



7 CONCLUSION



Photo credit: IDRC / Andrew Esiebo

7. CONCLUSION

While North–South research collaborations and HPRO-like organizations were not new when IMCHA was designed in 2013, we tested a novel model of implementation research that assigned research leadership to African researchers working in collaboration with Canadian researchers and embedded decision-makers as key members of each research team. While changing policies and practices is a long-term goal and takes time to show impact, IMCHA teams promoted and followed up on 153 evidence-based policies and practices in primary healthcare. Many of them were endorsed at the national and subnational levels. Furthermore, the HPROs provided South–South support to the research teams for capacity strengthening and evidence uptake into policy and practice.

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Photo credit: WHO / Blink Media / Gareth Bentley

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ANNEXES



Photo credit: Joy Obuya / APHRC

Annex 1 – List of IMCHA Original and Synergy Research Grants, and HPROs

Research Terms

Grant	Country	Themes addressed*	PI Institution	Canadian co-PI Institution	Start	End	Grant Amount
108020: Quality Improvement for Maternal and Newborn Health at District-level Scale in Mtwara Region	Tanzania	QoC Policy	Ifakara Health Institute	Sick Kids Centre for Global Child Health	10/15	06/20	CAD 980,834
Synergy Grant 108546: Bridging the Know-do Gap Among Healthcare Workers and Decision makers through Improved Routine Measurement of the Quality of Maternal and Newborn Care	Tanzania	QoC Policy	Ifakara Health Institute	Sick Kids Centre for Global Child Health	10/17	02/21	CAD 488,300
108022: An mHealth Strategy to Reduce Preeclampsia-Eclampsia and Maternal and Infant Deaths in Tanzania	Tanzania	Community QoC	Ifakara Health Institute	Queens University	03/16	09/20	CAD 999,350
108023: Integrating Demand and Supply Sides of Health Systems Governance to Improving Maternal, Newborn and Child Health in Tanzania	Tanzania	Community QoC	University of Dar es Salaam	HealthBridge	03/16	03/20	CAD 995,940
108024: Replicating MamaToto in Rural Tanzania	Tanzania	Community QoC Policy	Catholic University of Health and Allied Sciences	University of Calgary	03/16	10/20	CAD 987,800
Synergy Grant 108547: Mama na Mtoto: Barriers and Enablers to Gender, Equity and Scale-up in Tanzania	Tanzania / Uganda	QoC Policy	Catholic University of Health and Allied Sciences, Tanzania / Mbarara University of Science and Technology, Uganda	University of Calgary	10/17	02/21	CAD 487,400
108026: Building an Enhanced Cadre of Community health Workers to Improve Maternal and Newborn Health in Rural Tanzania	Tanzania	Community QoC HRH	Shirati District Hospital	Bruyere Research Institute	09/15	08/20	CAD 944,450
Synergy Grant 108545: Enhancing Community Health Workers Support for Maternal, Adolescent and Newborn Health Project plus Contraception in Rural Tanzania	Tanzania	Community QoC HRH Adolescents FP/SRHR	Tanzanian Training Centre for International Health	Bruyere Research Institute	07/17	03/21	CAD 491,200

Grant	Country	Themes addressed*	PI Institution	Canadian co-PI Institution	Start	End	Grant Amount
108027: Accessing safe deliveries in Tanzania	Tanzania	QoC Policy HRH	Tanzanian Training Centre for International Health	Dalhousie University	Oct. 2015	Jul. 2020	CAD 991,920
Synergy grant 108548: Leadership and managerial capacity strengthening for quality pregnancy and newborn outcomes in Tanzania	Tanzania	HRH	Tanzanian Training Centre for International Health	Dalhousie University	Sep. 2017	Mar. 2021	CAD 492,700
108028: Promoting safe motherhood in Jimma Zone, Ethiopia	Ethiopia	Community	Jimma University	University of Ottawa	Sep. 2015	Mar. 2021	CAD 999,560
108029: Community-based cause of death study linked to maternal and child health programmes and vital statistics in Ethiopia	Ethiopia	Policy QoC	Addis Ababa University	Centre for Global Health Research, St. Michael's Hospital	Jan. 2016	Apr. 2021	CAD 986,896
Synergy grant 108549: Statistical alliance for vital events: strengthening reporting and program uses of facility-based child and maternal mortality data in Ethiopia and Mozambique	Ethiopia / Mozambique	Policy QoC	Addis Ababa University	Centre for Global Health Research, St. Michael's Hospital	Oct. 2017	Apr. 2021	CAD 500,000
108030: Integrating a neonatal healthcare package in Malawi	Malawi	QoC HRH	University of Malawi	University of British Columbia	Feb. 2016	Apr. 2021	CAD 981,153
108031: Improving the standards-based management recognition initiative to provide high quality, equitable maternal health services in Malawi	Malawi	QoC HRH	University of Malawi	University of Alberta	Jan. 2016	Oct. 2020	CAD 999,632
108032: Mother child health Lacor-South Sudan	Uganda / South Sudan	Community QoC HRH	Lacor Hospital, Uganda, and Torit Hospital, South Sudan	Université de Montréal	Oct. 2015	Apr. 2021	CAD 999,660
108033: Incentives and social enterprise models for community health workers	Uganda / South Sudan	Community HRH	BRAC Africa	Cape Breton University	Oct. 2015	Oct. 2020	CAD 997,962
Synergy grant 108550: How can a gender lens enhance maternal and child health social enterprises in Africa?	Uganda / Kenya	Community HRH	BRAC Africa	Cape Breton University	Sep. 2017	Sep. 2020	CAD 487,900

Grant	Country	Themes addressed*	PI Institution	Canadian co-PI Institution	Start	End	Grant Amount
Phase 1 – 108034: Alert Community to Prepared Hospital Care Continuum in Marrere, Mozambique:	Mozambique	Community QoC Policy HRH Adolescents FP/SRHR	Universidade Lurio	University of Saskatchewan	Apr. 2016	Nov. 2016	CAD 126,980
Phase 2 – 108508: Alert community to prepared hospital care continuum					Jan. 2017	Oct. 2020	CAD 843,040
108035: Bajenu Gox: une porte d'entrée pour soutenir une approche communautaire intégrée visant la santé de la mère et de l'enfant	Sénégal	Community Policy HRH FP/SRHR	Université Cheikh Anta Diop de Dakar	Institut national de santé publique du Québec	Aug. 2015	Sep. 2020	CAD 852,400
108037: Des interventions innovantes et réalistes pour améliorer la santé des mères, des nouveau-nés et des enfants en Afrique de l'Ouest	Burkina Faso / Mali	Policy	Société d'Études et de Recherches en Santé Publique, Burkina Faso	Université Laval	Jun. 2015	Sep. 2019	CAD 999,859
Synergy grant 108553: Examen des effets de l'abolition des frais d'utilisateurs pour les femmes et les enfants au Burkina Faso	Burkina Faso	Policy	Société d'Études et de Recherches en Santé Publique, Burkina Faso	Université Laval and Université de Montréal	Oct. 2017	Apr. 2021	CAD 490,300
108038: Financement basé sur les résultats en santé maternelle et infantile et l'équité au Mali et Burkina Faso	Burkina Faso / Mali	Policy	MISELI, Mali	Université de Montréal	Oct. 2015	Apr. 2021	CAD 989,190
108039: Video edutainment at the doorstep: impact on maternal and infant outcomes in Toro Local Authority in Bauchi State, Nigeria	Nigeria	Community Policy	Federation of Muslim Women's Associations, Nigeria	McGill University	Aug. 2015	Sep. 2020	CAD 943,520
Synergy grant 108551: Synergies in video edutainment: child spacing and regional training for rollout in Bauchi	Nigeria	Community	Federation of Muslim Women's Associations, Nigeria	McGill University	Sep. 2017	Mar. 2021	CAD 484,700

Grant	Country	Themes addressed*	PI Institution	Canadian co-PI Institution	Start	End	Grant Amount
108040: Scaling up care for perinatal depression for improved maternal and infant health in Nigeria	Nigeria	Community QoC	University of Ibadan	Jewish General Hospital, Montreal	Aug. 2015	Feb. 2020	CAD 999,400
Synergy grant 108552: Responding to the challenge of adolescent perinatal depression	Nigeria	Community QoC Adolescents	University of Ibadan	Jewish General Hospital, Montreal	Oct. 2017	Oct. 2020	CAD 401,600
108041: Increasing women's access to skilled pregnancy care in Nigeria	Nigeria	Community QoC	Women's Health and Action Research Centre, Nigeria	University of Ottawa	Nov. 2015	Oct. 2020	CAD 999,880

GLOSSARY

Community = High impact community based maternal, newborn, and child health intervention

QoC = Quality facility based maternal, newborn, and child health interventions

Policy = Policy environment to improve maternal, newborn, and child healthcare services and outcomes

HRH = Human resources for maternal, newborn, and child health

Health Policy and Research Organization (HPRO)

Grant	Country	PI Institution	Start	End	Grant Amount
107892: Moving maternal, newborn, and child health evidence into policy in West Africa	West Africa, Burkina Faso	West African Health Organization (WAHO)	Nov. 2014	May 2021	CAD 2,600,000
107893: Moving maternal, newborn, and child health evidence into policy in East Africa	East Africa	African Population and Health Research Centre (APHRC) (Kenya) working in collaboration with: <ul style="list-style-type: none"> Partners in Population and Development (PPD) (Uganda) East, Central and Southern African Health Community (ECSA) (Tanzania) 	Nov. 2014	May 2021	CAD 2,600,000

Annex 2 – IMCHA logic model

Health Policy and Research Organization (HPRO)

Project Title	Innovating for Maternal and Child Health in Africa		Project No.	7060273	Implementing Organization	IDRC
Country/Region	Sub-Saharan Africa		Budget	CAD36,000,000	Duration	2014–2022
ULTIMATE OUTCOME	Improved maternal, newborn, and child health outcomes in targeted countries. ⁹					
INTERMEDIATE OUTCOMES	1. Enhanced production, analyses, and syntheses of health systems implementation research prioritizing gender and equity. ¹⁰	2. Enhanced partnering and collaboration between decision-makers and researchers on health systems strengthening in the selected ¹¹ countries. ¹²	3. Enhanced integration of health systems research findings into primary healthcare policies and practice in selected countries.			
IMMEDIATE OUTCOMES	100. Strengthened capacity of researchers and research organizations to conduct gender and equity informed health systems implementation research.	200. Strengthened partnerships and alliances between African researchers, decision-makers, and Canadian researchers.	300. Increased awareness and understanding of research evidence by decision-makers at the primary healthcare level.			
OUTPUTS	110. Funding provided to IRTs to conduct policy relevant gender and equity sensitive health systems implementation research. 120. Funding provided to research teams that include emerging researchers. 130. Synergistic research opportunities ¹³ identified and supported. 140. Training, networking, and exchanges of HPROs and IRTs is undertaken to strengthen the capacity of organizations funded through IMCHA.	210. Collaborative mechanisms established between IRTs and HPROs. 220. HPROs and IRTs facilitate regional and national decision-makers to engage in IMCHA implementation research. 230. Linkages formed outside of the IMCHA initiative by HPROs and IRTs with like-minded organizations. 240. Research teams lead by African researchers and decision-makers and Canadian co-PIs are funded.	310. Evidence-based policy and practice promoted by IRTs and HPROs. 320. Knowledge translation activities and products targeting relevant local, national, and regional decision-makers conducted.			

9 The IMCHA initiative is not responsible for reporting on the ultimate outcome. Many factors outside the scope of activities in this initiative will contribute to health outcomes in the targeted countries.

10 The theory of change in this column is that by doing research, individuals and institutions will gain research skills. This, in turn, leads to stronger analyses and syntheses.

11 Selected countries include the target countries and additional countries where IRTs and HPROs work.

12 Intermediate outcomes 2 and 3 are closely linked. It is understood that intermediate outcome 2 (relationships between researchers and decision-makers) contributes to intermediate outcome 3 (integration of research into policy and practice).

13 The synergy grants will fill research gaps that the IRTs do not cover, and/or will build on the funded implementation research. HPROs will work with decision-makers, researchers, and IDRC to identify relevant topics for health systems research on maternal newborn and child health that will complement the portfolio of research being done by the Implementation Research Teams. The focus will continue to be policy relevance and potential for impact. Given the regional mandate of HPROs and in the spirit of working in Sub-Saharan Africa as a whole, research taking place in any country or countries in the region will be eligible.

Activities

IMCHA <ul style="list-style-type: none"> • Strategic program design to support capacity strengthening efforts. • Ongoing support to HPROs and IRTs to maximize health systems, gender, and equity-based implementation research. • Grants and synergy grants prioritized and funded with analysis of composition of institutions represented. 	IMCHA <ul style="list-style-type: none"> • Strategic program design informing partnership and collaboration at country, regional, and global levels. • Enhance partnership and collaboration opportunities for HPROs and IRTs with technical committee members and other stakeholders. • 240.1 Ensure and support the collaboration between Canadian researchers, African researchers, and African decision-makers. 	IMCHA <ul style="list-style-type: none"> • Strategic program design supporting integration of research into policy and practice. • Ensure support to HPROs and IRTs to maximize uptake of research into policy and practice platforms. • Augment and maximize knowledge translation opportunities for HPROs and IRTs.
HPROs <p>100.3 Strengthen situational analysis and synthesis of health systems implementation research.</p> <p>130.1 HPROs identify synergy research opportunities.</p> <p>140.1 Training of IRTs and other stakeholders undertaken and completed.</p> <p>140.2 Networking and exchange opportunities supported and tracked.</p>	HPROs <p>210.1 HPROs to maximize communication and support with IRTs.</p> <p>230.1 Establish strategic connections for HPROs and IRTs with organizations outside of IMCHA.</p>	HPROs <p>300.2 Recommendations from formative analysis acted upon.</p> <p>310.1 HPROs work with relevant stakeholders to build and support evidence-based policy and practice.</p> <p>320.1 / 320.2 Knowledge translation activities are conducted targeting relevant national and regional decision-makers.</p>
IRTs <p>110.1 Conduct policy relevant gender sensitive health system implementation research using primary health care as an entry point.</p> <p>120.2 IRTs involve emerging researchers.</p> <p>130.1 IRTs identify synergy research opportunities.</p> <p>140.1 Training of IRTs and other stakeholders undertaken and completed.</p> <p>140.2 Networking and exchange opportunities supported and tracked.</p>	IRTs <p>200.1 Maximize collaboration and expertise among members of the implementation research team.</p> <p>220.1 Establish ongoing linkages with appropriate decision-makers.</p> <p>230.1 Establish strategic connections for HPROs and IRTs with organizations outside of IMCHA.</p>	IRTs <p>300.1 Maximize sharing of evidence and uptake by decision-makers and other stakeholders.</p> <p>310.1 Promote sharing of evidence for influence on policy and practice.</p> <p>320.1 Knowledge translation activities are conducted targeting relevant local and national stakeholders.</p>

GLOSSARY

MNCH = Maternal, newborn, and child health
IRTs = Implementation Research Teams

IMCHA = Innovating for Maternal and Child Health in Africa
HPROs = Health Policy and Research Organizations

Annex 3 – Performance measurement framework (PMF)

Project Title	Innovating for Maternal and Child Health in Africa	Project No.	7060273	Implementing Organization	IDRC
Country/Region	Sub-Saharan Africa	Budget	CAD36,000,000	Duration	2014–2022

Indicators	Indicator definitions	Baseline data	Targets	Data sources	Data collection methods	Frequency	Responsibility
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EXPECTED RESULT: ULTIMATE OUTCOME

Improved maternal, newborn, and child health outcomes in targeted countries

Proportion of funded implementation research that improved maternal and child health outcomes and access to primary health care services	Any of the 11 accountability indicators improved ^{14*}	Coverage of indicator at baseline	50% of the implementation research demonstrates improvement in any of the 11 accountability indicators	HIS / project baseline / post-intervention survey	Document review and interviews	Summative evaluation	IDRC
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14 Eleven indicators on MNCH from the Commission on Information and Accountability:

https://apps.who.int/iris/bitstream/handle/10665/44770/9789241502818_eng.pdf;sequence=1

1. Maternal mortality ratio (deaths per 100,000 live births)
2. Under-5 child mortality, with the proportion of newborn deaths (deaths per 1,000 live births)
3. Children under 5 who are stunted (percentage of children under 5 years of age whose height for age is below minus 2 standard deviations from the median of the WHO Child Growth Standard)
4. Met need for contraception (proportion of women aged 15–49 who are married or in a union and who have met their need for family planning, i.e., who do not want any more children or want to wait at least two years before having a baby, and are using contraception)
5. Antenatal care coverage (percentage of women aged 15–49 with a live birth who received antenatal care by a skilled health provider at least four times during pregnancy)
6. Antiretroviral prophylaxis among HIV-positive pregnant women to prevent vertical transmission of HIV, and antiretroviral therapy for women who are treatment eligible
7. Skilled attendant at birth (percentage of live births attended by skilled health personnel)
8. Postnatal care for mothers/babies (percentage of mothers and babies who receive first visit within two days of birth)
9. Exclusive breastfeeding for six months (percentage of infants aged 0–5 months who are exclusively breastfed)
10. Three doses of the combined diphtheria/pertussis/tetanus vaccine (DPT) (percentage of infants aged 12–23 months who received three doses of DPT vaccine)
11. Antibiotic treatment for suspected pneumonia (percentage of children aged 0–59 months with suspected pneumonia receiving antibiotics)

Indicators	Indicator definitions	Baseline data	Targets	Data sources	Data collection methods	Frequency	Responsibility
EXPECTED RESULT: INTERMEDIATE OUTCOMES							
1. Enhanced production, analyses, and synthesis of health systems implementation research prioritizing gender and equity							
1.1 Proportion of total projects that have at least 75% (3 of 4 processes) adequate gender and equity dimensions	Review of research design, data collection tools, data analysis, and dissemination tools that appropriately integrate gender and equity dimensions	0	All research projects have > 75% (3 of 4 processes) adequate gender and equity dimensions	Proposal, implementation plan, data collection tools, data analysis, and dissemination reports	Formative and summative evaluation by gender expert review of documents / processes	Formative and summative evaluation	IDRC
1.2 Proportion of health systems research outputs and syntheses that are gender and equity focused	Nature of contribution of the IRT research to the field ¹⁵	0	75% of outputs include gender and equity focused analysis / synthesis	Interviews and document reviews	Summative evaluation / expert opinion	Summative evaluation	IDRC
2. Enhanced partnering and collaboration between decision- makers and researchers on health systems strengthening in the selected¹⁶ countries / regions							
2.1 Number of total projects per country that demonstrate a high level of collaboration with decision-makers (documented by project, country, and regional levels)	Documentation of best practices or stories of effective collaborations as a result of IMCHA at country or regional levels (with the national focal point for MNCH)	Baseline of collaboration identified in proposals	Minimum of one per country	Document review with qualitative and quantitative sources	Formative and summative evaluation	Formative and summative evaluation	IDRC

¹⁵ Contributions could include information sharing and dissemination (reports, journal articles, policy briefs, practitioner tools, workshops, conferences, seminars, radio programs, films, interviews, websites, CD-ROMs, etc.). It could also include creation of new knowledge embodied in forms other than publications or reports (new technologies, new methodologies, new curricula, new policies).

¹⁶ Selected countries refers to the target countries, additional countries, and regions where IRTs and HPROs work.

Indicators	Indicator definitions	Baseline data	Targets	Data sources	Data collection methods	Frequency	Responsibility
3. Enhanced integration of health systems research findings into primary healthcare policies and practice in selected countries							
3.1 Number (type) of influence of IMCHA research projects on policy and programming per project	Includes documentation (formal and informal) of reference to research findings / recommendations in country-led technical decision-making platforms (refer to footnote 2 for range of contributions)	0	20	IRT reporting and monitoring, formative and summative evaluation	Document review, key informant interviews with decision-makers	Formative and summative evaluation	IDRC
EXPECTED RESULT: IMMEDIATE OUTCOMES							
100. Strengthened capacity of researchers and research organizations to conduct gender and equity informed health systems implementation research							
100.1 Proportion of total research projects that have adequately detailed gender and equity dimensions	As determined by technical review (expert opinion) of gender and equity dimensions in the research design, tools, and analysis	0	75% of research projects have adequate mechanisms identified to support gender and equity analysis	Proposal and implementation plan	Summative evaluation / expert review against proposals and implementation plans	Supporting summative evaluation	IDRC
100.2 Proportion of recommendations from formative analysis of HPROs acted upon	Based on tracking of recommendations and follow up actions	Recommendations from organizational assessment / formative review	> 75% of total recommendations acted on	Document review, interviews, and HPRO report	Formative evaluation / review of documents and annual HPRO reports	Annually	HPROs
200. Strengthened partnerships and alliances between African researchers, decision-makers, and Canadian researchers							
200.1 Proportion of implementation research projects that demonstrate effective collaboration and management	Reflects quality of engagement among implementation research team members and stakeholders against objectives and outcomes of research projects	0	75% of research projects demonstrate good practices in governance and coordination	Document and interviews	Expert review of documents and interviews	Summative evaluation	IDRC

Indicators	Indicator definitions	Baseline data	Targets	Data sources	Data collection methods	Frequency	Responsibility
300. Increased awareness and understanding of research evidence by decision-makers at the primary healthcare level							
300.1 Proportion of IRT decision-makers follow-up on recommendations from research into health systems planning forum(s)	The focus of this engagement will be detailed in the implementation plan and will have formal or informal outputs documented (see footnote 2 for description of new knowledge)	0	100% of decision-makers follow up on recommendations from research	Implementation plan, IRT reports, and summative evaluation	IRT reports and interviews with decision-makers	Annual and summative evaluation	IRTs/IDRC
EXPECTED RESULT: OUTPUTS							
110. Funding provided to IRTs to conduct policy relevant gender and equity sensitive health systems implementation research							
110.1 Number (and title) of health systems analysis and synthesis that is gender and/or equity focused produced by IRTs	Analyses and syntheses include peer-review and working papers produced	0	20	IRT reports and analysis	Document review	Annually	IRTs
120. Funding provided to research teams that include emerging researchers							
120.1 Number of funded IRTs housed in research institutions	Based on type of organizations in funded research	0	20	Proposal	Document review	Baseline for grants in IMCHA initiative	IDRC
120.2 Number of emerging researchers involved in the IRT research	Emerging researchers include students and those who are relatively new to the health systems field (<5 years pursuing research agenda from most recent qualifying degree) In reporting template – masters, PhD, post-doctoral, new investigators	Based on the proposals received	35	IRT reports	Document review	Annually	IRTs

Indicators	Indicator definitions	Baseline data	Targets	Data sources	Data collection methods	Frequency	Responsibility
130. Synergistic research opportunities identified and supported.							
130.1 Number of synergistic research opportunities ¹⁷ identified and funded	Number of grants submitted and funded per region and source of origin	WA: Low EA: Low	WA: 3 funded EA: 3 funded	Submissions of concept notes / proposals	Document review	2016 2017 2018	IRTs and HPROs
140. Training, networking, and exchanges of HPROs and IRTs is undertaken to strengthen the capacity of organizations funded through IMCHA							
140.1 Number of individuals who received training / networking and exchange opportunities (by type and by participant) ¹⁸	Differentiated by IRT and HPRO in East Africa / West Africa (by type of training and by type of participant) ¹⁸	0	40	IRT and HPRO reports	Document review	Annually	IRTs and HPROs
140.2 Number of networking and exchange opportunities supported through IMCHA	Differentiated by who is funding exchange and who is supported in exchange (number and type)	0	10	IRT and HPRO reports	Document review	Annually	IRTs and HPROs
210. Collaborative mechanisms established between IRTs and HPROs							
210.1 Number of types of communication between IRTs and HPROs	Communication may include Skype, phone, email, and in-country visits (formal and informal). Needs to document substantive issues.	0	Quarterly contact	HPRO reports	Document review	Annually	HPROs

¹⁷ HPROs will work with decision-makers, researchers, and IDRC to identify relevant topics for health systems research on maternal, newborn, and child health that will complement the portfolio of research being done by the IRTs. The focus will continue to be policy relevance and potential for impact. The synergy grants will fill research gaps that the Implementation Research Teams do not cover, and/or will build on the funded implementation research. Having HPROs work with researchers and decision-makers to develop policy relevant research topics and proposals means that ideas will be developed iteratively, with feedback from early stages, to ensure high-quality research. Given the regional mandate of HPROs and in the spirit of working in Sub-Saharan Africa as a whole, research taking place in any country or countries in the region will be eligible.

¹⁸ Training could include short-term training, internships or fellowships, training seminars and workshops, thesis supervision, etc.

Indicators	Indicator definitions	Baseline data	Targets	Data sources	Data collection methods	Frequency	Responsibility
220. HPROs and IRTs facilitate regional and national decision-makers to engage in IMCHA implementation research							
220.1 Number of new partnerships / collaborations between decision-makers and researchers on health systems strengthening	Formal or informal collaborations with MOU or supporting documents with aggregation per country and per region	0	20	IRT and HPRO reporting and monitoring	Monitoring reports	Annually	IRTs and HPROs
220.2 Number of existing partnerships / collaborations enhanced between decision-makers and researchers on health systems strengthening	Supporting documentation for change in collaboration – formal or informal per country and per region	0	15	IRT reporting and monitoring	Monitoring reports	Annually	IRTs
230. Linkages formed outside of the IMCHA initiative by HPROs and IRTs with like-minded organizations							
230.1 Number of times HPROs and/or IRTs established connections with organizations outside of IMCHA	Formal linkages with supporting documents or description of engagement (i.e., minutes of meeting, agenda, and email). To be aggregated for East and West Africa (and as appropriate by country).	Zero timeline would be when grants are established – linkages may be identified in proposal	Number not defined – to track cumulative efforts	Proposals, implementation plans, and IRT and HPRO reports	Documents reviewed	Annually	HPROs and IRTs
240. Research teams led by African researchers, decision-makers, and Canadian co-PIs are funded							
240.1 Number of IRTs with at least one Canadian researcher, one African researcher, and one African decision-maker	Review the status of PI, co-PI, and decision-makers against the criteria in the call for proposals	Baseline would be represented in proposal and related documents	100% aligned representation	Proposals, any related communication on change in IRT core members	IDRC monitoring and document review	Annually	IRTs and IDRC

Indicators	Indicator definitions	Baseline data	Targets	Data sources	Data collection methods	Frequency	Responsibility
310. Evidence-based policy and practice promoted by IRTs and HPROs							
310.1 Number and description of evidence-based policy and practice promoted by IRTs and HPROs (for East and West Africa)	Documentation (formal or informal) of examples of evidence-based policy and practice promoted at country or regional level	Baseline period at start of grant	Minimum of 1 per research project funded	Monitoring visits and reports from IRTs and HPROs	IDRC monitoring and document review	Annually	IRTs, HPROs, and IDRC
320. Knowledge translation activities and products targeting relevant local, national, and regional decision-makers conducted							
320.1 Frequency (by type) of knowledge translation activities (at national and regional levels)	Knowledge translation activities are defined as any purposeful engagement of decision-makers. This can be formal and informal	EA: 0 per year WA: 0 per year	Yearly exchange at country and regional levels	IRT and HPRO reports	Document review and IDRC monitoring	Annually	IRTs, HPROs, and IDRC
320.2 Number (by type) of activities organized by HPROs to promote IRT research	Activities reported here may overlap with the connections reported under 320.1 and 230.1, but are expected to measure a distinct aspect of HPRO support	EA: 0 per year WA: 0 per year	1 or more regional exchange platforms per year	HPRO reports	Document review	Annually	HPROs

GLOSSARY

MNCH = Maternal, newborn, and child health
 IRTs = Implementation Research Teams
 EA = East Africa

IMCHA = Innovating for Maternal and Child Health in Africa
 HPROs = Health Policy and Research Organizations
 WA = West Africa

Annex 4 – Outcome reporting worksheet

(Source¹⁹ : hera, 2020)

Project Title	Innovating for Maternal and Child Health in Africa	Project No.	7060273	Implementing Organization	IDRC
Country/Region	Sub-Saharan Africa	Budget	CAD36,000,000	Duration	2014–2022

Indicators	Baseline	Target	Actual cumulative data	Analysis of progress / variance
ULTIMATE OUTCOME				
Improved maternal, newborn, and child health outcomes in targeted countries				
Proportion of funded implementation research that improved maternal and child health outcomes and access to primary healthcare services	Coverage of indicator at baseline	50% of the implementation research demonstrates improvement in any of the 11 accountability indicators	Project contributions or potential contributions to improved maternal and child health outcomes could not be measured directly for many projects, but the projects provided sufficient information to infer such contributions	The target was met
INTERMEDIATE OUTCOMES				
1. Enhanced production, analyses, and syntheses of health systems implementation research prioritizing gender and equity				
1.1 Proportion of total projects that have at least 75% (3 of 4 processes) adequate gender and equity dimensions	0	All research projects have > 75% (3 of 4 processes) adequate gender and equity dimensions	15/28 projects (54%) integrated adequate gender dimensions, and 7/28 (25%) adequate equity dimensions in at least 3 research processes	The target was not met
1.2 Proportion of health systems research outputs and syntheses that is gender and equity focused	0	75% of outputs include gender and equity focused analysis/ synthesis	Research outputs, including gender and equity analyses, were still being generated at the time of the evaluation. Among 98 outputs from 22 projects that were available for analysis, 44 (46%) included a gender focus and 21 (22%) an equity focus.	The target is not likely to be met

¹⁹ Insights into the achievement of higher-level results were provided by the IMCHA summative evaluation. However, with the NCEs due to the COVID-19 pandemic, activities to foster uptake of evidence into policy and practice continued post-evaluation, contributing to further, but unmeasured, progress toward reaching the highest-level indicators.

Indicators	Baseline	Target	Actual cumulative data	Analysis of progress / variance
2. Enhanced partnering and collaboration between decision-makers and researchers on health systems strengthening in the selected²⁰ countries/regions				
2.1 Number of total projects per country that demonstrate a high level of collaboration with decision-makers (documented by project, country, and regional levels)	Baseline of collaboration identified in proposals	Minimum of one per country	The indicator as defined was not assessed	The decision-maker is defined as the 'national focal point for MNCH'. Most projects communicated their activities and preliminary results at this level, but for others, this was not the main respondent at national government level.
3. Enhanced integration of health systems research findings into primary healthcare policies and practice in selected countries				
3.1 Number (type) of influence of IMCHA research projects on policy and programming per project	0	20	The target of 20 was already reached. All sampled projects had made presentations of research results in national fora, and most had plans for further discussions once final research results were available.	The target was likely met

IMMEDIATE OUTCOMES

100. Strengthened capacity of researchers and research organizations to conduct gender and equity informed health systems implementation research

100.1 Proportion of total research projects that have adequately detailed gender and equity dimensions	0	75% of research projects have adequate mechanisms identified to support gender and equity analysis	<p>95% of projects analyzed at the summative evaluation included data collection plans or tools for gender analysis and 35% for equity analysis.</p> <p>82% of projects with outputs analyzed at the summative evaluation produced at least 1 output that included a gender dimension and 23% included an equity dimension.</p>	<p>Sufficient information on research design and research tools to address gender and equity was available for 20/28 projects.</p> <p>Outputs from 22/28 projects were available for analysis. However, in interviews, several PIs stated that they were conducting or planning additional analyses. A final assessment of performance against this indicator was therefore not possible.</p>
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²⁰ Selected countries refers to the target countries, additional countries, and regions where IRTs and HPROs work.

Indicators	Baseline	Target	Actual cumulative data	Analysis of progress / variance
100.2 Proportion of recommendations from the formative analysis of HPROs acted upon	Recommendations from organizational assessment / formative review	> 75% of total recommendations acted on	All recommendations that were actionable by HPROs were acted on by the HPROs except for the recommendation on equity training	The 46 recommendations and sub-recommendations of the formative research reports commissioned by HPROs include recommendations that are either not relevant or not actionable
200. Strengthened partnerships and alliances between African researchers, decision-makers, and Canadian researchers				
200.1 Proportion of implementation research projects that demonstrate effective collaboration and management	0	75% of research projects demonstrate good practices in governance and coordination	<p>The collaboration between African and Canadian researchers was rated as successful by 74% of African and 73% of Canadian researchers.</p> <p>In all sampled projects, there was regular information exchange between PIs and decision-maker co-PIs.</p> <p>Communication between Canadian researchers and decision-maker co-PIs was rare, possibly due to less regular engagement.</p>	This indicator is a compound indicator because the outcome focuses on cooperation among three partners. Also, the indicator refers to project management while the target only refers to project governance.
300. Increased awareness and understanding of research evidence by decision-makers at the primary healthcare level				
300.1 Proportion of IRT decision-makers that follow up on recommendations from research into health systems planning forum(s)	0	100% of decision-makers follow up on recommendations from research	All decision-maker co-PIs interviewed, except one who was recently appointed, stated that they followed up on evidence generated by their project	<p>Among the 29 current and former decision-maker co-PIs who were invited to the online survey, only 5 responded (17%), and only 8/11 decision-maker co-PIs of sampled projects (73%) were available for interviews. They followed up mostly by presenting in policy fora and discussions.</p> <p>More follow-up was expected when final project documentation of evidence was available. The target of 100% reach could therefore not be confirmed.</p>

Annex 5 – Outputs reporting worksheet

(Source: Project technical reports)

Project Title	Innovating for Maternal and Child Health in Africa				Project No.	7060273		Implementing Organization	IDRC		
Country/Region	Sub-Saharan Africa				Budget	CAD36,000,000		Duration	2014–2022		
Indicators	Definition	Baseline	Actual data ²¹							End of project target	End of project actual total
			2015–2016	2016–2017	2017–2018	2018–2019	2019–2020	2020–2021	2021–2022		
110. Funding provided to IRTs to conduct policy relevant gender and equity sensitive health systems implementation research											
110.1 Number (and title) of health systems analysis and synthesis that is gender and/ or equity focused produced by IRTs	Analyses and syntheses include peer-review and working papers produced	0	2	10	20	27	49	12	33	20	153
120. Funding provided to research teams that include emerging researchers											
120.1 Number of funded IRTs housed in research institutions	Based on type of organizations in funded research	0	19	0	0	0	19	19	19	20	19
120.2 Number of emerging researchers involved in the IRT research	Emerging researchers include students and those who are relatively new to the health systems field (<5 years pursuing research agenda from most recent qualifying degree). In reporting template – Master’s, PhD, post-doctoral, new investigators.	Based on the proposals received	26	34	33	97	94	20	13	35	317

²¹ All research projects were closed by May 2021

Indicators	Definition	Baseline	Actual data ²¹							End of project target	End of project actual total
			2015–2016	2016–2017	2017–2018	2018–2019	2019–2020	2020–2021	2021–2022		
130. Synergistic research opportunities ²² identified and supported											
130.1 Number of synergistic research opportunities identified and funded	Number of grants submitted and funded per region and source of origin	WA: Low EA: Low	N.P.	N.P.	N.P.	WA: 5 EA: 7	WA: 6 EA: 2	WA: 2 EA: 1	WA: 0 EA: 0	WA: 3 EA: 3	WA: 13 EA:10
140. Training, networking, and exchanges of HPROs and IRTs is undertaken to strengthen the capacity of organizations funded through IMCHA											
140.1 Number of individuals who received training/net-working and exchange opportunities (by type and by participant)	Differentiated by IRT and HPRO in East Africa/West Africa (by type of training and by type of participant) ²³	0	43	64	62	701	533	170	89	40	1,662
140.2 Number of networking and exchange opportunities supported through IMCHA	Differentiated by who is funding the exchange and who is supported in the exchange (number and type)	0	14	18	29	34	40	7	25	10	167
210. Collaborative mechanisms established between IRTs and HPROs											
210.1 Number of types of communication between IRTs and HPROs	Communication may include Skype/phone/email and in-country visits (formal and informal). Needs to document substantive issues.	0	WA: 3 EA: 3	WA: 4 EA: 4	WA: 4 EA: 4	WA: 7 EA: 17	WA:6 EA: 13	WA:19 EA: 30	WA: 35 EA: 44	Quarterly contact	WA: 78 EA: 115

22 HPROs will work with decision-makers, researchers, and IDRC to identify relevant topics for health systems research on maternal newborn and child health that will complement the portfolio of research being done by the IRTs. The focus will continue to be policy relevance and potential for impact. The synergy grants will fill research gaps that the IRTs do not cover, and/or will build on the funded implementation research. Having HPROs work with researchers and decision-makers to develop policy relevant research topics and proposals means that ideas will be developed iteratively, with feedback from early stages, to ensure high-quality research. Given the regional mandate of HPROs and in the spirit of working in Sub-Saharan Africa as a whole, work in the entire region or research taking place in any country or countries in the region will be eligible.

23 Training could include short-term training, internships or fellowships, training seminars and workshops, thesis supervision, etc.

Indicators	Definition	Baseline	Actual data ²¹							End of project target	End of project actual total
			2015–2016	2016–2017	2017–2018	2018–2019	2019–2020	2020–2021	2021–2022		
220. HPROs and IRTs facilitate regional and national decision-makers to engage in IMCHA implementation research											
220.1 Number of new partnerships/ collaborations between decision-makers and researchers on health systems strengthening	Formal or informal collaborations with MOU or supporting documents with aggregation per country and per region	0	N.P.	10	12	24	33	1	17	20	97
220.2 Number of existing partnerships/ collaborations enhanced between decision-makers and researchers on health systems strengthening	Supporting documentation for change in collaboration – formal or informal per country and per region	0	N.P.	N.P.	4	5	6	0	0	15	15
230. Linkages formed outside of the IMCHA initiative by HPROs, IRTs with like-minded organizations											
230.1 Number of times HPROs and/or IRTs established connections with organizations outside of IMCHA	Formal linkages with supporting documents or description of engagement (i.e., minutes of meeting, agenda, email). To be aggregated for East and West Africa (and as appropriate by country).	Zero timeline would be when grants are established – linkages may be identified in proposal	23	17	27	19	24	15	17	Number not defined – to track cumulative efforts	142
240. Research teams lead by African researchers and decision-makers and Canadian co-PIs are funded											
240.1 Number of IRTs with at least one Canadian researcher, one African researcher and one African decision-maker	Review the status of PI, co-PI, and decision-maker against the criteria in the call for proposals	Baseline would be represented in proposal and related documents	95%	95%	95%	100%	100%	100%	100%	100% aligned representation	100%

Indicators	Definition	Baseline	Actual data ²¹							End of project target	End of project actual total
			2015–2016	2016–2017	2017–2018	2018–2019	2019–2020	2020–2021	2021–2022		
310. Evidence-based policy and practice promoted by IRTs and HPROs											
310.1 Number (and description) of evidence-based policy and practice promoted by IRTs and HPROs (for East and West Africa)	Documentation (formal or informal) of example of evidence-based policy and practice promoted at country or regional level	Baseline period at start of grant	N.P.	3	3	59	69	8	11	Minimum of 1 per research project funded	153
320. Knowledge translation activities and products targeting relevant local, national, and regional decision-makers conducted											
320.1 Frequency (by type) of knowledge translation activities (at national and regional levels)	Knowledge translation activities are defined as any purposeful engagement of decision-makers – this can be formal and informal	EA: 0 per year WA: 0 per year	WA: 8 EA: 2	WA: 4 EA: 4	WA: 7 EA: 8	WA: 50 EA: 48	WA: 67 EA: 119	WA: 19 EA: 41	WA: 41 EA: 52	Yearly exchange at country and regional levels	WA: 196 EA: 274
320.2 Number (by type) of activities organized by HPROs to promote IRT research	Activities reported here may overlap with the connections reported on under 320.1 and 230.1, but are expected to measure a distinct aspect of HPROs support	EA: 0 per year WA: 0 per year	WA: 1 EA: N.P.	WA: 2 EA: 1	WA: 3 EA: 3	WA: 4 EA: 5	WA: 3 EA: 3	WA: 6 EA: 7	WA: 16 EA: 3	1 or more regional exchange platforms per year	WA: 35 EA: 22

GLOSSARY

MNCH = Maternal, newborn, and child health
IRTs = Implementation Research Teams

IMCHA = Innovating for Maternal and Child Health in Africa
HPROs = Health Policy and Research Organizations

EA = East Africa
WA = West Africa

N.P. = Not provided

Annex 6 – IMCHA Perspectives and Research in Action article statistics: Items produced and uptake

#	English title	French title	Date of publication	Number of reads and views
PERSPECTIVES				
1	Maternal health research concerns men too	La recherche sur la santé maternelle concerne aussi les hommes	June 11, 2018	984
2	Champions of evidence play a pivotal role in bridging research-to-policy gap	Les défenseurs des données probantes jouent un rôle central dans la réduction de l'écart entre la recherche et les politiques	May 22, 2019	702
3	Making the case for action on gender parity in science	Plaider en faveur d'une action pour la parité entre les sexes dans le domaine scientifique	December 12, 2019	500
4	Giving girls and women the power to decide	Donner aux filles et aux femmes le pouvoir de décider	March 28, 2018	1,546
RESEARCH IN ACTION				
1	Major funding announcement is made as Minister Bibeau and Parliamentary Secretary Gould visit IDRC projects in sub-Saharan Africa	Annonce d'un important financement dans le cadre de la visite de la ministre Bibeau et de la secrétaire parlementaire Gould sur les sites de projets du CRDI en Afrique subsaharienne	September 16, 2016	414
2	Abuja workshop calls for evidence-based policies to improve maternal and child health in Nigeria	L'atelier d'Abuja demande des politiques fondées sur des données probantes pour améliorer la santé des mères et des enfants au Nigeria	October 17, 2016	503
3	Fourth Global Health Systems Research Symposium features innovative research on improving maternal and child health in Africa	Le quatrième Symposium mondial sur la recherche sur les systèmes de santé présente des recherches novatrices visant à améliorer la santé des mères et des enfants en Afrique	January 13, 2017	705
4	Innovating for Maternal and Child Health in Africa teams share early findings in Dakar	Les équipes du programme Innovation pour la santé des mères et des enfants d'Afrique s'échangent leurs premières constatations à Dakar	September 29, 2017	574
5	A community approach for improving maternal health	Une approche communautaire pour améliorer la santé des mères	April 4, 2018	1,663
6	Getting the healthcare basics right for pregnant women in Nigeria	Établir des bases solides pour les soins de santé destinés aux femmes enceintes au Nigéria	July 19, 2018	1,397
7	Burkina Faso's promising strategy to eradicate malaria	La stratégie prometteuse du Burkina Faso pour éradiquer le paludisme	April 24, 2019	1,790

#	English title	French title	Date of publication	Number of reads and views
8	Getting there: Overcoming barriers to safe motherhood in Ethiopia	Comment y arriver : surmonter les obstacles à la maternité sans risques en Éthiopie	August 22, 2019	569
9	Improving the gender dynamics of social enterprises to support volunteer health workers	Améliorer la dynamique sexospécifique des entreprises sociales pour soutenir les travailleurs bénévoles en santé	January 9, 2020	388
10	Strengthening maternal and child health in conflict-affected South Sudan	Renforcer la santé des mères et des enfants dans le Sud-Soudan touché par le conflit	August 21, 2020	1,862
11	Saving Malawi's most vulnerable newborns with implementation research	Sauver les nouveau-nés les plus vulnérables du Malawi grâce à la recherche de mise en œuvre	August 21, 2020	779
12	Changing gender norms to improve maternal and child health	Changer les normes sexospécifiques pour améliorer la santé des mères et des enfants	November 18, 2020	1,193
13	Engaging communities to achieve equity in maternal and child health	Mobiliser les communautés pour atteindre l'équité en matière de santé des mères et des enfants	February 4, 2021	624
14	Maternal and child health goes digital	La santé maternelle et infantile passe au numérique	May 13, 2021	1,291
15	Informing maternal and child health policies through research	Orienter les politiques de santé des mères et des enfants par la recherche	July 7, 2021	501
TOTALS				17,985

Annex 7 – IMCHA peer-reviewed publications

#	Year	Publication	Journal	Project
1	2016	An assessment of maternal, newborn and child health implementation studies in Nigeria: Implications for evidence informed policymaking and practice	<i>Health Promotion Perspectives</i>	107892
2	2016	An assessment of national maternal and child health policymakers' knowledge and capacity for evidence-informed policymaking in Nigeria	<i>International Journal of Health Policy Management</i>	107892
3	2016	Improving the standards-based management recognition initiative to provide high quality, equitable maternal services in Malawi: An implementation research protocol	<i>BMJ Global Health</i>	108031
4	2016	Systematic review of obstetric care from a women-centred perspective in Nigeria	<i>International Journal of Gynecology and Obstetrics</i>	108041
5	2017	Assessment of policy makers' individual and organizational capacity to acquire, assess, adapt and apply research evidence for maternal and child health policy-making in Nigeria: A cross-sectional quantitative survey	<i>African Health Sciences</i>	107892
6	2017	Improving maternal and child health policy-making process in Nigeria: An assessment of policymakers' needs, barriers and facilitators of evidence-informed policymaking	<i>Health Research Policy and Systems</i>	107892
7	2017	Promoting research to improve maternal, newborn, infant and adolescent health in West Africa: The role of West African Health Organization	<i>Health Research Policy and Systems</i>	107892
8	2017	Spanning maternal, newborn and child health (MNCH) and health systems research boundaries: Conducive and limiting health systems factors to improving MNCH outcomes in West Africa	<i>Health Research Policy and Systems</i>	107892
9	2017	An assessment of policymakers' engagement initiatives to promote evidence-informed health policy making in Nigeria	<i>The Pan African Medical Journal</i>	107892
10	2017	Les facteurs de succès de l'implantation et de l'utilisation de la mHealth en santé maternelle en ASS	<i>mHealth</i>	108037
11	2017	Effect of interrupting free healthcare for children: Drawing lessons at the critical moment of national scale-up in Burkina Faso	<i>Social Science and Medicine</i>	108037
12	2017	Donor-funded project's sustainability assessment: A qualitative case study of a results-based financing pilot in Koulikoro region, Mali	<i>BMC Globalization and Health</i>	108038
13	2017	Prevalence and determinants of childhood mortality in Nigeria	<i>BMC Public Health</i>	108041
14	2017	Prevalence and risk factors for maternal mortality in referral hospitals in Nigeria: A multicenter study	<i>BMC Reproductive Health</i>	108041
15	2017	Women's perceptions of reasons for maternal deaths: Implications for policies and programs for preventing maternal deaths in low-income countries	<i>Healthcare for Women International</i>	108041
16	2017	Perceptions of women on workloads in health facilities and its effect on maternal health care: A multi-site qualitative study in Nigeria	<i>Midwifery</i>	108041

#	Year	Publication	Journal	Project
17	2017	Maternal death review and outcomes: An assessment in Lagos State, Nigeria	<i>PLOS One</i>	108041
18	2018	Using equitable impact sensitive tool (EQUIST) to promote implementation of evidence-informed policymaking to improve maternal and child health outcomes: A focus on six West African countries	<i>Globalization and Health</i>	107892
19	2018	A review of the process of knowledge transfer and use of evidence in reproductive and child health in Ghana	<i>Globalization and Health</i>	107892
20	2018	Promoting evidence informed policymaking for maternal and child health in Nigeria: Lessons from a knowledge translation workshop	<i>Health Promotion Perspectives</i>	107892
21	2018	Perceptions on male involvement in pregnancy and childbirth in Masasi District, Tanzania: A qualitative study	<i>Reproductive Health</i>	108023
22	2018	Promoting respectful maternity care in rural Tanzania: Nurses' experiences of the "Health Workers for Change" program	<i>BMC Health Services Research</i>	108026
23	2018	Community member and policymaker priorities in improving maternal health in rural Tanzania	<i>International Journal of Gynecology and Obstetrics</i>	108026
24	2018	Knowledge acquisition of helping babies survive in rural Tanzania	<i>International Health</i>	108027
25	2018	Perceptions and experiences related to health and health inequality among rural communities in Jimma Zone, Ethiopia: A rapid qualitative assessment	<i>BMC International Journal for Equity in Health</i>	108028
26	2018	Narrative depictions of working with language interpreters in cross-language qualitative research	<i>International Journal of Qualitative Methods</i>	108028
27	2018	Knowledge, attitude, and practice and service barriers in a tuberculosis programme in Lakes State, South Sudan: A qualitative study	<i>South Sudan Medical Journal</i>	108033
28	2018	How culture shapes the sexual and reproductive health practices among adolescent girls in Eastern Equatoria, South Sudan	<i>South Sudan Medical Journal</i>	108033
29	2018	Using livelihoods to support primary healthcare for South Sudanese refugees in Kiryandongo, Uganda	<i>South Sudan Medical Journal</i>	108033
30	2018	Impact evaluation of seasonal malaria chemoprevention under routine program implementation: A quasi-experimental study in Burkina Faso	<i>American Journal of Tropical Medicine and Hygiene</i>	108037
31	2018	Sociocultural determinants of nomadic women's utilization of assisted childbirth in Gossi, Mali: A qualitative study	<i>BMC Pregnancy and Childbirth</i>	108037
32	2018	Impact of universal home visits on maternal and infant outcomes in Bauchi state, Nigeria: Protocol of a cluster randomized controlled trial	<i>BMC Health Services Research</i>	108039
33	2018	Quality of perinatal depression care in primary care setting in Nigeria	<i>BMC Health Service Research</i>	108040
34	2018	The Lancet Commission on health quality in the Era of SDG	<i>Lancet Global Health</i>	108040

#	Year	Publication	Journal	Project
35	2018	Interventions for depression delivered by non-physician primary health care workers in Nigeria	<i>World Psychiatry</i>	108040
36	2018	Increasing women's access to skilled pregnancy care to reduce maternal and perinatal mortality in rural Edo State, Nigeria: A randomized controlled trial	<i>BMC Global Health Research and Policy</i>	108041
37	2018	Predictors of women's utilization of primary healthcare for skilled pregnancy care in rural Nigeria	<i>BMC Pregnancy and Childbirth</i>	108041
38	2019	Talking health: Identifying trusted health messengers and effective ways of delivering health messages in rural Ethiopia	<i>Archives of Public Health</i>	108028
39	2019	Factors associated with maternity waiting home use among women in Jimma Zone, Ethiopia: A multi-level cross-sectional analysis	<i>BMJ Open</i>	108028
40	2019	Subnational health management and the advancement of health equity: A case study of Ethiopia	<i>Global Health Research and Policy</i>	108028
41	2019	Maternity waiting areas – serving all women? Barriers and enablers of an equity-oriented maternal health intervention in Jimma Zone, Ethiopia	<i>Global Public Health</i>	108028
42	2019	A quality assessment of Health Management Information System (HMIS) data for maternal and child health in Jimma Zone, Ethiopia	<i>PLOS One</i>	108028
43	2019	Mothers' perceptions of the practice of kangaroo mother for preterm neonates in sub-Saharan Africa: A qualitative systematic review protocol	<i>JBI Database of Systematic Reviews and Implementation Reports</i>	108032
44	2019	Gender equality, social enterprise and community health workers: A rapid evidence assessment and research agenda	<i>International Journal for Health Equity</i>	108033
45	2019	Gender and health social enterprises in Africa: A research agenda	<i>International Journal of Equity in Health</i>	108033
46	2019	Analysis of the quality of seasonal malaria chemoprevention provided by community health workers in Boulsa health district, Burkina Faso	<i>BMC Health Services Research</i>	108037
47	2019	From Amsterdam to Bamako: A qualitative case study on diffusion entrepreneurs' contribution to performance-based financing propagation in Mali	<i>Health Policy and Planning</i>	108038
48	2019	The impact of universal home visits with pregnant women and their spouses on maternal outcomes: A cluster randomized controlled trial in Bauchi State, Nigeria	<i>BMC Global Health</i>	108039
49	2019	Nigerian trial shows how universal home visits can help reduce maternal risks	<i>The Conversation</i>	108039
50	2019	Comparative case studies in integrated care implementation from across the globe: A quest for action	<i>BMC Health Service Research</i>	108040
51	2019	Maternal near-miss morbidity: Is this evidence of maternal health quality in sub-Saharan Africa?	<i>BJOG</i>	108041
52	2019	Why rural women do not use primary health centres for pregnancy care: Evidence from a qualitative study in Nigeria	<i>BMC Pregnancy and Childbirth</i>	108041

#	Year	Publication	Journal	Project
53	2019	Decomposing the rural-urban gap in the factors of under-five mortality in sub-Saharan Africa? Evidence from 35 countries	<i>BMC Public Health</i>	108041
54	2019	Gender inequality as barrier to women's access to skilled pregnancy care in rural Nigeria: A qualitative study	<i>International Health</i>	108041
55	2019	Assessing the knowledge and skills on emergency obstetrics care among health providers: Implications for health systems strengthening in Nigeria	<i>PLOS One</i>	108041
56	2019	A qualitative study of community elders' perceptions about the underutilization of formal maternal care and maternal death in rural Nigeria	<i>Reproductive Health</i>	108041
57	2019	Men's perception of barriers to women's use and access of skilled pregnancy care in rural Nigeria: A qualitative study	<i>Reproductive Health</i>	108041
58	2019	Maternal and newborn mortality: Community opinions on why pregnant women and newborns are dying in Natikiri, Mozambique	<i>International Journal of Research</i>	108508
59	2019	Causes of maternal death in Ethiopia between 1990 and 2016: Systematic review with meta-analysis	<i>Ethiopian Journal of Health Development 32</i>	108029
60	2020	Harnessing the health systems strengthening potential of quality improvement using realist evaluation: An example from southern Tanzania	<i>The Journal on Health Policy and Systems Research</i>	108020
61	2020	Why do pregnant women in Iringa region in Tanzania start antenatal care late? A qualitative analysis	<i>BMC pregnancy and childbirth</i>	108023
62	2020	Leaving no one behind: Using action research to promote male involvement in maternal and child health in Iringa region, Tanzania	<i>BMJ Open</i>	108023
63	2020	In support of community-based primary health care: Coping with the COVID-19 crisis	<i>African Journal of Reproductive Health</i>	108026
64	2020	Experiences of a multiple intervention trial to increase maternity care access in rural Tanzania: Focus group findings with women, nurses and community health workers	<i>Women's Health</i>	108026
65	2020	Under five causes of death in Ethiopia between 1990 and 2016: Systematic review with meta-analysis	<i>Ethiopian Journal of Health Development</i>	108029
66	2020	Assessing the quality of newborn care at district facilities in Malawi	<i>BMC Health Services Research</i>	108030
67	2020	Health workers' views on factors affecting caregiver engagement with bubble CPAP	<i>BMC Paediatrics</i>	108030
68	2020	"It brought hope and peace in my heart:" Caregivers perceptions on kangaroo mother care services in Malawi	<i>BMC Pediatrics</i>	108030
69	2020	Scaling up newborn care technologies from tertiary- to secondary-level hospitals in Malawi: An implementation case study of health professional perspectives on bubble CPAP	<i>Implementation Science Communication</i>	108030
70	2020	Barriers and enablers of implementing bubble Continuous Positive Airway Pressure (CPAP): Perspectives of health professionals in Malawi	<i>PLOS One</i>	108030

#	Year	Publication	Journal	Project
71	2020	Barriers and facilitators to implementing bubble CPAP to improve neonatal health in sub-Saharan Africa: A systematic review	<i>Public Health Reviews</i>	108030
72	2020	"Midwives do not appreciate pregnant women who come to the maternity with torn and dirty clothing": Institutional delivery and postnatal care in Torit County, South Sudan: A mixed method study	<i>BMC Pregnancy and Childbirth</i>	108032
73	2020	Health policy mapping and system gaps impeding the implementation of reproductive, maternal, neonatal, child, and adolescent health programs in South Sudan: A scoping review	<i>Conflict and Health</i>	108032
74	2020	The intersectional jeopardy of disability, gender and sexual and reproductive health: Experiences and recommendations of women and men with disabilities in Northern Uganda	<i>Sexual and Reproductive Health Matters</i>	108032
75	2020	Longitudinal analysis of the capacities of community health workers mobilized for seasonal malaria chemoprevention in Burkina Faso	<i>Malaria Journal</i>	108037
76	2020	The emergence of the national medical assistance scheme for the poorest in Mali	<i>Global Public Health</i>	108038
77	2020	No effects of pilot performance-based intervention implementation and withdrawal on the coverage of maternal and child health services in the Koulikoro region, Mali: An interrupted time series analysis	<i>Health Policy and Planning</i>	108038
78	2020	Implementing performance-based financing in peripheral health centres in Mali: What can we learn from it?	<i>Health Research Policy and Systems</i>	108038
79	2020	Le financement basé sur les résultats (FBR) au Mali : Peut-on parler d'émergence d'une politique publique de santé ?	<i>International Development Policy</i>	108038
80	2020	"Kunika women are always sick": Views from community focus groups on short birth interval (kunika) in Bauchi state, northern Nigeria	<i>BMC Women's Health</i>	108039
81	2020	Influence of women's empowerment indices on utilization of skilled maternity care: Evidence from rural Nigeria	<i>Journal of Biosocial Science</i>	108041
82	2020	Assessment of the quality of antenatal and postnatal care services in primary health centres in rural Nigeria	<i>The Nigerian Journal of Sociology and Anthropology</i>	108041
83	2020	Effects of terrorist attacks on access to maternal healthcare services: A national longitudinal study in Burkina Faso	<i>BMJ Global Health</i>	108053
84	2020	Implementation research methods: An extension tool in health education and information	<i>International Journal of Family & Community Medicine</i>	108508
85	2020	Quality assessment in primary health care: Adolescent and Youth Friendly Service, a Mozambican case study	<i>Pan African Medical Journal</i>	108508
86	2020	Maternal and child health implementation research in Mozambique: Effective community interventions to promote sexual and reproductive health	<i>Special Journal of Public Health, Nutrition and Dietetics</i>	108508

#	Year	Publication	Journal	Project
87	2020	Factors associated with short birth interval in low- and middle-income countries: A systematic review	<i>BMC Pregnancy and Childbirth</i>	108551
88	2020	Stigma and utilization of treatment for adolescent perinatal depression in Ibadan, Nigeria	<i>BMC Pregnancy and Childbirth</i>	108552
89	2020	Responding to the challenge of Adolescent Perinatal Depression (RAPiD): Protocol for a cluster randomized hybrid trial of psychosocial intervention in primary maternal care	<i>Trials</i>	108552
90	2020	User fee policies and women's empowerment: A systematic scoping review	<i>BMC Health Services Research</i>	108553
91	2020	National user fee abolition and health insurance scheme in Burkina Faso: How can they be integrated on the road to universal health coverage without increasing health inequities?	<i>Journal of Global Health</i>	108553
92	2020	Qualitative evaluation of a knowledge transfer training programme in maternal and child health in Burkina Faso, West Africa	<i>African Journal of Reproductive Health</i>	107892
93	2020	Soins de santé gratuits pour les uns, payants pour les autres : Perceptions et stratégies d'adaptation dans Le District de Boulssa (Burkina Faso)	<i>Canadian Journal of Bioethics 3</i>	108553
94	2020	Policy dialogue to support maternal newborn child health evidence use in policymaking: The lessons learnt from the Nigeria research days first edition	<i>African Journal of Reproductive Health</i>	107892
95	2020	Effectiveness of upgraded maternity waiting homes and local leader training on improving institutional births: A cluster-randomized controlled trial in Jimma, Ethiopia	<i>BMC Public Health</i>	108028
96	2020	Uncovering spatial variation in maternal healthcare service use at subnational level in Jimma Zone, Ethiopia	<i>BMC Health Services</i>	108028
97	2020	Pro-equity legislation, health policy and utilisation of sexual and reproductive health services by vulnerable populations in Sub-Saharan Africa: A systematic review	<i>Global Health Promotion</i>	108032
98	2020	How does the West African Health Organisation (WAHO) contribute to the evidence based decision-making and practice during COVID-19 pandemic in ECOWAS region?	<i>The Pan African Medical Journal</i>	107892
99	2020	Lessons learned from strategies for promotion of evidence-to-policy process in health interventions in the ECOWAS region: A rapid review	<i>Nigerian Medical Journal</i>	107892
100	2021	'She needs permission': A qualitative study to examine barriers and enablers to accessing maternal and reproductive health services among women and their communities in rural Tanzania	<i>AJRH IMCHA Special Edition</i>	108022
101	2021	'They say she is bewitched': A qualitative study of community and health provider perspectives regarding pre-eclampsia and eclampsia in rural Tanzania	<i>AJRH IMCHA Special Edition</i>	108022
102	2021	Requirements and costs for scaling up comprehensive emergency obstetric and neonatal care in health centres in Tanzania	<i>AJRH IMCHA Special Edition</i>	108027

#	Year	Publication	Journal	Project
103	2021	Improving access, quality and safety of caesarean section services in underserved rural Tanzania: The impact of knowledge translation strategies	<i>AJRH IMCHA Special Edition</i>	108027
104	2021	Capture it on video: Implementing a novel knowledge translation strategy as part of the Safe Motherhood Project, Jimma Zone, Ethiopia	<i>AJRH IMCHA Special Edition</i>	108028
105	2021	"Like works of our hands are giving testimony!" A qualitative study on kangaroo mother care and health worker empowerment in southern Malawi	<i>AJRH IMCHA Special Edition</i>	108030
106	2021	Health workers' views on factors affecting caregiver engagement with bubble CPAP	<i>BMC Pediatrics</i>	108030
107	2021	"So sometimes, it looks like it's a neglected ward": Health worker perspectives on implementing kangaroo mother care in southern Malawi	<i>PLOS One</i>	108030
108	2021	Malawi is taking steps to improve care of preterm babies. But gaps remain	<i>The Conversation</i>	108030
109	2021	Maternal and neonatal health care service utilisation in the wake of active conflict and socio-economic downturn in Torit County, Republic of South Sudan: A multimethod locally driven study	<i>AJRH IMCHA Special Edition</i>	108032
110	2021	Exploring the impact of a community participatory intervention on women's capability: A qualitative study in Gulu Northern Uganda	<i>BMC Women's Health</i>	108032
111	2021	Why women die after reaching the hospital: A qualitative critical incident analysis of the 'third delay' in postconflict northern Uganda	<i>BMJ</i>	108032
112	2021	Communities and service providers address access to perinatal care in postconflict Northern Uganda: Socialising evidence for participatory action	<i>Family Medicine and Community Health</i>	108032
113	2021	Policy implementation challenges and barriers to access sexual and reproductive health services faced by people with disabilities: An intersectional analysis of policy actors' perspectives in postconflict Northern Uganda	<i>International Journal of Health Policy and Management</i>	108032
114	2021	Community views on short birth interval in Northern Uganda: A participatory grounded theory	<i>Reproductive Health</i>	108032
115	2021	Pathway and interaction analysis of IMCHA model: An initiative of implementation research in Uganda and South Sudan	<i>AJRH IMCHA Special Edition</i>	108033
116	2021	The Bajenu Gox as social mobilization and social norms transformation agents in maternal, child and youth health in Senegal	<i>AJRH IMCHA Special Edition</i>	108035
117	2021	Impact of home visits to pregnant women and their spouses on gender norms and dynamics in Bauchi State, Nigeria: Narratives from visited men and women	<i>Global Health Promotion</i>	108039
118	2021	Scaling up care for perinatal depression for improved maternal and infant health (SPECTRA): Protocol of a hybrid implementation study of the impact of a cascade training of primary maternal care providers in Nigeria	<i>BMC</i>	108040

#	Year	Publication	Journal	Project
119	2021	Building community ownership of maternal and child health interventions in rural Nigeria: A community-based participatory approach	<i>AJRH IMCHA Special Edition</i>	108041
120	2021	Why women utilize traditional rather than skilled birth attendants for maternity care in rural Nigeria: Implications for policies and programs	<i>Midwifery</i>	108041
121	2021	Covid-19 pandemic impact on maternal and child health services access in Nampula, Mozambique: A mixed methods research	<i>BMC Health Services Research</i>	108508
122	2021	Users' opinion about antenatal visits quality: Implementation research in Nampula, Mozambique	<i>International Journal of Medicine and Community Health</i>	108508
123	2021	Context matters in understanding the vulnerability of women: Perspectives from southwestern Uganda	<i>Archives of Public Health</i>	108547
124	2021	Gender intentional approaches to enhance health social enterprises in Africa: A qualitative study of constraints and strategies	<i>International Journal of Equity in Health</i>	108547
125	2021	The effect of umbilical cord cleansing with chlorhexidine gel on neonatal mortality among the community births in South Sudan: A quasi-experimental study	<i>Pan African Medical Journal</i>	108550
126	2021	Women's decision-making power in a context of free reproductive healthcare and family planning in rural Burkina Faso	<i>BMC Women's Health</i>	108553
127	2021	Barriers and facilitators of facility-based kangaroo mother care in Sub-Saharan Africa: A systematic review	<i>BMC Pregnancy and Childbirth</i>	108030
128	2021	Facility assessment and qualitative analysis of health worker perspectives on neonatal health in Malawi	<i>BMC Research Notes</i>	108030
129	2021	Barriers and facilitators for early and exclusive breastfeeding in health facilities in Sub-Saharan Africa: A systematic review	<i>Global Health Research and Policy</i>	108030
130	2021	Mothers' quality of life delivering kangaroo mother care at Malawian hospitals: A qualitative study	<i>Health and Quality of Life Outcomes</i>	108030
131	2021	Familiar but neglected: Identification of gaps and recommendations to close them on exclusive breastfeeding support in health facilities in Malawi	<i>International Breastfeeding Journal</i>	108030
132	2021	Causes of short birth interval (Kunika) in Bauchi State, Nigeria: Systematizing local knowledge with fuzzy cognitive mapping	<i>Reproductive Health</i>	108551
133	2021	Users' opinion about antenatal visits quality: Implementation research in Nampula, Mozambique	<i>International Journal of Family & Community Medicine</i>	108508
134	2021	Does the gap between health workers' expectations and the realities of implementing a performance-based financing project in Mali create frustration	<i>Global Health Research and Policy</i>	108038

#	Year	Publication	Journal	Project
135	2021	African leadership and international collaboration to address global health challenges: Learnings from the Innovating for Maternal and Child Health in Africa (IMCHA) initiative	<i>AJRH MCHA Special Edition</i>	IMCHA Team
136	2021	COVID-19 and beyond: How lessons and evidence from implementation research can benefit health systems' response and preparedness for COVID-19 and future epidemics	<i>Family Medicine and Community Health</i>	IMCHA Team
137	2022	Effect of a multifaceted intervention on the utilisation of primary health for maternal and child health care in rural Nigeria: A quasi-experimental study	<i>BMJ</i>	108041
138	2022	An analysis of the quality of maternity services in Nampula, Mozambique: Implementation research	<i>Pan African Medical Journal</i>	108508
139	2022	The fear of social stigma experienced by men: A barrier to male involvement in antenatal care in Misungwi District, rural Tanzania	<i>BMC Pregnancy Childbirth</i>	108547
140	2022	Characterizing 'health equity' as a national health sector priority for maternal, newborn, and child health in Ethiopia	<i>Global Health Action</i>	108028
141	2022	Disability and sexual and reproductive health service utilisation in Uganda: An intersectional analysis of demographic and health surveys between 2006 and 2016	<i>Global Health Promotion</i>	108032
142	2022	The emergence of the National Medical Assistance scheme for the poorest in Mali	<i>Global Public Health</i>	108038

Annex 8 – IMCHA research digests and impact briefs

#	English title	French title
RESEARCH DIGESTS: ARTICLES PUBLISHED BY IMCHA GRANTEES		
1	Research Digest #1: March – May 2020	Sommaire de publications no. 1 : mars à mai 2020
2	Research Digest #2: June – November 2020	Sommaire de publications no. 2 : juin à novembre 2020
3	Research Digest #3: December 2020 – February 2021	Sommaire de publications no. 3 : décembre 2020 à février 2021
4	Research Digest #4: March – May 2021	Sommaire de publications no. 4 : mars à mai 2021
IMPACT BRIEFS		
1	Changing the lives of women and children in sub-Saharan Africa	Changer la vie des femmes et des enfants en Afrique subsaharienne
2	Better maternal and child health through enhanced community engagement	Renforcer l'engagement communautaire pour améliorer la santé des femmes et des enfants
3	Improving quality of care in health facilities in sub-Saharan Africa	Améliorer la qualité des services dans les établissements de santé en Afrique subsaharienne
4	Improving women's reproductive health in Sub-Saharan Africa	Améliorer la santé reproductive des femmes en Afrique subsaharienne
5	Addressing adolescent reproductive health in sub-Saharan Africa	Répondre à la santé reproductive des adolescents en Afrique subsaharienne
6	Enhancing community health workers' motivation and impact for better maternal and child health	Renforcer la motivation et l'impact des agents de santé communautaire pour une meilleure santé maternelle et infantile
7	Engaging men for better maternal and child health in sub-Saharan Africa	Mobiliser les hommes pour une meilleure santé des mères et des enfants en Afrique subsaharienne
8	Using research evidence for national and regional decision-making	Utiliser les résultats de la recherche pour la prise de décision à l'échelle nationale et régionale

