World Vision®

Access—Infant and Maternal Health (AIM) Health Programme

January 2011 – December 2015

END LINE PROGRAMME EVALUATION REPORT

October – December 2015

Irish Aid
An Roinn Gnóthaí Eachtracha agus Trádála
Department of Foreign Affairs and Trade

World Vision Ireland
The Mews,
Garland House,
Rathmines Park,
Dublin 6, Ireland
www.worldvision.ie

World Vision International
Executive Office
1 Roundwood Avenue
Stockley Park
Uxbridge, Middlesex UB111 1FG, UK
www.wvi.org

World Vision Ireland is a Christian, child focussed overseas aid agency. We have been active in Ireland since 1983 and are part of World Vision International.

World Vision provides short and long-term assistance to 100 million people in almost 100 countries worldwide. For six decades, we have been engaging people to work towards eliminating global poverty and its causes. World Vision is committed to the poor. We work with people of all cultures, faiths and genders to achieve transformation. We do this through relief and development, policy advocacy and change, collaboration, and emphasis on social justice.

Authors: FARST Africa LTD

Design: merenamedesign.com

Cover photo: Mothers and their babies, registered to the AIM Health Programme, from Imperi in Sierra Leone

LIST OF ABBREVIATIONS

ADP	Area Development Programme
AIM Health	Access - Infant and Maternal Health
ANC	Ante Natal Care
ARI	Acute Respiratory Infection
BEmONC	Basic Emergency Obstetric and Newborn Care
CBO	Community-Based Organization
CHF	Community Health Fund
CHW	Community Health Worker
CI	Confidence Interval
COMM	Community health Committees
CHERG	Child Health Epidemiology Reference Group
CSO	Civil Society Organisation
CVA	Citizens Voice and Action
DHMT	District Health Management Team
DHS	Demographic and Health Survey
ENA	Emergency Nutrition Action
FGD	Focus Group Discussion
FP	Family Planning
GAM	Global Acute Malnutrition
GBV	Gender-Based Violence
GIK	Gifts in Kind
GSBV	Gender and Sex-Based Violence
HBB	Helping Babies Breathe
HIV	Human Immuno-deficiency Virus
HMIS	Health Management Information System
ICCM	Integrated Community Case Management
IMR	Infant Mortality Rate
IQA	Implementation Quality Assessment
LiST	Lives Saved Tool
LLIN	Long Lasting Insecticide Treated Net
LQAS	Lot Quality Assurance Sampling
KII	Key Informant Interview
Km	Kilometre
M&E	Monitoring and Evaluation
MNC	Maternal and Newborn Care
MNCH	Maternal, Newborn and Child Health
MOH	Ministry of Health
MOU	Memorandum of Understanding
MTCT	Mother to Child Transmission (of HIV)
MTR	Midterm Review
NGO	Non-Governmental Organization
NMR	Neonatal Mortality Rate
ODK	Open Data Kit
ORS	Oral Rehydration Solution
PBF	Performance-Based Financing
PD	Positive Deviance
PDA	Personal Device Assistant
PENTA	Pentavalent vaccine
PMTCT	Prevention of Mother to Child Transmission
PNC	Post-natal care
RBF	Results Based Framework
RDL	Radio-based Distance Learning
SBA	Skilled Birth Attendant
STI	Sexually Transmitted Infections
TB	Tuberculosis
TBA	Traditional Birth Attendant
TOT	Training of Trainers
TT	Tetanus Toxoid
ttC	timed and targeted Counselling
U5MR	Under-Five Mortality Rate
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WASH	Water Sanitation and Hygiene
WHO	World Health Organization
WV	World Vision (International)
WVIRE	World Vision Ireland

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

FOREWORD

Every day, approximately 830 women die from preventable causes related to pregnancy and childbirth. At the same time around 16,000 children die each day - almost half in their first month of life and many on their first day in the world. As a child focussed organisation the prevention of maternal and child deaths is World Vision Ireland's main priority and that is why we developed Access Infant and Maternal Health or AIM Health.

Around 80 per cent of maternal deaths are preventable if women have access to essential maternity and basic healthcare services. Most maternal and neonatal deaths can be averted through proven interventions – including adequate nutrition, improved hygiene practices, antenatal care, skilled health workers assisting at births, newborn care and post-natal visits for both mothers and newborns – delivered through a supportive system that links households and communities to health services. It is also essential that mothers, families and communities are empowered to become aware of their rights and become educated as to how best to care for themselves and for their children.

AIM Health is a programme that uses simple low cost interventions for mothers and babies during pregnancy and in the first 1,000 days of a child's life, to improve access to essential and life saving healthcare. It is founded on the concept that World Vision is not implementer but the facilitator, working in close partnership with the Ministry of Health and the community to bring about behaviour change in order to improve the health of mothers and their children.

This partnership approach ensures that the people within the communities where AIM Health is implemented are the real owners of the programme and will be able to continue to implement it on a long-term basis without World Vision's facilitation in the future.

Strong partnerships and regular capacity building have been the foundation of the AIM Health Programme since its inception and have been the reason for its many successes.

The programme would not have been possible without Irish Aid, which provided funding and ongoing support since AIM Health's inception in 2011. We are extremely grateful for this.

I am very proud to say that AIM Health has been instrumental in saving hundreds of babies' lives and that numerous families still have their mothers here to care for them because of the programme. The impact this will have on the lives and futures of their families and communities is immeasurable.

We cannot rest until preventable maternal and child deaths are a thing of the past. World Vision Ireland will continue to do everything we can to support women and children to access the healthcare they need, so that one day no mother or baby loses their life needlessly.

Helen Keogh
Chief Executive, World Vision Ireland

EXECUTIVE SUMMARY

Overview: The Access - Infant and Maternal Health (AIM Health) programme is a five-year initiative of World Vision Ireland (WVIRE), with funding support from Irish Aid, implemented between January 2011 and December 2015 in ten Area Development Programs (ADPs) of WVIRE across Kenya, Tanzania, Uganda, Mauritania and Sierra Leone. The overall goal of AIM Health was to improve maternal, newborn and child health (MNCH) outcomes and reduce maternal and infant mortality, which are unacceptably high in these locations.

Programme design: AIM Health is built on global evidence for effective, low cost interventions at the primary-care level, focusing on the first 1,000 days of life, and on community involvement and strengthening of health systems as a whole. These are also enshrined in WV's 7-11 intervention package. AIM Health focused on empowerment, prevention, demand creation, (rather than service delivery), partnering with Ministries of Health (MOH) and providing 360-degree support for behaviour change related to MNCH practices, through the implementation of three core project models: Timed and Targeted Counselling (ttC) at the household level through Community Health Workers (CHWs), Community Health Committees (COMMs) at the community level and Citizen Voice and Action (CVA) at the environmental level. AIM Health focused on three population-level outcomes to achieve the survival and well- being of children and mothers:

1. **Mothers and children are well nourished**
2. **Mothers and children are protected from infection and disease**
3. **Mothers and children access essential health services**

A results based framework (RBF) provided indicators to monitor progress and evaluate outcomes and impact.

Evaluation: The overall purpose was to measure improvements in maternal and child health and nutrition in the areas where AIM-Health was implemented. The evaluation framework included a baseline, a midterm review and an end line evaluation. Each of these exercises used the mixed methods approach, combining quantitative population level data with qualitative findings and routine reports to assess achievement of objectives, lessons and management issues. The end line evaluation had a robust design for the household survey with sample sizes powered sufficiently to demonstrate change from baseline, in-depth descriptive studies with a broad range of stakeholders, and a standardized data collection, processing and analysis. The lives saved (LiST) tool helped model changes to mortality.

Programme implementation: AIM Health coordinated its design and operations closely with a broad range of stakeholders at national, district and community levels. It strengthened the deployment of CHWs, trained and equipped them to deliver ttC visits to households, re-vitalised COMM groups and trained them to mobilise communities and support ttC, and formed CVA working groups to advocate for better service delivery. ttC visits helped households adopt key MNCH practices, but were lacking in quality and completeness in some locations. COMMs facilitated linkages between communities and facilities, helped manage facilities and outreach services. CVA groups carried out local level advocacy in improving supplies, staff attitudes and outreach services. They conflated their

role with that of COMMs in some locations. There was much delay in deploying COMMs and CVA in some locations.

AIM Health also supported service delivery through training of facility staff, and provision of infrastructure and supplies. Some locations implemented Positive Deviance – Hearth for community based rehabilitation of children with moderate malnutrition, and two locations implemented ttC through mHealth platforms.

Programme monitoring and management: AIM Health clearly assessed and managed risks to achieving its targets. It generated, processed and reported against the RBF. Collection, analysis and use of programme data at community level was limited. AIM Health represented value for money in terms of the effectiveness of its intervention package, efficiency in implementation and economical in its operations.

Innovations and lessons: AIM Health developed innovative approaches to sustain CHW motivation, counsel for behaviour change through the ttC model, re-vitalise the role of traditional birth attendants to improve MNCH outcomes and for improved male partner involvement. Programme results and processes have a high potential for sustaining beyond the programme life, due to partnerships formed and community systems strengthened.

Coverage and quality of interventions: AIM Health did include in its design a mechanism to ensure adequate coverage of the population. However, there was no indicator in the RBF or other means for measuring this at regular intervals. While behaviour change and adoption of recommended practices have been adequate in households that the interventions reached, there is no measure of what proportion of the total ADP population was reached. This is arguably a key factor underlying the lack of achievement of some programme targets. In segments that interventions reached, the quality of delivery of interventions, especially ttC remained sub-optimal in several locations.

Achievement of child and maternal nutrition outcomes: AIM Health has made remarkable improvements in breastfeeding practices, consumption of iron-rich foods. Vitamin A supplementation levels declined and so did diet diversity, reflecting seasonal changes in food availability and overall food insecurity which threatens to negate all behaviour change efforts on diet diversity or meal frequency. The limited improvement in stunting and wasting is partly attributable to the multiple factors that underlie these indicators including WASH and prevalence of childhood illness.

Achievements in child immunisations: Strengthening of specific elements of immunization services such as outreach support, CHW role in tracing unimmunized children and cold chain improvements at health facilities contributed to maintaining the existing high levels of immunization coverage in most programme sites. Modest improvements in immunization coverage in some sites reflect the high marginal cost of reaching the last mile in coverage

Achievements in prevalence of childhood illnesses: The prevalence of fever, ARI and diarrhoea among children appear to have declined substantially but remain high in a number of programme sites. Seasonal changes in disease incidence may explain some of the trends in illnesses prevalence. Use of LLIN improved or was maintained at a high level in most programme sites; but declined substantially in three sites. There is a general trend of substantial improvement in care seeking for ARI, modest improvement in use of ORS for diarrhoea, and decline in care seeking for fever.

Achievement in WASH: There has been substantial improvement in access to safe water in most programme sites; but less evident with respect to sufficient water. Hand washing has been high and sustained in most programme sites. Access to improved latrine had variable level of success across locations.

Achievements in maternal and neonatal care: AIM Health has seen major improvements in skilled attendance at birth and antenatal care coverage. The more modest improvements realised on postnatal care and family planning use are a reflection of the much lower beginning points on these indicators.

A snapshot of key outcome results at end line evaluation is presented in the table below. Green represents achievement of target, light green – near achievement (within 10 percentage points), yellow – improvement but not close to achieving targets and red – decline in coverage:

Indicator	Mutonguni	Mundemu	Sanzawa	Busia	N. Rukiga	Guerrou	Mbagne	Imperi	Sherbro
% change in stunting	-14.7	-15.8	-33.3	0.8	-1.5	-18	-40	31.8	38
% change in wasting	-116.7	-140	-53.3	42	32.7	18.3	-72	-30.7	74.2
% infants 0-5m exclusively breastfed	83.1	89.8	96.9	93.9	89.6	96.3	100.0	95.3	98.7
% children 6-59m had iron-rich foods	96.0	77.9	87.4	91.1	98.2	85.7	72.7	93.5	89.1
% pregnant mothers had iron-rich foods	100.0	89.7	96.4	94.2	95.2	94.7	97.0	100.0	99.0
% children 6-59m had Vitamin A supplement	47.2	43.5	49.0	68.8	94.5	84.4	48.7	40.7	46.3
% children 12-59m had PENTA3 immunization	90.3	88.8	86.1	74.1	95.5	81.6	53.4	74.5	87.8
% decline in ARI prevalence (child 0-59m)	22	55	81	56	68	0	46	77	83
% decline in fever prevalence (child 0-59m)	78	68	87	55	88	-16	53	71	83
% decline in diarrhoea prevalence in (child 0-59m)	69	56	76	76	71	68	40	98	96
% increase in MTCT awareness among mothers	-96	-85	-93	-21	-62	257	-99	-79	-50
% households with access to safe water	50.9	91.1	56.7	89.9	92.7	21.2	47.7	69.8	55.3
% households with access to sufficient water	59.6	48.4	35.0	62.6	23.2	69.2	60.2	87.2	87.7
% mothers that wash hands (2 of 4 key times)	60.9	78.4	70.1	82.2	76.9	12.8	13.0	88.3	92.0
% increase in births assisted by skilled attendant	57	55	15	9	91	18	65	206	148
% increase in ANC completion (> 4 visits)	64	115	84	888	338	374	371	-5	118
% increase in PNC attendance (3 visits)	-4	3	11	19	-35	14	-8	-27	-16

■ Achievement of target ■ Near achievement (within 10%) ■ Improved coverage ■ Decline in coverage

Achievement of impact: The outcome and impact results as generated in this end line evaluation indicate that the programme goal of reducing infant and maternal mortality has been achieved to the desired level in most programme sites.

- Reduction in neonatal mortality has been achieved in all programme sites; attaining (and often surpassing by far) the programme target of 20 percent reduction in all except one. The 16 percent reduction attained in the one site is also close to the programme target.
- The under-five mortality rate reduced to the programme target level (20 percent reduction) in six programme sites; and reduced but not to the level of programme target in one other site. The rate worsened substantially in two programme sites; largely attributable to service delivery gaps that were beyond the control of the programme and its interventions.
- The maternal mortality ratio declined in all programme sites; attaining the programme target in three programme sites; and achieving reduction rates close to this target in two other sites.

ADP/Country	Neonatal mortality			Under-five mortality			Maternal mortality		
	2012	2015	% change	2012	2015	% change	2012	2015	% change
Mutonguni, Kenya	19	13	30.92	72	52	27.72	518	427	17.50
Mundemu, Tanzania	21	6	71.43	61	52	14.75	486	372	23.46
Sanzawa, Tanzania	21	11	47.62	94	61	35.11	486	393	19.14
Busia, Uganda	19	12	38.03	115	65	43.67	416	327	21.51
N. Rukiga, Uganda	26	10	61.46	185	98	46.93	416	297	28.62
Guerrou & Mbagne, Mauritania	52	40	24.10	170	116	31.43	732	702	4.07
Imperi, Sierra Leone	23	17	23.47	194	280	-44.44	1509	1347	10.7
Sherbro, Sierra Leone	24	21	15.83	143	197	-37.73	1580	1524	3.55

Conclusion: This evaluation has found compelling evidence that the AIM Health programme implementation partnership between WV, governments and communities has worked well in all programme sites to deliver sustained health interventions over the five-year programme period. There was effective buy-in and leadership at national level in both WV and governments; which ensured institutional support for programme implementation at lower levels. However, there have been limited policy-level decision and change with respect to community health maternal and newborn care services; possibly because clarity of need and concrete evidence in this respect is only beginning to emerge from the programme period of implementation. The programme has achieved its goal of reducing maternal, neonatal and under-five mortality in most locations.

OVERALL RECOMMENDATIONS

1. All partners involved in AIM Health should commit to another five year cycle, with relevant modifications, to make further progress and consolidate gains made.
2. Governments in all AIM Health target countries should undertake necessary policy change to institutionalise and fully support CHW participation in delivering MNCH services in communities.

3. WV to strengthen quality of implementation of the ttC and CVA models.

4. WV to include specific programme action to enhance and address service-delivery constraints.

5. WV to work with a broad range of partners for periodic mapping of the existing and upcoming initiatives on: livelihood and food security improvement, household economic strengthening, literacy and applied education for adults and young people, etc.; and develop structured and sustained linkages between such initiatives and nutrition improvement interventions. Strengthening and further increasing nutrition-focused advocacy (based on CVA and other relevant models) in the work of health facility management committees, CHW Associations, and other community groups.

Specific programming recommendations

1. Pregnancy among unwed teens is alarmingly high and rising, in almost all target locations. Acceptance, care, postpartum family planning, HIV prevention/testing/care, and a continuum of care for mother and baby are issues that further programming cycles should address through the three project models.

2. Expand coverage within existing ADPs, using a catchment area approach which has the added advantage of better use of data at district level for managing interventions.

3. Promote involvement of male partners: Anecdotal evidence has shown the positive impact of involvement of male partners in women accessing MNCH services. However this needs to happen at scale for it to have an impact on MNCH outcomes at the population level and for sustainable, community-wide change.

4. Address gender based violence as a factor hindering care seeking and the overall wellbeing of women.

5. District Health Management Teams and WV field offices should plan for sustained LLIN provision in all AIM Health programme sites; as a complementary initiative to enhance overall health impact.

6. WV should revise the AIM Health model to include specific integrated action to address the linked elements of WASH, nutrition and childhood illness. This should include specific operational research to explore and address cause-effect relationships in this triad.

7. Future programme RBFs need to re-consider the use of prevalence of illnesses as indicators of progress, and replace them with coverage levels for care-seeking or preventive behaviours.

8. Work with national and local health systems to ratify respectful care at birth as a universal right using the consensus document/charter[1] and appropriate training and monitoring tools.

9. Work with local and regional governments to streamline supplies. Push system of supply chain management does not take into account increased demand from the periphery coming from community-based interventions. The lag period before the supply chain picks it up is often quite significant.

[1]http: //whiteribbonalliance.org/wp-content/uploads/2013/10/Final_RMC_Charter.pdf

Recommendations for Advocacy in Ireland

- Give advocacy recognition and importance as a pillar in the new strategy of WVIRE and act accordingly.
- Build an advocacy strategy and include AIM Health phase II advocacy as part of the strategy.
- Be strategic and bold in choosing networks and partners for advocacy.
- Design advocacy for the next stage of AIM Health as part of the overall programme design, including the relevant M&E framework. Be innovative and bold in designing public awareness campaigns to mobilise the public.
- Continue influencing government initiatives, specifically those relating to WVIRE core themes.
- Build continuous relationships with key policy and decision makers.

1.0 CONTEXT AND PROGRAMME DESIGN

The Access - Infant and Maternal Health (AIM Health) programme is a five-year initiative of WVIRE with funding support from Irish Aid, implemented between January 2011 and December 2015 in ten programme locations across five countries in East and West Africa. The overall goal of AIM Health was to improve maternal, newborn and child health (MNCH) outcomes and reduce maternal and infant mortality.

1.1 ORGANISATIONAL CONTEXT

WV International is a global Christian relief, development and advocacy organisation dedicated to working with children, families and communities to overcome poverty and injustice. The goal of all WV programs is sustained wellbeing of children in families and communities, especially the most vulnerable. Realization of this goal is based in four child wellbeing aspirations on health, education, protection and participation. Established in 1950, WV works in nearly 100 countries serving millions of the world's most vulnerable people through a federal partnership of national entities.

Around the globe, WV implements integrated multi-sectoral medium-term area development programmes (ADP). The ADP works in a distinct geographical area, partnering with local stakeholders to improve the wellbeing of children through multiple sector projects aimed at addressing root causes of issues that impact children. These geographic areas can vary in size, context, and population. Each ADP has its own staff and design but all ADPs seek to support families and communities to address child well-being. The ADP is privately funded through a child sponsorship model, but it often hosts donor-funded initiatives that address specific areas of need.

WVIRE is part of the WV partnership and has been active in Ireland since 1983. WVIRE's strategic direction is to improve the wellbeing of children with a focus on health, livelihoods, education and protection across 11 ADPs in six African countries: Kenya, Sierra Leone, Mauritania, Tanzania, Uganda and Swaziland. Current programming is focused on the four key areas: disaster and emergency relief, through the global network of disaster response of WV; advocacy and justice for children, working at national, regional and global levels, informed by the organisation's experience from working with communities; MNCH intervention through the AIM Health programme and child sponsorship directed towards the community, supporting schools, health centres and livelihoods.

1.2 OPERATIONAL CONTEXT

AIM Health was implemented as a health "project" within the ADPs in each of its ten programme locations, and reached a total population of 306,804 (details in Table 1).

Table 1: AIM Health implementation sites and target populations

Country	ADP	Total ADP Population	Pregnant Women[2]	Children under five
Kenya	Mutonguni ADP	49,055	3,482	7,946
Tanzania	Mundemu ADP	43,990	4,750	7,478
	Sanzawa ADP	20,530	2,217	3,490
Uganda	Busia (Busitema and Lunyo ADPs)	67,000	8,375	12,730
	N. Rukiga ADP	52,887	6,610	10,048
Mauritania	Mbagne ADP	14,918	1,372	2,207
	Guerrou ADP	4,044	372	598
Sierra Leone	Imperi ADP	28,790	2,591	4,951
	Sherbro Island ADP	25,590	2,303	4,401
TOTAL		**306,804**	**32,072**	**53,849**

Source: AIM Health Programme Proposal, September 2011

Mutonguni ADP is located on the Yatta plateau in the western part of Kitui County, in the semi-arid east-central part of Kenya. The Kitui West sub-county where Mutonguni is located is relatively sparsely populated (projected 2015 population density at 165 persons per km^2), and has good potential for commercial agriculture to serve the nearby urban centres of Kitui and Mwingi. However, the level of poverty in the county is high (64 percent compared to a national average of 46 percent); and access to health services is poor with the nearest health facility being about 10 kilometres away from communities on an average.

Mundemu and Sanzawa ADPs are both located in the Dodoma region of central Tanzania, in the two districts of Bahi and Chemba respectively. It is part of the semi-arid central plateau with communities of subsistence crop farmers and pastoralist cattle keepers. There are high levels of poverty (55.8 percent of the population is in severe poverty for Dodoma Region, compared to a national average of 31.3 percent in 2014) and food insecurity, and poor social services and infrastructure development. Bahi district also has an extensive area of seasonal lake and wetlands, which is a critical environmental resource for crop agriculture (including large-scale rice growing), livestock farming, fishing, and forest-based wood and non-wood products. The same area is poised to become a major mining zone in the country, in view of the growing commercial interests in the Uranium deposits in the region.

North Rukiga (N. Rukiga) ADP is located in the south-western highlands of Uganda (with great challenges to movement and accessibility from the rest of the country); and is endowed fertile soils and ideal climate for rainforest and temperate agriculture. It is noted as the 'food basket' for the rest of Uganda and across the international borders into Rwanda and DR Congo, for crops such as potatoes, carrots, cabbages, peas, beans and sorghum. It is densely populated and well served with social services such as health and education. Key socio-economic challenges include inadequate land, alcohol abuse and high levels of malnutrition.

Lunyo and Busitema ADPs, which constitute the Busia AIM Health programme site, are both located in Busia district on the eastern Uganda border with Kenya and the shared Lake Victoria basin. Like N. Rukiga, it is densely populated and greatly influenced by cross-border trade. However, in contrast, it is largely flat and dominated by savanna scrubland; has fewer health and

[2]Taken from the latest Demographic and Health Surveys of the respective countries

education facilities, and higher levels of poverty (31 percent in Busia, and 18 percent in Kabale of the district populations below the poverty line, compared to a national average of 38 percent in 2013).

Mbagne ADP covers the administrative district (department; Moughataa) of Mbagne in the region (Wilaya) of Brakna; on the southwest Senegal River border with Senegal. It is settled by multiple people groups, whose main livelihood is based on agriculture and livestock farming, and on fishing in the Senegal River and its tributaries. The region has good potential for agricultural production and food security, but remains underdeveloped and poorly serviced with social services.

Guerrou ADP is in the region of Assaba in the same southwestern zone of the country as Mbagne. It is close to the headquarters of the district and the main highway to Mali, and thus a peri-urban community with rapid low income population growth, and poor service development. The main economic activity is agriculture and livestock; with no permanent surface water system, but many seasonal rivers conducive to gardening and oasis crops. Arable land favouring rain fed agriculture is immense but agricultural production is very low and seasonal putting communities in constant food insecurity. Presence of and access to social services such as health and education is poor, because of long distances and rugged terrain.

Imperi and Sherbro Island ADPs are both located in Bonthe District, in the southern coastal region of Sierra Leone. Sherbro Island constitutes about half of the total land area of the district, and the entire ADP. Imperi is on the mainland but also has large areas of riverine creeks and mangrove lagoons. Both ADPs and the entire district practice subsistence agriculture and artisanal fishing as the main bases of livelihood, and have high levels of poverty (51% poverty headcount, compared to a national average of 53% in 2013) and general underdevelopment. The mainland areas (including parts of Imperi ADP) have large mining operations that employ many of the local people (especially men); and provide some support to health services, water improvement and education facilities in the areas where they operate. Despite the poor scores on many socio-economic indicators in Bonthe district, its performance on health is generally above average (in comparison to other districts in Sierra Leone). It was largely spared the direct ravages of the Ebola epidemic in the region in 2014 and 2015; registering only 5 confirmed cases of Ebola over the entire span of the main epidemic (May 2014 to October 2015).

1.3 PROGRAMME RATIONALE AND DESIGN

The five AIM Health focus countries were selected for programme interventions to contribute to their progress towards achieving Millennium Development Goals 4 (reduce child mortality) and 5 (reduce maternal mortality). These countries had unacceptably high maternal, neonatal and under-five mortality rates, and rates of decline that were not adequate to reach the Goals. It is for these reasons that the AIM Health Programme took the reduction in these mortality rates as its overall goal, or impact.

1.3.1 Global evidence for interventions (the "what")

The Lancet Child Survival Series (2003)[3] provided, for the first time, prioritized and evidence-based

[3]The Bellagio Child Survival Study Group. Knowledge into action for child survival. *The Lancet*, Volume 362, No. 9380, p323–327, 26 July 2003

and cost-effective interventions that are early, prompt and that can be done at the household and primary healthcare levels to address child survival. The 2005 Neonatal Survival series and the 2006 Maternal Survival series of Lancet further underscored the high proportion of child deaths that happen in the newborn period and the critical importance of continuum of care (in time and place). The 2008 Maternal and Child Undernutrition series provided new insights into the prevalence of maternal and child undernutrition in high priority countries and prioritized evidence-based and cost-effective interventions to address this problem.

These interventions focus on prevention, primary care-level interventions, community involvement and strengthening of health systems as a whole. They focus on the first 1,000 days of life, which is now recognized as the most critical window to improve survival, health and long-term wellbeing.

These are the interventions and approaches enshrined in the "7-11" strategy of WV which covers the first 1,000 days of life. It is a set of seven interventions during pregnancy and 11 during the first two years of the child's life, which are evidence-based, cost-effective preventive and treatment practices that arose out of a review of global recommendations. It is these very high-impact and low-cost interventions proven to save lives of mothers, newborns and children that continue to remain at low to very low coverage levels in AIM Health countries. These form the "what" of AIM Health's design.

Table 2: WV's 7-11 strategy

7 interventions for mothers	11 Interventions for children
1. Adequate diet	1. Appropriate breastfeeding
2. Iron/Folate supplements	2. Appropriate complementary feeding
3. Tetanus toxoid immunisation (TT)	3. Vitamin A supplementation
4. Malaria prevention	4. Adequate Iron in diet and supplements
5. Birth preparedness and spacing	5. Deworming (+12 months)
6. Deworming	6. Immunization routine
7. Access to maternal health services	7. ARI – prevention and care
	8. Fever – prevention and care
	9. Diarrhoea – management
	10. Hand washing with soap
	11. Essential newborn care

Source: AIM Health Programme Proposal, September 2011

1.3.2 Programming principles and core project models (the "how to")

WV uses key programming principles that guide all its work in MNCH. They guide the choice of interventions and the "how-to" of the AIM Health design.

1. **Empowerment rather than service delivery**, through capacity building and enabling environment, helping individuals, families and communities make informed choices. AIM Health does not provide direct service delivery that amounts to the duplicating efforts of the country's health system

2. **Emphasis on prevention**, where such interventions exist; as prevention has greater impact and is more cost-effective than treatment, and has more positive effects on long-term overall well-being.

3. **Emphasis on improving access to treatment** through investments in primary health care and improving accessibility of these services.

4. **Bundling of multiple interventions** (in the 7-11 framework) along the continuum of care (over time, between the home and the facility and between prevention and access to treatment). When implemented together, these interventions have a positive impact on the health of the mother and the child.

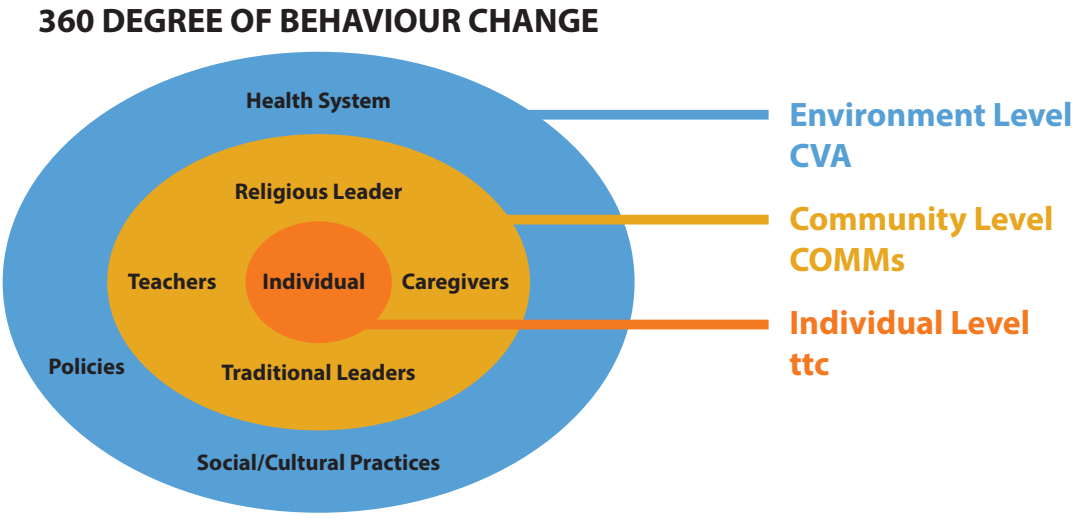
5. **Focus on the first 1,000 days of life:** the 7-11 set also focuses on the first 1,000 days of life (from conception to the second birthday of the child), which has been shown to be the most critical window of opportunity to improve child survival, health and long-term well-being.

6. **Partnering with Ministries of Health (MOH):** working within MOH policy frameworks, adapting interventions to align with MOH policy and guidelines, avoiding duplication of efforts and building MOH capacity through establishing effective dialogue and targeted investments.

7. **Providing 360-degree support to individual-level behaviour change**, recognising that the 7-11 health/nutrition practices entail changes in behaviour at the individual level. The 360-degree support is delivered through interventions at three concentric contextual levels: household, community and environment. Based on this conceptual model, one core project model was implemented for each of the three levels:
    - At the household and individual level – Timed and Targeted Counselling (ttC)
    - At the community level – Community Committees (COMM)
    - At the environment level – Citizen Voice and Action (CVA)

These three models and their domain of action are depicted in Figure 1 below. Implementation of the three models is contextualized to the policy and socio-cultural context in every country; in partnership with national and regional MOH and other stakeholders.

Figure 1: AIM Health Programme Models and Domains of Action



Source: AIM Health programme documents

1.3.3 AIM Health Action at Individual Level: ttC

ttC is when the key 7-11 practices are promoted to mothers and their supporters through home visits using a timed and targeted, and dialogue behaviour change counselling approach. Whilst ttC can be applied using diverse curricula, cadres and job aids, it is the methodology that defines the ttC approach. CHWs deliver ttC in households.

Selected MNCH messages are delivered at **appropriate times** for the woman and her family to be of most value to them at that time. They are delivered prior to the time she needs to take action and have significant benefits to her or her child's health during her pregnancy or her child's first 2 years of life. To be consistent with the timed approach they should be delivered according to a schedule of visits across the first crucial 1000 days of life, from pregnancy to when a child reaches 2 years of age. The generic schedule of ttC visits is provided in figure 2 below. ttC **targets** not only the women who would practice the behaviours, but also their supporters including male partners, mothers in law and grandmothers who may be the key decision makers in the home. It is targeted in time (when it is needed), in space (by visiting in the home), and in individualised approaches (messages and barriers focus on the circumstances of a specific family). ttC involves **counselling**. Current thinking in behaviour change communication is based on the evidence that generic health promotion messaging has limited impact on behaviour, especially where there are key personal, cultural, financial and geographic barriers to adopting a healthy practice. In ttC the CHW engages the family in discussions on their current health practices compared to the messages provided, identifies barriers to the preferred practice through dialogue, and then negotiates a feasible change to current practice based on their individual circumstances.

Figure 2: Generic Schedule of ttC Visits

Source: AIM Health Programme Proposal, September 2011

1.3.4 AIM Health Action at Community Level: COMMs

At community level, the focus is on **community systems strengthening** for health, working with a community structure that may be referred to for purposes of consistency within WV, as the **COMMs**, or Community Committee. The COMMs is the pre-requisite structure for operationalising the 7-11 strategy, and community systems strengthening will take place through and with the COMMs.

The COMMs is empowered to coordinate and manage activities leading to improved overall community health and strengthened civil society. Their responsibilities include, amongst other things, conducting a community health root cause analysis, monitoring CHW reports, developing annual action plans based on prioritised health needs and organising COMMs and/or community led action(s) in response to these needs. COMMs also participate in local level advocacy through CVA programming (CVA is described below).

COMMs involvement and capacity building are central to the ttC model ensuring home visitor activities are integrated within a community systems strengthening approach. Furthermore, the activities of CHWs and other community health actors within a project area should be integrated through the COMMs.

1.3.5 AIM Health Action at Environmental Level: CVA

Citizen Voice and Action is an approach that aims to increase dialogue between ordinary citizens and duty bearers that provide services to the public. It also aims to improve accountability from the administrative and political sections of government (both national and local) in order to improve the delivery of public services. Through this approach, the AIM Health Programme uses CVA to focus on identifying and addressing local level health system gaps. The first phase of implementation is called 'Enabling Citizen Engagement'. This phase equips citizens to engage with governance and is the foundation for future phases of implementation. The second phase, 'Engagement via Community Gathering' is the heart of the CVA process and includes four separate sessions – an "Initial Meeting", the "Monitoring Standards" meeting, a "Community Scorecard" meeting and an "Interface" meeting. The third phase of implementation is called 'Improving Services and Influencing Policy'. In this phase the community begin to implement the action plans they developed during the Community Gathering process.

These descriptions demonstrate that ttC is specific for promoting MNCH interventions (specifically for the 7-11 set of actions), COMM is common for all health interventions of a programme, including and beyond MNCH, and CVA is a local advocacy model which AIM Health utilized for its MNCH advocacy.

1.3.6 Implementation Quality Assessments (IQA)

The intervention model of AIM Health is critically dependent on high-quality delivery of ttC, COMMs and CVA. AIM Health uses the minimum standards that WV developed for these project models as well as the related tools to assess adherence to these standards. AIM Health assessed the quality of adaptation and implementation in its areas of operation using IQA tools from December 2015 to March 2016. This evaluation used findings from this assessment as a source of data and evidence.

Key quality standards for ttC include:

- Developing a contextualised curriculum ensuring inclusion of all 7-11 interventions (per local context and policy),
- Delivering ttC through home visits (and not group sessions)
- Scheduling and carrying out a minimum of three visits during pregnancy and four during the first two years of the child
- Involving key decision makers of the household including the male partner during ttC visits
- Using dialogue to identify specific barriers to adoption of key 7-11 related practices and negotiating new practices, and not just communicating key messages and using stories (negative and positive) designed for each visit and contextualized for each country
- Developing and providing job aids (storybooks and other) for CHWs delivering ttC; training CHWs through a two-tier cascade training
- Setting up a referral and counter-referral system
- Capturing data from ttC visits and using for programme improvement
- Key quality standards for COMMs include:
- Selecting the cadre to function as COMMs, based on guidance provided, and from existing, MOH-recognized cadres; assess their functionality
- Developing organisational capacity and structure of COMMs
- COMMs carrying out root-cause analysis, and using data from ttC and other sources to develop action plans
- COMMs supporting CHWs in delivering ttC
- COMMs mobilising communities to access services or participate in community-wide action as well as supporting health facilities
- COMMs developing linkages between communities and health facilities

Key quality standards for CVA include:

- Forming CVA working group for health; helping communities understand health policies and provisions

- CVA monitoring standard of health service delivery and using a community scorecard to assess quality
- CVA working groups developing an action plan with local facilities and the local administration to address service gaps, and to influence policy

1.3.7 Positive Deviance - Hearth

An important intervention that was planned in addition to the three core project model was **PD-Hearth**. This is used for community-based rehabilitation of children with moderate acute malnutrition. It is based on the positive deviance approach that posits that solutions to persistent problems exist in every community in the form of some (called positive deviants) who have overcome challenges through innovative means. The Positive Deviance approach consists of identifying those positive deviants and their practices and use those to help others overcome the challenge. PD-Hearth therefore identifies those families who are able to keep their children from becoming malnourished, identifies what they do differently and teaches those to malnourished children's caregivers through a 12-day hearth session. The entire PD Hearth cycle is carried out with full participation of COMMs.

While ttC focuses on protection from and prevention of child malnutrition, PD-Hearth focuses on rehabilitating already malnourished children, assuming that there would be such children in the community especially in the first few years of ttC implementation. The WV standard (or "trigger") for implementing PD-Hearth is when the proportion of children who are underweight reaches 30% or more at the population level. Children with severe malnutrition are referred to health facilities for therapeutic nutrition.

1.4 ADVOCACY IN IRELAND

AIM Health is supported by an advocacy component in Ireland. This component serves to work with the Irish public to take action on MNCH issues, engage the Irish government on MNCH action planning and policy and seek to enhance learning on effective health programming. This advocacy aims to work towards supporting AIM Health in reaching its goal through the following outcomes and outputs:

Outcome1: Engaged Irish public participates in advocacy activities to support improved maternal and child health

Output 1.1: Increase in level of support of Irish public with regard to maternal and child health issues.

Outcome 2: Irish Government recognises WVIRE as expert contributor on Child Rights through

Output 2.1: Increase in the level of support for issues promoted by WVIRE on the part of key decision/policy makers in relation to MNCH

Output 2.2: Increase in WVIRE's contribution to enhanced learning on effective health programming.

1.5 AIM HEALTH THEORY OF CHANGE

As mentioned earlier, the **overall goal** of AIM Health is to reduce infant and maternal mortality and improve the health of mothers and children. Based on the global evidence-base and recommendations for WV's global programmes, AIM Health focused on **three population-level outcomes** to achieve the survival and well-being of children and mothers:

1. **Mothers and children are well nourished**
2. **Mothers and children are protected from infection and disease**
3. **Mothers and children access essential health services**

These outcomes thus pertain to coverage levels of the 7-11 interventions and were measured among children under five years of age and their mothers. Although ttC behaviour change intervention focused on children under two, successive cohorts of those children reached over the programme period would lead to population-level change. In order to reach these outcomes, AIM Health would deliver the following broad **outputs** at the level of programme beneficiaries:

- CHWs trained in ttC and delivering it with quality and timeliness
- The 7-11 practices outlined under the three AIM Health outcomes seen among pregnant women and children aged 0-23 months who are reached through ttC
- COMMs carrying out active mobilising of communities and supporting ttC
- CVA working groups identifying service delivery gaps and advocating for improvements
- Health services improved in terms of supplies and staffing – through advocacy and through provision of key infrastructure and supplies as needed
- Communities utilising data from CHWs and other sources to manage their health and organise community-wide events to address specific issues
- Engage with the Irish public to advocate with the government on MNCH issues

1.6 AIM HEALTH PROGRAMME RESULTS

All the programme outcomes and outputs described in section 1.4 and the related indicators form part of the **Results-Based Framework** (RBF) of AIM Health. Indicators and their targets included in the RBF form the basis for assessing progress over time towards the programme goal, through a logic of change that is implicit in the hierarchy of programme goal, outcomes and outputs (the AIM Health Theory of Change is detailed in Annexe 1).

Community Ambulance in Mutonguni, Kenya

It should be noted that a 12-month preparatory phase (referred to as AIM Prep) for the AIM Health Programme was implemented in all 5 countries and the specific implementation sites in 2011. This AIM Prep phase relates to Outcome 1 in the RBF.

The Results-Based Framework as reviewed at end line evaluation was comprehensive in scope and well detailed in describing the results for each programme element (as described in Section 1.2). The focus and depth of information on annual progress as captured in the reviewed RBF reflects its regular use at country-level and in overall programme tracking and review.

1.6.1 Outcome 2: Improved nutrition of children and their mothers

This outcome is based on levels of stunting (low height-for-age) and wasting (low weight-for-height) among children aged 6-59 months as tracked at baseline, midterm and end line. The following **outputs were designed as the basis for achievement of outcome 2**:

1. **Early and exclusive breastfeeding:** Timely initiation of breastfeeding and exclusive breastfeeding up to six months of age are key 7-11 practices, and they have been proven to have significant protective and nutritive benefits for the newborn and the infant.
2. **Diverse diet and minimum meal frequency:** from 6 to 23 months and adequate iron intake: These ensure healthy linear growth of the child, protection from infections and development of cognitive abilities.
3. **Diverse and sufficient diet in pregnancy:** ensures protection of the mother and baby from critical micronutrient deficiencies and contributes to good maternal outcomes, especially adequate birth weight for the child, which in turn, gives the child a healthy start.
4. **Protection from worm infestation:** in children and mothers through regular de-worming in line with MOH policy helps avoid loss of iron and other critical nutrients.
5. **Community-led actions to promote nutrition-related practices:** targeting pregnant women and children under two years.
6. **Household level promotion of nutrition practices:** through timely and high-quality ttC visits.

1.6.2 Outcome 3: Protection of children and their mothers from infection and disease

Prevalence of the 3 major killer diseases – diarrhoea, acute respiratory infections (ARI) and malaria – assessed through a 2-week recall were key indicators. The following **outputs were designed to underpin achievement of outcome 3**:

1. **Caregiver knowledge of key illnesses and prevention mechanisms:** Knowledge about danger signs in the mother during pregnancy and post-partum period and for the newborn, as well as knowledge of mother-to-child transmission of HIV. Improving levels of knowledge is foundational for bringing about the required changes in practices.
2. **Water, sanitation and hygiene (WASH) practices in households:** The emphasis here is protection from illness, and hence these are tracked in programme locations, even though AIM Health does not directly and significantly intervene in these areas. This includes access to

safe and sufficient water, access to improved sanitation facilities and caregivers' hand washing practices. There is evidence linking these practices to incidence of pneumonia and diarrhoea. It is important to note that WASH interventions are critical in improving child growth (and prevent stunting) as they help reduce the frequency of illnesses.

3. **Possession and use of bed nets:** Consistent use of long lasting insecticide treated nets (LLINs) by pregnant women and children is the key practice that has been shown to reduce transmission of malaria.

4. **Accessing HIV counselling and testing services during pregnancy:** This is a key part of the strategy for prevention of mother-to-child transmission (PMTCT) of HIV and is promoted through the programme and its coverage levels tracked over time. However, it is important to note that HIV itself is not a leading cause of child mortality.

5. **Timely and appropriate care seeking for illness:** While the emphasis on prevention and protection is expected to reduce the incidence of these illnesses, timely and appropriate care needs to be sought and initiated when they do occur, in order to reduce the duration and severity of the illness and to prevent death.

6. **Community-led actions to promote the above prevention and care-seeking practices:** that are carried out through ttC visits and through COMM-led activities involving entire communities.

1.6.3 Outcome 4: Mothers and children accessing essential services

This outcome focuses on maternal and newborn care (MNC). Antenatal care, skilled attendance at birth, postnatal care and use of birth spacing are key indicators. The following **outputs were designed as the platform for achieving outcome 4**:

1. **Antenatal care services:** Coverage of at least 4 antenatal visits, as critical for identifying women at risk of developing complications and to provide the necessary support and care.

2. **Skilled attendance at birth:** AIM Health programme locations are among places with the highest maternal mortality ratios in the world. Most of these deaths happen during labour, childbirth and in the hours and days following it. Time is of the essence in ensuring that conditions are identified and the right treatment instituted. Skilled birth attendance at a facility is thus a critical enabler in ensuring this.

3. **Postnatal care check for mothers and newborns:** Coverage of at least three checks in the first week after birth as critical to identifying and addressing issues pertaining to maternal and neonatal morbidity and mortality; and to provide the necessary support and care during the post-natal period for both the mother and the newborn.

4. **Availability of maternal and newborn services:** This set of indicators track the availability of staff, equipment and supplies in facilities, especially for the provision of basic emergency obstetric and neonatal care (BEmONC). The programme also tracks user satisfaction, and referral and post-referral follow up of pregnant women and newborns which are needed for continued utilisation of these services.

5. **Strengthening health systems and linkages:** Continued support to CHWs from the formal health system is tracked in each programme location, as a key factor for sustained delivery of ttC and referral services.

6. **Utilisation of other related services:** such as birth certificates for all children which is crucial for continued accessing of other services such as education and social welfare schemes

7. **Engagement with the Irish public:** This refers to WVIRE's advocacy work in Ireland. This component works with the Irish public to take action on maternal and child health issues, engages the Irish government on MNCH action planning and policy development and seeks to enhance sectorial learning on effective health programming.

1.7 PROGRAMME TIMELINE

AIM Health was implemented from 2011 to 2015, with the preparatory phase of AIM Prep running from 2011 up to March 2012, followed by the implementation phase. Baseline surveys were held from mid-2011 to early 2012. The midterm review was held August – October 2014 and end line evaluation from October 2015.

Figure 3: AIM Health timeline

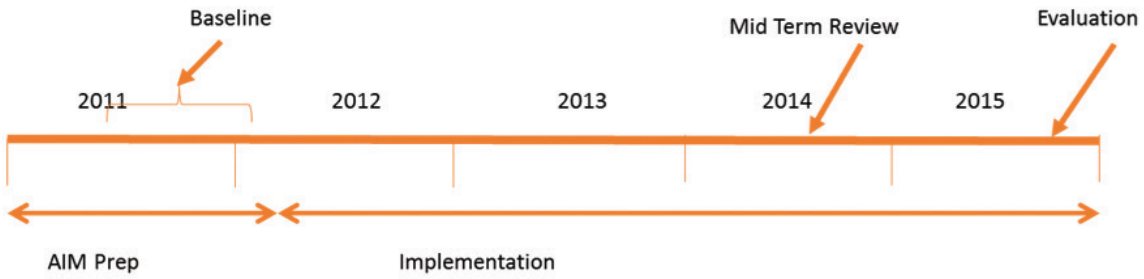


TABLE OF CONTENTS

2.0 EVALUATION DESIGN AND METHODOLOGY

WVIRE commissioned FARST Africa Ltd to conduct the end line evaluation of AIM Health in September 2015 as the last element in the overall evaluation framework.

2.1 END LINE EVALUATION PURPOSE AND OBJECTIVES

The **overall purpose** of the end line evaluation was to measure improvements in maternal and child health and nutrition in the areas where AIM-Health was implemented. Specifically the evaluation answered four primary questions:

1. Did the programme contribute towards any observed statistically significant changes in MNCH and nutrition indicators?
2. What is the probable impact on under-five (with emphasis on neonatal and infant mortality) and maternal mortality based on values from baseline and final assessments and using the mathematical modelling tool called Spectrum LiST (Lives Saved Tool)?
3. What are the possible mechanisms at work behind the programmatic approach and what is the programmatic relevance of each?
4. Did the programme have any limitations, risks and threats?

2.2 OVERALL EVALUATION FRAMEWORK

The overall evaluation framework for AIM Health was designed to take place over a series of three exercises: a formal baseline (conducted in 2011), a mid-term review (carried out June-August 2014), and this end line evaluation conducted at the end of 2015. The overall purpose of the end line evaluation was to measure improvements in maternal and child health and nutrition in the areas where AIM-Health was implemented. The hypothesis that was formally tested through the end line evaluation was whether or not there are statistically significant changes in reported MNCH and nutrition indicators based on a pre- and post- intervention comparison.

A mixed methods approach was adopted for the end line evaluation; including primary data collection and analysis using quantitative and qualitative methods, and collection and analysis of secondary data from health facilities, WV offices, government offices, and from the world-wide web.

2.3 EVALUATION DESIGN

2.3.1 Quantitative methods in the evaluation

The baseline evaluation employed a cross-sectional cluster sampling design, applying a two-stage probability sampling method to obtain a representative sample of the population. The survey adopted a participatory approach using existing CHWs to collect data, using forms they use to collect routine household data, opening up the process for bias and not standardizing the data collection tool across the programme.

The mid-term evaluation used Lot Quality Assurance (LQAS) survey design for the household survey; and was stratified to a total of 49 supervision areas in the 9 AIM Health sites. This was informed by

the need to generate information to guide necessary improvements in programme implementation, which was routinely managed at supervision area level. The mid-term evaluation also included qualitative data collection through focus group discussions and in-depth interviews at community level and with a range of stakeholders in the programme at district, national and global levels. AIM Health used mid-term review data to estimate programme impact on child and maternal mortality, using the Lives Saved Tool (LiST) for mathematical modelling.

Household surveys were conducted at end line in all AIM Health ADPs, and in one comparison ADP in each country. The households **sampling design** used two-stage cluster sampling and the sample size for each ADP was decided for statistical confidence of 95%, power of 80%, clustering co-efficient of 0.25, and baseline and expected end line prevalence of skilled attendance at birth for each ADP. Using these considerations, the number of clusters was calculated using the formula from Hayes and Bennett.[4] A total of 6,349 households were sampled, which was 139% of the expected sample size. Details of the sampling strategy are included in Annexe 2.

The survey teams developed lists of primary sampling units from the most recent census data and selected the required clusters using the systematic random sampling method. Within each selected cluster, they selected the required number of households using a set of agreed-upon random selection methods. Respondents were mothers or caregivers of children aged 0-59 months.

In view of the high coverage levels at baseline and the inability to validate them, the end line evaluation included comparison household surveys in one ADP in each of the 5 countries. The comparison ADP was purposively identified; based on the following criteria with reference to the AIM intervention ADPs: a) socio-cultural and terrain comparability; b) health services comparability; c) inclusion of a health component in the core ADP activities, but not ttC, or CVA. In this quasi-experimental evaluation design, the comparison community was used as a non-equivalent control group to match with the respective AIM Health intervention communities. To limit the costs and complexity of the comparison design, a shortlist of 15 programme indicators was adopted for measurement in the comparison ADPs. The sampled comparison ADPs and their respective populations are presented in Table 3 below. A total of 3,523 households were sampled, which was 137% more than the required sample size.

Table 3: End line evaluation comparison ADPs and target populations

Country	ADP	Total ADP Population	Pregnant Women	Children under five
Kenya	Lower Yatta ADP	30,146	2,140	4,883
Tanzania	Kongwa ADP	36,808	3,974	6,257
Uganda	Buikwe ADP	53,723	3,388	6,990
Mauritania	Bababe ADP	36,341	1,817	6,905
Sierra Leone	Serabu ADP	26,100	2,349	4,437

Source: WV ADP records

[5]RJ Hayes and S Bennett. Sample size calculation for cluster-randomised trials. *Int. Journal of Epidemiology*, 1999

Data collection process:

The survey team leaders developed, translated and field tested questionnaires and informed consent forms and converted the questionnaires into electronic data entry templates.

The survey team leads from FARST Africa trained and equipped data collectors were to collect data for electronically using an Open Data Kit (ODK)-based tool on smartphones and other forms of Personal Device Assistant (PDA) platforms. This enabled elimination of data quality compromise and time delays inherent in entry of data collected using paper questionnaires. Data collected each day was double-checked by the Field Supervisors and the Country Evaluation Team Leaders. Data verified as valid and complete was uploaded to the web-based database at the end of each day by the Country Evaluation Team leaders. Data collection teams carried out the needed call-backs address data with gaps that could be dealt with through clarification visits to the same households

Statistical data analysis using STATA:

Data processing teams exported all household data in a CSV format from the electronic devices into STATA 13 statistical software[5] for quantitative analysis. They checked the data quality (e.g., identify missing data, extreme and out of range values, etc.) and cleaned the data accordingly. Next they created the .do file to generate the necessary derived variables to use in the analysis and tested the do file on the data for one country and made necessary changes and ran it later on all the other datasets to upgrade the indicators to the ones needed for analysis in this evaluation.

After this stage, they carried out two rounds of analysis: the first aimed at generating basic frequencies with their respective 95 percent confidence intervals (95% CI) for all indicators in the RBF and for the supplementary indicators needed for the LiST analysis, and the second focused on generating the relevant indicators and comparative analysis to inform writing of the respective country reports and the overall evaluation report. In order to establish the existence (or nonexistence) of a statistically significant association or relationship between two variables of interest, the evaluation undertook a descriptive bivariate analysis. This analysis was based on the Pearson Chi-square test, at 5% statistical significance ($p<0.05$).The .do files were edited based on feedback from AIM Health to produce the analysis logs. FARST Africa and AIM Health adopted a consultative approach throughout the data analysis and report writing. The analysis team disaggregated data by ADP, and by gender and age sub-groups where relevant.

The team used the software for emergency nutrition assessment (ENA)[6] to organize, clean and analyse anthropometric data for Weight-for-age (underweight), Weight-for-height (wasting) and height-for-age (stunting) and compared the results with WHO Anthro for accuracy.

2.3.2 Qualitative methods in the evaluation

The end line evaluation included collection and analysis of qualitative data, to provide in-depth, descriptive information on the AIM Health programme to complement the quantitative data from household surveys. Collection of qualitative data, with reference to Irish Aid Guidelines on end line evaluations, was aimed at:

[5] StataCorp LP, 4905 Lakeway Drive, College Station, TX 77845 USA
6 http://www.nutrisurvey.de/ena/ena.html

1. Deepening understanding of the possible mechanisms at work behind the programmatic approach; and the programmatic relevance of each mechanism;
2. Compiling lessons, promising practices and key success factors; and
3. Analysing constraints and challenges to implementation of the various project models.

Qualitative evaluation data was collected through Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs) with a broad range of stakeholders from target communities, district officials, MOH and WV staff. Qualitative study teams conducted six FGDs in each of the nine ADPs – with mothers of young children, grandmothers, men, COMM members and CVA working group members. They also did 10 KIIs in each ADP, 5-7 at each country office of WV and nine at WVIRE, WV global centre and Irish Aid. The team used atlas.ti to code and analyse the descriptive data.

2.3.3 Secondary data

The main sources of secondary data utilized were WV offices and Health Facilities in the two AIM Health intervention sites. Additional secondary data was collected from district and national level government offices. The key records extracted for secondary data include: periodic reports (monthly, annual, etc.); programme implementation plans; and AIM Health baseline and mid-term review reports. Results from IQA exercises (section 1.1.6) were also used to explain the quality of project model implementation.

2.3.4 Analysis of programme impact using the Lives Saved Tool (LiST)

The Lives Saved Tool (LiST) is a mathematical modelling tool that estimates the impact of project interventions and quantifies the combined impact of the interventions as numbers of lives saved. It also estimates reductions in maternal, neonatal and under-five mortality. In LiST calculations, coverage values of interventions (entered from program data into a policy modelling software called Spectrum) interact with effectiveness of these interventions and how common the conditions that they affect are – both of which are contained in the software and are based on extensive literature reviews. LiST is closely linked to the work of World Health Organization (WHO)'s Child Health Epidemiology Reference Group (CHERG) and UNICEF, and operates on Spectrum, a demographic projection software. Demographic estimates are drawn from UN Population statistics. LiST has been extensively used for planning, evaluation, research and advocacy at global, country and district levels by national Ministries of Health, aid agencies, and by projects.

A key caveat in using LiST is its assumptions regarding optimal quality of programme interventions, particularly those related to health service provision, such as facility births. All components of these services, as assumed in LiST might not be present in actual service delivery scenarios in AIM Health target locations. The impact of improvements in coverage of these interventions is therefore likely to be over or under estimated. Another caveat is related to the interventions included in LiST. There are several interventions that AIM Health promotes (such as timely initiation of breastfeeding) that are known for their protective effect on newborns, but have not been included in LiST owing to lack of cause-specific evidence of their effect on mortality, leading to possible underestimation of the impact of AIM Health interventions.

AIM Health used Spectrum version 5.34 (released December 2015) for this exercise. Coverage estimates from the baseline survey (2011), LQAS survey of the mid-term review (2014) and the household survey done during the end line survey (2015) were entered in LiST for each ADP, to obtain data on lives saved and changes to mortality. Thus LiST enabled an estimation of the impact of AIM Health based on an assumption of a linear rate of change between these time points.

2.3.5 Advocacy evaluation

A separate evaluation process was conducted for the advocacy component of AIM Health. The purpose of this evaluation was to conduct an evidence based assessment to evaluate the extent to which AIM Health achieved its advocacy objectives.[7] The evaluation also aimed to identify lessons and provide concrete recommendations to inform advocacy in the next phase of AIM Health. The following methodological approaches were used for this evaluation:

1. In-depth interviews with selected staff members of WVIRE (9 persons)
2. In-depth interviews with external stakeholders (1 person representing communications agency)
3. Secondary review of relevant programme and project documentation and policy documents

Data was gathered in March 2016. Review of programme and project documents gave both quantitative data (M&E framework) and qualitative data which were triangulated with the qualitative data from the thematic semi-structured interviews.

During the evaluation it was found out that baseline data was not gathered for the advocacy component. The M&E framework was elaborated during the implementation (2012) and the outcome level was added in 2015. Data for the year 2015 was not available and annual report 2015 was in process and not available for the evaluation. All these factors limited the evaluation.

2.4 LIMITATIONS IN THE END LINE EVALUATION PROCESS

One major limitation in the end line evaluation was the difference in timing and approaches used to conduct the household surveys at baseline, midterm and in the end line evaluation. This constrained the possibility for precise comparisons across time in order to measure programme outcomes and impact; especially in view of the very high values reported at baseline on some of the indicators. The approach adopted to mitigate this limitation was to conduct a similar survey in non-intervention ADPs (a quasi-experimental design as already described above); and to rely more on comparisons between midterm and end line evaluation results for trends analysis.

Development of the end line evaluation survey tool inadvertently excluded questions on de-worming in pregnancy and for children. As a result, these indicators were not measured.

Programme records and data were not uniformly available and adequately detailed in all programme sites to enable generation of full data on all programme output indicators. In many cases, there was no common repository for data and information on the activities and outputs of all key actors in the programme (CHW, COMMs, linked CSOs, etc.)

[7]For the advocacy evaluation objectives are taken to refer to both outcomes and outputs, as the advocacy outcomes were added at late stage in implementation.

The data collection process was not able to reach some of the targeted end line evaluation respondents. In some of the programme sites, this was attributed to the timing of the data collection process, which coincided with a particularly busy period of planning and reporting towards the end of the year. Several call-backs were made to find the relevant respondents but these were not fruitful in some cases.

Many of the enumerators/research assistants in the different sites had limited or no experience using PDA tablets or smartphones for data collection. This was addressed through intense training and close follow up and further guidance by field supervisors. This slowed down the pace of data collection, and critical damage to some of the gadgets in use.

The evaluation process was not able to find Research Assistants with adequate experience in qualitative research methods and the necessary language competence, especially in Mauritania. In some cases, they lacked probing skills, and some were not able to capture unbroken audio recordings of the discussion process. In other cases, they were not able to fully transcribe what had been captured on tape for immediate analysis.

Isata Barnett and her little girl, Monica, from Sherbro Island, Sierra Leone

In Sierra Leone, the end line evaluation process was constrained by Ebola response engagements and travel restrictions that were still in place. In two instances, Enumerators were prevented from entering certain study clusters in the Sherbro Island ADP. In some areas, mothers refused the enumerators from taking the height and weight of the children as part of avoiding body contact and Ebola transmission risk.

In Uganda and Mauritania, the long distances between the programme sites posed unique challenges to a unified evaluation process. In Uganda, two in-country consultants were deployed to manage the team training and data collection processes in the two sites separately. The two teams worked together to conduct data collection in the comparison site, which was geographically in between the two programme sites. In Mauritania, the country consultant spent a longer time in the field to manage a serial process of team training and data collection supervision in the two programme sites. The data collection team for the comparison sites was trained together with the team for 1 intervention site; and the data collection process in both sites was concurrent (and concurrently supervised by the consultant).

3.0 AIM HEALTH IMPLEMENTATION

This section presents the **processes** that AIM Health undertook in adapting the programme design to each country and implementing it in the ten ADPs across the five countries. It also outlines **key outputs** achieved from this process and the extent to which the programme interventions were delivered as planned and in accordance with standards. AIM Health went through two distinct phases: a preparatory phase (also called AIM Prep) and the implementation phase. Achievements under Outcome 1 in the programme RBF is also described in detail.

3.1 PREPARATORY PHASE: AIM PREP

This phase lasted from mid-2011 to March 2012 and it objective was to set the stage for implementing project interventions. AIM Health teams used this phase to review national policies and strategic plans related to MNCH (such as the Village Health Strategy of Uganda and the National Health Sector Strategic Plan of Sierra Leone) and consult extensively with national MOH to position the programme strategy within the overall policy framework and landscape of MNCH. AIM Health also conducted baseline household surveys and assessments in all project locations and disseminated the results at district and community levels. It also organized in-country programme management and coordination teams. Some projects identified training teams for the project models; the cadre to deploy for ttC home visits and the community structure that would function as COMM. During this time, projects also sensitized communities, community leaders and district-level officials about AIM Health interventions to achieve effective participation and support.

3.1.1 Achievement of Programme Outcome 1: Key stakeholders and coordination

AIM Health implementation required close coordination with stakeholders at all levels and in all stages of the programme cycle. At the **national level**, AIM Health worked with the WV national office to orient national MOH and development partners about the programme and its project models (ttC, COMMs and CVA). It also worked with an MOH-nominated sub-group to contextualize these project models, adapting them to the national policy and the local socio-cultural context. In most locations, district-level health staff (such as trainers or MNCH specialists) took part in the contextualization process. Engagement at the national level was most intense at inception, followed by debriefing stakeholders of key programme milestones.

In the **districts** where AIM Health projects are located, the programme coordinated with the district health offices to orient the entire office on the contextualized programme at the start of the programme followed by quarterly (or more frequent) discussions on operational details, such as selecting trainers for the project models, issues faced during implementation such as motivation and attrition of CHWs, health facility staffing and supply-related issues. AIM Health-related activities were included in the district health plans in most locations, and acknowledged as an important influence to service focus and programming priorities at sub-national level and within health facilities. AIM Health also frequently coordinated with other departments such as public works, agriculture, water and sanitation, in order to plan and implement related activities. The ADPs that hosted the AIM Health project led the coordination. The three project models were seen as new approaches and required significant effort to explain and negotiate.

AIM Health also worked with staff and the management teams of **health facilities** at the district and sub-district levels, for the purpose of meeting the demand generated through ttC (working at the household level) and COMMs (working at the community level). The programme also worked with facilities in coordinating outreach campaigns in communities and for training of facility staff.

AIM Health coordinated with a range of stakeholders in **target communities**, chief among whom are the implementers of the three project models: community health workers (CHWs). COMMs members, CVA working group members, village chiefs and administrative leaders, traditional birth attendants (TBAs), volunteers working with other initiatives, pregnant women, mothers of young children, male partners of these women and older men and women in target communities.

AIM Health achieved this outcome through the following outputs:

3.1.2 Output 1.1: Information collection and use

AIM Health collected data through participatory processes in order to develop effective, context specific, MNCH programming. COMM members, CHWs, facility staff and district health officials participated in planning and implementing data collection, interpretation and dissemination at baseline and at mid-term review.

AIM Health disseminated findings from **baseline studies** (household survey and descriptive data) widely in all locations and used the data in the immediate programme context to develop detailed community-specific plans for implementation. For example, baseline findings were instrumental in deciding to increase the number of CHWs in Tanzania.

The programme also utilized the **midterm review** process and results extensively to refine programme implementation. In particular, country and field level actors in programme implementation appreciated the approach adopted in the midterm review process to measure and disaggregate results to each programme site and specific supervision areas. This information resource was an important basis for necessary management action and tracking change.

The programme built the capture and reporting of **routine data** largely on the existing government systems and formats for community-based health information. It supported necessary modifications to include ttC-specific data; and to produce and distribute the data capture and processing materials and supported training of different categories of users (e.g., the CHWs, data clerks at health facilities, etc.) in processing and utilizing data in all programme sites. Health facilities in programme sites in Kenya display compiled CHW-level data on a **chalkboard** and use the data to discuss issues during dialogue days. AIM Health supported mobile health (mHealth) technology as a useful innovation in capturing, relaying and using data (see below).

3.1.3 Output 1.2: Strengthened coordination

The evaluation found that the AIM Health implementation process strengthened coordination between WV and Ministries of Health, focusing on the national level and on decentralized health management at regional and district levels. The programme entered into formal Memoranda of Understanding (MOU) between WV and MOH in all countries except Kenya (which provided a letter of recommendation to the county health department).

AIM Health facilitated interactions between CVA and COMMs and the local facilities and district health officials. In addition to the above stakeholders, AIM Health also coordinated operations with private facilities and faith-based organizations in Uganda and Sierra Leone.

Existing policies and operational guidelines on community health enhanced coordinated roll out of AIM Health interventions. WV's experience and visibility as a recognized stakeholder in the community health support process (implementation, advocacy, technical assistance and training) also enhanced coordination and roll out.

AIM Health harnessed ongoing processes to strengthen primary health care delivery, such as the 2007-2017 PHC Development Programme in Tanzania and the 2010 Basic Package of Essential Health services in Sierra Leone (and its revision and re-launch in 2015).

Efforts by AIM Health in Uganda have resulted in dialogue meetings between district health authorities and TBAs, a sign of inclusion and mutual respect.

District health educator,
Busia, Uganda

Operational coordination of AIM Health implementation was based at the district level in all target countries (the new equivalent level in Kenya is the sub-county). This provided enhanced opportunity for WV participation in the district or local council heath management team activities. This has been well utilized (e.g., in Tanzania and Sierra Leone) to leverage WV participation in the broader health planning and review processes of the respective districts.

3.1.4 Output 1.3: Capacity enhancements

AIM Health enhanced the capacity of formal and informal health personnel and structures to engage in preventative health care promotion. Training of CHWs in ttC, COMMs and CVA groups in mobilizing communities and supporting ttC and health facility staff in MNCH services are all described in relevant sections below.

3.2 IMPLEMENTATION OF ttC

AIM Health projects were the first ADPs to implement ttC in the five national offices. Therefore AIM Health led the negotiations with the district and national MOH regarding the curriculum to use to train CHWs in ttC. The resulting training material was in modular form that enabled CHWs to practice one module for a few months before returning to be trained in the next set of modules. Typically, the first module has content pertaining to counselling, counselling and dialogue and subsequent ones have MNCH-specific content. In most curricula, the MNCH content is organized by ttC visit. Training events combined teaching sessions with classroom-based practical sessions such as role plays, and practice sessions in actual households. Batch size ranged from 20 to 30.

Most MOHs also required that CHWs be trained in their "basic" curriculum before being trained in other, more specialized ones (which include the models). That led AIM Health to fund those basic training events, just to be able to then provide the ttC and other training. In most project locations, COMMs and CVA trainings continued into 2014, leaving very little time for any implementation to take place, although it should be acknowledged that most ADPs in AIM Health had these structures in place before the programme began.

Table 4: ttC curricula

Country	ttC
Tanzania	Hybrid of WV ttC and MOH curricula
Kenya	MOH curriculum with some elements from WV ttC
Uganda	Hybrid of WV ttC, MOH and UNICEF curricula
Mauritania	WV ttC curriculum
Sierra Leone	WV ttC curriculum

Five MOH staff in Tanzania trained in ttC went on to become national-level certified trainers in community MNCH.

All countries used a two-tier training cascade for ttC. In the first tier, also called training of trainers (TOT), master trainers from WV and national MOH staff trained national and district staff of MOH and WV. In the second tier the facilitators trained CHWs. Training for both tiers were held for five - six days instead of the standard number of 10 days in most AIM Health locations, owing to time and budget constraints. Planned refreshers were not carried out in Kenya and in Mauritania due to budget constraints.

Table 5: Numbers trained in ttC

Country	Numbers trained in ttC/MNCH			
	MOH	WV	Partners	CHWs (% women)
Kenya	44	5	8	505 (82%)
Tanzania	23	6	0	172 (51%)
Uganda	43	3	13	1,020 (45%)
Mauritania	9	9	1	120* (91%)
Sierra Leone	12	4	5	400 (31%)
Total	**131**	**27**	**27**	**2,217**

** Of these, 40 are CHWs and 80 are "relays" or assistants, two per CHW.*

CHWs were provided with a handbook for ttC, a set of ttC storybooks each and household handbooks for each family registered for ttC. Material for CHWs in Mauritania was in French, while several CHWs are either non-literate or could read only Arabic, and these CHWs took the help of their relays in conveying the stories and key messages to families. IQA carried out in Tanzania and Uganda found that stories, dialogue and negotiation were not part of the ttC design, but only key messages were designed for each visit. Stories were part of the ttC visit design in Kenya, Sierra Leone and Mauritania.

The majority of the CHWs that the project trained in Sierra Leone had been traditional birth attendants (TBAs) and hence enjoyed the trust and confidence of communities. However, several of them were non-literate or semi-literate, requiring longer training time.

AIM Health oriented WV's management staff at national and sub national levels in ttC in some ADPs. In these locations these staff were able to clearly articulate the value addition that ttC brings to behaviour change.

3.2.1 ttC home visits

CHWs carried out home visits per the ttC schedule: three visits during pregnancy and seven thereafter until the child's second birthday. In almost all locations, the three visits during the first week after birth were not entirely feasible, especially if the facility in which the mother gave birth was far away from the community.

The quality of ttC interactions (per minimum standards prescribed for ttC) was variable across locations. IQA exercises found that some CHWs used dialogue and negotiation during their home visits, while others just read out the stories and key messages, leaving little scope for the family to raise concerns or questions about the new practices. IQA also found that CHWs in Tanzania and Mauritania did not explore individual-level barriers to adopting the recommended practices and then negotiate for tailored solutions to address them. This is a key deficiency that has to be addressed in future programming cycles. It could also be useful to quantify the extent of adherence to key quality standards (such as the percentage of CHWs doing ttC visits that identify specific barriers through dialogue with the family).

Male partners and other household members took part in discussions during ttC visits to a larger or lesser extent, although male partner presence did not appear to be sought for in ttC visits in Uganda. A system to measure male partner participation was not included in any AIM Health location. Mobile phones were used in monitoring ttC activities, as described in the textbox below.

AIM Health oriented facility staff and COMMs members in ttC and how it works at the household level to bring about behaviour change and improve care seeking. This activity did not meet the set standards in terms of content or duration of orientation training in most locations. However, the evaluation found evidence for COMMs cadres supporting referrals from CHWs to facilities. COMMs

Enhancing ttC using mHealth

AIM Health used mobile technology (mHealth) to enhance ttC work in Sierra Leone and Uganda, by equipping 145 CHWs in Sierra Leone and 896 in Uganda with training and phones to use the MOTECH operating system* of Grameen Foundation and the CommCare application of Dimagi.† The app allows the CHW to register and follow up women for ttC and transfer the data every month to the local health facility. The phones store data until the CHWs reach an area with network connectivity to upload the data. The phones help CHWs with ttC work by reducing paperwork, reminding them about due visits, providing relevant messages for each visit. CHWs use the phone to coordinate with the health facility for making emergency referrals. Above all, the CHWs considered the phones an incentive.

AIM Health also trained WV and district MOH staff and facility staff in its use. At end line about 50% of all CHWs trained in mHealth were considered proficient and consistent users of the system. AIM Health found that CHWs with basic or higher education and those experienced with cell phone use were able to use the technology better.

Key challenges to implementing mHealth include poor mobile network coverage, high and unsustainable costs of access subscription; limited access to electric power to charge mobile phones or laptop computers; and mobile phone functioning problems (especially when used for music download and such other purposes). Strategies used to mitigate these include: utilization of multiple internet networks based on differences in signal coverage quality; provision of group-based solar charging facilities; and encouragement of peer support groups to guide optimum data entry and processing.

* http://www.grameenfoundation.org/what-we-do/health/motech-suite-and-platform
† http://www.dimagi.com/products/

members were also fully aware of the ttC work that CHWs carried out and were appreciative of the change that ttC brought about in health practices and care-seeking for pregnant women and children.

3.2.2 CHW supervision and support

Supervision of CHWs in delivering ttC was designed to be carried out by MOH staff in all AIM Health locations. AIM Health staff accompanied MOH staff on supervisory visits. However these supervision visits were sparse in all locations (compared to the standard of quarterly visits to every CHW). Many of MOH staff are not fully trained in the ttC model and its components; in addition, supervision visits were not based on competencies that the CHWs were expected to possess and use during ttC visits. The MOH supervisors required support for transportation costs from AIM Health as these supervisory visits were not factored into their annual plans. Supervisors did not debrief with COMM as a routine part of the supervision in Kenya,

CHWs in all locations met with government-assigned supervisors and AIM Health staff every month or quarter. These meetings were used to submit and verify reports, discuss challenges and successes and for brief refresher training.

3.3 IMPLEMENTATION OF COMMs

AIM Health sought to identify and deploy existing community-based structures as COMMs. The community health committees were deployed as COMMs in Kenya and Sierra Leone. These bodies are recognized in MOH policy in the respective countries. Similarly, the village health committees in Tanzania, deployed for COMMs are recognized in MOH policy. Mauritania and Uganda chose health facility/unit management bodies to serve as COMMs, which could be disadvantageous given the focus of these bodies on management of facility-based services.

Prior to COMMs, there was no mechanism for obtaining feedback on the service we provide.

Facility staff,
Sherbro Island

The AIM Health programme addressed three common gaps in such committees, which were identified during the AIM Prep phase: Incomplete or inappropriate constitution of the committees; inadequate or absence of appropriate guidelines for their operation, and limited orientation/training about their roles; and inadequate resources to support the operations of such committees.

In most AIM Health locations, these cadres were either not fully constituted in each target community or had been dormant. The programme therefore formed, re-structured or revived these cadres based on national MOH guidelines. It also carried out COMMs functionality assessments along with district health authorities (with the exception of Mauritania) and then trained the cadres using manuals and guidelines from the respective MOHs, after reviewing them and adding relevant content from the WV COMMs curriculum. The training events typically lasted 5 days and included COMMs duties and responsibilities in community health, organizational capacity building.

Table 6: Numbers trained in COMMs

Programme Site (Country)	Numbers trained in COMMs		
	MOH	WV	COMM members (% women)
Kenya	13	0	136 (47%)
Tanzania	24	0	207 (41%)
Uganda	5	18	364 (41%)
Mauritania	11	10	200 (66.5%)
Sierra Leone	20	13	180 (40%)
Total	**73**	**41**	**1,087**

Some AIM Health ADPs did not plan and/or implement orientation/training of COMMs in ttC, owing to time and budget constraints (as the COMMs model was deployed quite late in the programme timeline – see below). Training of COMMs in Sierra Leone was severely constrained owing to COMMs members' involvement in Ebola-containment activities. COMMs members also received orientation in specific interventions, especially in PD Hearth in places where the latter was implemented. Training in ttC however, was not uniform as stipulated in COMMs standards. COMMs participation in CVA was high in all locations and was carried out in accordance with standards.

AIM Health also focused on building the organizational structure and capacity of COMMs in all locations, focusing on norms and procedures for membership, meetings and for financial management. These norms and procedures were in accordance with MOH guidelines and WV standards for COMMs.

We are expected to monitor CHWs but how do we monitor what we don't know?

COMM member, Uganda

3.3.1 COMMs activities

COMMs carried out one-time participatory village assessments and root cause analysis to develop action plans for health, providing the required political and technical leadership to complete this task. This activity also helped raise general awareness on health issues and the services available. Issues identified across AIM Health countries include – the need to recognize CHWs for their work, promoting facility births and discouraging home births; encouraging families to participate in the community health fund (specific for Tanzania), promoting use of family planning, encouraging men to participate in MNCH initiatives including ttC visits. In some instances, COMMs worked with the chiefs to address cases where men deliberately refuse to provide support to their wives and children. COMMs in all AIM Health locations helped CHWs with referrals, helping resolve conflicts between households and the local facility and building confidence. COMMs also had established working relationships with the local government. COMMs meetings in Mauritania took place in the Mayor's office, which is a testament to the strength of coordination between the structures.

COMMs organized the community dialogue days (stipulated in MOH Community Health Policy) in Kenya and also organized community-wide campaigns to clean public facilities such as markets. COMMs in Tanzania, Kenya and Uganda also organized nutrition campaigns to specifically promote the use of locally available nutrients. They helped form mother support groups and men's support groups to discuss MNCH issues specific for their communities and to learn from one another. COMMs in Sierra Leone formed 18 women's support groups, one for each of the 18 health facilities in the area. These groups of women worked with health facility staff to identify children with moderate and severe acute malnutrition and brought them to the facility for nutritional rehabilitation. COMMs

worked with CHWs to mobilize households to construct latrines. They raised community support to construct/repair new health posts and helped maintain existing ones. They worked with facility management committees to provide security, water supply and upkeep of facilities. COMMs also reported that they help communities understand the role of CHWs and also arrange for CHWs' work to be publicly recognized. COMMs in Sierra Leone were also involved in activities for empowering youth.

Overall, COMMs in all AIM Health locations were able to bring together diverse groups in the community and develop and implement a common agenda to address threats to maternal and child health and helped entire communities take collective action. The evaluation team found evidence for clear understanding, cohesiveness in COMMs it interacted with.

3.4 IMPLEMENTATION OF CVA

AIM Health locations had no precedent of a structured local level advocacy approach, at country or local levels and there were no other curricula in the host countries besides the one that WV used globally in its CVA programs. Therefore the programme aligned itself with the roll-out of the CVA model in each of the five WV national offices, and the WV CVA curriculum was used. The national level orientation often involved WV national staff, besides AIM Health staff.

At the local level, all or most of the members of COMMs were trained in CVA, and the working groups included religious leaders and members from local civil society organisations (CSOs) and faith based organisations (FBOs)

Table 7: Numbers trained in CVA

Programme Site (Country)	Numbers trained in CVA			
	MOH	WV	Partners	Community members and local leaders (% women)
Kenya	22	0	0	110 (49%)
Tanzania	0	13	0	96 (50%)
Uganda	26	4	4	265 (28%)
Mauritania	5	22	0	74 (43%)
Sierra Leone	25	12	20	180 (40%)
Total	**78**	**51**	**24**	**725**

Following training, AIM Health sensitized communities on the CVA approach and formed thematic working groups and typically one working group was for health issues.

Analysis of CVA group work plans shows that the bulk of activities pertain to what would typically be the role of COMMs (such as mobilizing communities to construct or maintain health facilities), interspersed with advocacy actions. CVA groups in all programme locations worked towards improving the adoption of recommended health practices, establishing dialogue between health service providers and communities and held community-wide sensitisation sessions to improve awareness of available services, all of which are typically the roles of COMMs. This conflation could have resulted from the fact that the same community members were part of COMMs and CVA groups.

CVA groups also advocated for improvements in service delivery. CVA groups in Tanzania successfully worked to ensure that an additional staff member was appointed in the local dispensary and more

frequent outreach clinics were held in remote settlements. CVA groups warned a health worker about rude behaviour and denying services and she was transferred. CVA groups in Tanzania have worked towards ensuring that poor families carrying a letter of recommendation from the village executive officer are exempt from payments at district hospital. CVA groups in Sierra Leone got the facilities to display their service charter at the premises. They also monitored the supply of drugs and vaccines at the facilities. The groups in Mauritania worked with the district and regional health departments and those in Kenya with the county health office to ensure that vacant posts of health staff are filled without delay. The evaluation found limited evidence for structured monitoring of facility-based services, as envisioned in the CVA process. This is an important part of CVA work that forms the basis for advocacy action.

Stock outs of essential drugs and supplies are a major hindrance and they cannot do anything about it at the local level. However, some communities have been able to address it, for instance in Mundemu, Tanzania where they discussed stock-out issues with the District Medical Officer (DMO). The DMO wanted families to pay more health insurance. The families complied and now the facility is able to supply drugs to nearby facilities as well. CVA groups worked with other local bodies to effectively carry out their tasks – the Women's Security Network and the Health for All Coalition in Sierra Leone.

3.5 PD HEARTH

AIM Health designed and implemented PD Hearth in programme locations where 30% or more of the children were underweight in Uganda, Sierra Leone and Mauritania, from the second year of implementation. CHWs were trained to identify underweight children and carry out PD inquiry (as outlined in section 1 above) under the guidance of WV and MOH staff and with the participation of community leaders. Children with moderate malnutrition were then taken through the 12-day hearth sessions where volunteer mothers and CHWs taught them the identified PD practices. CHWs also taught mothers the use of locally available foods in preparing nutrient-dense meals appropriate for the children as well as hygiene practices.

Magnus Conteh, Director Global Health Programmes, with Josephine Oundo and her grandson, Isaac in Busia, Uganda. Isaac's mother sadly passed away during child birth, after which Isaac began to suffer from malnutrition. However, as a result of simple information being provided to his grandmother about the right foods to feed him, through PD Hearth, Isaac is now clearly a healthy, little boy.

AIM Health carried out PD Hearth during the lean season in Mauritania. There is no evidence that a PD Inquiry was conducted prior to the hearth sessions, but only assessed the level of practice of behaviours that they discussed during home visits. CHWs referred severely malnourished children to health facilities to access therapeutic nutrition.

Table 8: PD Hearth outputs

Programme Site (Country)	Numbers trained in PD Hearth			Number of children completing hearth sessions
	MOH	WV	CHWs (% women)	
Kenya	--	--	--	--
Tanzania	--	--	--	--
Uganda	32	3	87 (50%)	1,100
Mauritania	11	7	120 (94%)	5,031
Sierra Leone	25	0	180 (40%)	24
Total	**68**	**10**	**387**	**6,155**

Note: PD Hearth was not implemented in Kenya and Tanzania

3.6 OTHER ADDITIONAL INTERVENTIONS

AIM Health carried out a range of one-time interventions in project locations, in addition to the three core project models, PD-Hearth and mHealth programming. AIM Health carried out a v**oluntary counselling and testing campaign** for sexually transmitted infections (STIs) and HIV for about 300 pregnant women and mothers enrolled for ttC in Guerrou and Mbagne, with MOH teams providing the services. This is significant because these services are not routinely offered as part of ANC services. The programme also distributed about 1,000 bed nets for malaria prevention in the two sites in Mauritania.

In some locations, CHWs **distributed** oral rehydration salts, zinc tablets, de-wormers, vitamin A and others. AIM Health used two FM radio stations in Sierra Leone to host **monthly radio programs** on MNCH, featuring MOH staff and community members.

3.7 SUPPORT FOR SERVICE DELIVERY

AIM Health oriented health facility staff in the three project models. It also supported further technical training of facility staff in specific MNCH services such as basic emergency obstetric care (BEmOC), 36 facility staff in Uganda in the Helping Babies Breathe (HBB) curriculum for newborn resuscitation and hands-on training in vaccination. AIM Health also worked with the district M&E staff of MOH to assess needs and train facility staff in the use of the government's health information system and in the use of electronic data platforms and also provided computers at facilities. AIM Health installed solar panels in health facilities in Uganda.

Health workers are trained to treat patients; they were never taught management and planning skills. AIM Health built that capacity.

District health official, Uganda

Similar support to health facilities was reported in Tanzania and Sierra Leone, in areas such as labour room equipment and supplies, laboratory supplies and equipment especially for pregnancy-related tests, and supplementary supplies of medicines. The end line evaluation noted that such support was often based on analysis of service records and data trends at health facility level, and user feedback on health service provision as generated through CVA processes. The other service delivery issue indicated as widely addressed through CVA was staff attitudes to work, including the appropriate handling of clients, respecting the times for routine service provision and availability to care for emergencies, and misappropriation of health care supplies such as medicines, LLIN, delivery kits, etc.

The other element of critical AIM health support to service delivery was the facilitation provided to expand and strengthen outreach services to communities far from health facilities, especially in Tanzania, Kenya and Mauritania. This was noted to have greatly reduced the need for people to move great distances to health facilities.

3.8 DELAYS IN DEPLOYMENT OF PROJECT MODELS

AIM Health deployed the core project models of ttC, COMMs and CVA several months into the implementation phase, effectively reducing the time available for implementing them. AIM Health staff report that planning and conducting training events for these models took longer than anticipated and that time was also lost in waiting for WV to test the various tools and material related to the models and make them available for use. Finally, and as mentioned earlier in this section, AIM Health projects were often the first to implement the three project models in the respective national offices, and so the projects had to obtain buy-in at the national offices.

Most project sites began ttC home visits by mid-2012. COMM implementation was delayed in Tanzania until late 2012/early 2013 and CVA to early 2013 with the exception of Kenya and Uganda. The table below provides the dates in which the various project models were deployed in the programme countries

Table 9: Deployment of models

ADP/Country	COMM	CVA	PD Hearth	ttC Training	ttC Home visits
Mutonguni/Kenya	June 2011	August 2011	Not yet	June 2012	July 2012
Mundemu/Tanzania	Nov 2012	Jan 2013	Sep 2012	April 2012	July 2012
Sanzawa/Tanzania	Feb 2013	Jan 2013	Sep 2012	April 2012	July 2012
Mauritania (2 ADPs)	Oct 2011	Oct 2013	July 2013	July 2012	Sept 2012
Kabale/Uganda	Dec 2011	Nov 2011	Oct 2012	August 2012	Sept 2012
Busia (2 ADPs)/Uganda	July 2011	Nov 2011	Nov 2012	August 2012	Sept 2012
Imperi/Sierra Leone	Aug 2012	June 2012	May 2013	May 2012	July 2012
Sherbro Island/Sierra Leone	Aug 2012	June 2012	May 2013	May 2012	July 2012

3.9 DATA AND INFORMATION MANAGEMENT AND USE

AIM Health trained facility staff in data collection and reporting using MOH reporting forms. AIM Health also trained CHWs in all locations in the use of referral and counter-referral forms. However, facility staff were not oriented on these forms in all locations, leading to poor use of counter-referral forms leading to inadequate follow up at the community level. COMMs in all locations carry out participatory assessments and use the information to develop community action plans. AIM Health uses qualitative data from ttC visits to identify gaps in service delivery.

4.0 AIM HEALTH OUTCOMES

This section presents the results for the three AIM Health outcomes and their related outputs:

Outcome 2: well-nourished children and their mothers

Outcome 3: children and their mothers protected from infections, and disease

Outcome 4: mothers and children have access to essential health services

Discussion in this section are based on findings from the household survey conducted as part of the end line evaluation, compared with results from the baseline and mid-term surveys as well as with the comparison area for select indicators, and presented for each of the nine ADP locations that had these surveys.[9] Point estimates are presented with the denominator (n) and 95% confidence limits. When the 95% confidence limits of two point estimates do not overlap, the difference between the two estimates is considered statistically significant, but the converse is considered likely (and not necessarily true). Disaggregation by gender and age are presented where relevant and are triangulated with qualitative data from focus group discussions and in-depth interviews conducted as part of the end line evaluation, with findings from IQA for the three project models and with sub-national findings from the most recent Demographic and Health Surveys (DHS) of the respective countries.

The section also presents and discusses results obtained for the programme goal in each of the nine ADP locations.

4.1 PROGRAMME OUTCOME 2: CHILDREN AND THEIR MOTHERS ARE WELL NOURISHED

Outcome measures include exclusive breastfeeding rates, intake of iron-rich foods among children and pregnant women and vitamin A supplementation for children. Table 10 below provides a snapshot of the results for outcome 2 across AIM Health.

Table 10: Outcome 2 results at a glance

Outcome indicator	Outcome target	Value at end line evaluation
Percent of children 0-5 months exclusively breastfed in the past 24 hours	80%	Attained in all ADPs
Percent of children 6-59 months obtain adequate intake of iron per day (as defined locally)	85% or 5% above baseline levels up to a target of 100%	Attained in six of nine ADPs
Percent of pregnant women obtain adequate iron intake (as defined locally)	90% or 100%, if baseline levels are above 90%	Attained in all ADPs
Percent of children 6-59 months receive Vitamin A supplements every six months (as measured by health card; history)	90% or 3% above baseline if the latter is higher than 90%	Not attained in any ADP

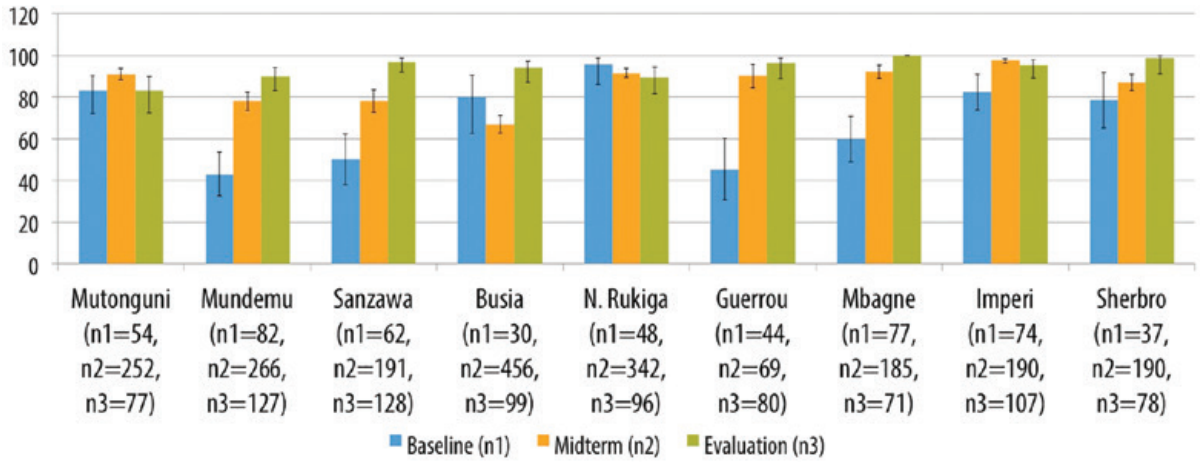
Exclusive breastfeeding met or exceeded the programme target of 80 percent in all locations with six locations exceeding 90 percent (Figure 4). Baseline rates were low only in the two ADPs in Tanzania and the two in Mauritania. Evidence from qualitative findings and from documents shows that was achieved through the sustained behaviour change messaging and dialogue and negotiation through ttC.

The work of ttC has made exclusive breastfeeding till six months the order of the day.

COMMs member,
Mutonguni, Kenya

[9] As mention in section 2, the survey for Lunyo and Busitema ADPs in Busia, Uganda were combined into one.

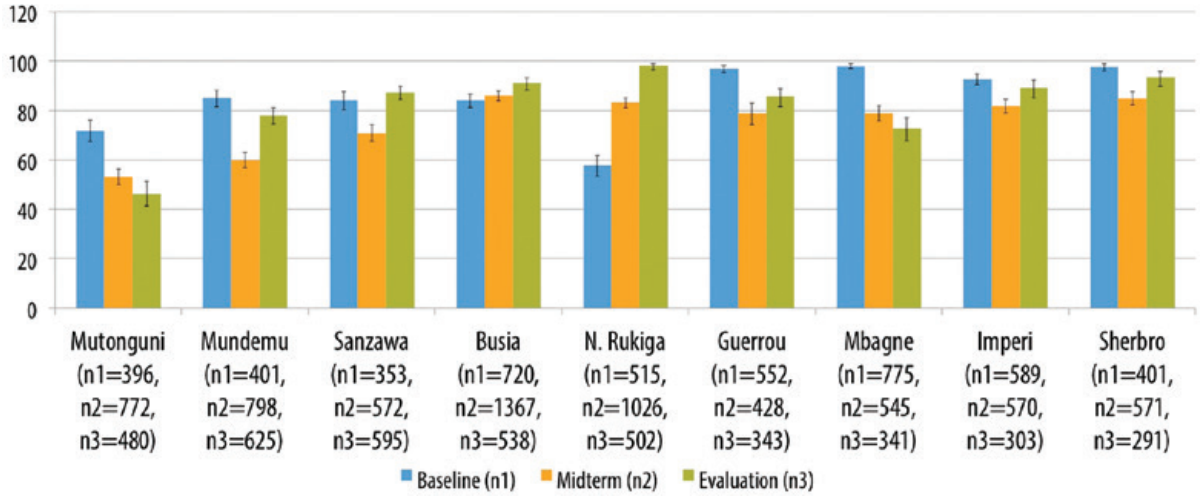
Figure 4: Exclusive Breastfeeding (0-5 m) – Previous 24 hours



Source: End line evaluation data; November 2015

Children's consumption of iron-rich foods reached the programme target of 85 percent in six out of nine ADPs (Figure 5). Two locations that did not reach the target were close to it, at 77.9 percent (n=625, 95% CI 74.5 - 81.0) in Mundemu ADP, Tanzania; and 72.7 percent (n=341; 95% CI 67.7 - 77.2) in Mbagne ADP, Mauritania. However, the end line achievement in Mutonguni ADP Kenya was much lower; at 46.3 percent (n=480; 95% CI 41.4 - 51.2). The rate of iron-rich foods intake by children has had a sustained decline over the programme period in Mutonguni ADP, Kenya and Mbagne ADP, Mauritania. Consumption of iron-rich foods was lower among boys in Imperi ADP, Sierra Leone and Mbagne ADP, Mauritania. Although this indicator shows improvements, it must be noted that this indicator measures only one aspect of diet diversity (please see below) and the latter is a more comprehensive measure.

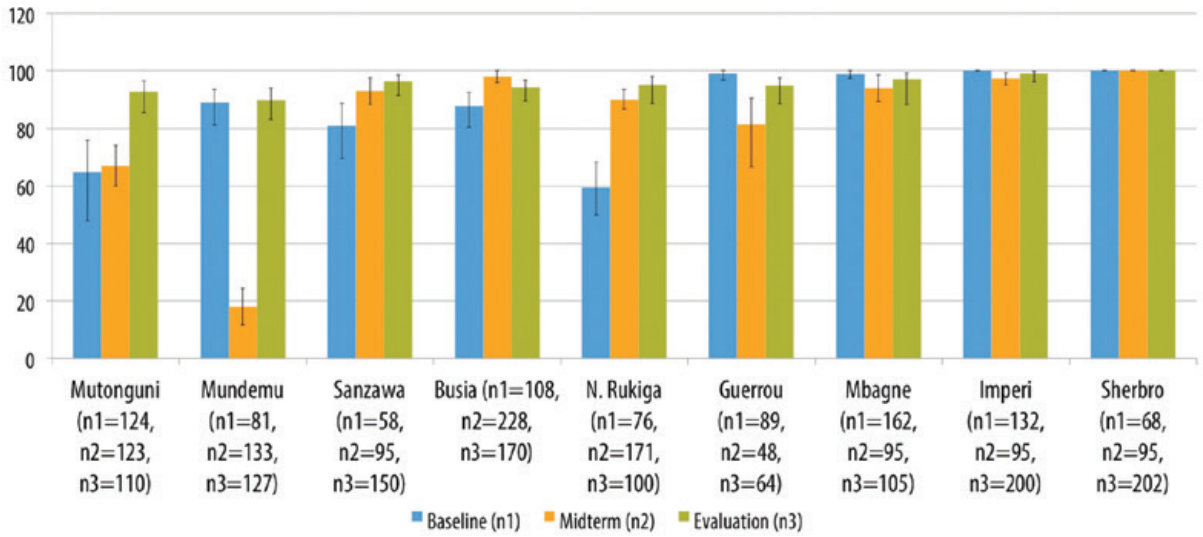
Figure 5: Trends in intake of Iron-rich foods by children (6-59 m)



Source: End line evaluation data; November 2015

The rates of intake of iron-rich foods among pregnant women were generally higher in comparison to children, and all target ADPs achieved the programme target of 90 percent (Figure 6). The levels were generally high at baseline and midterm, except in Mutonguni ADP, Kenya and N. Rukiga ADP, Uganda, both of which realized significant improvement over the programme period. The rate in Mundemu ADP, Tanzania declined sharply between baseline and midterm; but recovered since, although this could be an artefact, due to measurement bias.

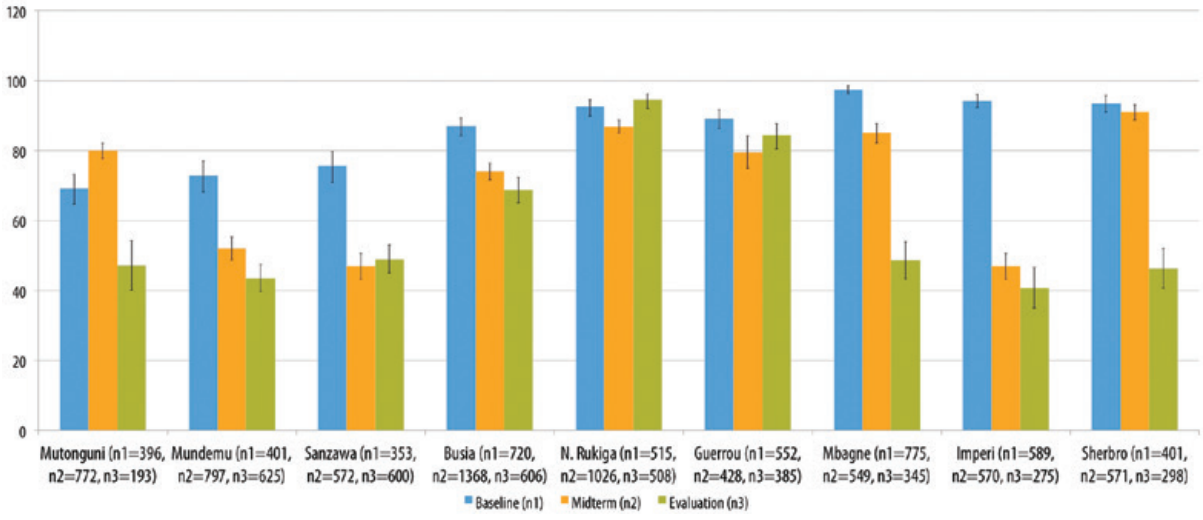
Figure 6: Trends in intake of Iron-rich foods by pregnant mothers



Source: End line evaluation data; November 2015

Vitamin A supplementation of children aged 6-59 months (one dose in previous 6 months) was consistently high (80 percent or higher) over the programme period in only two programme sites; N. Rukiga ADP, Uganda; and Guerrou ADP, Mauritania (Figure 7). All other programme sites realized sustained and statistically significant decline on this indicator over the programme period. The programme target of 95% was not attained in any ADP location.

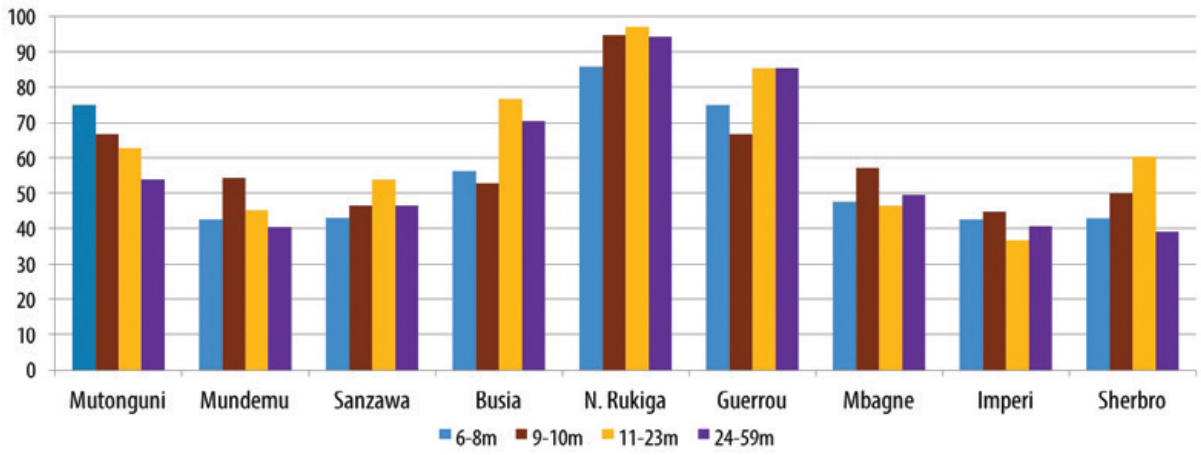
Figure 7: Vitamin A supplementation (6-59m) – 1 dose in 6 months



Source: End line evaluation data, November 2015

The rate of Vitamin A supplementation was lower among boys in Mundemu ADP, Tanzania and Mbagne ADP, Mauritania but it is unlikely that this difference is statistically significant. Supplementation rates are lower for older age cohorts in most locations, although the decline is consistent over age in Mutonguni ADP in Kenya (figure 8 below)

Figure 8: Vitamin A Supplementation – By Age-groups (6-59m)



Source: End line evaluation data; November 2015

Stakeholders in N. Rukiga ADP, Uganda attribute the sustained high coverage to frequent outreach campaigns to previously un-reached communities and the provision of additional supplies of vitamin A from WV's gift-in-kind programme. The evaluation did not find evidence for specific action from COMMs or CVA groups to develop action plans to address this particular service.

The low coverage in the two ADPs in Tanzania is lower than the coverage level of 87.2 percent (n=624; 95% CI 79.3 – 92.4) that the Tanzania National Nutrition Survey[10] reported for Dodoma region. The decline in the two ADPs of Sierra Leone are directly attributed to the suspension of the national child health campaigns from April 2014 as part of the response to the Ebola epidemic.

4.1.1Output 2.1: Children are exclusively breastfed for the first 6 months of life

This output focuses on the two key behaviours related to breastfeeding: initiating breastfeeding within the hour of birth and exclusive breastfeeding up to six months of age. The latter is covered under Outcome 2 above.

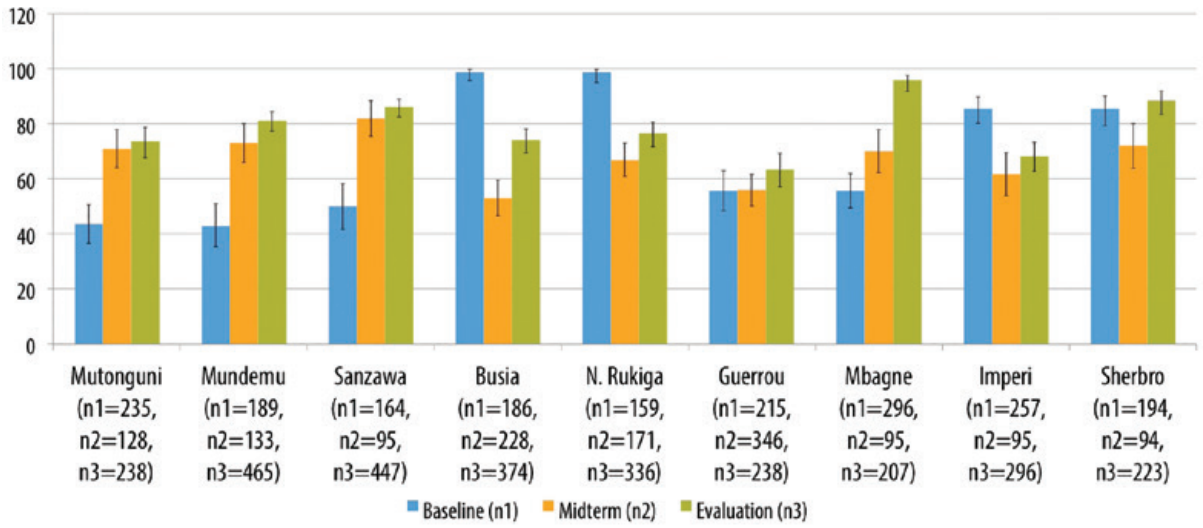
Table 11: Output 2.1 results at a glance

Output indicator	Output target	Value at end line evaluation
Percent of children 0-5 months exclusively breastfed in the past 24 hours	80%	Attained in all ADPs
% children 0-23 months started breastfeeding within 1 hour after birth	80%	Attained in four out of nine ADPs

The promotion of immediate breastfeeding at birth and exclusive breastfeeding until the baby is six months old was a core focus in ttC training, practice and monitoring. The household surveys at end line evaluation found mid-range levels for initiation of breastfeeding in the first hour after birth (details in Figure 9) among children 0-23 months. Four of the nine AIM Health implementation sites attained the 80 percent programme target for early initiation of breastfeeding (within 1 hour after birth). These are: Mbagne ADP at 95.7 percent (n=207; 95.1 – 96.2 95% CI); Sherbro ADP at 88.3 percent (n=223; 83.4 – 92.0 95% CI); Sanzawa at 86.1 percent (n=447; 82.6 – 89.0 95% CI); and Mundemu at 81.1 percent (n=465; 77.2 – 84.4 95% CI).

[10] Tanzania Food and Nutrition Centre and Ministry of Health and Social Welfare (2014) Tanzania National Nutrition Survey 2014 (Data collected Sept-Nov 2014)

Figure 9: Timely initiation of breastfeeding



Source: End line evaluation data; November 2015; Baseline and midterm reports

The trend of early initiation of breastfeeding showed a general improvement from baseline through midterm to end line evaluation, except for the programme sites in Sierra Leone and Uganda (details in Figure 9). The baseline values in both countries were particularly high, and declined sharply at midterm.

It is noteworthy that a range of community-level respondent categories that participated in the end line evaluation (ttC mothers, older women, male spouses, COMM members, etc.) are well aware of and discussed at length some of the specific qualities and benefits from breastfeeding, such as: immediate breastfeeding and completion of the birth process – quick placenta expulsion; the first breast milk and its uniqueness; and the different factors that influence the ability of mothers to achieve effective and sustained breastfeeding. Respondents highlighted the need for appropriate nutrition for mothers, and the stress factors that may affect the effective breastfeeding ability of mothers such as overworking and domestic violence.

4.1.2 Output 2.2: Pregnant women and children 6-23 months have diverse diets and adequate meal frequency

This output focuses on infant and young child feeding beyond six months and in pregnant women, results of which are outlined in table 12 below. WHO defines two key aspects for a minimum acceptable diet: minimum meal frequency and diet diversity. Together these two practices would lead to the intake of a diet of acceptable quality and quantity and contribute to growth and development.

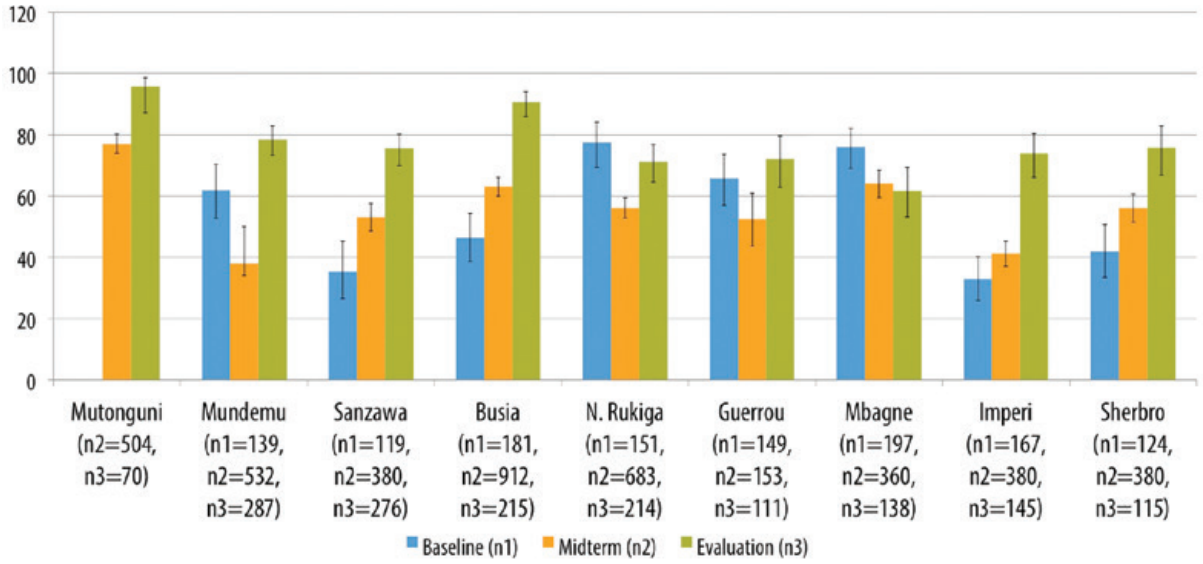
Table 12: Output 2.2 results at a glance

Output indicator	Output target	Value at end line evaluation
Percent children aged 6-23m receiving minimum meal frequency	80%	Attained in two out of nine ADPs
Percent pregnant women eating at least one additional meal	80%	Not attained in any ADP
Percent pregnant women eating from 4 out of 7 food groups	95%	Not attained in any ADP
Percent children 6-23m eating from 4 out of 7 food groups	95%	Not attained in any ADP

Percent pregnant women who took Iron or Folate supplements in the past 24 hours	80%	Attained in five out of nine ADPs
Percent children 6-23m who received a Vitamin A supplement in the past 6m	95%	Attained in one out of nine ADPs

Minimum meal frequency: Only Mutonguni ADP, Kenya and Busia ADP, Uganda achieved the programme target of 80 percent of children 6-23 months receiving the appropriate minimum meal frequency per WHO guidelines.[11] Other sites have seen significant improvement, although they did not reach the programme target: the two ADPs in Sierra Leone and the two in Tanzania.

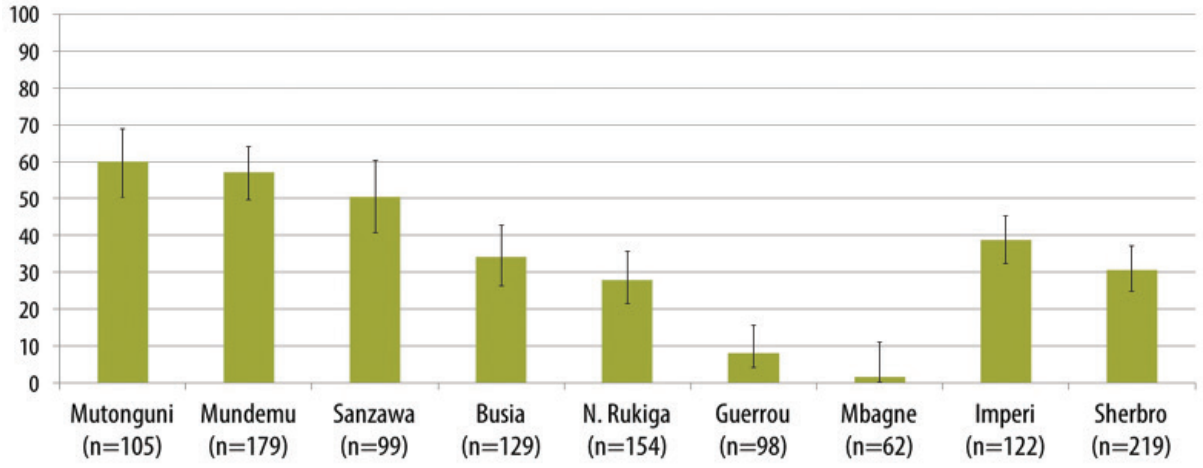
Figure 10: Adequate meal frequency for children 6-23 m



Source: End line evaluation data; November 2015

Additional meal in pregnancy: None of the ADPs reached the programme target of 80 percent and the coverage level is very low in the two ADPs in Mauritania, ostensibly due to the food insecurity in those locations.

Figure 11: Additional meal in pregnancy



Diet diversity measured using WHO-defined food groups was low for pregnant women in all ADP locations. Only four ADPs had rates above 60 percent, and no ADP reached the programme target of

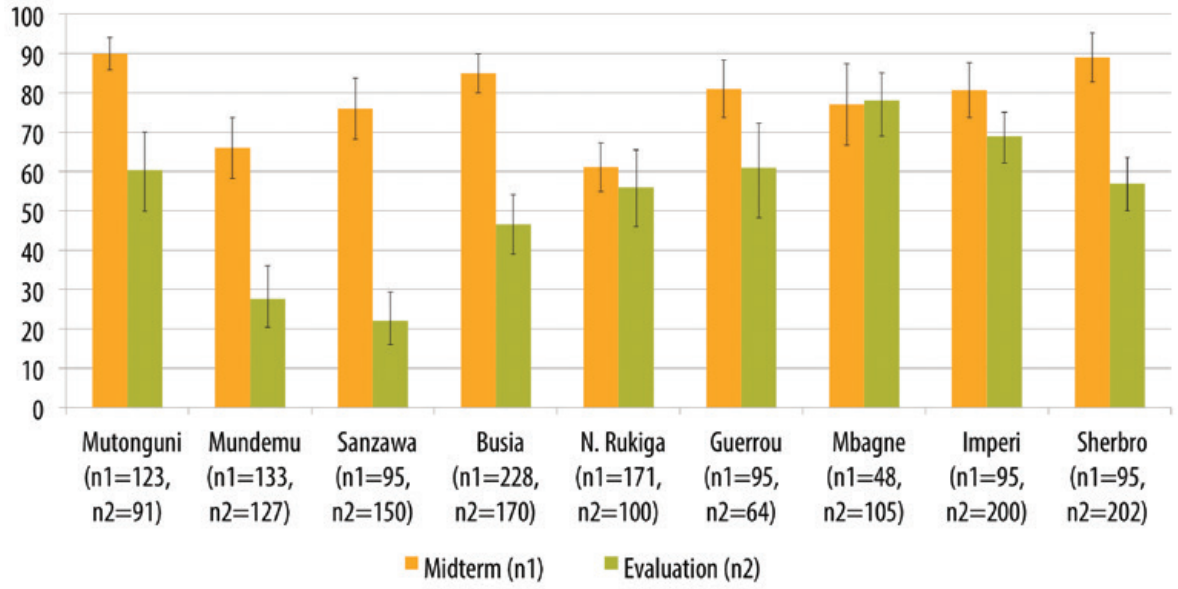
[11] The minimum recommended meal frequencies according to WHO guidelines for Infant and Young Child Feeding are: at least two meals in addition to breastfeeding for children 6-8 months; and three meals for children 9-23 months.

TABLE OF CONTENTS

95 percent. Moreover, the rates in the respective comparison sites are similar to the corresponding programme sites in each country; reflecting no advantage in the programme sites.

Trend analysis on dietary diversity was only done for midterm and end line evaluation values; because the full parameters of dietary diversity were not assessed at baseline. The trend results (Figure 12) show a statistically significant decline in dietary diversity in five of the nine programme sites.

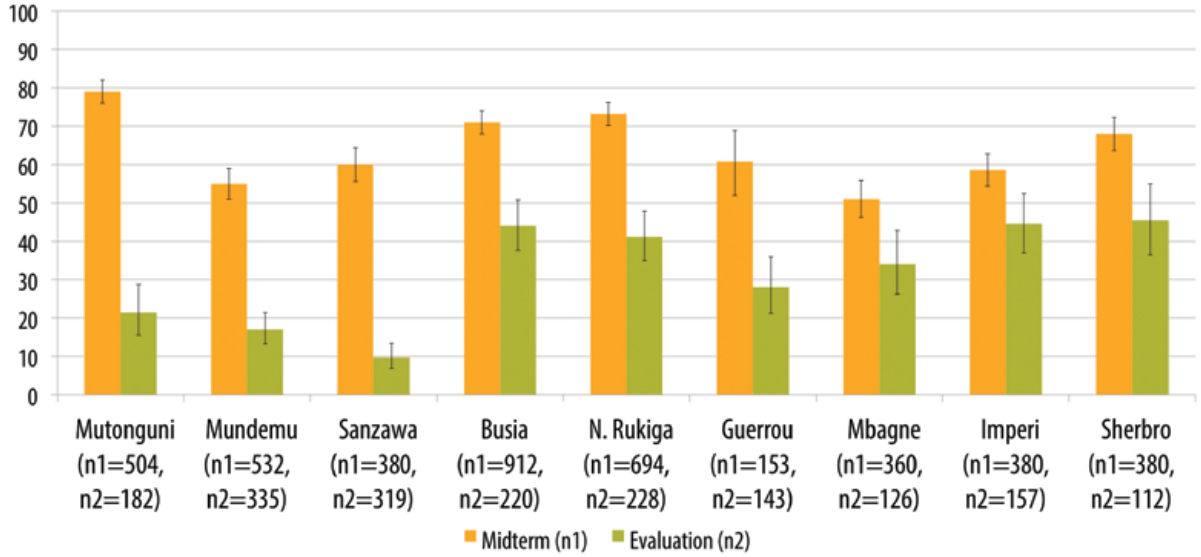
Figure 12: Trends in dietary diversity for pregnant women



Source: Midterm review Report 2014 and End line evaluation data; November 2015

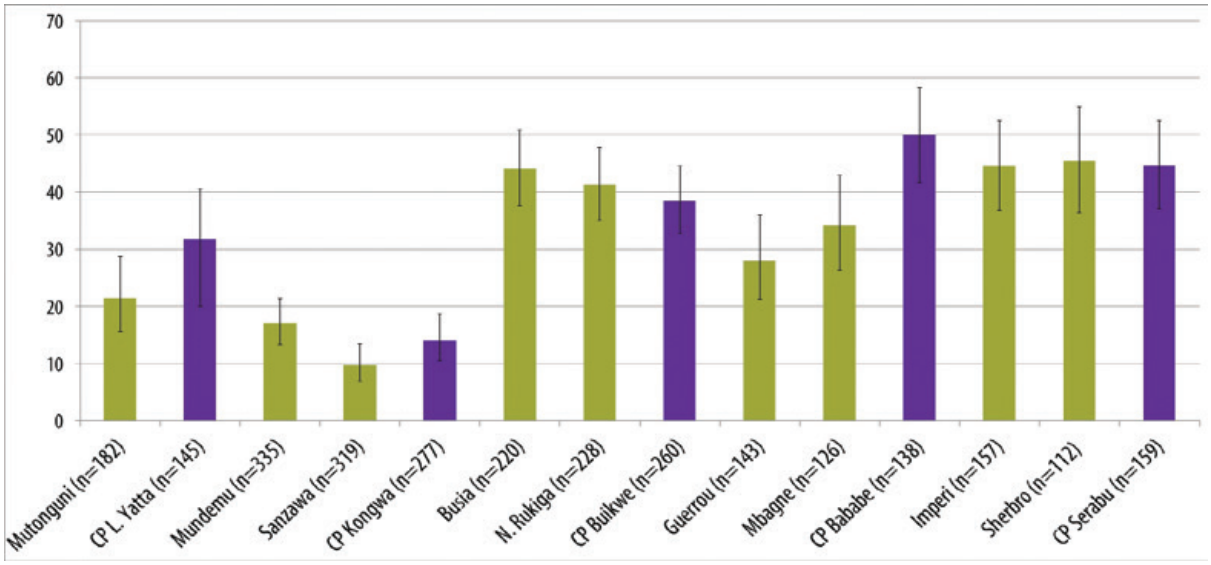
Dietary diversity for children aged 6-23 months has declined in all programme locations since the midterm review (figure 13). The values for comparison sites are similar to the corresponding programme sites in all target countries except Mauritania. In the latter, the rates are higher in the comparison ADP site.

Figure 13: Trends in dietary diversity for children 6-23 m



Source: Midterm review Report 2014 and End line evaluation data; November 2015

Figure 14: Dietary diversity for children 6-23 m with comparison sites



Source: End line evaluation data; November 2015

Possible causes for low coverage of acceptable diet: Qualitative inquiry brought out the issue of household level food insecurity in all locations, the situation being worse in some locations such as Sherbro Island ADP in Sierra Leone and N. Rukiga ADP in Uganda. It was beyond the scope of this evaluation to quantify the extent of this problem. This is the more likely cause for the declines noted from the past year.

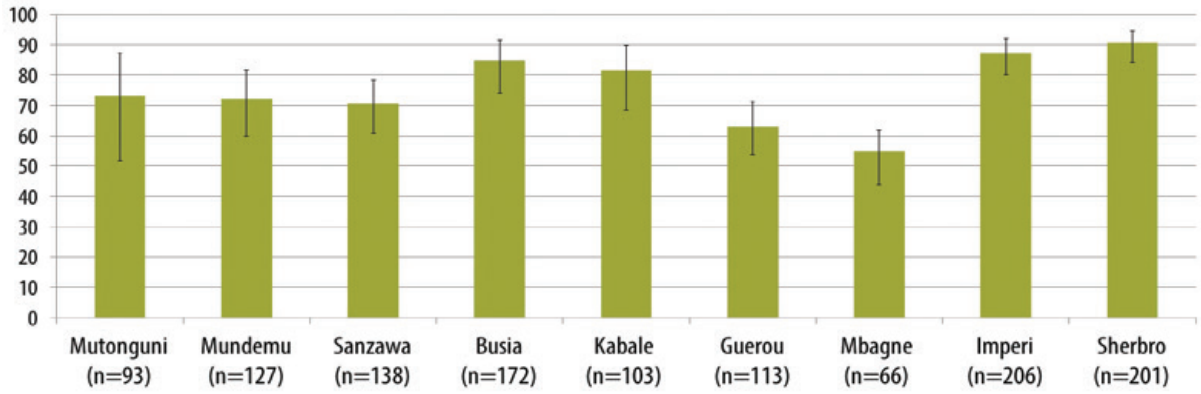
Assessment of implementation quality of ttC brought out the lack of dialogue and the identifying of specific barriers in each household and negotiating tailored solutions for each barrier. These aspects of ttC are probably most relevant in practices related to feeding, as they help the CHW work with each family to identify barriers and develop solutions, especially using locally available nutrient-dense foods. This aspect of the programme is designed to work in all but the severest conditions of food insecurity and is a key value addition that AIM Health was intended to bring.

Vitamin A supplementation in children 6-23 months

In comparison to Vitamin A supplementation among all children 6-59 months as already discussed under section 4.1 above, the rate among the younger cohort of children (6-23 months) was lower than overall rates, except in Mutonguni ADP, Kenya, where the lower age cohorts have a higher coverage for this indicator. The rates are highest in the two ADPs in Uganda. Lack of improvement in this indicator is likely caused by a combination of poor mobilisation of children during outreach campaigns and interrupted supply of the commodity. The latter was temporarily solved in Uganda through supplies from WV's GIK programme.

Iron/Folate supplementation for pregnant women results are presented in Figure 15. Five ADPs attained the programme target of 80 percent while the other four had rates ranging from 63 to 73 percent. The rates are aligned with ANC coverage rates (section 4.3 below) as ANC clinics are the only means for receiving these supplements, although the rates are lower than those of ANC coverage rates, indicating a supply issue.

Figure 15: Iron/Folate Supplementation in Pregnancy



Source: End line evaluation data; November 2015

4.1.3 Output 2.3 Children under 2 show adequate and appropriate weight for age

This output tracks the coverage of underweight (weight-for-age lower than -2 standard deviations from the reference population). This is a composite indicator which does not distinguish between the biological processes that lead to stunting and those that lead to wasting. Table 13 gives an overview of the results:

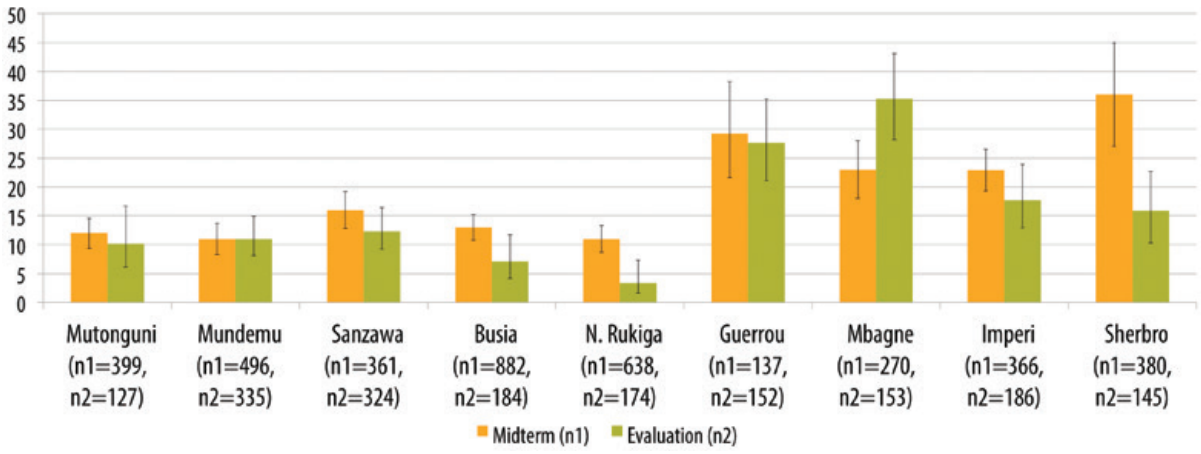
Table 13: Output 2.3 results at a glance

Output indicator	Output target	Value at end line evaluation
Percent children 6-23m who are underweight	Below 10%	Attained in two out of nine ADPs

Two ADPs in Uganda attained the programme target of underweight below 10 percent: 3.4 percent (n=174; 95% CI 1.6 – 7.3) in N. Rukiga ADP; and 7.1 percent (n=184; 95% CI 4.2 – 11.7) in Busia ADP. The level has remained the same since midterm in Mundemu ADP, Tanzania and has seen some decline in other ADPs except in Mbagne ADP, Mauritania where it is at a critical level (>=30%) per WHO classification, at 35.3 percent (n=153; 95% CI 28.2 – 43.1)

Rates were much higher among boys in Mundemu ADP, Tanzania; at 16.0 percent (n=184; 11.4 - 21.9 95% CI) in boys, compared to 4.6 percent (n=151; 2.3 - 9.3 95% CI) among girls. The rate was slightly higher among boys in Imperi ADP, Sierra Leone, and in both ADP sites in Uganda.

Figure 16: Rates of underweight (6-23 months) – November 2015



Source: End line evaluation data; November 2015

TABLE OF CONTENTS

Analysis of association in the end line evaluation data between underweight and selected nutrition and sanitation practices as well as disease prevalence is presented in Table 14.

Underweight prevalence is associated with timely initiation of breastfeeding in Guerrou ADP, Mauritania, where the latter was low at 61%. It is associated with diet diversity in Mutonguni ADP, Kenya and N. Rukiga ADP, Uganda and both these ADPs had low rates of diet diversity among children. It is associated with the prevalence of fever and acute respiratory illness (ARI) in the two ADPs in Tanzania and with the prevalence of diarrhoea on one of them. It is associated with access to sufficient water in Guerrou ADP, Mauritania. These associations confirm the pathways that lead to underweight for which there is considerable evidence globally. They do not necessarily show direct cause-and-effect relationships.

Table 14: Analysis of association for underweight (p-values)

	Mutonguni	Mundemu	Sanzawa	Busia	N. Rukiga	Guerrou	Mbagne	Imperi	Sherbro
Early breastfed	0.971	0.468	0.645	0.439	0.145	0.017	0.265	0.610	0.330
Diet diversity	0.005	0.212	0.614	0.931	0.004	0.090	0.584	0.192	0.313
Meal frequency	0.651	0.300	0.234	0.532	0.699	0.124	0.719	0.349	0.897
Fever	0.071	0.016	0.102	0.689	0.693	0.421	0.523	0.146	0.102
Diarrhoea	0.114	0.015	0.577	0.109	0.483	0.346	0.367	0.487	0.469
ARI	0.124	0.023	0.010	0.694	0.097	0.220	0.551	0.441	0.689
Safe water	0.346	0.551	0.549	0.427	0.420	0.599	0.657	0.802	0.262
Sufficient water	0.724	0.271	0.857	0.469	0.932	0.010	0.295	0.759	0.500
Hand-washing	0.102	0.434	0.987	0.714	0.859	0.581	0.207	0.031	0.799
Improved toilet	0.589	0.069	0.556	0.557	NA	0.789	0.855	0.283	0.102

Source: End line evaluation data; November 2015

4.1.4 Output 2.4 Children and their mothers are protected from worm infections

This output focuses on the coverage of periodic de-worming of children and pregnant women, according to MOH policy, as an intervention to improve growth and prevent iron deficiency. Table 15 gives an overview of the results:

Table 15: Output 2.4 results at a glance

Output indicator	Output target	Value at end line evaluation
Percent of children 12-23 months given de-worming medication in past 6 months	95%	Attained in one of nine ADPs
Percent of pregnant women given de-worming medication	95%	Attained in three of nine ADPs, and over 90 percent in four others.

AIM Health programme monitoring included community-level tracking of de-worming of both children and pregnant mothers, through facility based services and outreach campaigns.

Data for 2014 (details in Table 16) shows possible declines in the two ADP sites of Uganda and the two in Sierra Leone and increase in coverage in Guerrou ADP in Mauritania which also reached the programme target. There is probably no difference in coverage in the rest.

Table 16: Rates of deworming in children - Baseline and 2014 programme data

ADP/Country	Baseline (12-23m)		2014 data (at 12m)		Percentage difference
	n	%	n	%	
Mutonguni; Kenya	NA	NA	558	**100**	
Mundemu; Tanzania	89	**74.5**	1781	**77.3**	3.8
Sanzawa; Tanzania	82	**65.9**	724	**65.2**	-1.1
Busia; Uganda	120	**80.8**	1114	**70.2**	-13.1
N. Rukiga; Uganda	93	**90.3**	1974	**80**	-11.4
Guerrou; Mauritania	167	**71.9**	152	**86.8**	20.7
Mbagne; Mauritania	177	**91.5**	227	**87.2**	-4.7
Imperi; Sierra Leone	178	**89.9**	538	**55.6**	-38.2
Sherbro Island; Sierra Leone	170	**89.4**	1292	**62.3**	-30.3

Source: baseline reports and programme data for 2014

De-worming in pregnant mothers reflects a trend of increase over the three points of available data; baseline, and for 2013 and 2014 programme data (details in Table 17). Baseline values were not reported for Mutonguni, Kenya. De-worming in pregnancy was not a routine practice in Mauritania; and appears to have been initiated in the programme sites in 2014.

Table 17: Rates of de-worming in pregnant mothers – baseline to 2014

ADP/Country	Baseline		2013 Programme data		2014 Programme data	
	n	%	n	%	n	%
Mutonguni; Kenya	NR	NR	62	**74.19**	710	**93.38**
Mundemu; Tanzania	21	61.9	671	**88.23**	2144	**92.86**
Sanzawa; Tanzania	24	**70.8**	471	**82.17**	874	**89.82**
Busia; Uganda	50	**60.0**	2124	**82.25**	1301	**93.39**
N. Rukiga; Uganda	12	**50.0**	1182	**90.02**	2165	**95.94**
Guerrou; Mauritania	Not in MOH policy					
Mbagne; Mauritania						
Imperi; Sierra Leone	74	**89.2**	678	**98.67**	587	**95.40**
Sherbro; Sierra Leone	30	**90.0**	928	**98.81**	1245	**98.63**

Source: baseline reports and programme data for 2013 and 2014

These differences are based on routine service data which are unlikely to fully represent the population-level coverage levels, but they point to the sub-optimal levels of micro-planning to fully and regularly reach all target communities with these services, as a coordinated action between COMMs and local facilities.

4.1.5 Output 2.5 Community groups are promoting locally appropriate and sustainable approaches to improved nutrition practices in the community

This output tracks the involvement of COMMs in mobilizing communities towards better nutrition-related practices.

Table 18: Output 2.5 results at a glance

Output indicator	Output target	Value at end line evaluation
Percent of COMMs and CSOs engaged in nutrition campaigns	90%	Attained in all nine ADPs

The end line evaluation found evidence for the involvement of COMMs in promoting nutrition in all AIM Health sites. COMMs did this by promoting food production at household level; and by supporting CHWs in ttC home visits which incorporate nutrition messages and also by hosting nutrition-related community meetings. The host ADPs in these locations also used COMMs and local organisations to implement livelihoods interventions.

COMMs were actively involved in mobilising communities for PD-Hearth and in organising Hearth sessions. The overall level of participation by COMMs and CSOs in the different programme sites is presented in Table 19 below.

Table 19: Participation of COMMs and CSOs in Nutrition Campaigns

	COMMs		CSOs	
	n	%	n	%
Mutonguni; Kenya	11	**90.9**	3	**100.0**
Mundemu; Tanzania	12	**100.0**	4	**100.0**
Sanzawa; Tanzania	10	**100.0**	4	**100.0**
Busia; Uganda	16	**100.0**	42	**100.0**
N. Rukiga; Uganda	8	**100.0**	21	**100.0**
Guerrou; Mauritania	10	**80.0**	10	**100.0**
Mbagne; Mauritania	10	**100.0**	10	**100.0**
Imperi; Sierra Leone	8	**100.0**	18	**89**
Sherbro; Sierra Leone	10	**90.0**	22	**91.0**

Source: AIM Health Programme Data, 2015

4.2 OUTCOME 3: PROTECTION FOR CHILDREN AND MOTHERS FROM INFECTION AND DISEASE

This outcome focuses on disease prevention and timely and appropriate care-seeking for illness episodes. At the outcome level, AIM Health tracked immunization coverage, access to improved water source and hand washing and prevalence of symptoms suggestive of the top three killer diseases: acute respiratory illness (ARI), fever (indicative of malaria) and diarrhoea.

Table 20: Outcome 3 results at a glance

Outcome indicator	Outcome target	Value at end line evaluation
Percent of children 12-59 that are fully immunized	90%; or 3 percentage points increase if baseline is above 90%	Attained in one of nine ADPs
Percent of children 0-59m having an ARI in past 2 weeks	50% decrease	Attained in seven of nine ADPs
Percent of children 0-59m having fever in past 2 weeks	50% decrease	Attained in three of nine ADPs
Percent of children 0-59m having diarrhoea in past 2 weeks	Decrease to 15% or 3 percentage points decrease if baseline is below 15%	Attained in four of nine ADPs
Percent of mothers of children 0-59m who are aware of 3 modes of MTCT	50% increase or 20 percentage points increase if baseline is above 66%	Attained in three of nine ADPs
Percent of households with unrestricted access to safe water	85%	Attained in three of nine ADPs
Percent of households with access to sufficient water	85%	Attained in two of nine ADPs
Percent of caregivers of children 0-59m who wash hands at least 2 out of the 4 critical times	90%	Attained in six of nine ADPs

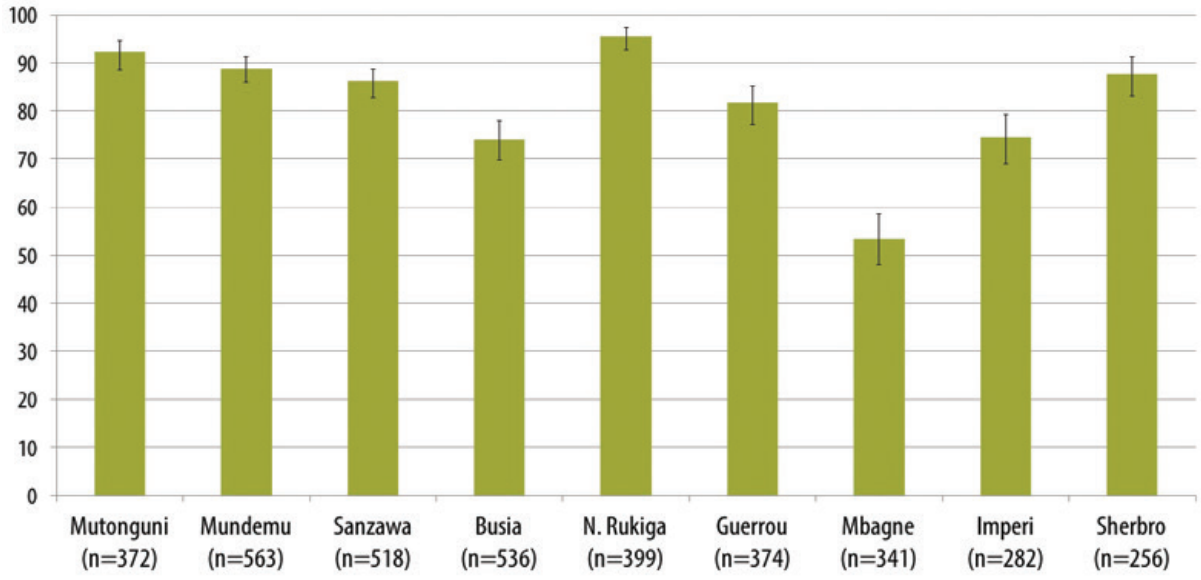
Immunisation in Children 12-59 months: The coverage of three doses of the pentavalent vaccine (Penta 3) is used here as a proxy for full immunisation (Bacille Calmette Guerin or BCG, three doses of Penta 3, three doses of Oral Polio Vaccine or OPV and one dose of measles), owing to insufficient data. Only N. Rukiga ADP, Uganda attained programme target of 90 percent coverage for Penta3 at 96.3 percent (n=461, 95% CI 94.2 - 97.7). Five more sites had rates above 80 percent and thus close to the programme target. Coverage rates below 80 percent as found in Busia ADP, Uganda; Imperi ADP, Sierra Leone; and Mbagne ADP, Mauritania are below the threshold for attaining the necessary herd immunity to provide population-wide protection.

The immunisation coverage rates (based on Penta3) were generally in the same range across the different 1-year age cohorts between 12 and 59 months for each programme site. This trend was also reflected in the rates attained at baseline compared to the end line evaluation. Five sites had rates within a 10 percentage points range between baseline and end line evaluation; and one site showed an improvement of 11 percentage points. The other three sites experienced major decline in immunization coverage, in the range of 16 to 42 percentage points.

Coverage was slightly lower among boys in Guerrou ADP, Mauritania and Sherbro Island ADP, Sierra Leone. Over 70% sampled children in ADP locations had vaccination cards, except in Busia, Uganda and in the two ADPs in Mauritania.

Immunisation is a priority for MOH and regular outreach campaigns are carried out along with routine provision through a fixed day approach in facilities. This, in combination with effective mobilisation of families through ttC and COMMs work has resulted in improvements in coverage rates. However, this increase in coverage is likely wider than in AIM Health areas alone owing to several community-based mobilisation programmes underway in these countries.

Figure 17: Immunization coverage in Children 12-59m – Penta3



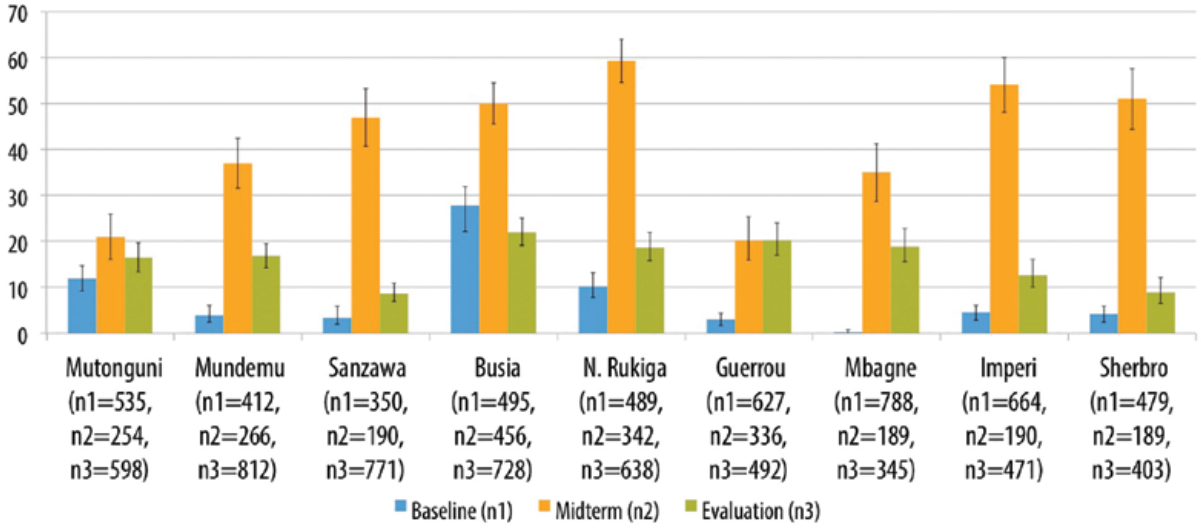
Source: End line evaluation data; November 2015

Prevalence of ARI in children 0-59 months, measured through (two-week recall) showed a 50% decrease from midterm levels in all ADPs except Mutonguni ADP, Kenya (at 9.2 percent, n=598, 95% CI 7.88 – 10.46) and Guerrou ADP (at 20.3 percent, n=492, 95% CI 16.9 – 24) and Mbagne ADP (at 18.9 percent, n= 345, 95% CI 15.5 – 22.7), Mauritania. The levels are slightly higher among boys in the

TABLE OF CONTENTS

two ADPs in Sierra Leone. The trend in seven ADPs shows a sharp increase at mid-term followed by a decline at end line. However this pattern is not seen in Mutonguni ADP, Kenya and Guerrou ADP, Mauritania, and therefore it is not likely an artefact (owing to a measurement error at midterm).

Figure 18: Prevalence of ARI in children 0-59m – Trends

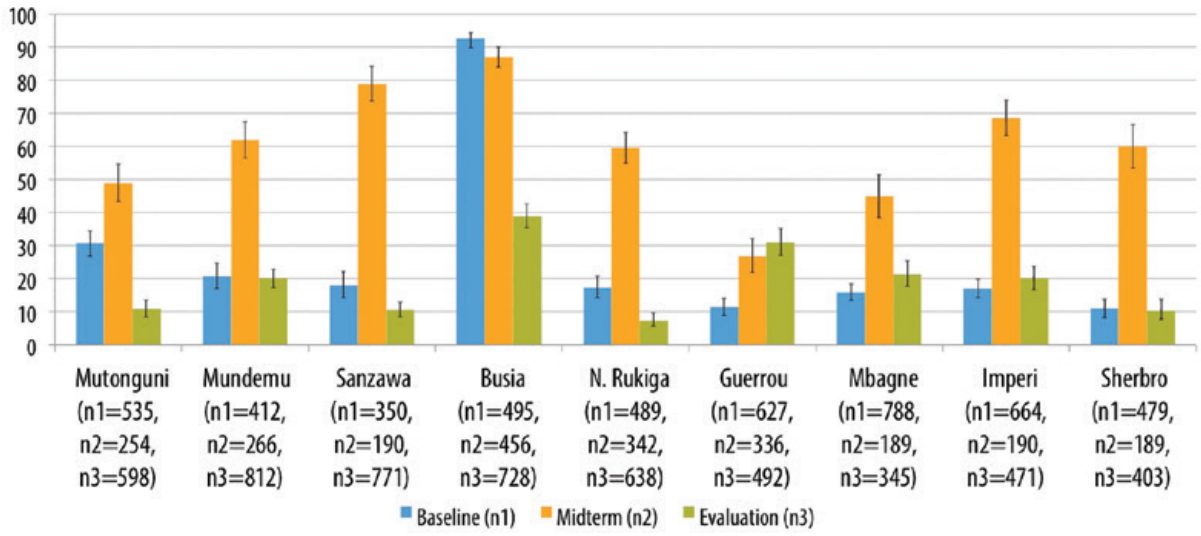


Source: End line evaluation data, November 2015; Baseline and Midterm reports

As discussed in section 1, the AIM Health intervention model did not factor in all causes of ARI especially indoor air pollution. Additionally, the use of subjective measures (recall of fast and/or difficult breathing along with cough) have the potential for bias.

Prevalence of fever in children aged 0-59 months, a proxy for malaria in children has reached the programme target of 50% decline from baseline levels in Mutonguni ADP, Kenya, and the two ADPs in Uganda. Overall, this indicator has shown the trend of a sharp increase at midterm followed by a sharp decline at end line. This could likely be due to the seasonality of fever episodes (owing to causes other than malaria as well) around the time of data collection for midterm.

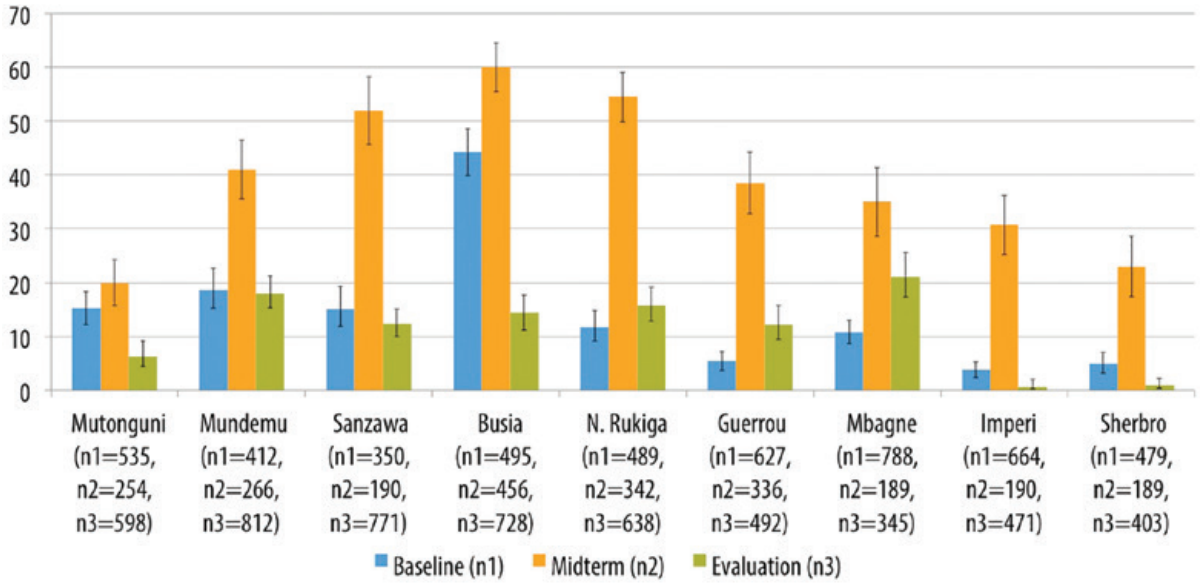
Figure 19: Prevalence of fever in children 0-59m – Trends



Source: End line evaluation data, November 2015; Baseline and Midterm reports

Prevalence of diarrhoea in children aged 0-59 months reached programme target (of a decline by 3 percentage points or to below 15%) in Mutonguni ADP, Kenya and in Busia ADP, Uganda at 14.5 percent, (n=738, 95% CI 12.1 – 17.3). The two ADPs of Sierra Leone have also seen declines. The prevalence levels are the same as baseline in the two ADPs in Tanzania, and have increased from baseline levels in N. Rukiga ADP in Uganda and the two ADPs in Mauritania. A sharp increase from baseline to midterm levels in all but two ADPs, followed by declines points to a possible measurement error at midterm.

Figure 20: Trends in diarrhoea prevalence – Baseline to End line evaluation



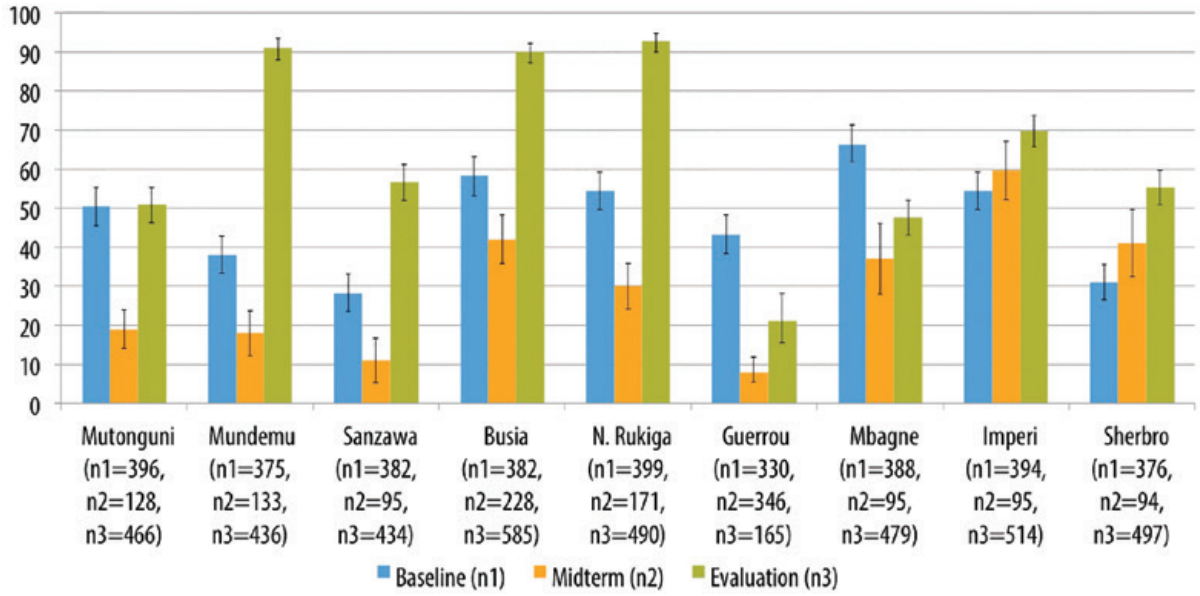
Source: End line evaluation data, November 2015; Baseline and Midterm reports

Water and hygiene practices: AIM Health worked on WASH practices in two ways – promotion of WASH practices through ttC and supporting improvements in WASH infrastructure such as construction of bore wells and latrines, either directly or through community contribution mobilized through COMMs.

Access to safe water: Two ADPs have reached the programme target of 85 percent: Mundemu ADP, Tanzania at 91 percent (n=436, 95% CI 87.9 – 93.4) and N. Rukiga, Uganda at 92.6 percent (n=490, 95% CI 89.97 - 94.66). Coverage rates in Busia ADP, Uganda and Imperi, Sierra Leone were relatively high though below the programme target. The rates in three other sites (Sherbro Island ADP, Sierra Leone; Sanzawa ADP, Tanzania; and Mutonguni, Kenya) were in the mid-range around 50 percent; while the two ADPs in Mauritania were lower than that. The evaluation found that water availability and quality were major determinants influencing safe water access. This may explain the low rates in arid and semi-arid sites, e.g., in Guerrou and Mbagne ADPs Mauritania, and in Mutonguni, Kenya.

Community members accessing safe water from a bore hole in Busia, Uganda

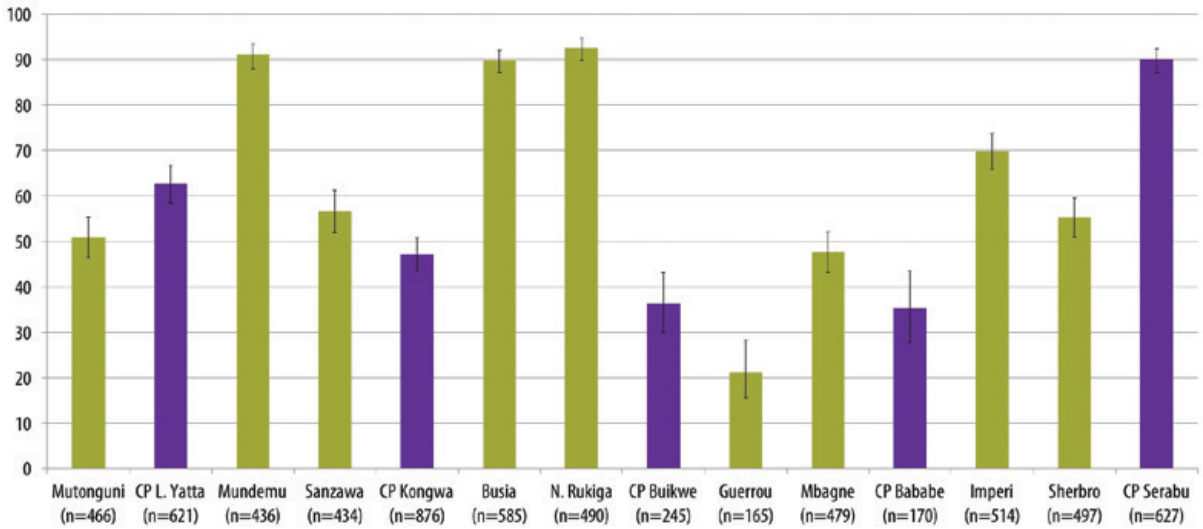
Figure 21: Trends in access to safe water



Source: End line evaluation data; November 2015 and reports for baseline and midterm reports

Coverage levels in AIM Health ADPs are comparable to those in the respective comparison ADPs in Kenya and Tanzania, but much lower in Mauritania (see figure 22below). The levels in the two ADPs in Uganda are higher than that in the comparison site. These differences are likely due to the fact that water availability or the presence of WASH interventions was not factored into the selection of the comparison sites.

Figure 22: Access to safe water – AIM Health and Comparison sites



Source: End line evaluation data; November 2015

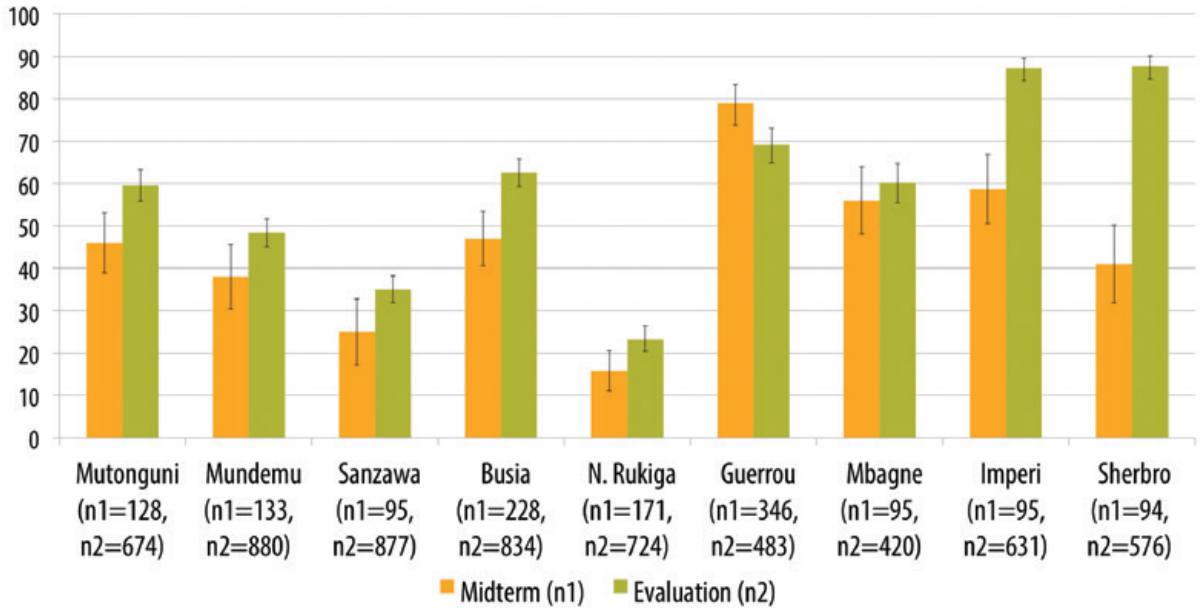
Increases in safe water access across sites may be a reflection of the contribution from ADPs, as well as CVA activities, which have addressed improvements to safe water access such as: protection of existing sources, development of new water sources (especially boreholes), and mobilization and management of community contributions to water source development and maintenance.

Access to sufficient water at end line evaluation was above the 85 percent programme target in

TABLE OF CONTENTS

Imperi ADP at 87 percent (n= 631, 95% CI 84.3 - 89.5) and Sherbro Island ADP in Sierra Leone at (Figure 23). This indicator was included after baseline surveys were completed.

Figure 23: Trends in access to sufficient water - midterm and evaluation

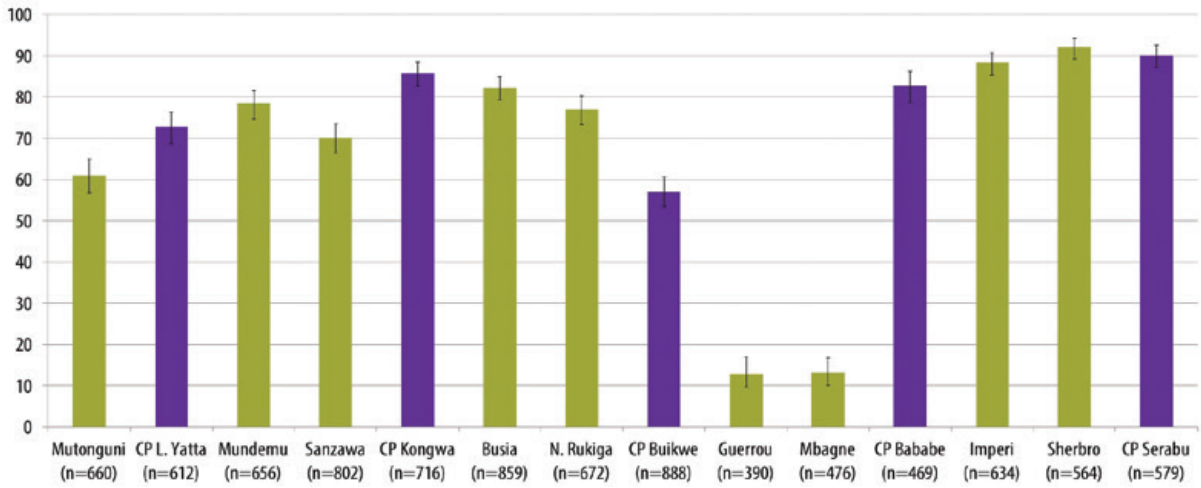


Source: End line evaluation data, November 2015; and Midterm report

The trend in access to sufficient water between midterm and end line evaluation reflects modest improvements across the other ADP sites, except in Guerrou ADP, Mauritania, where decline was experienced, from the high rate reported at midterm. It is worth noting that in most sites, reported access to sufficient water is higher than the reported access to safe water, the latter most likely a subset of the former.

Hand washing: The 90 percent programme target for hand washing was attained at end line evaluation in six of the nine programme sites (Figure 24). Coverage levels in AIM Health sites are higher than those in the respective comparison sites, except in Tanzania, although the latter levels are at or above 60 percent indicating that the practice is promoted in the comparison ADPs as well.

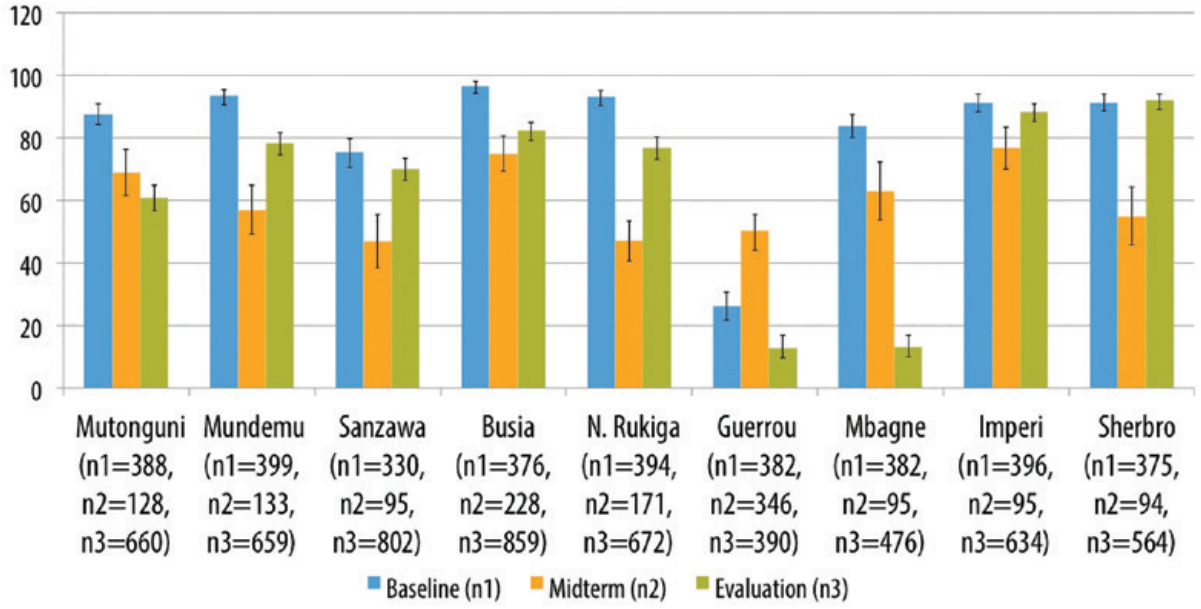
Figure 24: Hand washing – comparison sites



Source: End line evaluation data; November 2015

Trend analysis of hand washing practices between baseline, midterm and end line evaluation (details in Figure 25) reflect high baselines and sharp declines at midterm with the exception of Guerrou ADP, Mauritania. This trend could either be an artefact, or a sustained promotion of hand washing in AIM Health site following the low coverage level at midterm in all locations.

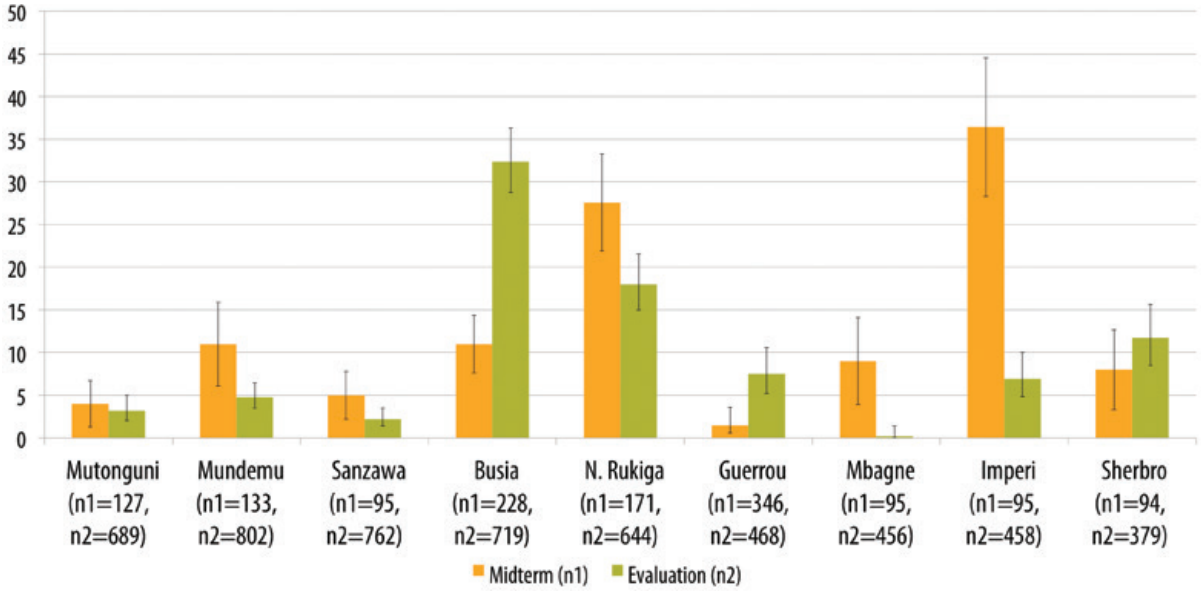
Figure 25: Trends in Hand washing – Baseline to End line evaluation



Source: End line evaluation data; November 2015 and reports for baseline and midterm

Knowledge of all three modes of Mother-to-Child Transmission (MTCT) remains low, with some improvement in Busia ADP, Uganda at 32 percent (n=865, 95% CI 84.3 - 89.5) and some improvements in Guerrou ADP in Mauritania and Sherbro Island ADP, Sierra Leone, as presented in Figure 26. No ADP reached the programme target of 50% increase.

Figure 26: MTCT knowledge – three modes of transmission



Source: End line evaluation data; November 2015

4.2.1 Output 3.1: Mothers of children 0-23 months have knowledge and skills to prevent infection, recognize and combat disease

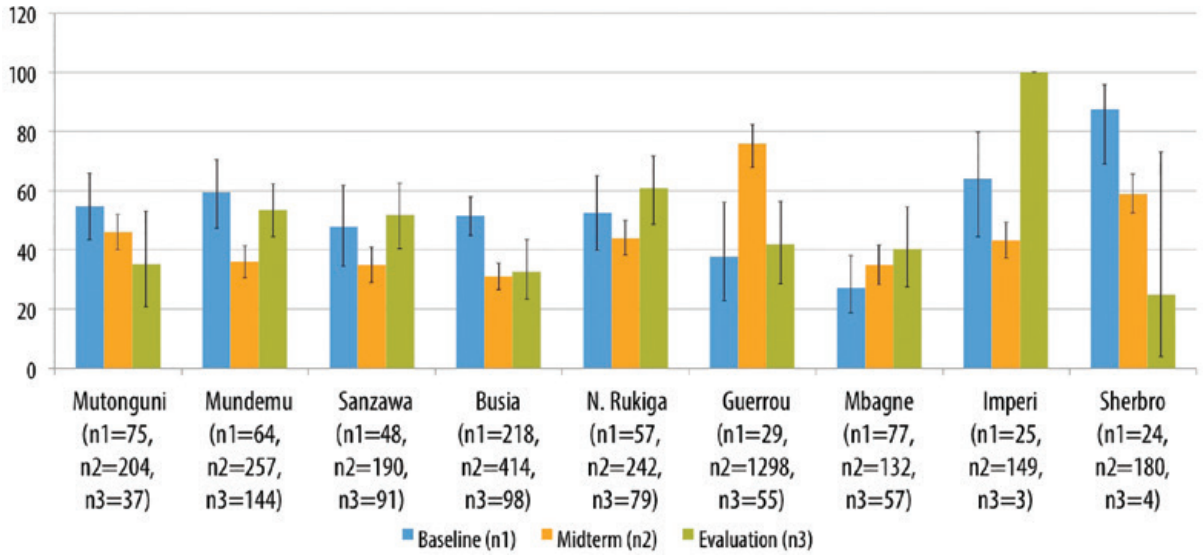
This output focuses on specific prevention and care-seeking practices for the three childhood illnesses, as outlined in table below:

Table 21: Output 3.1 results at a glance

Output indicator	Output target	Value at end line evaluation
Percent of children 0-23m with diarrhoea in past 2 weeks given ORS	80%	Attained in one of nine ADPs
Percent of pregnant women who slept under an LLIN previous night	100%	Not attained in any ADP(reached 90% in 4 of 9 ADP)
Percent of children 0-23m who slept under an LLIN previous night	100%	Not attained in any ADP (reached 90% in 3 of 9 ADPs)
Percent of pregnant women who were counselled and tested for HIV and received results	95%	Attained in six of nine ADPs
Percent of pregnant women and mothers who received counselling on nutrition from a CHW in the past 6 months	80%	Attained in six of nine ADPs

ORS use in diarrhoea has seen mixed results, with only Imperi ADP (at 100 percent coverage), Sierra Leone reaching the programme target of 80 percent. N. Rukiga ADP, Uganda has seen an improvement at 60.7 percent (n=79, 95% CI 49.39 - 71.07), and so has Mundemu ADP, Tanzania. Guerrou ADP, Mauritania has seen a significant decline since midterm. The decline in Mutonguni ADP, Kenya and Sherbro Island ADP, Sierra Leone are probably not significant given the very small denominators and very large 95% CIs.

Figure 27: Managing diarrhoea with ORS



Source: End line evaluation data, November 2015

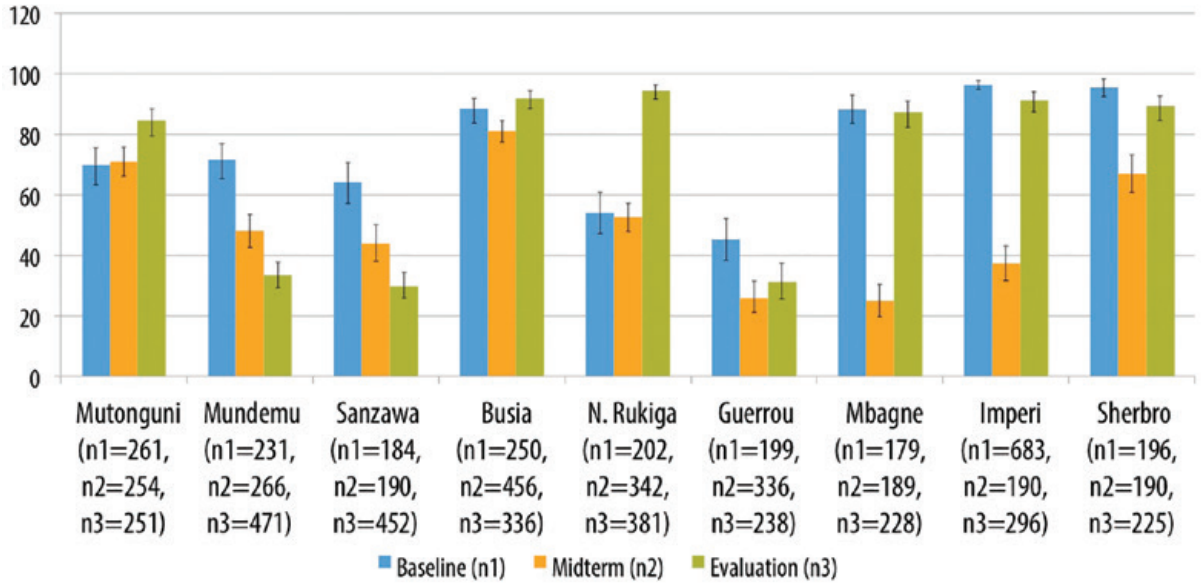
Qualitative findings reveal three modes of ORS promotion: through ttC home visits after the baby is six months old, as well as supplies of ORS and zinc supplements to CHWs. However, it appears that both these aspects did not reach sufficient coverage levels within target populations.

Use of long-lasting insecticide treated nets (LLINs) by children under five years has increased since midterm in all ADPs except in the two ADPs in Tanzania where the coverage has declined steadily

since baseline. This owes arguably to the change in distribution of LLINs in the country through bed net vouchers redeemable in retail outlets, as the government distribution system reportedly could not handle this commodity. Stakeholders reported that vouchers were not always available, or their use was subject to the availability of bed nets in the market. Access to LLIN was therefore largely dependent on stock levels in the local retail outlets. Indeed LLIN ownership in surveyed households was also very low; at 34 percent (n=901; 30.9 – 37.1 95% CI) in Mundemu and 31 percent (n=906; 28.2 – 34.2 95% CI) in Sanzawa. Misconceptions about net use persist in Tanzania. Uganda ADPs on the other hand, did not have a supply issue as other grants in the ADPs procured and distributed LLINs in programme locations.

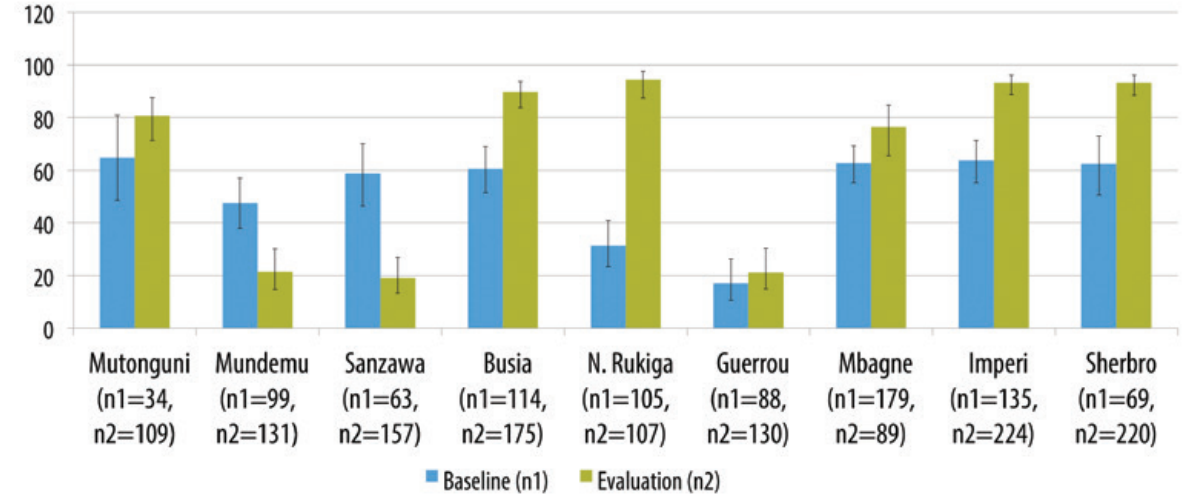
Use of LLINs in pregnancy shows a similar pattern, highlighting the issue with supply and ownership of nets, although misconceptions regarding its use persist in several locations.

Figure 28: Use of LLIN by Children 0-23 months



Source: Baseline and midterm reports; End line evaluation data; November 2015

Figure 29: Use of LLIN by pregnant mothers



Source: End line evaluation Data, November 2015

TABLE OF CONTENTS

Nutrition counselling for pregnant mothers was a focus area in ttC visits. Available programme monitoring data at end line evaluation was for December 2014, and reflected coverage on this indicator as presented in Table 22 below. Six ADPs reached the programme target of 80 percent coverage.

Table 22: Nutrition counselling for pregnant women in ttC – Jan to Dec 2014

	Number targeted/registered for ttC*	Percent counselled
Mutonguni; Kenya	710	93.4
Mundemu; Tanzania	2142	74.2
Sanzawa; Tanzania	874	72.0
Busia; Uganda	584	83.1
N. Rukiga; Uganda	2182	96.4
Guerrou; Mauritania	203	93.1
Mbagne; Mauritania	387	95.9
Imperi; Sierra Leone	1304	93.7
Sherbro; Sierra Leone	1306	96.2

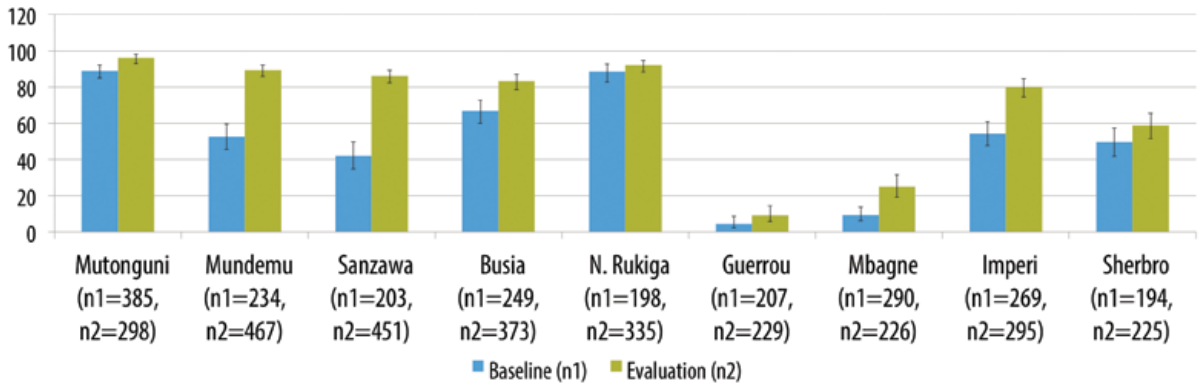
** Drawn from the totals indicated in 2014 programme coverage reports*

Tanzania ADPs had an additional opportunity for nutrition counselling through nutrition support groups; in which mothers met regularly to discuss nutrition issues, facilitated by a CHW. Mothers report that they learnt to use locally available nutrient-dense products such as groundnuts in making complementary feeds for young children. Facility staff in Mutonguni ADP, Kenya remarked the change in feeding patterns for young children due to specific counselling that CHWs provided.

Despite these forays made, it is critical to note that the coverage of ttC was variable and the numbers in the table above do not necessarily include all quarters of the target communities, especially the most vulnerable households.

HIV counselling and testing in pregnancy was high in most programme sites, with the exception of the two ADPs sites in Mauritania which remained low at 35.5 percent (n=468, 95% CI 31.25 - 39.93) in Guerrou ADP and at 46.3 percent (n=476, 95% CI 41.72 - 50.88) (Figure 30). It is important to note that this service is not routinely offered in ANC clinics in Mauritania and the above coverage levels were reached through outreach testing campaigns. No ADP reached the programme target of 95 percent.

Figure 30: HIV testing during antenatal care visit



Source: End line evaluation data, November 2015

4.2.2 Output 3.2: Parents and caregivers have improved health seeking behaviour

This output focuses on knowledge of and timely recognition of signs of illness and seeking appropriate care.

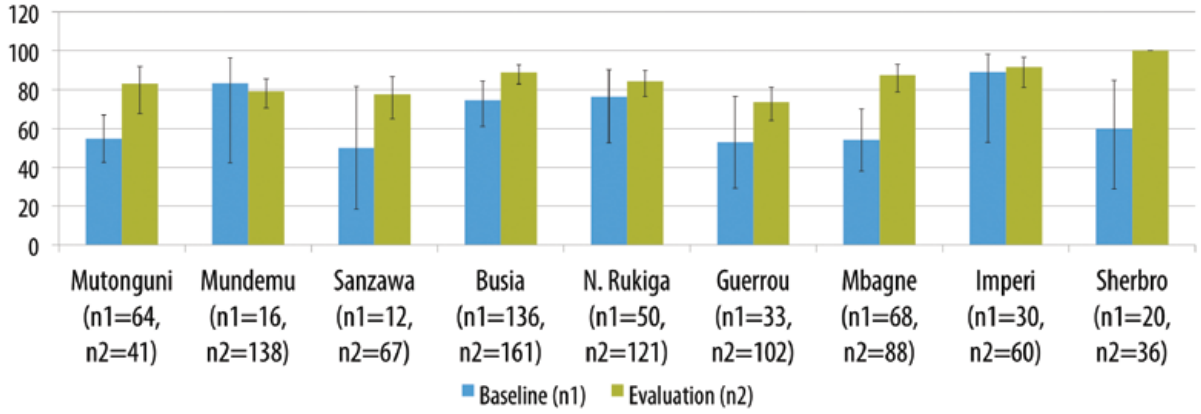
Table 23: Output 3.2 results at a glance

Output indicator	Output target	Value at end line evaluation
Percent of caregivers of children 0-23m with ARI who sought appropriate care	95%	Attained in one of nine ADPs
Percent of caregivers of children 0-23m who know at least 2 post-partum danger signs and at least 2 danger signs in the newborn	95%	Not attained in any ADP (the 2 ADPs in Sierra Leone above 80%)
Percent of caregivers of children 0-23m with fever who sought appropriate care within 24h	95%	Not attained in any ADP (4 ADPs attained 70% or higher)

i) Care-seeking for ARI:

Timely care seeking at end line evaluation for ARI was generally high; above 70 percent in all programme sites (details in Figures 31). The 95 percent programme target was attained in one site (Sherbro Island ADP, Sierra Leone); and five other sites had rates above 80 percent.

Figure 31: Timely care seeking for ARI – Children 0-23 months



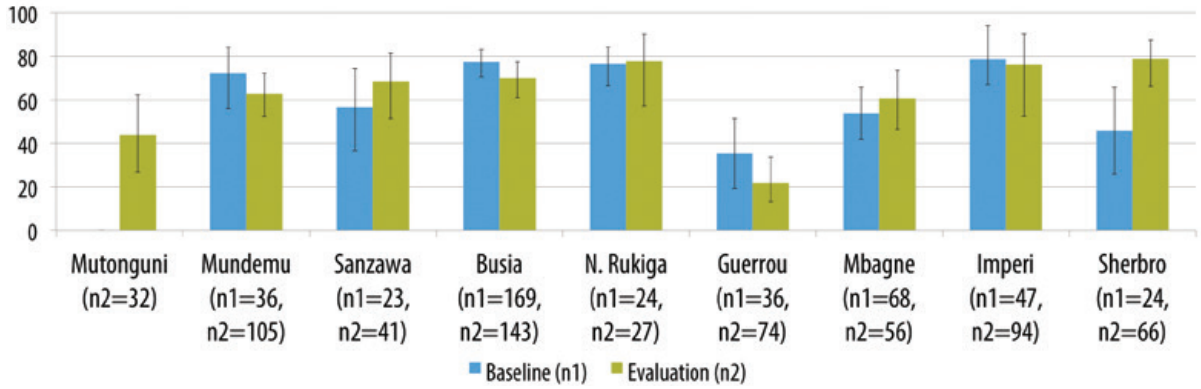
Source: Baseline and midterm reports; End line evaluation data; November 2015

In comparison to the baseline rates, care seeking for ARI at end line evaluation reflected a general trend of improvement across the programme sites; with only two sites (Mundemu, Tanzania and Imperi, Sierra Leone) showing little change. However, because of the small sub-samples of children with ARI at baseline (and thus very wide confidence intervals), the change between baseline and end line evaluation does not reflect any statistical significance.

ii) Care-seeking for fever:

Timely care seeking for fever at end line evaluation was between 50 percent and 80 percent in all except two programme sites; Mutonguni, Kenya and Guerrou, Mauritania (Figure 32). Although the 95 percent programme target was not attained in any programme site; four sites attained a rate of 70 percent or higher (Busia and N. Rukiga in Uganda, and Imperi and Sherbro in Sierra Leone).

Figure 32: Timely care seeking for Fever – Children 0-23 months

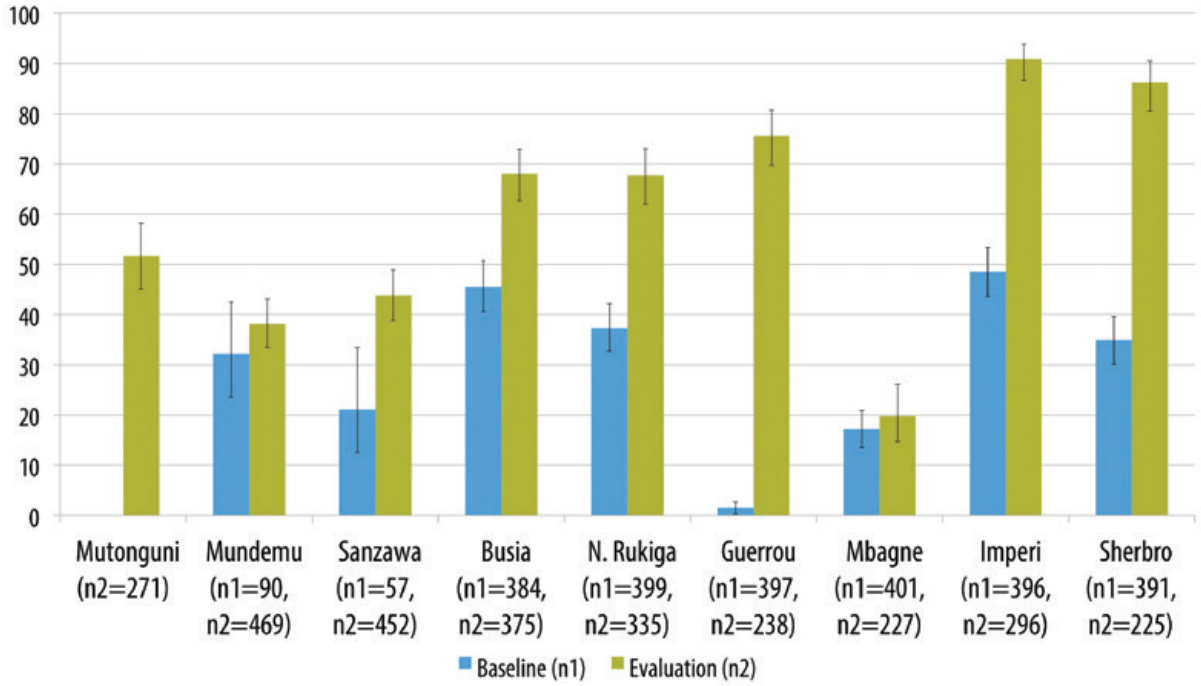


Source: Baseline and midterm reports; End line evaluation data; November 2015

The rate of care seeking for fever at baseline and end line evaluations was generally similar in the different programme sites. Any differences noted at the two points were masked by wide confidence intervals especially at baseline, because of the small sub-samples. The rate was not reported at baseline in Mutonguni, Kenya for the age group 0-23 months.

Knowledge of post-natal danger signs is an integral part of birth planning and preparation that is discussed during late pregnancy ttC visits. The percent of mothers who knew at least two postnatal danger signs for the mother and two for the newborn was above 80 percent only in the two programme sites in Sierra Leone. The two ADPs in Tanzania and Mbagne ADP in Mauritania were below 50 percent. None of the sites attained the 95 percent programme target.

Figure 33: Knowledge of postnatal danger signs (0-23m)



Source: End line evaluation Data, November 2015

This indicator is considered a barometer for coverage of programme interventions, especially ttC in target populations, as well as the quality of dialogue during ttC visits.

TABLE OF CONTENTS

4.2.3 Output 3.3: Improved water and sanitation practices at household level

This output focuses on the use of improved sanitation at the household level, as a critical component for survival and growth through disease prevention.

Table 24: Output 3.3 results at a glance

Output indicator	Output target	Value at end line evaluation
Percent of households with unrestricted access to improved sanitation facility	85%	Attained in three of nine ADPs

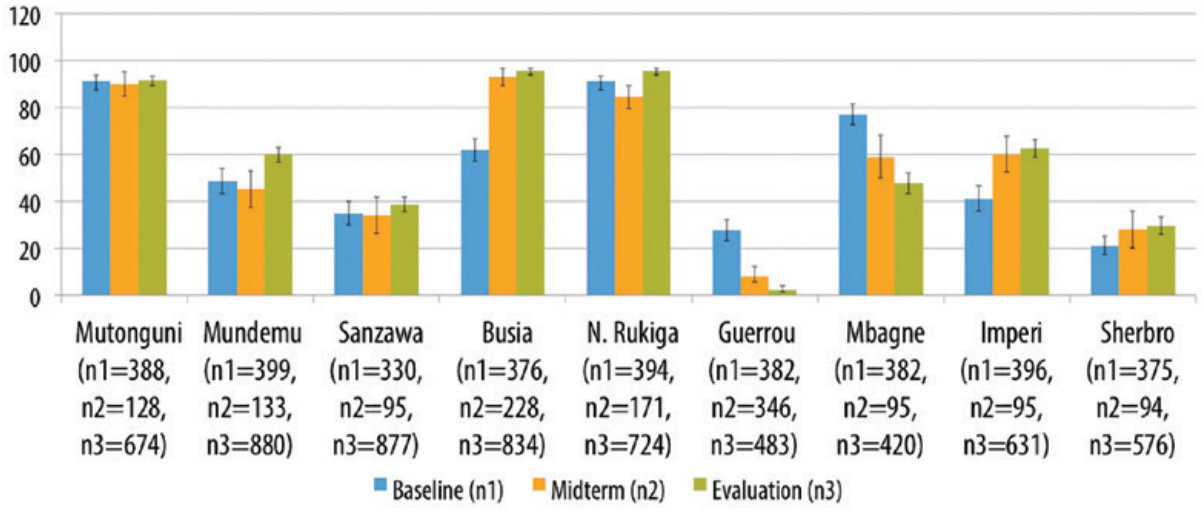
Access to improved sanitation as measured at end line evaluation was found above the 85 percent programme target in three sites (details in Figure 37). Coverage levels reached the programme target of 85% in three ADPs: in Mutonguni, Kenya at 91.6 percent (n=674 95% CI 89.3-93.4) in Busia and N. Rukiga ADPs in Uganda at 95.4 percent (n=834 95% CI 93.8 – 96.6) and 100 percent respectively. Improvements in coverage is seen in three other ADPs. The intended improvements were to be reached through the combined efforts of behaviour change through ttC and infrastructural improvements through COMMs and the ADP activities.

Coverage levels were lower in the corresponding comparison sites in Uganda and Kenya but were higher in the comparison sites for other ADPs. The trend analysis at end line evaluation (details in Figure 34) indicates that these differences possibly reflect a different reality for each of the sites:

- In Mutonguni ADP, Kenya, the rate was high and stable over the programme period.
- In N. Rukiga ADP, Uganda, the rate declined slightly between baseline and midterm, and rose again between midterm and end line evaluation; a possible reflection of programme action.
- In Busia ADP, Uganda and Imperi ADP, Sierra Leone, there was a steep increase between baseline and midterm, and a modest increase between midterm and end line evaluation; a possible reflection of major programme impact.

It is notable that the trend of improved sanitation coverage in the comparison site for Mauritania was much higher than the rate in both programme sites, ostensibly due to the ADP's investments in the area.

Figure 34: Trends in access to improved sanitation – Baseline to End line evaluation



Source: Baseline and midterm reports; End line evaluation data; November 2015

Bivariate analysis was done to assess association between WASH components and prevalence of diarrhoea, fever and ARI among children. The results as presented in Table 25 reflect a high level of association across all three diseases; which is significant in all programme sites except in Mutonguni ADP, Kenya. The expected close link between diarrhoea and WASH parameters was evident in three programme sites; Mundemu ADP and Sanzawa ADP in Tanzania, and in Mbagne ADP, Mauritania. However, the association is not evident with respect to hand washing in any site; and on any of the WASH parameters in four sites: Imperi ADP and Sherbro ADP in Sierra Leone; N. Rukiga ADP, Uganda and Mutonguni ADP, Kenya.

Table 25: Analysis of association – WASH components and prevalence of disease

	Mutonguni	Mundemu	Sanzawa	Busia	N. Rukiga	Guerrou	Mbagne	Imperi	Sherbro
Diarrhoea									
Handwashing	0.891	0.769	0.146	0.688	0.41	0.915	0.284	0.860	0.608
Sanitation facility	0.858	0.001	0.057	0.972	NA	0.758	0.020	0.247	0.165
Safe water	0.328	0.001	0.001	0.966	0.303	0.711	0.983	0.973	0.291
Sufficient water	0.916	0.030	0.738	0.311	0.515	0.346	0.001	0.500	0.500
Fever									
Handwashing	0.697	0.941	0.001	0.533	0.315	0.461	0.243	0.319	0.727
Sanitation facility	0.763	0.101	0.231	0.039	NA	0.633	0.637	0.595	0.130
Safe water	0.533	0.001	0.001	0.326	0.163	0.292	0.419	0.972	0.046
Sufficient water	0.443	0.335	0.303	0.280	0.602	0.475	0.034	0.502	0.134
ARI									
Handwashing	0.936	0.725	0.936	0.447	0.777	0.519	0.254	0.297	0.931
Sanitation facility	0.682	0.003	0.296	0.145	NA	0.933	0.012	0.069	0.422
Safe water	0.529	0.039	0.041	0.285	0.001	0.342	0.088	0.008	0.049
Sufficient water	0.324	0.786	0.385	0.480	0.754	0.673	0.179	0.656	0.016

The association between WASH and prevalence of fever was relatively lower in comparison to the noted level for diarrhoea. It was most evident with respect to access to sanitation facility; and to safe water. The association was strongest in the Tanzania programme sites; and absent in five sites.

The association between WASH and prevalence of ARI was evident across eight of the nine ADPs; and present with respect to all WASH indicators except handwashing. This significant association was present on three WASH indicators in Mundemu ADP, Tanzania and Mbagne ADP, Mauritania; and on two WASH indicators in both ADPs in Sierra Leone.

4.2.4 Output 3.4: Communities lead actions to protect children and their mothers from harmful practices, abuse, and disease

This output tracks the involvement of COMMs in health actions for mothers and children.

Table 26: Output 3.4 results at a glance

Output indicator	Output target	Value at end line evaluation
Percent of COMMs engaged in advocacy, planning or health promotion	90%	Attained in all nine ADPs

The end line evaluation process found that in all AIM Health locations, health advocacy and health promotion were core elements in the training and work of COMMs. Examples of actions promoted by COMMs include helping people demand free and quality MNC services (e.g., in Sierra Leone and

Tanzania); increasing government financing for specific local health improvements such as expansion of services space, building staff houses, etc. (e.g., in Uganda and Tanzania); and promotion of health pre-financing contributions by households (e.g., in the Community Health Fund of Tanzania). In most programme sites, it was indicated that COMMs and their advocacy work at health facilities had resulted in better attitudes of health workers (e.g., reporting early and staying available for work, better customer care, and more consultations in planning outreaches).

All COMMs in place had received training in organizational capacity building for health promotion, which included community assessment, action planning and resource mobilization for health promotion. These issues had been included in the periodic action plans of COMMs, and in their implementation. All COMMs were also trained in CVA and were active in health advocacy; with focus on services of health facilities and programming for outreach services. COMMs in Tanzania addressed overwork and domestic violence and those in N. Rukiga, Uganda addressed alcoholism.

The number of COMMs indicated as active at the time of end line evaluation in the different programme sites is presented in Table 27 below.

Table 27: AIM Health support actions to enhance MNCH

Programme Site	Number of active COMMs	% COMMs engaged in advocacy or health promotion
Mutonguni; Kenya	11	100.0
Mundemu; Tanzania	16	100.0
Sanzawa; Tanzania	13	100.0
Busia; Uganda	16	100.0
N. Rukiga; Uganda	8	100.0
Guerrou; Mauritania	10	100.0
Mbagne; Mauritania	10	100.0
Imperi; Sierra Leone	8	100.0
Sherbro; Sierra Leone	10	100.0

Stakeholders consider the work of COMM and CVA sub-optimal in several areas such as increasing numbers of deployed health facility staff, improving access to services for teenage mothers and mothers with disability, strengthening local partnership for health financing, WASH infrastructure etc. However, these are ambitious, if important objectives, which require more sustained effort than was feasible in AIM Health.

4.3 OUTCOME 4: ACCESS TO ESSENTIAL HEALTH SERVICES

This outcome focuses on access to essential maternal and newborn care (MNC) services that span pregnancy, childbirth, and the postpartum period. This is a critical contributor to the overall goal of AIM Health as most maternal and infant deaths happen during birth and the first week thereafter.

It is important to note that all of these indicators pertain to facility-based services, and as such are affected by their availability and accessibility to all target communities. AIM Health provided infrastructure support, provided health facility staff with MNC service updates and hands-on training and in management of facilities. ttC home visits are intended to increase the demand and utilisation of these services.

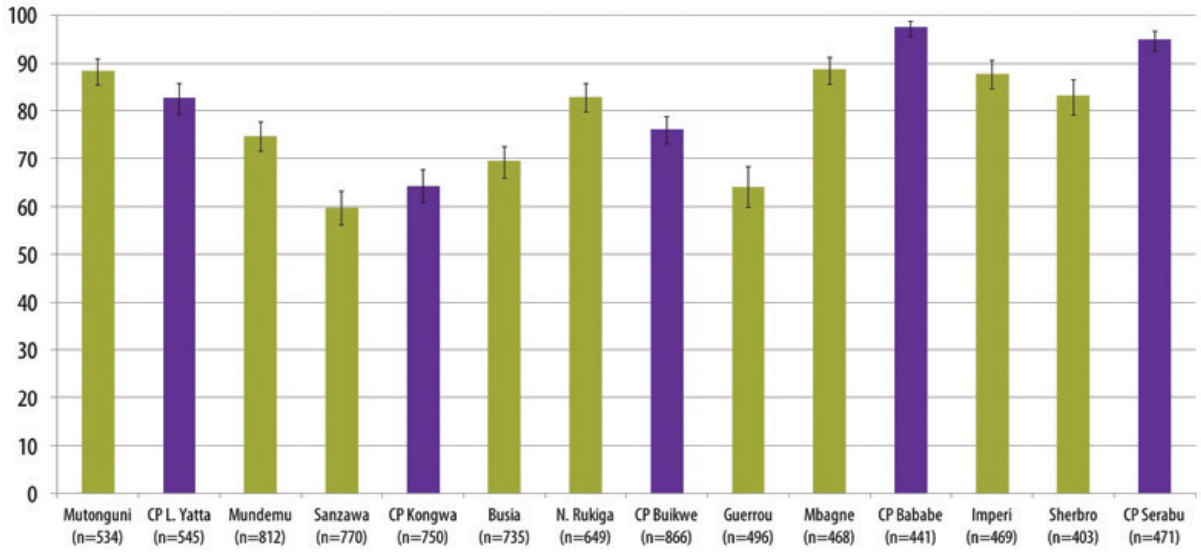
Table 28: Outcome 4 results at a glance

Outcome indicator	Outcome target	Value at end line evaluation
Percent of children 0-59m whose birth was attended by a skilled birth attendant	60% increase or 25 percentage points increase from baseline	Attained in four of nine ADPs
Percent of children 0-59m whose mothers had 4 or more ANC visits	60% increase	Attained in eight of nine ADPs
Percent of children 0-59m whose mothers had 3 or more PNC visits	60% increase	Not attained in any ADP
Percent of caregivers of children 0-59m using a family planning method	70% increase	Attained in one of nine ADPs
Percent of health centre users reporting satisfaction and improvements in services	50% increase	Attained in all ADPs
Percent of health centres with increase in availability of staff and supplies	25% increase	All assessed health facilities indicated increase in supplies. Staff numbers have increased in some sites; but still inadequate in most places
Percent of COMMs functional	90%	Attained in all 9 ADPs
Percent of CHWs integrated into the formal health system or being sustainably motivated locally	80% increase	Attained in all 9 ADPs

Skilled Attendance at Birth for the most recent birth for mothers of children aged 0-59 months was similar across all AIM Health ADPs at end line and even the comparison ADPs; nearly all of them ranging between 70 percent and 90 percent (Figure 35). It is remarkable that only Sanzawa ADP, Tanzania at 59.7 percent (n=770, 95% CI 56.22 - 63.17) and Guerrou ADP, Mauritania at 64 percent (n=496, 95% CI 59.78 - 68.23) are below this range along with comparison sites in Mauritania and Sierra Leone.

These findings have important implications for the evaluation: All host MOHs in the five AIM Health countries have made skilled attendance at birth (and facility births) top priority and have marshalled significant resources from their own budget and from donors to support various aspects of this outcome. Although the efforts from AIM Health contributed to the process, they were likely not critical for the achievement of this outcome.

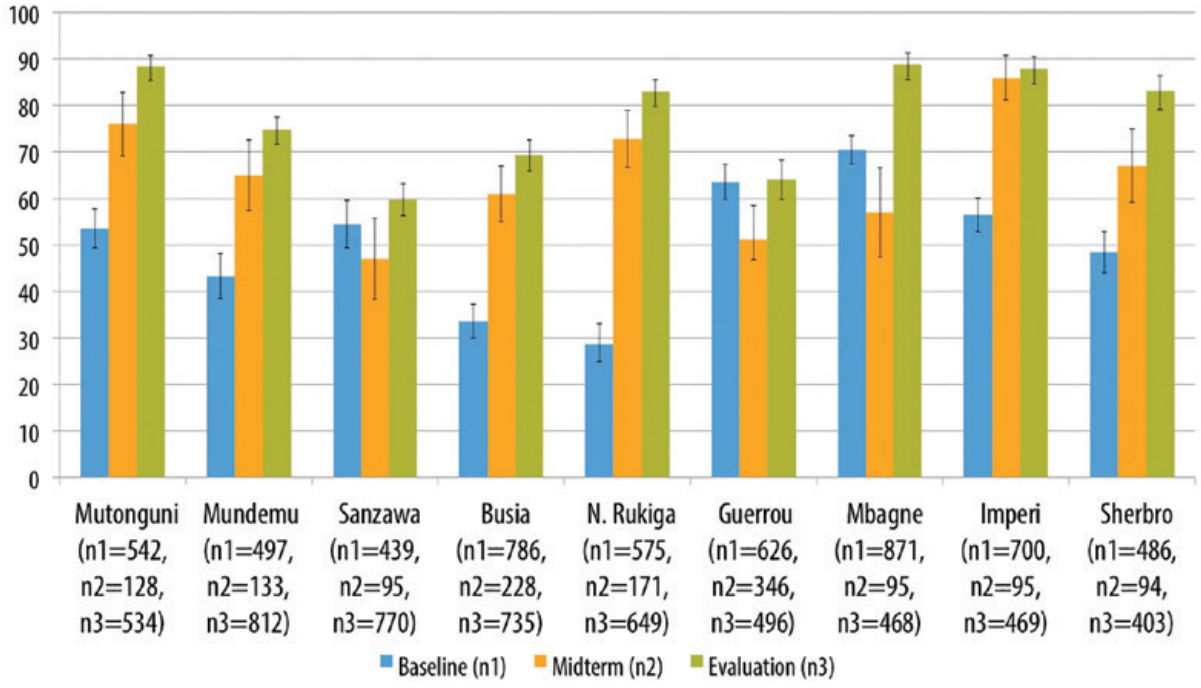
Figure 35: Skilled attendance at birth (0-59 months)



Source: End line evaluation data; November 2015

Trend analysis between baseline and end line evaluation across all programme sites reflects sustained improvement in skilled birth attendance over the programme period (details in Figure 36). A two-fold increase was realized in Imperi ADP, Sierra Leone (the largest increase among all programme sites); while the smallest increase of only 9 percent was realized in Busia ADP, Uganda.[12] The percent increase in skilled births attained the 60 percent programme target in Imperi ADP and Sherbro Island ADP in Sierra Leone, N. Rukiga ADP, Uganda, and Mbagne ADP, Mauritania). Mutonguni ADP, Kenya and Mundemu ADP, Tanzania have come close to achieving the programme target. The increase realized in the remaining three sites was below 20 percent.

Figure 36: Skilled attendance at birth (0-59m) – Trends



Source: Baseline and midterm reports; End line evaluation data; November 2015

User satisfaction of health services: The end line evaluation assessed this through focus group discussions with mothers, CHWs, COMMs and local government leaders. The general perception in all ADPs was one of improvement and appreciation for the same. This was reflected in improved utilisation of services especially those related to MNC and high attendance at outreach clinics. Stakeholders cited improved attitudes of facility staff, and ttC discussions regarding the importance of facility services as key factors for improved satisfaction.

Out-of-pocket expenses at health facilities cripple the finances of most families. It is cheaper to go to the local vendor.

COMM member, Tanzania

Stakeholders also pointed out a number of factors that need improvement – such as user fees at facilities in Tanzania, inadequate staffing.

Community members cite rude behaviour of health staff as a key factor that discourages women

[12] Review of health facility records in Busia indicated large increases in number of births in health facilities over the programme period. In the two largest Health Centres in the programme area, many of the deliveries over the programme period were conducted at the facility by CHW with experience as TBAs, under close supervision by the midwives.

from seeking health services. Conversely, positive and caring attitudes of facility staff in other locations have built trust and increased utilisation of services.

Availability of staff and medicines: A selection of health facilities were visited in each programme site at end line evaluation, and assessed changes in staff numbers and availability of supplies with results in the table below:

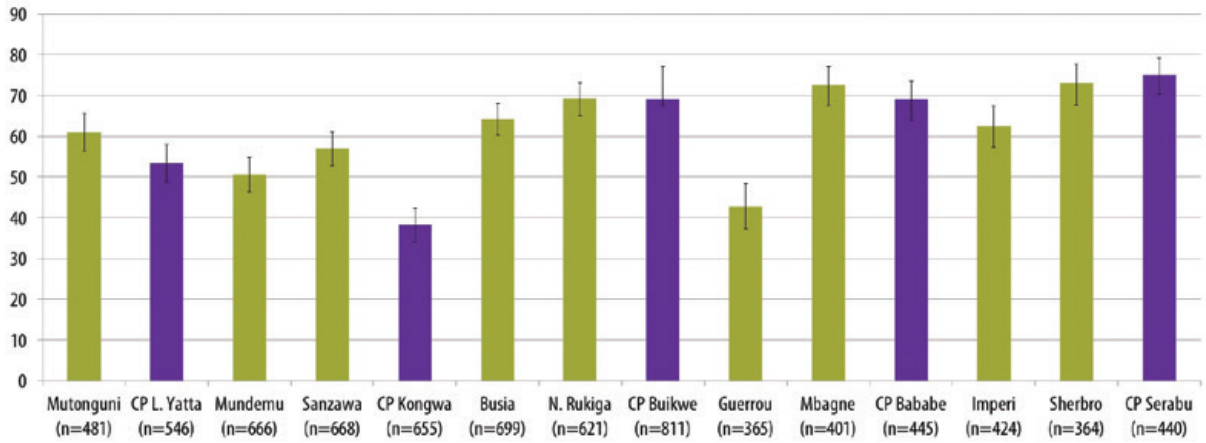
Table 29: Trends in health facility staff numbers and supplies – Since 2011

ADP/Country	Staff numbers		Medical supplies	
	Assessed facilities	% facilities with more staff	Assessed facilities	% facilities with increased supplies
Mutonguni; Kenya	4	**50.0**	4	**0.0**
Mundemu; Tanzania	2	**0.0**	2	**100.0**
Sanzawa; Tanzania	2	**0.0**	2	**100.0**
Busia; Uganda	2	**0.0**	2	**100.0**
N. Rukiga; Uganda	1	**100.0**	1	**100.0**
Guerrou; Mauritania	3	**0.0**	3	**0.0**
Mbagne; Mauritania	7	**0.0**	7	**0.0**
Imperi; Sierra Leone	1	**0.0**	1	**100.0**
Sherbro; Sierra Leone	1	**0.0**	1	**100.0**

All ADPs except the two in Mauritania have had increases in staff and/or supplies over the programme period. These results come with two caveats: the facilities assessed may not have required any increase in staff or supplies; and the sample size was too small to be representative of the entire programme area.

Four or more ANC visits: Results as presented in Figure 37 indicate coverage levels ranging from 50 and 70 percent in all except Guerrou ADP, Mauritania. The rates in the comparison sites were in the same range as for the corresponding AIM Health ADPs, except in Tanzania where it is significantly lower in comparison site. The rate in Mundemu ADP, Tanzania is 50.6 percent (n=665; 95% CI 46.8 – 54.5); and in Sanzawa ADP, Tanzania is 56.9 percent (n=668; 95% CI 53.1 – 60.6).

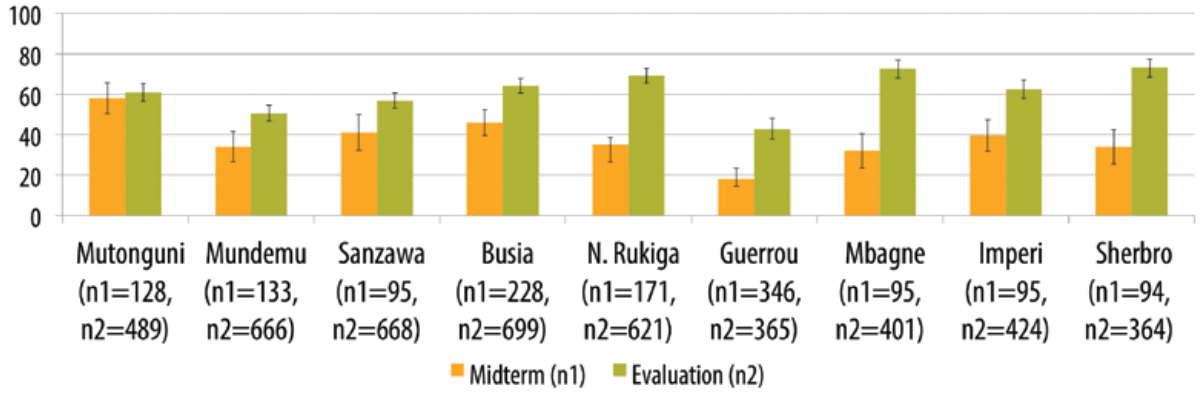
Figure 37: Four+ ANC visits (0-59 months)



Source: End line evaluation data; November 2015

Coverage rates have increased significantly since midterm (4+ ANC visits was not measured at baseline) and in some locations has more than doubled. All sites except Imperi ADP, Sierra Leone have reached the programme target of 60 percent increase.

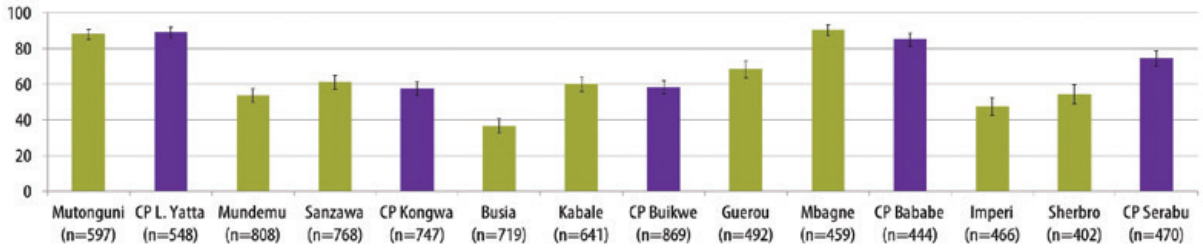
Figure 38: Trend of full ANC attendance (0-59 months)



Source: End line evaluation data; November 2015

Postnatal care after most recent birth for mothers of children aged 0-59 months: Mutonguni ADP, Kenya and Mbagne ADP, Mauritania reached the programme goal of 80 percent. Coverage levels in the respective comparison sites are comparable to those in AIM Health sites.

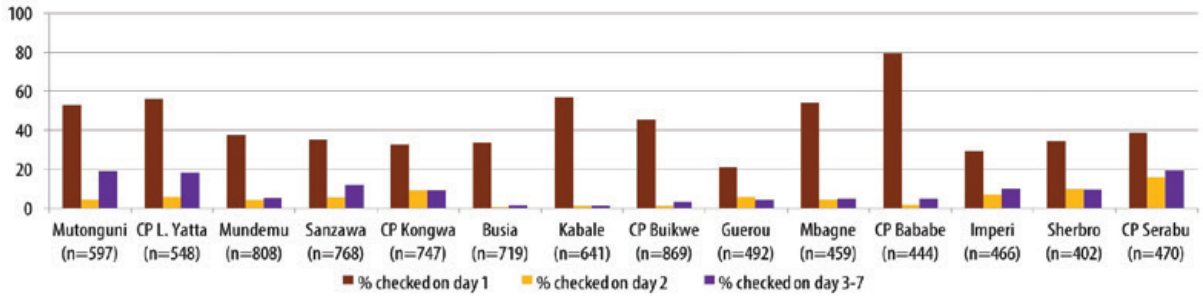
Figure 39: Postnatal care coverage



Source: End line evaluation data; November 2015

The end line evaluation also measured the timing of the first postnatal check received; and the results are presented in Figure 40 below. Coverage for the PNC on the first day of delivery is very high, a possible reflection of the high proportion of facility births, where the women receive the first PNC before they are discharged from the facility. Again the rates in programme sites and corresponding comparison sites are similar.

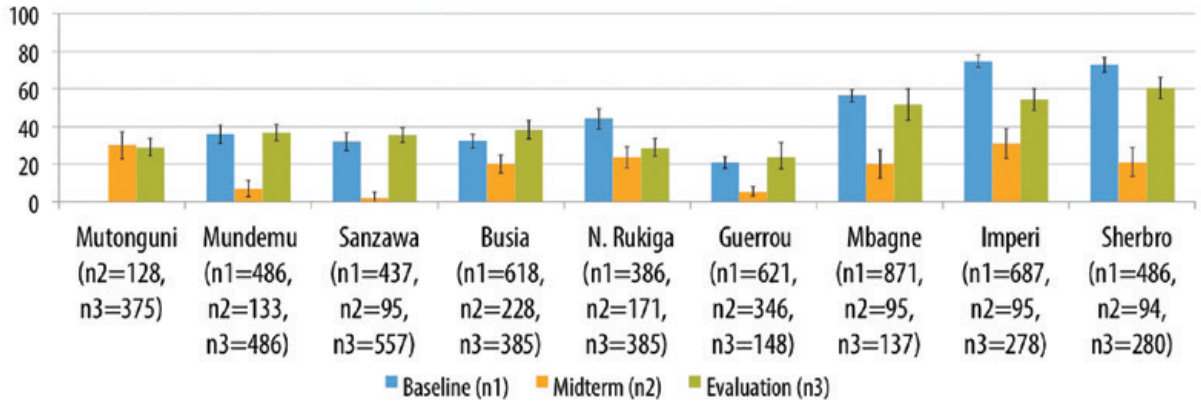
Figure 40: Timing of the first postnatal check (0-59m)



Source: End line evaluation data; November 2015

Trend analysis in postnatal attendance between baseline and end line evaluation reflects a small net increase of 2 percent to 19 percent in five sites; and a net decline between 8 percent and 35 percent in the other four sites (Figure 41). This reflects that none of the programme sites attained the 60 percent increase as targeted by the programme.

Figure 41: Trends in PNC check on mothers (3 or more visits)



Source: Baseline and Midterm reports; End line evaluation data; November 2015

Bivariate analysis was conducted on the end line evaluation results, on association between postnatal attendance and knowledge of postnatal danger signs; and also with skilled attendance at birth. The results as presented in Table 30 below reflect close association on both counts but in different programme sites.

Table 30: Analysis of association for postnatal attendance

Site	Knowledge of danger signs	Skilled birth attendance
Mutonguni; Kenya	0.306	0.001
Mundemu; Tanzania	0.168	0.339
Sanzawa; Tanzania	0.018	0.002
Busia; Uganda	0.001	0.001
N. Rukiga; Uganda	0.170	0.001
Guerrou; Mauritania	0.081	0.001
Mbagne; Mauritania	0.001	0.001
Imperi; Sierra Leone	0.935	0.448
Sherbro; Sierra Leone	0.003	0.469

Source: End line evaluation data, November 2015

Most programme sites reflect the expected close association between the variables. The exception in this regard is Mundemu, Tanzania and Imperi, Sierra Leone; where no statistically significant association was seen

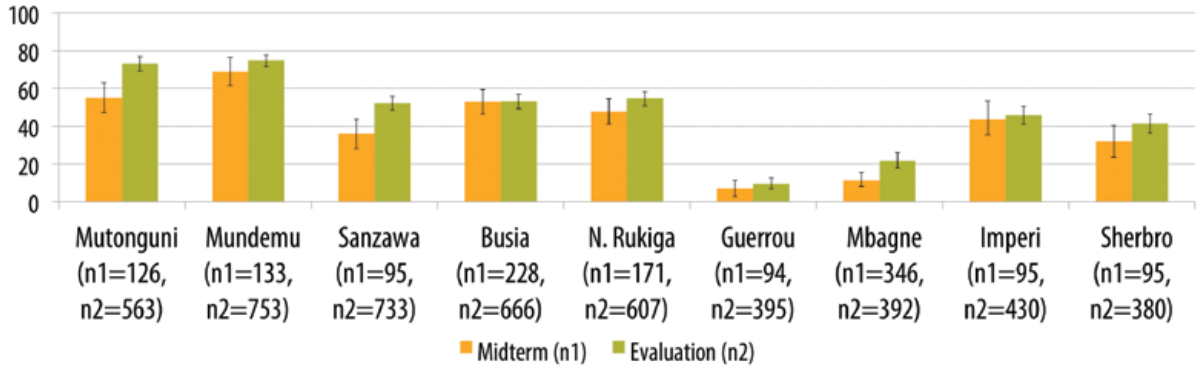
Current use of a family planning (FP) method: Most ADP locations have seen an increase in this coverage level, although most of these increases are not statistically significant (as seen by overlapping 95% CI limits). Guerrou ADP, Mauritania and Sanzawa ADP, Tanzania met the programme target of a 35 percent increase since midterm. Mutonguni ADP, Kenya and Mbagne ADP, Mauritania have also seen increases since midterm, close to the programme target.

The rate of use of FP methods was not measured at baseline, but the intent to use was measured.

Men have now begun see the need for family planning as everyone has to pitch in to make ends meet.

CVA member, Mundemu, Tanzania

Figure 42: Trends in Family Planning use - midterm to end line evaluation



Sources: Midterm report 2014; End line evaluation data; November 2015

Qualitative findings confirm improved availability of FP commodities in facilities and a positive shift in men's attitudes about the use of FP, including Mauritania against a background of enduring barriers.

Functioning of COMMs:

Review of programme records and focus group discussions with COMMs reveal that COMMs are of two major types – those formed out of erstwhile facility management committees (to which AIM Health added organisational capacity and community representation) and those that are structured as community-based bodies with significant representation from CHWs. The latter in Mutonguni, Kenya have evolved to become full-fledged community-based organisations. Table 31 below presents the number COMMs indicated as functional in the different programme sites.

Table 31: Functional Health Facility COMMs – November 2015

Programme Site	Number of functional COMMs
Mutonguni; Kenya	11
Mundemu; Tanzania	16
Sanzawa; Tanzania	13
Busia; Uganda	16
N. Rukiga; Uganda	8
Guerrou; Mauritania	10
Mbagne; Mauritania	10
Imperi; Sierra Leone	8
Sherbro; Sierra Leone	10

Source: Programme records

COMMs in all AIM Health ADPs were active in community education and mobilization for health; management support to health facilities; and CHW supervision. COMMs in Tanzania reflect greater focus on community education on health and on advocating for expansion of health services at current health facilities, establishing new facilities and increasing outreach services. COMMs in Sierra Leone and Uganda showed primary focus on monitoring the functionality and quality of services at health facilities. They also provided support supervision to the work of CHWs, and managing of conflict and joint working amongst each other and with health facilities. COMMs in Kenya and Mauritania were more focused on support to the work of CHW, to ensure effective services and due attention to their motivation and remuneration.

CHW integration into formal health system: CHWs in all AIM Health locations are recognized by the local health system. A large proportion of them were already deployed when AIM Health began. MOH stakeholders in all AIM Health locations (at district and facility level) considered CHWs as an integral part of the public health system, and saw the financing of the CHW programme by donor projects as a reflection of current realities. This evaluation found some evidence for structured and systematic engagement between WV and government to expand government support to CHW beyond the basic commitments as described above. Peripheral health facilities in AIM Health locations in Sierra Leone had included the CHW in Performance-Based Financing (PBF) initiative of MOH. This was based on recognition that CHWs at community level or involved in service support at health facilities are important contributors to the health facility performance

4.3.1 Output 4.1 Women give birth with support of a Skilled Birth Attendant

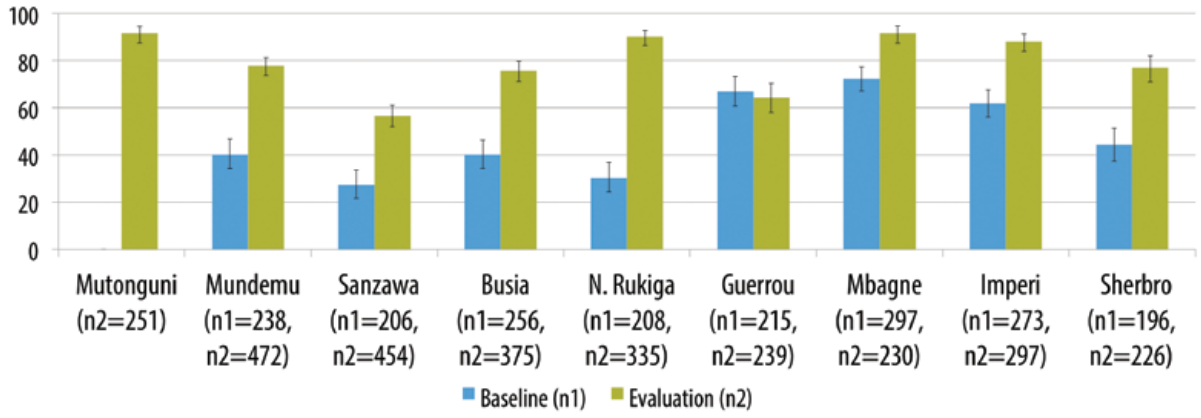
This output focuses on skilled attendance at birth among mother with children under two, who would be directly impacted by ttC work.

Table 32: Output 4.1 results at a glance

Output indicator	Output target	Value at end line evaluation
% children 0-23m whose birth was attended by a skilled birth attendant	60%	Attained in eight of nine ADPs

The rates of skilled attendance at birth in the age cohort of 0-23 months as measured at end line evaluation were relatively high across most programme sites; above 60 percent in all sites except in Sanzawa ADP (details in Figure 43).

Figure 43: Skilled Birth Attendance (0-23m) – Baseline to end line evaluation



Source: End line evaluation data; November 2015

Trends analysis reflects large improvements between baseline and end line evaluation; except in Guerrou, Mauritania where there was no change since baseline (as the 95% CIs overlap). The rate increased three-fold in N. Rukiga, Uganda to 90.1 percent (n=335, 95% CI 86.44 - 92.92); and two-fold in Sanzawa, Tanzania to 57.5 percent (n=452, 95% CI 52.89 - 62.10). The programme target of 60 percent increase was realized in eight of the nine programme sites.

We aimed for zero home deliveries in Imperi chiefdom and we achieved it.

COMM member Imperi, Sierra Leone

TABLE OF CONTENTS

4.3.2 Output 4.2 Pregnant women, mothers and young children access adequate ante and post-natal health services

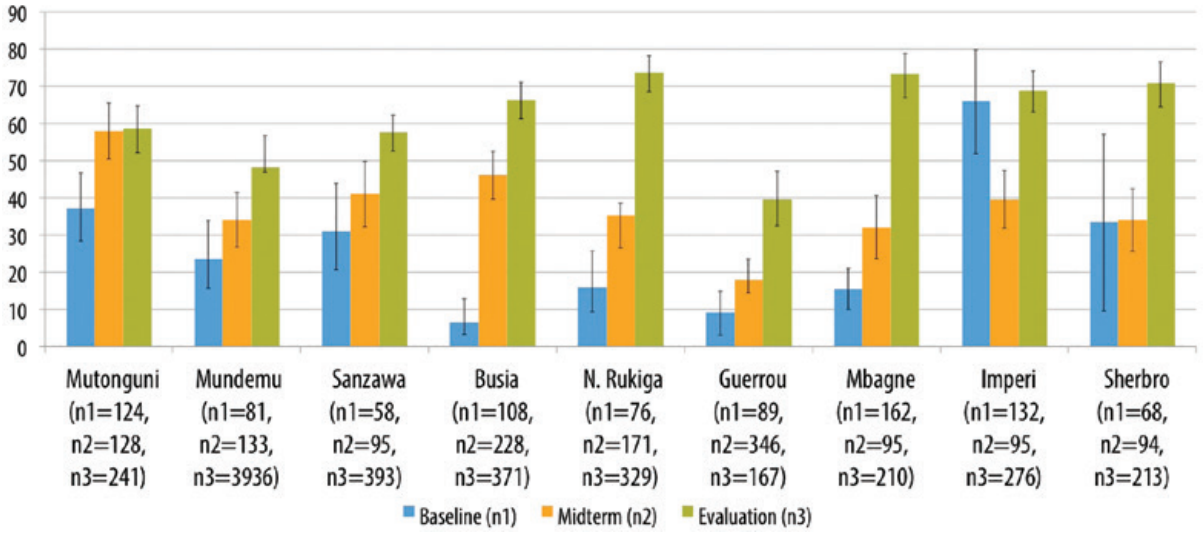
This output focuses on other MNC services (besides skilled birth attendance), for mothers with children under two years of age, who are the intended target group for ttC.

Table 33: Output 4.2 results at a glance

Output indicator	Output target	Value at end line evaluation
Percent increase in uptake of MNCH services in centres	80%	Qualitative results and secondary data indicate mixed results
Percent of children 0-23m whose mothers had 4 or more ANCs during pregnancy	60%	Attained in six of nine ADPs
Percent of children 0-11 that were protected at birth from tetanus	90%; or 3 percentage points increase if baseline is above 90%	Attained in two of nine ADPs
Percent of children 0-23m who received all 3 components of essential newborn care at birth	80%	Attained in eight of nine ADPs

Four + ANC visits: The results as presented in Figure 44 indicate show attainment of 60 percent or higher in six of the nine programme sites. Mbagne ADP, Mauritania has seen an impressive increase to reach 73 percent (n=210, 95% CI 66.89 - 78.91), and so has N. Rukiga ADP, Uganda, at 73.9 percent (n=329, 95% CI 68.50 - 78.06). These increases are significant as they began with very low baseline levels. The full ANC coverage in the comparison ADPs is in the same range as the corresponding AIM Health ADPs.

Figure 44: ANC attendance (0-23m) – Baseline, Midterm and End line evaluation



Source: Baseline and Midterm reports; End line evaluation data; November 2015

AIM Health made significant effort to improve ANC coverage in all programme sites. The following table provides a conceptual framework for this effort:

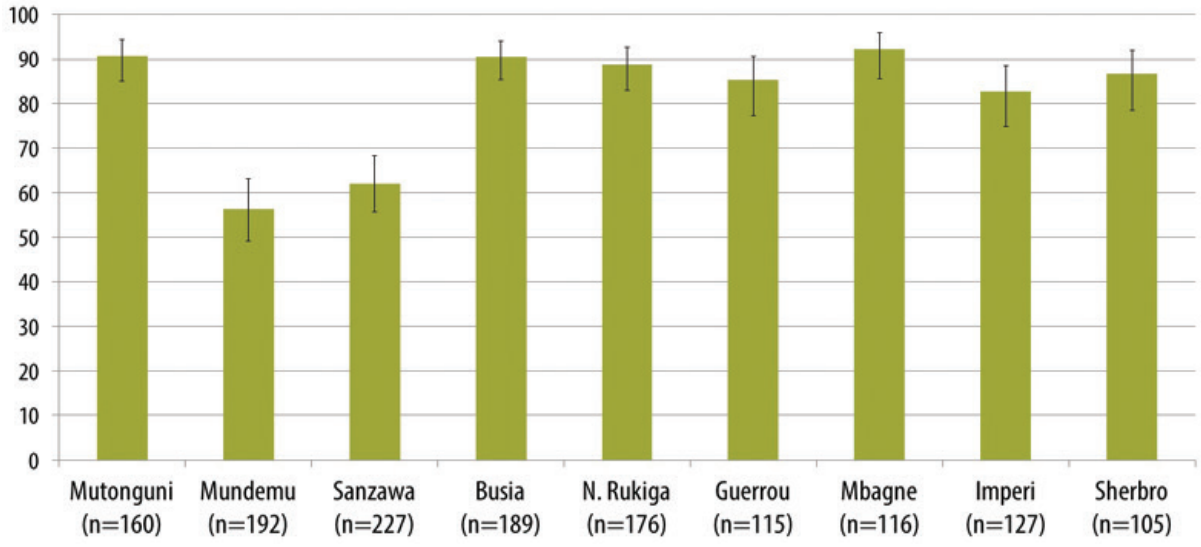
Table 34: AIM Health support actions to enhance ANC access

Demand-side actions and results	Supply-side actions and results
ttC activities at household level:	**People-led supply advocacy (through CVA)**
• More mothers willing to attend ANC • More mothers willing and able to start ANC early • Follow-up dialogue in subsequent ttC sessions enhances compliance with ANC advice	• Improved staff numbers; attitudes; motivation • CHWs participation on 'supervised' service delivery (at facilities, outreach) • Increased services (outreach sites/times)
COMMs activities reinforce ttC information	**Facility-improvement actions**
• Accompanied ANC attendance (by spouses) • Household support for mothers away to ANC (other household members; neighbours, etc.) • Emergency transfer to ANC for mothers with danger signs (ambulance, motorbike, boat, horse-drawn carts, etc.	• Equipment and supplies (laboratory supplies, weighing scales, blood pressure instrument) • Renovations; on-site expansion • Multiplying facilities – initial actions only; too short to complete and use

Source: End line evaluation data; November 2015

Tetanus toxoid (TT2) vaccination in most recent pregnancy: The rates of TT2 vaccination are presented in Figure 45. Mbagne ADP, Mauritania and Busia ADP, Uganda have reached the programme target, at 92 percent (n=116, 95% CI 85.53 - 95.95) and 90.5 percent (n=189, 95% CI 85.34 - 93.94) respectively. N. Rukiga ADP, Uganda has fallen slightly short of the target at 88.6 percent (n=176, 95% CI 82.98 - 92.58).

Figure 45: TT2 vaccination in most recent pregnancy



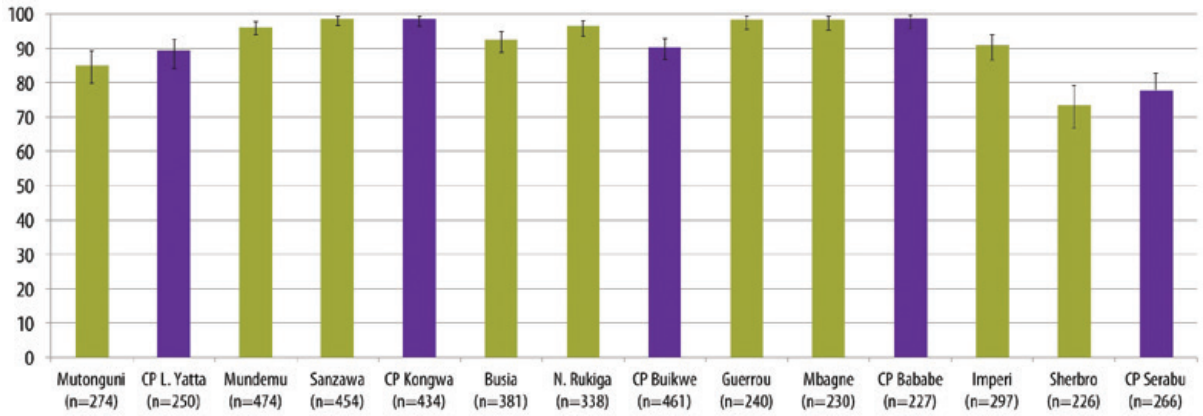
Source: End line evaluation data; November 2015

Three other sites (Imperi ADP and Sherbro Island ADP in Sierra Leone; and Guerrou ADP, Mauritania) have rates above 80 percent and thus close to the programme target as well. The rates are at or below 60 percent in the remaining three sites; which also have the lowest rates for ANC coverage. Thus the coverage of TT2 vaccination closely follows that for four ANC visits.

TABLE OF CONTENTS

Essential newborn care practices (including thermal care for the newborn, care of the cord stump and care of the eyes) have reached the target coverage of 80% or above in eight of the nine ADPs (details in Figure 46). Only Sherbro Island ADP, Sierra Leone was below this target at 73.4 percent (n=226, 95% CI 67.26 - 78.84). Coverage levels in comparison ADPs are at levels comparable to those in AIM Health sites.

Figure 46: Essential newborn care practices



Source: End line evaluation data; November 2015

4.3.3 Output 4.3 Communities lead actions to secure their rights to essential and equitable health services

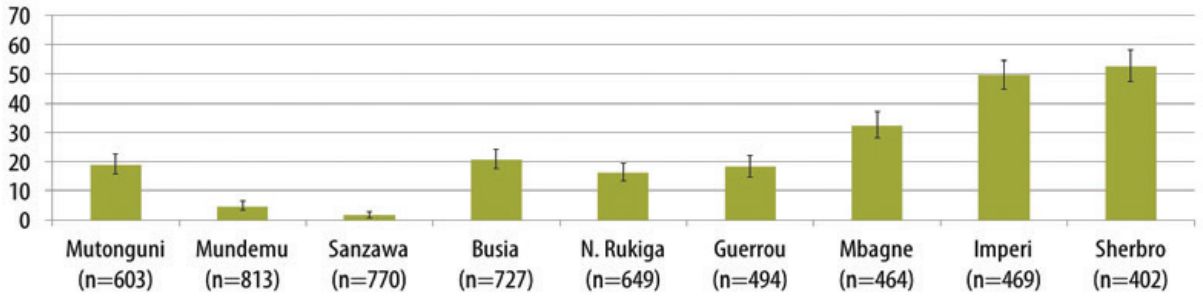
This output measures community-level actions carried out through AIM Health and their impact at the population level.

Table 35: Output 4.3 results at a glance

Output indicator	Output target	Value at end line evaluation
Percent of children 0-59m with birth certificates	80%	Not attained in any ADP
Percent of activities to improve health services (CVA) that are run by community groups	90%	Achieved in all nine ADPs

Birth certificates: The proportion of children with birth certificates as measured at evaluation was generally low, below 20 percent in five of the nine programme sites; and between 20 and 50 percent in the remaining sites (details in Figure 47).

Figure 47: Children 0-59 with a birth certificate



Source: End line evaluation data; November 2015

Compared to the baseline and midterm levels, this rate improved only in the programme sites in Sierra Leone; and declined in the programme sites in Mauritania. It remained largely stable in the other programme sites. There was no specific programme action reported across the different sites that was consistently implemented to promote birth registration. The constraints mentioned to birth registration included distance to district headquarters where the service is based (e.g., in Tanzania); and payment for the certificate that many families find unaffordable (e.g., in N. Rukiga.

Community groups' participation in CVA activities: AIM Health was the only mechanism in all its locations that promoted CVA for health improvement. The specific number of groups active in CVA in the different programme sites is presented in Table 36 below.

Table 36: Number of community groups participating in CVA - 2015

ADP/Country	Total Groups	Number active in CVA
Mutonguni; Kenya	11	9
Mundemu; Tanzania	20	16
Sanzawa; Tanzania	17	13
Busia; Uganda	58	29
N. Rukiga; Uganda	29	24
Guerrou; Mauritania	20	10
Mbagne; Mauritania	20	8
Imperi; Sierra Leone	26	18
Sherbro; Sierra Leone	32	20

Source: AIM Health Programme Data

Discussions with stakeholders in Uganda, Kenya and Sierra Leone indicated that AIM Health had contributed to increased collaboration among health-focused CSOs in community health assessments, health-focused dialogue during community meetings; and in planning and follow up of MNC advocacy with local governments. CVA groups were thus able to achieve greater integration between HIV care, PMTCT services and the MNC service system; pooled support to health facilities to spread the benefits to all staff and clients; and pushing for greater local government financing of operational costs at local health facilities.

4.3.4 Output 4.4 Health systems and linkages are strengthened and are monitored through community structures

This output focuses on the work of CHWs and their role in collection and utilisation of data in communities.

Table 37: Output 4.4 results at a glance

Output indicator	Output target	Value at end line evaluation
Percent of HHs that received all scheduled ttC visits in the past year	95%	Achieved in three of ADPs; and three others above 90%
Percent of referrals made by CHWs that were successful	90%	Achieved in four of nine ADPs; one other site above 80%
Percent of trained CHWs collecting and reporting data	80%	Achieved in seven of nine ADPs; and the others above 70%
Percent of communities where health assessment results were shared among stakeholders	80%	Achieved in five of nine ADPs

The reported programme performance on the indicators under this output for 2014 is presented in Table 38 below. It reflects high levels of achievement on most indicators across the different programme sites. The very low scores on information sharing in Sierra Leone were attributed to restrictions to such activities during the Ebola outbreak there.

Table 38: Achievement of output 4.4: Results from January to December 2014

ADP/Country	Percent households receiving 4 ttC visits in pregnancy	Percent referrals completed	Percent CHWs collecting and reporting data	Percent communities where assessment results shared
Mutonguni; Kenya	93.4	72.0	80.0	100.0
Mundemu; Tanzania	74.2	57.4	75.0	70.0
Sanzawa; Tanzania	72.0	55.2	75.0	70.0
Busia; Uganda	83.1	90.0	94.3	90.0
N. Rukiga; Uganda	96.4	74.0	83.0	80.0
Guerrou; Mauritania	93.1	94.0	95.0	100.0
Mbagne; Mauritania	95.9	93.0	95.0	100.0
Imperi; Sierra Leone	93.7	100.0	80.0	40.0
Sherbro; Sierra Leone	96.2	87.0	80.0	40.0

Source: Programme records

Completeness and timeliness of ttC visits is above 90 percent in six of nine ADPs, and is above 70% in the rest. This is one of the aspects of the ttC engagement with households, and ensures that dialogue with households for imminent behaviours takes place in a timely manner. Programme records in all sites indicated that all trained CHW had documented schedules for ttC visits.

However, it is important to note that these proportions are drawn from those households that the CHWs have registered for ttC. This indicator does not measure the population coverage of ttC (or the proportion of all households with a pregnant woman/child under two that ttC reaches), which could help explain low coverage levels of key outcomes that ttC works on.

Referrals by CHWs to health facilities fall under two broad categories: urgent referral of mothers and children with recognized danger signs; and less urgent referrals for 'routine' care at health facilities such as family planning services, and for HIV or TB follow up care. Referral was seen in all programme sites as a mechanism to enhance quick compliance by families to suggestions of CHWs and COMMs; and to ensure immediate or privileged care at the health facility.

The key elements supported by AIM Health on referral include: training of CHWs, COMMs and health facility staff on the provisions and requirements for referral, production and distribution of referral forms, and provision of transport means such as tricycle ambulances, horse-drawn carts and boats. AIM Health supported repair and maintenance of an existing MOH ambulance in Uganda. Provision of mobile phones in Uganda and Sierra Leone was noted as a major input in planning, executing and following up on referrals and their conclusion.

Many of the CHWs and COMMs participating in the end line evaluation pointed out a major gap in referrals from community level that do not include necessary 'first aid' treatment. This was attributed to limited provision for the necessary medicine kits and the full training on their utilization. The other challenges noted were with inadequate supply of referral forms, and the limited provision of documented feedback from health facilities about the referred clients. In one site in Uganda, it was

noted that existing community groups for emergency transfer of the sick from community to health facilities was not adequately integrated into AIM Health support to referral strengthening.

Utilisation of data: The end line evaluation found that collection, processing and utilization of ttC data was integrated into the training and on-going support supervision of CHWs in all programme sites. Government staff at health facilities and district health teams in Tanzania and Sierra Leone were also trained on training and supervision of CHWs on data management to enhance data quality and reporting accuracy; and on integration of data from community-level work of CHWs into the HMIS. Most data was managed using paper forms (such as ttC registers and referral forms). Cell-phone based electronic data was used in Uganda and Sierra Leone. The collected data is regularly used in monthly and quarterly review and planning meetings, and in the community education and dialogue sessions.

The main challenges and gaps noted in ttC data management include: a) limited integration between ttC data and other community health records; b) inability to manage data well by many CHWs because of limited literacy; and c) inadequate integration in ttC reporting and other health reporting mechanisms e.g., on community and environmental health activities, and in the routine HMIS at health facilities.

4.4 PROGRAMME OUTCOME: NUTRITIONAL STATUS

As noted in sections 1 and 4.1, nutritional status of children, as measured by stunting and wasting, are a comprehensive measure of how well children are developing and their potential long-term contribution to society. They are thus multi-factorial, and are the outcome of interventions for the quality of children's diet, frequency of illness episodes, health care services, WASH,[13] as well as maternal education and wellbeing. The role of low-grade chronic gut infection in reducing absorption of nutrients, intestinal barrier function and appetite leading to impaired growth has also been established, especially in contexts with poor sanitation. Attaining and maintaining good nutrition (measured through anthropometric indicators of stunting and wasting) can therefore be considered as measures of programme impact, and the result of changes in all the three outcomes of AIM Health, rather than that of Outcome 2 alone.

For the above reasons, the indicators on stunting and wasting (which are part of Outcome 2 in the programme RBF) and discussed here as measures of the combined effect of Outcomes 2, 3 and 4:

Table 39: Outcome 2 Nutrition outcomes results at a glance

Outcome indicator	Outcome target	Value at end line evaluation
Children 6-59 months who experience chronic hunger • % children 6-59m who are stunted • % children 6-59m who are wasted	25% decrease	**Stunting:** attained in two of nine ADPs **Wasting:** attained in one of nine ADPs

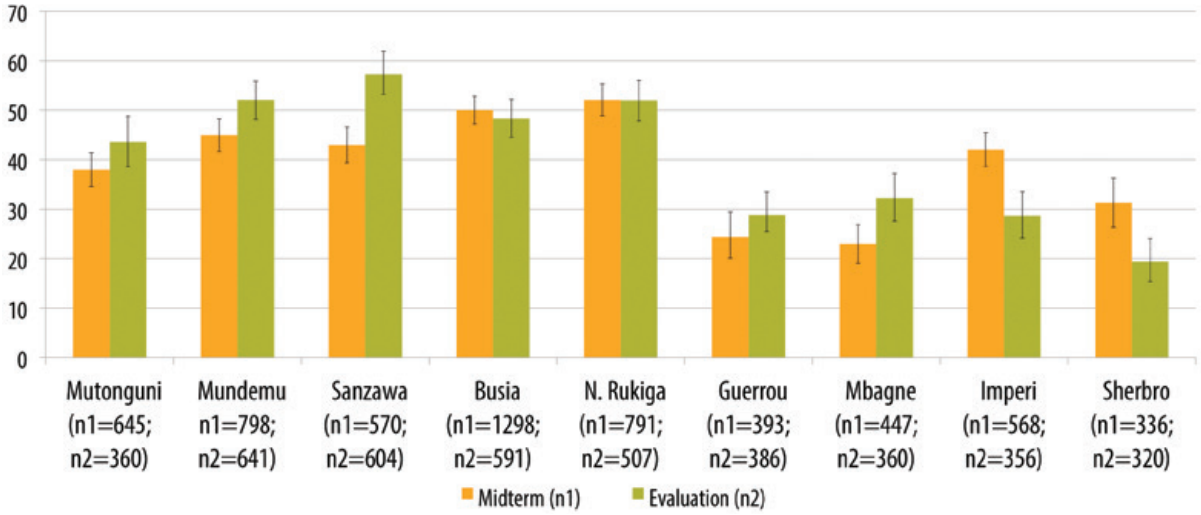
Stunting: The proportion of children aged 6-59 months who are stunted (height-for-age less than -2 standard deviations from the reference population) improved only in two ADPs from mid-term levels: from 39.9 percent (n=662; 95% CI 36.0 – 43.9) to 28.7 percent (n=356; 95% CI 24.2 – 33.6) in Imperi ADP and from 36.1 percent (n=454; 95% CI 31.4 – 40.7) to 19.4 percent (n=320; 95% CI 15.4

[13] Spears D. How much international variation in child height can sanitation explain? June 2013

– 24.1) in Sherbro Island ADP. Both have reached the programme target of 25% reduction. Stunting levels have worsened since in Mbagne ADP in Mauritania and in Sanzawa ADP in Tanzania. For all other ADP locations, it is likely that there is no significant change in stunting levels between the two time points (figure 48). Stunting was not measured at baseline.

It is important to note, however, that the two point estimates were only about 18 months apart, which is a very short period within which to anticipate changes to prevalence of stunting. It is also important to note that the annual average rate of reduction in stunting levels in comprehensive programmes as estimated by WHO is about 1.2 percentage points in a year.

Figure 48: Stunting levels (children 6-59 m) – Midterm and End line evaluation



Source: Midterm evaluation report 2014 and end line evaluation data; November 2015

The level in Mundemu ADP, Tanzania at end line evaluation was significantly higher among boys at 58.8 percent (n=332; 95% CI 53.5 - 63.9) compared to girls at 44.8 percent (n=305; 95% CI 39.3 - 50.4) in females. Stunting at end line was general higher among children between 18 and 41 months old across the programme sites; and among the children 54-59 months old in the programme sites in east Africa. The rates of stunting as found at end line evaluation are above the 'critical' cut-off (at 40%) in all AIM Health ADPs in east Africa; and above the 'serious' cut-off (30%) in one target ADP in west Africa, per the WHO classification of 2006.

Stunting is significantly associated with delayed initiation of breastfeeding at Sanzawa ADP, Tanzania, with a poorly diverse diet in Mundemu ADP, Tanzania, with inadequate meal frequency in Sherbro Island ADP in Sierra Leone. Association with childhood illnesses is evident across a number of programme sites. Fever is associated with stunting in Sanzawa ADP, Tanzania and in Mbagne ADP, Mauritania; while diarrhoea is linked to stunting in Mundemu ADP, Tanzania and in both programme sites in Uganda (Busia ADP and N. Rukiga ADP). Association between stunting and ARI is evident in Mundemu ADP, Tanzania. The association with access to safe water is evident in Guerrou ADP, Mauritania and Sherbro Island ADP, Sierra Leone; and with access to sufficient water in Mundemu ADP, Tanzania, and in Sherbro Island ADP, Sierra Leone. There is association with hand washing in Mutonguni ADP, Kenya and in Sherbro Island ADP, Sierra Leone. These are presented in table 40 below.

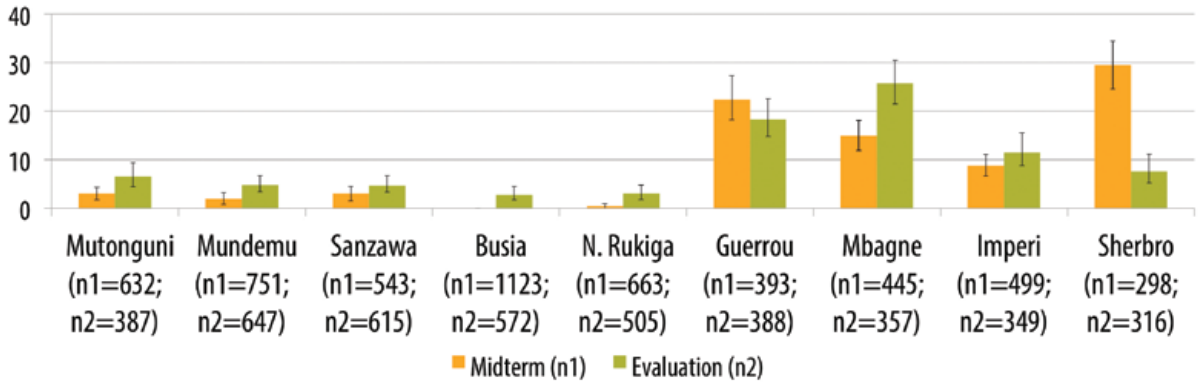
Table 40: Association between stunting and other evaluation indicators (p-values)

	Mutonguni	Mundemu	Sanzawa	Busia	N. Rukiga	Guerrou	Mbagne	Imperi	Sherbro
Early breastfeeding	0.288	0.443	0.028	0.930	0.479	0.131	0.428	0.422	0.720
Diet diversity	0.034	0.014	0.501	0.690	0.674	0.150	0.596	0.658	0.191
Meal frequency	1.0	0.626	0.179	0.803	0.386	0.174	0.891	0.845	0.045
Fever	0.209	0.149	0.004	0.940	0.710	0.250	0.022	0.184	0.397
Diarrhoea	0.148	0.018	0.761	0.019	0.037	0.145	0.725	0.302	0.327
ARI	0.923	0.050	0.127	0.579	0.434	0.272	0.900	0.833	0.149
Safe water	0.253	0.284	0.452	0.466	0.301	0.046	0.499	0.314	0.058
Sufficient water	0.574	0.048	0.455	0.580	0.323	0.637	0.488	0.623	0.037
Hand-washing	0.051	0.229	0.402	0.603	0.230	0.520	0.071	0.948	0.067
Improved toilet	0.804	0.456	0.222	0.260	NA	0.540	0.962	0.997	0.607

Wasting, or global acute malnutrition (GAM): The proportion of children aged 6-59 months who are wasted (weight-for-height less than -2 standard deviations from the reference population) improved between midterm and end line evaluation only in Sherbro Island ADP, Sierra Leone from 29.5 percent (n=298; 95% CI 24.5 – 34.5) to 7.6 percent (n=316; 95% CI 5.2 – 11.1), exceeding the programme target of 25% reduction. Reductions in Guerrou ADP, Mauritania is likely not statistically significant. Wasting rates have increased since mid-term in all other ADPs. In contrast to stunting levels, wasting rates are much higher in the four ADPs in West Africa than in their counterparts in east Africa, and this is in keeping with findings from other similar surveys across these regions. There were no significant differences in wasting levels between boys and girls and between age sub-groups.

The levels of wasting in Busia ADP is 44 percent lower and that for N. Rukiga ADP is 39 percent lower than the respective rates for the regions in the 2011 DHS of Uganda.

Figure 49: Levels of Wasting (children 6-59 m) – Midterm and End line evaluation



Source: Midterm Evaluation Report 2014 and End line evaluation data; November 2015

There is statistically significant association of wasting with delayed initiation of breastfeeding in Imperi ADP, Sierra Leone; with poor dietary diversity in N. Rukiga ADP, in Uganda, and with inadequate meal frequency in Sherbro Island ADP, in Sierra Leone. Wasting is associated with fever in Mundemu ADP, Tanzania and in Sherbro Island ADP, Sierra Leone and with hand washing practices in Guerrou ADP, Mauritania (table 41 below).

Table 41: Association between wasting and other evaluation indicators (6-59 m)

	Mutonguni	Mundemu	Sanzawa	Busia	N. Rukiga	Guerrou	Mbagne	Imperi	Sherbro
Early breastfeeding	0.467	0.407	0.338	0.622	0.695	0.754	0.803	0.074	0.319
Diet diversity	0.960	0.548	0.313	0.681	0.039	0.991	0.236	0.608	0.221
Meal frequency	0.260	0.990	0.612	0.605	0.341	0.311	0.373	0.240	0.083
Fever	0.231	0.007	0.908	0.897	0.809	0.059	0.272	0.672	0.016
Diarrhoea	0.583	0.200	0.730	0.335	0.353	0.855	0.192	0.569	0.612
ARI	0.968	0.845	0.051	0.664	0.635	0.750	0.447	0.592	0.974
Safe water	0.104	0.098	0.058	0.561	0.061	0.392	0.125	0.914	0.899
Sufficient water	0.815	0.915	0.159	0.091	0.287	0.089	0.338	0.349	0.120
Hand-washing	0.996	0.615	0.408	0.325	0.960	0.043	0.396	0.306	0.229
Improved toilet	0.281	0.585	0.661	0.373	NA	0.740	0.801	0.437	0.428

Wasting rates for Mbagne and Guerrou in Mauritania are above the 'critical' cut-off (15%); while that in Imperi ADP in Sierra Leone was at 'serious' level (10-14%) per WHO classification of severity of GAM.

Wasting is that anthropometric indicator that communities often associate with poor nutrition. Qualitative data from the end line evaluation points to several factors underlying poor nutrition: respondents in Tanzania and Uganda regarded food insecurity as a household level problem and the main cause for poor nutrition, and consider population pressure and land fragmentation and large household sizes; and high levels of poverty to explain this. They also consider allocations from the government to tide over acute food shortages, to be inadequate. Respondents in Mauritania and Sierra Leone also relayed experiences of acute food shortage and instances of emergency food supplementation. Respondents in all programme sites acknowledged the AIM Health and other interventions by WV and other partners in dealing with acute malnutrition among children through food supplementation, therapeutic nutrition (such as RUTF) and PD Hearth programming.

The end line evaluation findings with respect to stunting and wasting among children and the associated factors underscore the multi-factorial determinants of nutrition status. They also reflect the potential complementarity between a health-specific programme such as AIM Health and the broader development undertakings such as livelihood improvement and environmental disaster mitigation as supported through the WV ADPs.

4.5 PROGRAMME IMPACT: REDUCTION IN MORTALITY

The impact of AIM Health is measured through changes in infant and maternal mortality. Achievements are outlined in table below:

Table 42: Impact indicators results at a glance

Impact Indicator	Impact target	Value at end line evaluation
Infant Mortality Rate	20% reduction from baseline	Neonatal mortality reduction: target attained in eight out of nine ADPs Under-five mortality reduction: target attained in six out of nine ADPs
Maternal Mortality ratio	20% reduction from baseline	Maternal mortality reduction: target attained in three out of nine ADPs

This section presents the results from the programme impact analysis as conducted using the LiST mathematical model. The analysis was done individually for each programme site, except for the two sites in Mauritania, which were analysed together to get the appropriate population size. Two dimensions of infant mortality were reported from the analysis and are used in this report – the overall under-five mortality rate; and neonatal mortality rate (details in Table 43).Infant mortality rate is assessed by neonatal and under-five mortality rates as these are the ones measurable through LiST modelling. LiST operates using the impact of changes in coverage levels of interventions on cause-specific mortality patterns (available from WHO and the Child Health Epidemiology Reference Group (CHERG). Cause-specific death patterns are not available for the infant age group, but are available for the neonatal and post-neonatal under-five groups. Hence IMR cannot be reliably estimated, while NMR and U5MR can be estimated and measured through LiST.

Table 43: Programme Impact – Mortality Reduction (2012 – 2015)

Programme site	Neonatal mortality			Under-five mortality			Maternal mortality		
	2012	2015	% change	2012	2015	% change	2012	2015	% change
Mutonguni, Kenya	19	13	**30.92**	72	52	**27.72**	518	427	17.50
Mundemu, Tanzania	21	6	**71.43**	61	52	14.75	486	372	**23.46**
Sanzawa, Tanzania	21	11	**47.62**	94	61	**35.11**	486	393	19.14
Busia, Uganda	19	12	**38.03**	115	65	**43.67**	416	327	**21.51**
N. Rukiga, Uganda	26	10	**61.46**	185	98	**46.93**	416	297	**28.62**
Guerrou & Mbagne, Mauritania	52	40	**24.10**	170	116	**31.43**	732	702	4.07
Imperi, Sierra Leone	23	17	**23.47**	194	280	-44.44	1509	1347	10.7
Sherbro, Sierra Leone	24	21	15.83	143	197	-37.73	1580	1524	3.55

Source: LiST Analysis Country Reports – January 2016

The attained progress on neonatal and maternal mortality in Mutonguni ADP, Kenya may be attributed to the large increases in ANC completion (at 66 percent increase), skilled birth attendance (56 percent increase), and breastfeeding within the first hour (77 percent increase). The sustained high levels of exclusive breastfeeding and sanitation practices may also have contributed to the progress. The other factor supportive of such improvements was low and declining prevalence of childhood illnesses, and improving timely and appropriate treatment especially for ARI. On the other hand, declining Vitamin A supplementation, persistently low coverage with safe and sufficient water, stagnant postnatal attendance, and poor treatment practices for fever and diarrhoea may explain the limited progress in under-five mortality, and missed target for maternal mortality reduction.

The impact results in the two ADPs in Sierra Leone reflect major progress on neonatal mortality; modest improvements on maternal mortality, and significant worsening of under-five mortality. The noted improvements may be attributable to improvements in skilled birth attendance, better ANC completion (only in Sherbro Island ADP), and high exclusive breastfeeding. The high rates of wasting (worsening trend in Imperi ADP); high and increasing prevalence of ARI and fever; large declines in Vitamin A supplementation; and poor sanitation practices (especially in Sherbro Island ADP) may explain the dire situation of under-five and maternal mortality. The high rates of maternal mortality may also be a reflection of poor quality of MNC services in health facilities; with acute shortage of qualified staff, and limited access to comprehensive obstetric care services.

The impact results in Tanzania reflect major attainments on all three indicators, most notable on neonatal mortality reduction on both sites; under-five mortality reduction in Sanzawa ADP, and maternal mortality reduction in Mundemu ADP. Skilled attendance at birth is substantially higher and changed much more (at 55% increase to 75 percent) in Mundemu ADP compared to Sanzawa ADP (at 15% increase to 60 percent), and may explain in part the difference in maternal mortality reduction. Both sites realized major improvements in ANC completion, but this remained low, at 57 percent in Sanzawa ADP and 51% in Mundemu ADP. The other notable areas of good score in both sites are high rate of exclusive and timely breastfeeding; modest improvements in WASH indicators; and low levels of wasting (though showing an increasing trend in both sites). The relatively high prevalence of childhood illness in Mundemu ADP may be a major factor behind the limited change in under-five mortality.

The combined impact results for Guerrou ADP and Mbagne ADP show achievement of the programme target for decline in infant mortality (as reflected in decline in both neonatal and under-five mortality rates); but a virtually stagnant situation with maternal mortality. The good impact results for children may be attributable to high and improving rates of exclusive and early initiation of breastfeeding (especially in Mbagne ADP); sustained high rates of Vitamin A supplementation in Guerrou ADP; large improvements in ANC completion in both sites; and improvements in skilled birth attendance in Mbagne ADP. The limited improvement in maternal mortality may be linked to very low rates of ANC completion, postnatal care and skilled birth attendance in Guerrou ADP; poor WASH indicators; and low family planning use.

The impact results in both sites in Uganda were above the programme targets for both infant and maternal mortality; a reflection of improvements in all three outcome areas. In nutrition, the low levels of wasting, coupled with high exclusive and early initiation of breastfeeding, and high level of Vitamin A supplementation may have contributed a lot to the impact results. In protection, there was good performance on WASH indicators, timely care seeking and appropriate treatment, especially for ARI and fever. Immunization rates were well maintained at high levels, especially in N. Rukiga ADP. With respect to access to MNC services, there were major improvements in ANC completion in both sites, high changes in skilled birth attendance in N. Rukiga ADP, and modest improvements in ANC completion and postnatal attendance in Busia ADP.

Further results from the Lives Saved Tool (LiST) analysis done at end line evaluation for all AIM Health show that an estimated total of 337 newborn, 279 children 1-59 months and 30 maternal lives were saved; and 107 stillbirths were averted (details in Table 44).

Table 44: Lives saved over the programme period – By ADP

ADP/Country	ADP Population	Number of Lives Saved			Stillbirths averted
		Newborns	1-59 months	Mothers	
Mutonguni/Kenya	49,055	6	15	0	7
Mundemu/Tanzania	43,990	111	168	4	13
Sanzawa/Tanzania	20,530	50	42	3	6
Busia/Uganda	67,000	55	61	9	37
N. Rukiga/Uganda	52,887	88	84	8	32
Mbagne & Guerrou/ Mauritania	18,962	12	24	0	1
Imperi/Sierra Leone	28,790	5	-79	2	5
Sherbro/Sierra Leone	25,590	6	-9	4	7
TOTAL	**306,804**	**337**	**279**	**30**	**107**

Source: End line evaluation data; LiST Analysis Country Reports – January 2016

The lives saved and still births averted are in large part attributable to the increase in coverage of interventions such as antenatal care, skilled birth attendance, exclusive breastfeeding up to six months, timely and appropriate treatment for children with ARI, fever or diarrhoea and childhood immunizations. The limited improvement or decline in child survival in Imperi ADP and Sherbro Island ADP in Sierra Leone may be attributed to low Vitamin A supplementation coverage and high rates of acute malnutrition.

4.6 FINDINGS FROM ADVOCACY EVALUATION

WVIRE's Strategy 2012-16 prioritises advocacy as an important pillar for achieving Child Rights and the sustainable well-being of children. The strategy document is ambitious, for instance, aiming at being a leading voice and becoming a preferred agency to be consulted in Ireland on maternal and child health. The AIM Health programme and its advocacy component on maternal and child health are strongly aligned with the strategy, yet according to the evaluation the level of ambition of the strategy hasn't been reached. However, the importance of the overall strategy, goals and planning for advocacy was a major conclusion of the evaluation.

The extent to which the AIM Health programme has achieved its advocacy objectives:

- **Public awareness/Increase of support of Irish public with regard to MNCH issues:** Awareness on MNCH issues increased according to surveys and interviews in both years when awareness campaigns were implemented (2013 and 2014). This objective was seen as the best achieved in advocacy. However, due to inconsistencies in the figures comparison with targets or between years cannot be done.
- **Influencing policy and decision makers/Increase in the support of issues promoted by WVIRE (MNCH) on the part of key policy/decision makers:** During the years 2012-13 the targets of actions taken by policy/decision makers were met and WVIRE gave impacting input into the new policy for development of the Irish government (One World, One Future 2013). The Child Rights Coalition was launched by proactive initiative of WVIRE 2013. In year 2014 the actions by decision/policy makers were not meeting the target in the RBF. In the interviews it was found out that WVIRE has built and maintained continuous relationships with Irish Aid

but with policy makers and other decision makers the relationships have been more sporadic (meetings, events, launches of reports).

- **Sharing learning/Increase in WVIRE contribution to enhanced learning on effective health programming:** Quantitative targets of events (conferences, articles for journals) were met but interviewees said that sharing the learning on programming in Ireland was done less than expected. With programme countries and WV global partnership sharing of learning took place and was fruitful.

The appropriateness of the objectives in contributing to the work of AIM Health: In general the advocacy for MNCH issues was still seen valid but there is a need to strategically revise WVIRE advocacy as a whole, including health advocacy as part of it. In assessing the three elements of the advocacy component, public awareness and influencing the decision making came out as main areas and needing further work in the future as well. There was more hesitation regarding the appropriateness of the third area of sharing learning and contributing to effective health programming in Ireland. Many interviewees felt that sharing of learning largely took place in an academic environment, and less so between NGOs working on health.

It was pointed out by several interviewees that there is a need to strategically revise, not only the health advocacy objectives, but the whole WVIRE's advocacy, taking into account the changed global and Irish environment and opportunities the WV global partnership offers for achieving the Strategic Plan's ambition in advocacy.

In discussing the theory of change (how the advocacy component of AIM Health contributes to the programme goal) it came out that the theory of change was based on assumptions and it was not written down in the proposal. Several people explained that the contribution of advocacy to programme goal was thought to happen through increasing public awareness on MNCH. Awareness is seen to increase support to Irish Aid funding for health and enables further programming to reduce maternal and child mortality. However this contribution is hard to prove and the theory of change was not explicit in the programme proposal. The interviewees confirmed that the design for the advocacy component for AIM Health Phase II proposal needs to be done at the same time with programme design with a proper theory of change, outcomes and M&E.

The effectiveness of the monitoring and evaluation framework /Results Based Framework, for measuring the advocacy work of WVIRE: Several aspects of health related advocacy are not reflected in the framework. The whole area of communications, work with media, PR/public awareness with ambassadors and journalist field visits are not captured. Strategic networking except the Coalition for Children's Rights and the relationships with Irish Aid and other decision makers are missing and the policy area is not explicitly covered in the framework. The RBF was developed during the implementation period and a baseline was not carried out. Interviewees reported that the RBF is complicated and technical and that it does not support an operational follow-up to re-direct campaign efforts. It was also said that as annual planning of advocacy has been missing, the RBF has taken the place of an annual plan, which it should not be used for.

The key successes, innovations, learnings, limitations and challenges towards a) the achievement of objectives and b) AIM Health advocacy management processes in WVIRE: The Survive to 5 –campaign (Sto5) for public awareness in the year 2013 was a success. It provided strong

learning for the organisation on campaigning and of working united in advocacy. Sto5 was praised both for its results and for the way it was conducted. It created awareness on maternal and child health issues and enabled people to discuss and debate the issue. The campaign was thoroughly planned, with a budget; the messaging was informative and positive and celebrity ambassadors were involved in promotion. The campaign also integrated marketing, communications and advocacy and the whole organisation was involved. These success factors and learnings were mentioned by the majority of interviewees. A second success and learning in public awareness have been the use of ambassadors. These ambassadors have brought media coverage to the organisation and been instrumental in appeal to the wider public in Sto5 and additional public awareness campaigns.

However, regarding campaigns and ambassadors some interviewees highlighted some limitations as well. They commented that the messages and ambassadors have been "soft" while the reality and the issues of child rights in the programme countries are tough. More boldness and risk-taking in both content and messaging and in selection of ambassadors were highlighted as possibilities that could result in stronger awareness and more attention towards the campaign. Further, losing the continuity in public awareness campaigning after the 2013 Sto5 was mentioned as a limitation. Interviews also highlighted that neither public mobilisation nor activation of participants has taken place in awareness campaigns. A great potential and resource in public awareness is seen by some interviewees in sponsors and donors.

Regarding innovations, the findings were contradictory; social media was mentioned as innovative by some interviewees but for others it was not seen as such. Regarding management processes the greatest limitations mentioned by the interviewees have been the lack of strategy, annual planning and clear targets in advocacy and incomplete resourcing and capacity in advocacy. The roles between marketing, communications and advocacy haven't been clear during the last two years and the organisation hasn't been working together which has limited the achievement of objectives, especially in public awareness.

The successes mentioned, regarding influencing policy and decision making, was the impact made in the development policy of the Irish government (the review process of the White Paper of Irish Aid and One World, One Future 2013) and the development of the Child Rights Coalition. WVIRE succeeded in being explicitly mentioned on MNCH in the new policy as a result of influencing both through the Coalition and independently. In influencing, one success factor has been WVI publications on MNCH which have been welcomed by the government and NGOs. Another which was mentioned is the long-term work of WVIRE in Irish networks (Dóchas and the Irish Consortium for Gender Based Violence in particular) which has built credibility for WVIRE in the sector and as an actor in Ireland. This is a key requirement for being able to influence. In addition, two staff members have a background in politics and government which supports the skills required for influencing.

However, informing and influencing policy and decision makers has been sporadic and lacking continuity, said several interviewees as a limitation towards achieving the objectives. Appearing opportunities have been used to meet e.g. Oireachtas Committee on Foreign Affairs and a couple of WV publications have been launched but influencing policy and decision making has not really had a strategy nor has had proper planning or resourcing. Further, the economic situation has required attention and there haven't been enough resources for long term and continuous relationship building with policy and decision makers.

The affect (if any) of key changes in the external environment on advocacy results and processes: During the 2012-15 period Ireland has still been feeling the effect of the economic recession and several interviewees said that as a result, Irish needs and domestic causes have been prominent in people's minds and in the media. The Syrian war and conflict in Gaza have captured the attention in the media continuously and also fatigue with Africa has been decreasing people's interest. It was also mentioned that defending funding for overseas development aid has at times been necessary and there hasn't been enough room for special themes like MNCH. All this has affected the external environment where public facing awareness creation and policy work takes place. Regarding political changes, interviewees did not see any major effects on results or processes, except that Irish Aid staff changed regularly and as a result relationship building needs to begin again.

5.0 MANAGEMENT ANALYSIS

This section provides a synthesis of key programme management issues, and discussion of their effects on the programme results. It covers the following key aspects as prioritized in the evaluation design:[14] the analysis and management of risk; monitoring, evaluation and information management; efficiency and value-for-money; innovations and lessons learning in the programme; and sustainability. The analysis conducted at end line evaluation on effectiveness of the programme's logic of intervention is already discussed in Section 3.4.

5.1 ANALYSIS AND MANAGEMENT OF RISK

The end line evaluation found detailed and in-depth analysis of risk in the programme design documents and the programme RBF. Most attention in the RBF was on risks related to the programme design and how this would be interpreted and implemented by the two main partners (government and communities) in the different programme sites was less evident in the documents reviewed at end line evaluation. The other categories of risk addressed in these documents were: a) risks directly related to the on-going management of the programme implementation process; and b) risks related to the respective country contexts in which the programme was implemented.

Risks related to programme design and interpretation: the main risk acknowledged in the programme in this regard was with respect to understanding of the programme logic and implementation details by actors at different levels within WV, and by stakeholders at different levels of government. This risk was further compounded by the approach adopted to limit the overall programme description to the RBF model; with limited details on programme implementation strategies and activities.[15] This limited the extent to which country-level and sub-national actors in programme implementation would appropriately link the programme to their core work and responsibilities; and thus be willing and able to integrate its implementation in their regular work. For example, many of the end line evaluation respondents in positions of responsibility for AIM Health management at national and sub-national levels had relatively limited grasp of the key tenets of ttC, in comparison to their more articulate discussions on the other elements in AIM Health such as COMMs and CVA. Specific strategies to mitigate this risk were in-built in the programme implementation process, including:

- A series of consultations at which different elements of the programme design were discussed, and linkages between the programme and national health policy and strategies were explored. These included national and sub-national engagements, and sessions that included teams from all programme countries to enable peer exchange and enhance buy-in at all levels. This was fully achieved during the AIM Prep phase and also throughout the life of AIM Health.
- The programme implementation teams participated in the government annual health planning processes to ensure that the programme strategies and key activities were appreciated by all stakeholders, and were included in the annual government health plans at national and sub-

[14] The prioritization in the evaluation design was based on Irish Aid Guidance on Programme Evaluation
[15] The rationale for this approach was to enhance in-country contextualization and ownership of AIM Health focus and implementation; and effective integration of AIM Health with other programmes of WV, governments and other actors.

national level. This has been achieved to a large extent in the two ADPs in Uganda, but to a lesser extent in others.

- The AIM Health field teams worked closely with government public and environmental health staff at community level, and with clinical staff and health facilities to plan and implement all programme activities as an integral element in the broader government health services. For example, district health officials and facility staff took the lead in managing the selection and training of CHWs, and in coordinating the monthly review and reporting by CHWs.

The end line evaluation noted that there was limited consideration and due analysis of the linkages between AIM Health and other CHW-based initiatives supported by other NGOs, such as malaria and HIV programmes. This limited the opportunities for structured dialogue and collaboration, leading to work overload on CHWs required to participate concurrently in multiple activities.

Risks related to management of the programme implementation process: the end line evaluation noted two main sets of risks that were considered and addressed in this regard. The first set focused on management risks within the WV partnership and the different levels involved in implementation of the programme. The other set of risks was in relation to government operations and management as the main framework for delivery of the partnership programme.

The first set of risks were analysed and addressed through governance and management systems of WVIRE, and the respective WV national offices in the programme target countries. The risks addressed in this regard include fiscal probity and fraud, information safety and data protection, the safety and security of persons and property, etc. A key element in managing the risks within WV was establishment of a central programme coordination office in WVIRE, to ensure a harmonized approach in risk management across the different settings of programme implementation.

Kasyambya Health Facility in North Rukiga, Uganda

However, the approaches to such internal risk management remained largely informal and ad-hoc over the programme period; with no formal risk assessment and management matrix developed and systematically used.

The evaluation further observed that there was no common mechanism applied across all programme sites to assess the risk of potential programme support and financing overlaps between AIM Health and core ADP financing, and other funding streams within the host ADP. This may have resulted in programme financing and support duplication, and/or missed opportunity to explore and utilize all available support to enhance efficiency. For example, the first two years of AIM Health implementation suffered from lack of coordination within the ADPs in some of the countries; which was highlighted on monitoring visits in 2013 and was subsequently addressed.

Two main approaches were adopted to address risks related to working with government management systems. The first was to clarify and document the operational relationship and specific roles of either party in the partnership, in formal Memoranda of Understanding. However, this was constrained by the high level of health decentralization that was still evolving in Kenya and Sierra Leone. The programme had to re-negotiate and clarify partnership arrangements and roles at multiple levels, and this may have affected the pace of programme implementation. This impact was addressed through structured coordination mechanisms at sub-national level that included all key actors in programme implementation (chiefs, facility staff, elected civic leaders, district health teams, WV ADP staff, etc.) such as monthly coordination meetings, government-appointed liaison persons on AIM Health, etc.

The second approach to mitigate the risk of working with government systems was to limit most programme transactions to WV accounting systems; and to develop and use programme-specific data flow and reporting mechanisms. This included development of a community-level register for ttC activities, and accompanying reporting forms. A dual track of reporting was maintained; into WV (for programme reporting and accountability purposes); and through government health facilities in each programme site (to link with the government health reporting systems), thus maintaining the scope for sustainability as well.

Risks related to country contexts: AIM Health considered specific cross-cutting issues related to the socio-cultural context, policy and guidelines of MOH, gender and child protection during its design and planning phase, and addressed them through relevant adaptations and new activities. For example gender based violence (GBV) was noted as a key factor in health vulnerability of mothers and newborns, and was addressed in programme advocacy and community campaign in most programme sites. However, this did not result in structured and sustained action to address the causes, manifestations and consequences of GBV in any of the sites.

Factors in the country contexts that were harnessed for AIM Health programme implementation, coordination and advocacy included:

1. Extensive presence and social influence of religious institutions – as determinants of social norms, and opportunities for group-based programme activities (e.g., ttC), and for community mobilization and education.

2. Powerful and well respected cultural leaders and traditional chiefs (e.g., in Sierra Leone), that are key duty bearers in ensuring social service delivery (as agents of local governments), and a mechanism for enforcement of socio-cultural norms relevant to MNC

3. Participatory grassroots democracy civil education and election processes, as opportunities for health focused advocacy and mobilization at all levels; but also with inherent risk of polarization in communities based on political differences.

The evaluation noted that a number of factors in the respective country contexts negatively impacted programme implementation and results. Examples include: weather disasters such as drought in Tanzania and floods in Sierra Leone; and the Ebola crisis in Sierra Leone, and the programme could not necessarily have anticipated all of them.

5.2 MONITORING AND INFORMATION MANAGEMENT

AIM Health had three key areas of focus in this regard:

1. Ensuring adequate collection and utilization of data as integral elements in programme implementation such as data on ttC visits, information on referrals by CHW to health facilities, records and reports for dialogue and management sessions between CHWs and COMMs and collecting data on CVA work outputs;

2. Generating, processing and reporting against the RBF as part of programme accountability and management; and

3. Conducting operational research and applying the results to programme improvement, policy advocacy, and in other elements of programme learning and health systems strengthening.

The end line evaluation found greater emphasis on the element of programme reporting compared to the other two areas. AIM Health had a comprehensive RBF, and well detailed and fully executed evaluation plan. The programme implemented all activities required to enable reporting against the RBF and to execute the evaluation plan. However, there was inadequate emphasis on elements such as: strengthening the existing system for CHWs data capture and the use of systematic generation and application of data in CVA; or the integration and application of community-based and health facility data in local health planning.

The AIM Health partnership with the Centre for Global Health at Trinity College Dublin, to provide technical leadership for operational research, was successful in enabling a participatory baseline process, and subsequent utilization of the results in further elaborating and refining the programme design. A number of journal publications were also produced and published based on the baseline data. However, the final evaluation noted that the planned policy briefs and ongoing nurture of community-based participatory research as an integral element in programme implementation were not realized. This was largely attributed to the structure of the partnership, which was based on a fulltime deployment of one Research Fellow, whose core focus and interest was more on the academic rather than the programme support elements.

AIM Health was successful in enhancing linkage between community-based health data that CHWs generated and the MOH health information systems that were based almost fully on facility-generated data. This is most evident in Kenya where the government had already set the process in motion. AIM Health was able to re-vitalize the functionality of the system in all 10 locations of Mutonguni ADP. However, these efforts in Kenya and elsewhere did not necessarily include data on the quality of project model implementation or outputs from it, such as the percent of ttC visits with male partner participation, and percent of pregnant women who received three ttC visits. A routine and ongoing system of data collection from ttC, COMMs and CVA work was never fully established during the programme period. Data collection on ttC implementation was relegated to end-of-year data collection exercise. Although AIM Health teams used this data for programme management, these exercises were a poor substitute for an ongoing routine system.

CHWs in Uganda and Sierra Leone used mHealth to capture and transmit ttC data, reporting on a total of 6,284 children and 7,166 mothers by September 2015. This is about 49% of the total children and mothers targeted by the programme. The same mHealth technology was applied by some CHW in tracking danger signs among pregnant women and infants; and to programme reminders for

scheduled ttC visits. District health team members interviewed at end line evaluation indicated that the mHealth database has become a key reference point for district monitoring and support supervision to the work of CHW. The key challenges noted in mHealth implementation were: inadequate internet accessibility (poor network coverage, high and unsustainable costs of access subscription); limited access to electric power to charge mobile phones or laptop computers; and mobile phone functioning problems (especially when used for music download and such other purposes). Strategies used to mitigate these include: utilization of multiple internet networks based on differences in signal coverage quality; provision of group-based solar charging facilities; and encouragement of peer support groups to guide optimum data entry and processing.

5.2.1 Commentary on AIM Health RBF

The programme RBF had well detailed results at the level of outputs, outcomes and impact; and explicit targets for each level and at key milestones. It was well used as a basis for annual reporting; and for designing the baseline survey, midterm review and the end line evaluation. The RBF results logic pyramid was well developed for Outcome 2 (on nutrition), although it did not include specific indicators for maternal nutrition; it was less elaborately worked out for Outcomes 3 and 4 (on protection and access respectively).

The RBF outcome area on protection had a total of eight outcome indicators: three related to the occurrence of common childhood illnesses that account for a large proportion of infant and under-five mortality (ARI, fever and diarrhoea); five related to WASH, one on immunisation coverage and the last one on MTCT knowledge. This evaluation noted the potential linkages across some of these indicators and the programme actions such as ttC and CVA. However, using prevalence indicators is not global best practice, as the programme design does not account for all the factors that cause the three illnesses, and typical household surveys are not designed to capture this information reliably.

The final RBF outcome area on access to essential health services was designed with an MNC focus, including indicators on health facility operations; COMMs and their work, and the work of CHWs as an integral part of the health system. Indicators related to health service utilisation lacked focus and detail needed for measuring progress. AIM Health supported training of staff in health facilities and district health offices in all locations in integrating community-based health information into the HMIS system. However, the end line evaluation observed that there was limited change in practice subsequent to such training. This was attributed to absence of the necessary policy support and institutional commitment at the different levels of the health system to follow through the necessary changes.

Demonstrating the use of a Tippy Tap for hand washing purposes

5.3 VALUE-FOR-MONEY ANALYSIS

The considerations to ensure value for money in AIM Health were analysed in this end line evaluation under three elements: effectiveness, efficiency and economy. The end line evaluation noted that actions related to value-for-money were largely implicit and embedded in WV's core values of faithful stewardship and open accountability.

All key actors in the programme partnership contributed to the processes of analysis and action to address value for money in the programme; as articulated in annual programme implementation plans for each country, and in quarterly and annual progress reports. For example AIM Health used a bottom-up and participatory process to plan activities and their respective outputs. In target communities this involved community-level committees, CHWs, health facility staff and WV field teams. The programme consolidated these plans at district/county levels working closely with MOH teams there. These fed into development of the annual implementation plans, again developed in coordination with government staff at sub-national and national levels. WVIRE and the WV Global Centre supported these processes.

5.3.1 Effectiveness

AIM Health adopted programme models and intervention strategies that have strong evidence of effectiveness and were proven globally. The 7-11 package, the focus on behaviour change; and the bundling of interventions that were core elements in the programme design were all based on an array of scientific and programming evidence. AIM Health also ensured logical linkage between outputs and outcomes. Its design also included deployment of well qualified staff; necessary orientation and training on elements of the models, and close mentoring and technical support to the implementing teams from the WV regional and global teams, and government experts. At the same time, AIM Health maintained an open and flexible approach in defining the depth and scope of specific activities in each context. AIM Health supported the expansion of the CHW network in Tanzania and Mauritania. It supported increases in outreach services to remote communities in Tanzania and Uganda and also specific infrastructure support for facilities. Decisions for making such adjustments was initiated at field level and integrated within the country implementation plans.

WV teams in each location identified areas of complementarity between ADP core activities and those of AIM Health. ADPs in Sierra Leone, and Uganda worked alongside AIM Health staff to jointly support WASH interventions. Those in Tanzania and Kenya jointly supported existing community groups in food security and livelihood activities and referring malnourished children for treatment.

In general, the programme was effective in realizing most of the planned outcomes. This was particularly so with regard to access to the key MNC services of full and comprehensive ANC, and skilled attendance at birth. In the areas where there was improvement but outcomes were not fully achieved (e.g., postnatal care, child feeding practices and seeking timely care for sick children), the strengthened community health systems will continue to provide a platform for sustained service delivery strengthening.

All interventions were delivered through the key implementing partners – the local MOH and community health systems. Thus AIM Health was designed to avoid duplication and maximised support for existing systems by enhancing demand for services as well as the quality of services.

The agreed approach to financing all programme activities was to use the WV accounting mechanisms; which were already in place in each of the ADPs and close enough to the point of implementation and service delivery to ensure necessary checks and balances.

5.3.2 Efficiency

The main expenditure areas in programme implementation were training and procurement of key equipment and supplies. The bulk of training undertaken was for community level resource persons – CHWs, COMM members and CVA working groups. Training events were close to where trainees lived and were non-residential. The teams in Uganda added Radio Distance Learning (RDL) for refreshers for CHWs. These measures enhanced programme efficiency.

The procurement of equipment and supplies was centralized in most countries to benefit from more competitive pricing and ensure appropriate quality control and after-sales service. The WV global programme of Gifts in Kind (GIK) was used to source and provide key supplies for AIM Health such as medicines, health facility equipment and laboratory supplies. Equipment such as ambulance vehicles and motor cycles for field supervision were handed over to the relevant government and/or community systems immediately after procurement, and fully integrated into the regular operation and maintenance systems. These steps added to efficiency and transparency

The core technical resource persons involved in training, support supervision and service delivery across all countries were government staff as deployed at various levels. Most of them already had the necessary basic training and in-service skills strengthening needed to fulfil their respective roles. AIM Health supported short-term orientation and further skills development for these people in ttC, COMMs and CVA. The participation of such people in programme activities has been integral to their regular work and functions, and thus enhanced efficiency because this did not need significant additional resources.

The other aspects contributing to programme efficiency include:

1. ttC contribution to reducing the work load of facility staff in counselling clients during ANC and immunisation clinics.

2. Close collaboration between health facilities and CHW/COMMs in planning and managing integrated outreach services to maximise reach

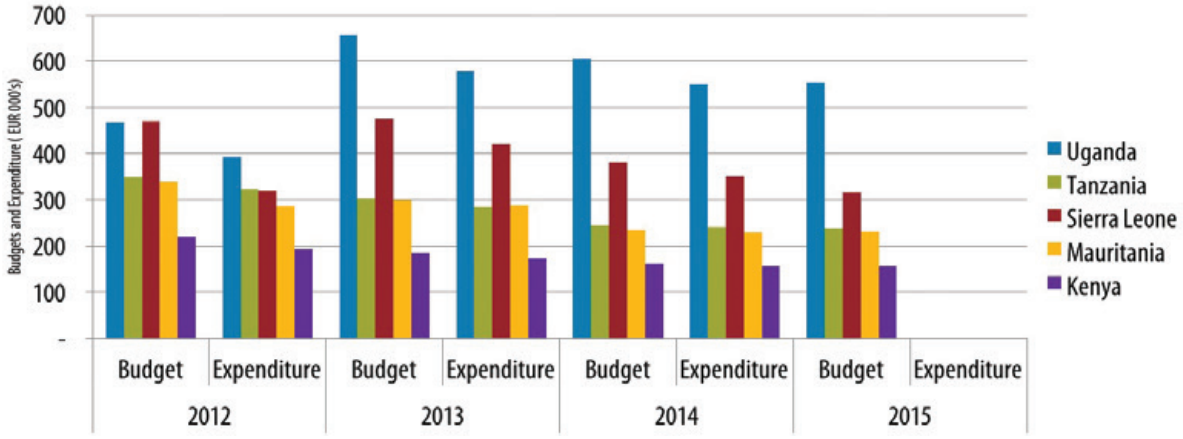
3. CVA contributions to identifying and mobilising local solutions to specific problems in health service delivery and management such as security and cleaning services for facilities

The end line evaluation noted the research partnerships between WVIRE and the Centre for Global Health at Trinity College, Dublin; and the Johns Hopkins University, which contributed to efficiency in programme monitoring and evaluation. Other efforts to collaborate with concurrent community health programmes in the different locations were limited and largely ad-hoc. AIM Health had limited engagement with local training and research institutions, which have the potential to contribute to specific elements such as operational research and deploying interns to carry out specific time-bound research. These factors may have limited efficiency in programme implementation.

5.3.3 Economy

Programme budgets were fully based on the respective RBF outcomes and outputs. Budget allocations for each country were aligned to the volume of planned programme activities as reflected in the respective population sizes and the presence of unique activities such as mHealth intervention. The overall expenditures by country were in line with allocated budgets (details in Figure 50).

Figure 50: AIM Health Budgets and Expenditure – By Country



Source: AIM Health Programme Budgets and Expenditure Reports 2011-2015

Table 45: Analysis of country budget variance – 2012 to 2014 (in Euros)

	2012			2013			2014		
	Budget	Spend	Variance	Budget	Spend	Variance	Budget	Spend	Variance
Uganda	446,449	392,838	**12.0**	414,432	406,322	**2.0**	350,739	350,264	**0.1**
Tanzania	291,597	267,956	**8.1**	282,189	279,651	**0.9**	239,602	239,525	**0.0**
Sierra Leone	362,036	260,159	**28.1**	368,508	357,392	**3.0**	327,220	323,155	**1.2**
Mauritania	299,579	271,243	**9.5**	280,280	279,647	**0.2**	229,939	229,591	**0.2**
Kenya	196,572	191,663	**2.5**	167,109	166,786	**0.2**	156,207	156,443	**-0.2**
Ireland	177,160	154,736	**12.7**	192,725	186,091	**3.5**	180,751	179,293	**0.8**
TOTAL	**1.77M**	**1.54M**	**13.3**	**1.7M**	**1.68M**	**1.5**	**1.48M**	**1.48M**	**0.4**

5.4 PROGRAMME INNOVATIONS

The AIM Health programme in its entirety can be considered as an innovation – in packaging and delivering an integrated health improvement at community level; largely built on the existing community health and primary health care system, unlike the more common approach of vertical delivery approaches for disease-specific interventions. Its delivery in a wide range of country and community contexts, and the results realized as discussed in this report are good evidence of the feasibility and impact of this innovation. Examples of specific innovative actions in the different countries include the following.

5.4.1 Innovations for sustained CHW motivation

The end line evaluation noted that many CHW see intrinsic value in volunteer service to others, and derive well-appreciated personal and family health benefits from their service. It was noted that those CHWs who had long experience in service as CHW or as volunteers in other initiatives

were more motivated to stay on, ostensibly because of more realistic expectations of volunteer work and experience in facing related challenges. The programme utilized this commitment to develop peer support and mentoring mechanisms for CHWs in Sierra Leone and Uganda. This has evolved in some sites into structured volunteer and mutual support groups, similar in nature and function to voluntary savings and loan associations or emerging community-based service organizations.

The programme has supported the evolution and operations of such groups by providing training and on-going mentoring in organizational leadership; partnership in business development (e.g. in purchasing their catering services during community-based training and other events in Kenya); and provision of seed financing and material support for start-up business ventures (such as the bee keeping activities for CHW groups in Tanzania). In some cases, AIM Health supported CHW groups to register formally with the government and undertake financed community development engagements such as accessing Constituency Development Funds from government in Kenya. The groups have also been integrated into the regular support and partnership arrangements between the ADPs and target communities as in Uganda and Tanzania.

AIM Health supported the integration of CHW and their services into the routine plans, budgets and operations of health facilities and community health initiatives of the government such as public health and environmental sanitation and community-based disease surveillance. This strengthened mutual recognition and appreciation among CHW and government health staff; and enabled CHWs to leverage resources from government and other health development partners.

5.4.2 Innovative training approaches

AIM Health adopted innovative and economical training approaches for CHWs to complement routine classroom training events:

1. Integrating technical updates and mentoring in the monthly review and reporting meetings between CHW and their supervisors in Sierra Leone, Tanzania and Kenya
2. Supporting CHW participation in outreach camps and facility-based clinics, working alongside health staff and learning from them through apprenticeship and demonstration
3. Remote training, mentoring and technical support through mobile phone and in the Uganda Radio Distance Learning activity.

5.4.3 Re-vitalizing the role of traditional birth attendants (TBAs)

After years of programming support to TBAs as important actors in MNCH and reproductive health services, several governments have explicitly withdrawn this support, based on evidence that TBA support at birth did not result in improved maternal or newborn survival. Host countries Kenya, Uganda and Tanzania have a stated policy position of 'banning' TBAs from conducting deliveries, and prohibiting direct collaboration and support between health facilities and TBAs. However,

governments and global health actors recognise the unique position and status that TBAs enjoy in communities as authoritative and resourceful in health, especially MNCH.

AIM Health aligned itself with host country policies on TBAs while also utilising the social capital of this important cadre. It encouraged TBAs in Sierra Leone to be deployed as CHWs, taking additional effort to train these non-literate women in ttC. The programme also mobilised TBAs in all locations by orienting them on ttC and the 7-11 interventions and encouraged TBAs to act as birth supporters and companions, accompanying women in labour to the facility. AIM Health supported a series of meetings between TBAs and health facility staff to explore possible roles for TBAs in encouraging facility births in Uganda and Tanzania ADPs. Stakeholders in these locations credited this effort with major improvements in ANC completion and health facility deliveries.

5.4.4 Innovations in counselling and behaviour change

The end line evaluation noted that the ttC approach of timing the discussion of key MNCH practices and involving all household members in the dialogue and counselling processes was a vital innovation that provided a supportive environment for the adoption of these practices. The AIM Health programme strategy is underpinned by the unique need to ensure sustained engagement of multiple actors at household level over the 1000-days period between conception and when the child gets to 24 months.

5.4.5 Other Innovations to address the first 1,000 days

This evolved further into social support groups of mothers, father and/or both parents together in Tanzania, continuing to provide peer support and joint approaches to sustain appropriate feeding practices.

In Uganda and Mauritania where PD-Hearth was implemented as a structured and sustained process, some of the groups continued to work together beyond the period of Hearth sessions. In some cases, they have started joint food production initiatives, including individual and peer-supervised kitchen gardens, irrigation and green-house based vegetable production, etc. These experiences underscore the potential for sustained nutrition improvement dialogue and action.

To ensure sustained interest and motivation, and to enable key decisions at critical times such as work re-allocation during pregnancy and post-natal period, birth planning, close planning and management of complementary feeding, etc.; the programme came up with a number of innovative approaches such as:

1. Couple based counselling hubs at the market places (e.g., in Uganda); where ttC families can meet and engage with CHW and amongst themselves on experiences in ttC, ANC, etc. The market setting enables linkage between these sessions and other family or business engagements; and has promoted greater male involvement

5.4.6 Best practices and lessons in implementation

1. The AIM Health implementation experience underscores four critical elements in delivery of the 7-11 strategy; all dependent upon a fine balance between behaviour change promotion, service delivery strengthening and critical multi-sectoral linkages to ensure sustained change

and lasting impact: a) nutrition improvement; b) addressing common childhood illnesses; c) water, sanitation and hygiene improvement; and d) ensuring access to the full continuum of maternal, newborn and reproductive care services

2. Those CHWs who served earlier as volunteers in other initiatives seem more motivated to stay on, ostensibly because of more realistic expectations of volunteer work and experience in facing related challenges

3. Referrals work well if facility staff read the referral form, prioritize those patients for urgent attention and complete the counter-referral form. Referrals also work in areas where the facility staff are known to be kind and understanding with patients.

Male partner involvement

The AIM Health experience has shown that male partner involvement during the first 1,000 days of life has several positive consequences in the health of the mother and child. CHWs report that ttC discussions are more productive and result in concrete decisions if the male partner is present. They also report that referrals work better if the male partner is involved as men who participate in ttC visits take referrals seriously. Across all target locations, CHWs, COMMs, men and women report that male partners' presence during ttC visits resulted in their attending ANC with their wives/partners, sharing household chores with the pregnant wife/partner, and ensuring a diverse diet for them. Facility staff report that male partner accompaniment was becoming a common site at ANC and delivery. However, they all said that this phenomenon was only a beginning and needs to become more prevalent.

Conversely, the male partner not being involved gets in the way of the pregnant women's nutrition, care and ANC attendance. Several men intend to be more involved than they are, but are constrained by the need to work all day to earn a living.

CHWs also report that gender-based violence was still highly prevalent, and that it undermines the woman's ability and confidence to seek care.

5.5 SUSTAINABILITY OF PROGRAMME RESULTS AND INTERVENTIONS

The end line evaluation found that sustainability was in-built in the AIM Health programme design; as a capacity building partnership with government and communities. The programme was fully institutionalized in government and community health systems right from the beginning. The programme and its implementation was fully aligned to the existing government policies on community health strengthening as an integral element in the broader health systems in all programme countries. This further contributed to the potential for sustainability of the programme results and interventions.

5.5.1 Sustainability through partnership

Implementation of the programme in all target countries included specific engagement at national level to ensure buy-in and adoption of the programme interventions as part of priority actions

in national health plans. In Mauritania the programme has contributed to the broader national dialogue and advocacy for increased government financing for community health. Such national level actions were important ingredients in enhancing sustainability of the programme results and interventions as integral elements in government health strategies and priorities.

The programme interventions were fully integrated into sub-national health planning and management at county/regional and district levels; and in health facility governance and management support systems. WV was keen to share the annual programme priorities and budget; and encourage their integration in district and health facility operational plans and budgets for health. However, the end line evaluation noted that this was often not reciprocated by other actors in sub-national and national-level health financing. This limited the possibilities for integrated budgeting and pooled financing for some of the community health actions; which would have contributed to greater sustainability.

The end line evaluation further noted that strategic engagement between AIM Health and other actors in health services delivery and support was limited in most programme sites. This includes actors such as: faith-based organizations that run health facilities, CBOs involved in HIV/AIDS care and other health activities, and donor projects that support specific service delivery and health systems strengthening. In sites where such engagement was evident (e.g., Mutonguni, Kenya), this had contributed a lot to integrated planning and joint activities such as nutrition improvement demonstrations at community level, and in advocacy for greater government support to the health system. This reflects the possibility that opportunities for sustainability strengthening may have been missed as a result of limited engagements of this nature.

5.5.2 Sustainability through community systems strengthening

The programme interventions have achieved concrete strengthening of community health systems in multiple ways. These include:

1. Development of a trained cadre of CHW with capacity and practice experience in structured and sustained service delivery; data collection and processing and functional peer support mechanisms;

2. Revitalized linkage between community-based health resource persons and two limbs of the formal health care system – clinical and management staff at primary health facilities; and public/environmental health staff deployed to support community-level health interventions;

3. Strengthening functionality of community health information systems (e.g., in Kenya); and initial development of linkages between such community health information systems and health facility information systems (e.g., through mHealth in Uganda); and

4. Establishment and functional support to a community-based framework for health advocacy and public accountability; emerging as a new and critical element in the health system in most programme sites.

These elements in the community health systems are important building blocks for sustainability. This is further reinforced by the mechanisms promoted by the programme to sustain motivation and continuing education for CHW. Key among these are the personal improvement opportunities

such as literacy training in Sierra Leone, group business enterprises in Tanzania, and organizational evolution of CHW groups into fully-fledged CBOs in Kenya.

However, there are elements in the broader community development systems with potential to contribute to sustainability, which have not been fully utilized in this regard. These include: support programmes and interventions in other sectors such as agriculture and fisheries, community development and education; and savings and microfinance support and their potential as vehicles for community—based health financing. Initial efforts in this regard were noted in some sites, e.g., the actions in Tanzania programme sites to promote and monitor membership and contributions to the community health fund (CHF) government scheme.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 OVERALL CONCLUSIONS AND RECOMMENDATIONS

This evaluation has found compelling evidence that the AIM Health programme implementation partnership between WV, governments and communities has worked well in all programme sites to deliver a sustained health interventions over the five-year programme period. There was effective buy-in and leadership at national level in both WV and governments; which ensured institutional support for programme implementation at lower levels. However, there have been limited policy-level decision and change with respect to community health maternal and newborn care services; possibly because clarity of need and concrete evidence in this respect is only beginning to emerge from the programme period of implementation.

The sub-national structures and systems in both WV and governments have worked well as critical partners in AIM Health programme implementation and operational management. At community level, the programme has succeeded in establishing a new framework for sustained engagement on maternal and child health improvement between families and community service structures and institutions such as health facilities, CHW and community leadership mechanisms (committees, chiefs, etc.).

Hawa Kpanabom and her daughter Lucy from Bonthe District, Sierra Leone

The twin overall change elements targeted by the programme: strengthening CHW as an integral element in human resources for health; and empowering them to influence sustained personal behaviour change at individual and family level, and to enhance social support and communal action at community level have been achieved. The outcome and impact results as generated in this end line evaluation indicate that the programme goal of reducing infant and maternal mortality has been achieved to the desired level in most programme sites.

- Reduction in neonatal mortality has been achieved in all programme sites; attaining (and often surpassing by far) the programme target of 20 percent reduction in all except one. The 16 percent reduction attained in the one site is also close to the programme target.
- The under-five mortality rate reduced to the programme target level (20 percent reduction) in six programme sites; and reduced but not to the level of programme target in one other site. The rate worsened substantially in two programme sites; largely attributable to service delivery gaps that were beyond the control of the programme and its interventions.

- The maternal mortality ratio declined in all programme sites; attaining the programme target in three programme sites; and achieving reduction rates close to this target in two other sites.

Coverage and quality of interventions: AIM Health did include in its design a mechanism to ensure adequate coverage of the population. However, there was no indicator in the RBF or other means for measuring this at regular intervals. While behaviour change and adoption of recommended practices have been adequate in households that the interventions reached, there is no measure of what proportion of the total ADP population was reached. This is arguably a key factor underlying the lack of achievement of some programme targets. In segments that interventions reached, the quality of delivery of interventions, especially ttC remained sub-optimal in several locations, as identified by the IQA assessments

Overall recommendations:

1. All partners involved in AIM Health and its implementation should make commitment to its continued implementation in all programme sites for another five-year cycle; with relevant modifications as highlighted in the other end line evaluation recommendations. This will enable further progress to fully attain the programme goal; and to consolidate the sustainability of the programme results and necessary programme actions.

2. Governments in all AIM Health target countries should undertake necessary policy change to institutionalise and fully support CHW participation in delivery of maternal and newborn care services; including CHW with unique experience and background in community-based maternal care services such as TBAs.

3. Strengthen quality of implementation of ttC and CVA models: Use of stories and negotiation aid has been shown to enhance the quality of dialogue, but all target locations do not seem to use these aids. CVA programming has become conflated with COMM work in some locations, and thus loses its unique place in 360-degree support for behaviour change.

4. Pregnancy among unwed teens is alarmingly high and rising, in almost all target locations. Acceptance, care, postpartum family planning, HIV prevention/testing/care, and a continuum of care for mother and baby are issues that further programming cycles should address through the three project models

5. Expand coverage within existing ADPs: District health officials at Mundemu, Tanzania and Busitema, Uganda point out the need for initiatives such as AIM-Health to use a catchment-area approach, covering all locations within a recognized administrative division. This approach would not only expand coverage and reach more people, but would also lead to better use of data at the district level and better management of interventions.

6. Promote involvement of male partners: Anecdotal evidence has shown the positive impact of involvement of male partners in women accessing MNCH services. However this needs to happen at scale for it to have an impact on MNCH outcomes at the population level and for sustainable, community-wide change.

7. Address gender based violence as a factor hindering care seeking and the overall wellbeing of women.

6.2 CONCLUSIONS AND RECOMMENDATIONS ON CHILD AND MATERNAL NUTRITION OUTCOMES

The programme has achieved critical improvement in feeding practices for children and mothers. However, outcome results of the programme were masked by inappropriate programme indicators, and unrealistically high targets.

- The limited improvement in stunting and wasting is partly attributable to the multiple factors that underlie these indicators, many of which were beyond the scope of programme focus and actions
- The remarkable improvements in exclusive breastfeeding and to a less extent early initiation of breastfeeding after birth reflect the high level of programme focus on this; and played a key role in realised decline in infant mortality.

Community Health Worker visiting a mother and her children

- The consumption of iron-rich foods is high among children and mothers; but benefit in this respect is compromised by dominance of food types richer in non-haem iron
- The decline in Vitamin A supplementation reflects poor reach at the population level – both in terms of geographies and regular and timely provision.
- The decline in dietary diversity for children and mothers across most programme sites is a cause for concern and reflects seasonal changes in food availability and overall food insecurity. This decline also points to the sub-optimal quality of negotiation and identification of barriers in ttC interactions. Food insecurity threatens to negate all behaviour change efforts on diet diversity or meal frequency. A related issue is the abject poverty of certain households in all target locations. This leaves little scope for accessing care, improving nutrition etc.

Recommendations:

8. WVIRE should revise future MNCH programme designs in the following areas as related to a nutrition focus:
    - Reinforce household-level communication and counselling on nutrition (through ttC) with specific nutrition communication and counselling through health facility services
    - Revitalise the measurement of child body weight and plotting it in the weight-for-age chart at all contact opportunities with the health facility or community-based health services; and utilization of this information in all child health monitoring events/ sessions at household level, in health facilities, early child education institutions, etc.
    - Include specific programme action to enhance and address service-delivery constraints to ensure realization of nutrition targets that are dependent on

uninterrupted and quality services such as Vitamin A supplementation and de-worming

9. WV country office (health and nutrition teams) in AIM Health target countries should work closely with the government-led comprehensive and multi-sectoral nutrition action mechanisms to reinforce health-based nutrition action: at household/community level; in health facilities; and through education institutions. The agreed approach to achieve this should be adopted as the framework for comprehensive district-based nutrition action, and integration of AIM Health nutrition focused action at community level.

10. Sub-national and field-level actors in AIM Health implementation (e.g., district health management teams, health facility planners and managers, COMMs, etc.); should strengthen nutrition-focused dialogue and action planning to address the specific nutrition education components on which programme targets have not been achieved.

11. All partners involved in AIM Health and its implementation should plan and implement specific actions to strengthen linkage and collaboration between AIM Health and other programmes focused on food security strengthening and integrated community development; including:

    - Strengthening and further increasing nutrition-focused advocacy (based on CVA and other relevant models) in the work of health facility management committees, CHW Associations, and other community groups
    - Periodic mapping of the existing and upcoming initiatives on: livelihood and food security improvement, household economic strengthening, literacy and applied education for adults and young people, etc.; and develop structured and sustained linkages between such initiatives and nutrition improvement interventions
    - Initiate and/or participate in food preservation innovations to ensure adequate and sustained availability of the necessary diversity of foods across the lean seasons

6.3 CONCLUSIONS AND RECOMMENDATIONS ON PROTECTION FROM INFECTION AND DISEASE

Immunization: the programme strengthening of specific elements of immunization services such as outreach support, CHW role in tracing unimmunized children and cold chain improvements at health facilities contributed to maintaining the existing high levels of immunization coverage in most programme sites.

- Modest improvements in immunization coverage in some sites reflect the high marginal cost of further improving coverage that is already high
- Availability of child health cards (largely provided and retained primarily through immunization services) is relatively high and a good potential as a building block for enhancing child registration

Recommendations:

12. Primary health facilities, with necessary support from WV field offices and Local governments should revitalize and diversify micro-planning for immunization services to include the full range of integrated community health services

- All actors in community level AIM Health implementation should work together to ensure greater participation of CHW in planning, delivery and management of integrated outreach services, based on the framework of immunization micro-planning

13. WV country offices should leverage national child protection and child health networks to explore and promote mechanisms to integrate child health cards and their retention with child registration services, to reap the double dividend of child protection and health promotion.

Childhood illnesses: The prevalence of fever, ARI and diarrhoea among children appear to have declined substantially but remain high in a number of programme sites.

- Seasonal changes in disease incidence may explain some of the trends in illnesses prevalence
- Use of LLIN improved or was maintained at a high level in most programme sites; but declined substantially in three sites
- There is a general trend of substantial improvement in care seeking for ARI, modest improvement in use of ORS for diarrhoea, and stable rate in care seeking for fever

Recommendations:

14. WV country offices, in close collaboration with MOH, should explore and collaborate with other community health strengthening initiatives to enable linked implementation of integrated community case management in the AIM Health programme sites
15. District Health Management Teams and WV field offices should plan for sustained LLIN provision in all AIM Health programme sites; as a complementary initiative to enhance overall health impact.
16. Future programme RBFs need to re-consider the use of prevalence of illnesses as indicators of progress, and replace them with coverage levels for care-seeking or preventive behaviours.

HIV prevention and integrated management: knowledge of MTCT is alarmingly low across all programme sites; but is well mitigated by the high levels of PMTCT coverage in ANC.

Recommendations:

17. WVIRE should refine the AIM Health design to include structured linkage to HIV prevention and management interventions, and explore opportunities for integrated programming for community level MNC and HIV services.
18. WV country offices and District Health Management Teams should explore opportunities for integrated programming for PMTCT and MNC services in primary health care facilities and at community/household level; as a potential approach to leverage HIV resources to strengthen MNC services

WASH: there is critical interplay between WASH parameters, occurrence of childhood illnesses and nutritional status; which may have had major influence on AIM Health impact.

- There has been substantial improvement in access to safe water in most programme sites; but less evident with respect to sufficient water
- Hand-washing has been high and sustained in most programme sites. The situation with access to improved latrine was similar (high and maintained) in only two programme countries (Kenya and Uganda); improved slightly in two countries (Sierra Leone and Tanzania); and declined in one country (Mauritania).

Recommendations:

19. WVIRE should revise the AIM Health design to include specific integrated action to address the linked elements of WASH, nutrition and childhood illness.
    - This should include specific operational research to explore and address cause-effect relationships in this triad.
20. WV country offices should work closely with national WASH networks and the relevant government departments to include in the next phase of AIM Health implementation distinct action and advocacy for sustaining and further increasing as necessary access to safe and sufficient water for household use; and specific monitoring and improvement of water availability and utilization to enhance food production and environment protection.
21. WV field offices should work closely with local governments to plan and implement sustained community-led action to address priority sanitation problems as relevant in the revised AIM Health programme strategy.

6.4 CONCLUSIONS AND RECOMMENDATIONS ON ACCESS TO ESSENTIAL HEALTH SERVICES

Substantial improvement has been attained in utilization of the four essential maternal and newborn care services prioritized in the programme outcome for access to services.

- The major improvements realised in skilled birth attendance and completion of all recommended ANC visits are in large part attributable to programme action in enhancing demand through ttC and COMMs support; and specific programme actions to enhance service delivery.
- The more modest improvements realised on postnatal care and family planning use are a reflection of the much lower beginning points on these indicators; and the relatively less focus of the programme on these elements of MNC services.
- The delivery and promotion of postnatal services is neither well developed nor adequately emphasised as a core component in government MNC services across most programme sites.

Selina Andrea and her daughter Ester from Sanzawa in Tanzania

- The programme succeeded in strengthening the framework for partnership between communities and health facilities, with specific focus on addressing MNC service access. This includes a functional and continuous linkage between CHW and health facilities; and a revitalised management and advocacy function through COMMs.
- Key issues affecting service utilization such as basic equipment, supplies and utilities; information systems strengthening; and transport for referral have been partially addressed through the programme. However action to address other key challenges such as staff numbers, making respectful maternity care the norm in all health facilities, effective deployment of males in MNC service delivery, health facility upgrades and major infrastructure modifications was largely limited to community and local government level advocacy; which yielded limited results.

Recommendations:

22. WVIRE should reinforce the component of health system strengthening in AIM Health to include focused attention and support to health facilities as the established institution at community level to plan and manage the two core elements in the 7-11 strategy – delivery of the critical services for all interventions in the model; and building the capacity of communities to demand and effectively utilise these services, as well as contribute to the service planning, delivery and management.
23. Health facilities, with necessary support from the relevant local governments and WV field offices should integrate all elements of community level MNC service support in the routine service, management and support supervision plans and schedules.
    - Appropriate planning models should be adopted as relevant for each country context as the template for development of these plans as integral components in the routine health plans and budgets, and their financing mechanisms.
    - Work with national and local health systems to ratify respectful care at birth as a universal right using the consensus document/charter[16] and appropriate training and monitoring tools.
    - Work with local and regional governments to streamline supplies. Push system of supply chain management does not take into account increased demand from the periphery coming from community-based interventions. The lag period before the supply chain picks it up is often quite significant.
24. WV country offices should work with other health advocacy allies to develop and implement structured and sustained advocacy initiatives for adequate and sustainable government financing for all necessary MNC services, within the framework of integrated and comprehensive primary health care.
    - Work with the governments to reduce crippling out-of-pocket expenditure at government facilities. Families find going to the local drug vendor to be cheaper. Causes are complex, multi-layered, and point to the need to develop a nuanced understanding of every context and develop tailored solutions.

[16] http://whiteribbonalliance.org/wp-content/uploads/2013/10/Final_RMC_Charter.pdf

6.5 CONCLUSIONS AND RECOMMENDATIONS ON PROGRAMME MANAGEMENT

Implementation partnership: the AIM Health programme partnership between WV and governments has worked well to deliver an effective intervention in all programme sites; but missed the opportunity of structured partnership with non-public health facilities and major support programmes for community health.

Recommendations:

25. WV and governments in all programme target countries should continue the current partnership for implementation of the next five year cycle of the programme.

    - WV country offices should map all actors and potential partners in community health in the programme target sites, and should explore and build strategic partnership with selected actors (such as non-public health facilities and large community health support programmes) to reinforce effectiveness and sustainability in the next cycle of programme implementation.

Programme monitoring and evaluation: the programme monitoring and evaluation system was well developed and effective, and in spite of gaps in elements of RBF design and indicators, and in necessary strengthening of data and information application in community health.

Recommendations:

26. WVIRE should revise the programme RBF to ensure a fully developed results logic pyramid for all programme outcomes; and appropriate attention to the system strengthening requirements in all programme implementation contexts.

27. WV country offices, working closely with government at national and sub-national levels should develop clear mechanisms of linking community health information as generated through the AIM Health programme to the mainstream health information system.

28. WVIRE should work closely with WV country offices to identify appropriate institutions within the countries of operation to partner with on operational research and other elements of programme monitoring and evaluation.

6.6 CONCLUSIONS AND RECOMMENDATIONS FROM THE ADVOCACY EVALUATION

WVIRE has gained experience and learning in advocacy, both in public awareness and in influencing policy and decision making, over the past four years. Based on the learnings found in the evaluation, and the taking stock of advocacy work to date, the time is right to begin a more in-depth strategic planning of WVIRE advocacy and to define the role of AIM Health advocacy.

The evaluation has shown the importance of strategy, goals and planning in advocacy. WVIRE strategy 2012-16 is ambitious regarding advocacy and provides a focus for AIM Health advocacy. AIM Health advocacy has indeed been aligned with the strategy but hasn't been able to reach its ambition, neither in public awareness nor in influencing policy and decision making.

WVIRE is well positioned to influence in Ireland due to the current capacity, learnings in public awareness and the experience in politics and government that exists in the office. In addition, it can

take advantage of the World Vision International partnership to complement the gaps in capacity or knowledge. It can strengthen its voice by engaging the Irish public and gain more impact in influencing policy and decision making.

In public awareness, there are strong examples of campaigns that have succeeded and can feed into future awareness creation. In this area AIM Health advocacy has worked best and achieved most. Influencing at its best is contextual and WVIRE served to influence policy in the review of the White Paper for Irish Aid. This stands out as an achievement. Networks and coalitions are powerful in advocacy and included also in the WVIRE strategy 2012-16, but as cooperation requires time and resources, WVIRE should be strategic in choosing the networks that are best for its strategy and goals. One widely identified area for improvement is planned and continuous relationship building with key policy and decision makers. The resourcing for this has been lacking and is highly recommended for the future.

In order to be effective in advocacy, particularly in awareness raising, the whole organisation is needed behind it. Management, roles and processes haven't been clear. Advocacy has been under-resourced but a policy person has recently started in staff. Marketing, advocacy and communications need to work in an integrated and concerted way and take care of consistent messaging and to complement each other in public-facing campaigns and asks. Consistency in messaging needs to be taken into account in public awareness and marketing.

It is advisable to continue MNCH advocacy as part of wider advocacy of WVIRE. In policy and influencing the government development policy One World, One Future offers a contextual basis for holding the Irish government accountable for child rights and MNCH issues. Health advocacy should be designed at the same time with the AIM Health Phase II programme proposal and an advocacy budget should be included in the programme budget. Health advocacy should not be separate or an add-on in the programme and a clear link to contributing to the goal should be established. Also, the RBF and baseline should be elaborated at the start of the programme.

Mothers being transported to the Health Facility on the local community ambulance in M'Bagne, Mauritania

WVIRE needs to decide, whether health advocacy in the future contains the three elements it has had during 2012-15. All areas would benefit from a continuation as influencing and public awareness are long-term processes and require time and resources. Contributing to enhanced learning on health programming as part of advocacy in Ireland, has not really achieved results yet and should be reconsidered strategically. Academic partnerships in AIM Health are a strategic element; what is suggested here for critical reconsideration is the area of sharing learning as part of advocacy. There are opportunities that haven't been used yet in health advocacy, e.g. linking the local and national advocacy causes of programme countries to Irish influencing and taking advocacy content from operational research results.

Recommendations:

29. Give advocacy recognition and importance as a pillar in the new strategy of WVIRE and act accordingly.
    - In the new WVIRE strategy advocacy needs to be given the importance it had in the 2012-16 strategy but with stronger recognition and will, and with proper implementation planning and resourcing that supports the operationalisation of the strategy (financial and human resources, in-house capacity and complementing capacity from WV partnership).
    - Take stock of the good positioning of WVIRE for advocacy in Ireland.
    - It is recommended that advocacy would be defined jointly in a staff process in order to have a common understanding of what advocacy is in the organisation.
    - Define the integration and concerted efforts of all public facing campaigns already at the strategic level.
    - Advocacy needs to be directed and coordinated as several staff from various departments and management levels have a role to play in advocacy.
30. Build an advocacy strategy and include the proposed AIM Health Phase II advocacy as part of the strategy.
    - It is recommended to make a strategic plan for WVIRE advocacy – analyse the Irish and global context (e.g. SWOT analysis, mapping Irish advocacy actors and stakeholders, etc.), choose priorities from the variety of issues, set the goals and objectives for public awareness and impact in policy and influencing, define the targets and milestones, assess the in-house capacity needed and allocate a budget.
    - It is recommended that health advocacy is continued during the proposed phase II of AIM Health.
    - AIM Health phase II advocacy proposal should form part of the wider advocacy of WVIRE and support the bigger goal WVIRE is aiming at in advocacy.
31. Be strategic and bold in choosing networks and partners for advocacy.
    - Networks and partners bring more power and strengthen advocacy. It is recommended that the current networks and coalitions are assessed in the strategic process and the best networks and partners available are boldly chosen for the implementation and achievement of the goals and objectives of WVIRE advocacy.
    - Define the goal and the partnerships/networks WVIRE need for succeeding. Don't be shy or look for a comfort zone in how and with whom you used to work.
    - Be a leader or aim at becoming a leader in selected, strategic networks.
32. Design advocacy for the proposed next stage of AIM Health, as part of the overall programme design, including the relevant M&E framework.
    - AIM Health advocacy should be designed as part of the design process of Phase II programme proposal, not as an add-on.

- The contribution to the goal of AIM Health should be thought through clearly and explicitly expressed.
- Design the logic, impact, outcomes and milestones at the very beginning.
- Conduct a baseline for advocacy.
- From the current three elements reconsider the significance and role in advocacy of output 2.2. (sharing learning and enhancing effective health programming in Ireland).
- Use the opportunity of linking local level CVA advocacy to Irish health advocacy (stories for campaigns, issues for influencing and informing the decision/policy makers).
- Take advantage of operational research in public awareness and influencing the decision/policy makers (credible input). Include advocacy and policy staff in designing research for the inclusion of advocacy interests and policy issues.

33. Be innovative and bold in designing public awareness campaigns to mobilise the public.
    - Be bold and even take risks in content, messaging, ways of doing, selection of ambassadors, etc. in public awareness.
    - Take advantage of the sponsorship and donor base and build on them in public awareness.
    - Mobilise public in taking actions to support the cause of a public-facing campaign.
    - Define and be clear in each public awareness activity/campaign, what WVIRE means by "taking actions" or "supporting a cause"

34. Continue influencing government initiatives, specifically those related to WVIRE's core themes.
    - Follow up the government processes in development policy, the Sustainable Development Goals processes in Ireland, discussions in the Oireachtas, etc. in order to identify where and when to influence. Being contextual and influencing in a process that is anyway going to take place is easier and more effective than aiming at initiating a process or a change on your own. Follow-up can easily be done through NGO networks also.
    - Take stock of the current development policy and hold the government accountable for child rights and MNCH implementation.

35. Build continuous relationships with key policy and decision makers.
    - According to the strategy of WVIRE and the advocacy goals and objectives, identify the key policy and decision makers who are needed to influence to have impact.
    - Make a plan of action with roles and responsibilities of various staff for relationship building.
    - Be persistent in building and nurturing the relationships. Share relevant content regularly.
    - Give responsibility of each key relationship to one person in WVIRE. This staff person is "the owner" of this relationship, keeps that relationship developing, is informed of

other staff's contacts with the person and is held accountable in the organisation for this key relationship.

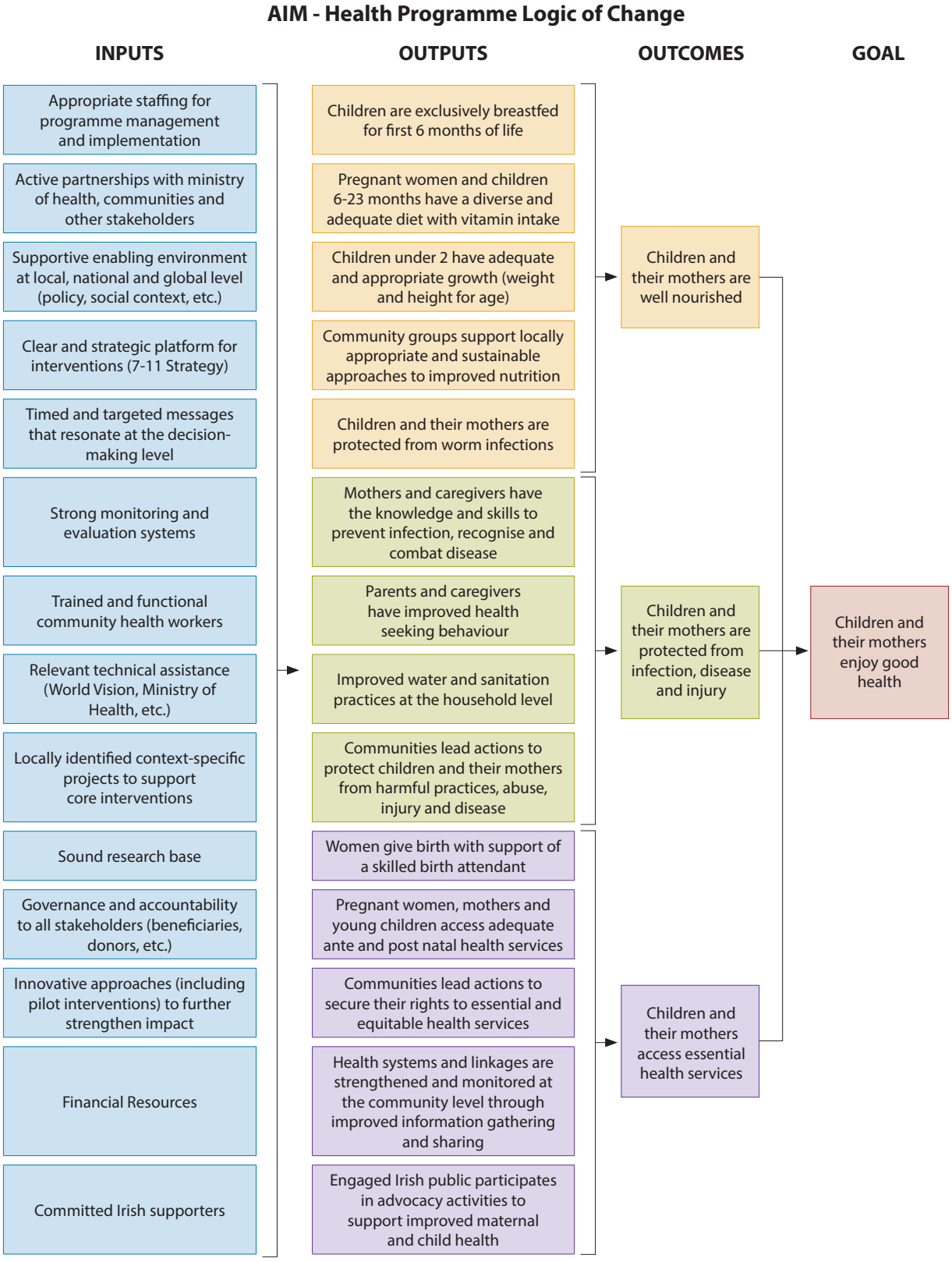
- Take stock of staff connections and networks, if relevant.
- Begin simple and practical monitoring and sharing of information from discussions with key contacts (key contact, owner in WVIRE, who met, when, issues discussed). Be careful not to make the follow-up too complicated and heavy; the information needs to be brief and meaningful to maintain the motivation of sharing.
- Allocate Board Members a role in influencing policy and decision makers, keep them well-informed, and linked to staff. Recruit Board members who have this profile and build influencing into their role in the board.

36. Act together as one organisation in advocacy.

In order to be effective and efficient, marketing, programmes, advocacy and communications need to work together, in an integrated and concerted way, especially on public facing campaigns.

- This requires clarification of roles and responsibilities, sharing of information and mutual support. It requires strong leadership, management and coordination of efforts.
- Everyone in the organisation is an advocate and is needed behind a public awareness campaign. Public facing efforts need to be jointly agreed by management.
- Technical capacity of advocacy and policy is closely linked with programmes and benefits from close cooperation and communication. For this reason it is advisable to place advocacy and policy close to programmes but a special effort needs to be taken in order to maintain constant interaction with communications and marketing.

ANNEX I: AIM HEALTH THEORY OF CHANGE



It should be noted that a 12-month preparatory phase (referred to as AIM Prep) for the AIM Health Programme was implemented in all 5 countries and the specific implementation sites in 2011. This AIM Prep phase relates to Outcome 1 in the RBF.

Outcome 2, improved nutrition of mothers and children: Levels of stunting (low height-for-age) and wasting (low weight-for-height) among children aged 6-59 months is tracked at baseline, midterm and end line. *The following outputs were designed to reach outcome 2:*

1. Early and exclusive breastfeeding: Timely initiation of breastfeeding, and exclusive breastfeeding up to six months of age are key 7-11 practices, and they have been proven to have significant protective and nutritive benefits for the newborn and the infant.

2. Diverse diet and minimum meal frequency, from 6 to 23 months and adequate iron intake: These ensure healthy linear growth of the child, protection from infections and development of cognitive abilities.

3. Diverse and sufficient diet in pregnancy ensures protection of the mother and baby from critical micronutrient deficiencies and contributes to good maternal outcomes, especially adequate birth weight for the child, which in turn, gives the child a healthy start.

4. Protection from worm infestation through regular deworming per MOH policy helps avoid loss of iron and other critical nutrients.

5. Community-led actions to promote nutrition-related practices targeting pregnant women and children under two years.

6. Household level promotion of nutrition practices through timely and high-quality ttC visits.

Outcome 3, protection of mothers from infection and disease: Prevalence of the 3 major killer diseases – diarrhoea, acute respiratory infections (ARI) and malaria – assessed through a 2-week recall were key indicators. *The following outputs were designed to reach outcome 3:*

1. Caregiver knowledge of key illnesses and prevention mechanisms: Knowledge about danger signs in the mother during pregnancy and post-partum period and for the newborn, as well as knowledge of mother-to-child transmission of HIV. Improving levels of knowledge is foundational for bringing about the required changes in practices.

2. Water, sanitation and hygiene (WASH) practices in households: The emphasis here is protection from illness, and hence these are tracked in programme locations, even though AIM Health does not directly and significantly intervene in these areas. This includes access to safe and sufficient water, access to improved sanitation facilities and caregivers' handwashing practices. There is evidence linking these practices to incidence of pneumonia and diarrhoea. It is important to note that WASH interventions are critical in improving child growth (and prevent stunting) as they help reduce the frequency of illnesses.

3. Possession and use of bed nets: Consistent use of long lasting insecticide treated nets (LLINs) by pregnant women and children is the key practice that has been shown to reduce transmission of malaria.

4. Accessing HIV counselling and testing services during pregnancy: This is a key part of the strategy for prevention of mother-to-child transmission (PMTCT) of HIV and is promoted through the programme and its coverage levels tracked over time. However, it is important to note that HIV itself is not a leading cause of child mortality.

5. Timely and appropriate care seeking for illness: While the emphasis on prevention and protection is expected to reduce the incidence of these illnesses, timely and appropriate care needs to be sought and initiated when they do occur, in order to reduce the duration and severity of the illness and to prevent death.

6. Community-led actions to promote the above prevention and care-seeking practices that are carried out through ttC visits and through COMM-led activities involving entire communities.

Outcome 4, mothers and children accessing essential services: This outcome focuses on maternal and neonatal health (MNH). Antenatal care, skilled attendance at birth, postnatal care, use of birth spacing are key indicators. *The following outputs were designed to reach outcome 4:*

1. Antenatal and postnatal care services: Coverage of at least 4 antenatal visits, postnatal visits in the first week after birth are critical to identifying and addressing issues pertaining to maternal and neonatal morbidity and mortality.

2. Skilled attendance at birth: AIM Health programme locations are among places with the highest maternal mortality ratios in the world. Most of these deaths happen during labour, childbirth and in the hours and days following it. Time is of the essence in ensuring that conditions are identified and the right treatment instituted. Skilled birth attendance at a facility is thus a critical enabler in ensuring this.

3. Antenatal and postnatal care attendance, as critical for identifying women at risk of developing complications and to provide the necessary support and care during the post-natal period for both the mother and the newborn.

4. Availability of maternal and neonatal services: This set of indicators track the availability of staff, equipment and supplies in facilities, especially for the provision of basic and comprehensive emergency obstetric and neonatal care (BEmONC and CEmONC). The programme also tracks user satisfaction, and referral and post-referral follow up of pregnant women and newborns which are needed for continued utilisation of these services.

5. Strengthening health systems and linkages: Continued support to CHWs from the formal health system is tracked in each programme location, as a key factor for sustained delivery of ttC and referral services.

6. Utilisation of other related services such as birth certificates for all children which is crucial for continued accessing of other services such as education and social welfare schemes.

7. Engaged Irish Public: This refers to WV Ireland's advocacy work in Ireland. This component, works with the Irish public to take action on maternal and child health issues, engages the Irish government on MNCH action planning and policy development and seeks to enhance sectorial learning on effective health programming.

ANNEX 2: END LINE EVALUATION SAMPLING DESIGN

Household surveys were conducted in all AIM Health ADPs, and in one comparison ADP in each country. The households sampling design in all sampled ADPs included the following considerations:

- Sampling design: 2-stage cluster sampling
- Statistical confidence: 95%
- Statistical power: 80%
- Clustering coefficient of 0.25 (varying of true proportions between clusters)
- Baseline prevalence of skilled birth attendance
- Expected end line prevalence of skilled birth attendance
- Response rate: 85%
- Average household size: 5
- Estimated proportion of under-five children in the population: 15%
- Unit of sampling: household with a child aged 0-59 months

Using the above considerations, the number of clusters was calculated using the formula from Hayes and Bennett:

$$c = 1 + (Z\alpha + Z\beta)2 * [(p1q1 + p2q2)/n + k2 (p1+p2)] / (p2-p1)2$$, where

c = number of clusters

Zα = 1.96, corresponding to statistical confidence of 95%

Zβ = 0.84, corresponding to statistical power of 80%

p1 = baseline prevalence

q1 = 1 - p1

p2 = end line prevalence

q2 = 1 – p2

n = the number of observations per cluster, assumed at 20 for the purpose of this calculation

k = cluster coefficient of 0.25

The above formula produced the number of clusters, which multiplied by n=20, gave the number of observations required. Another 15% was added to it to account for a response rate of 85%. The number of households needed to be reached to obtain these observations was calculated as:

Number of households = number of observations / (5*0.15)

The resulting sample outputs are given in Table 1 below.

[1] RJ Hayes and S Bennett. Sample size calculation for cluster-randomised trials. *Int. Journal of Epidemiology*, 1999

Table 1: Sample estimation for end line evaluation household surveys

ADPs	Total sample size	Number of interviews completed
AIM Health ADPs		
Mutonguni, Kenya	620	689
Mundemu, Tanzania	670	901
Sanzawa, Tanzania	670	906
Busia, Uganda	725	865
N Rukiga, Uganda	725	729
Guerrou Mauritania	462	505
Mbagne, Mauritania	462	480
Imperri, Sierra Leone	620	667
Sherbro Island, Sierra Leone	620	607
Comparison ADPs		
Lower Yatta, Kenya	620	633
Kongwa, Tanzania	670	880
Buikwe, Uganda	725	908
Bababe, Mauritania	462	474
Serabu, Sierra Leone	620	628

Source: End line evaluation Protocol; September 2015

Stage 1 sampling: Selection of clusters

This was done using probability proportionate to size, and the most recent census lists from the ADPs. The sampling interval was calculated by dividing the total population of the ADP by the number of clusters needed. A random start number was used to get the location of the first cluster. Subsequent clusters were calculated by adding the sampling interval to the random number, and so on, until the required number of clusters was arrived at.

Stage 2 sampling: Selection of households

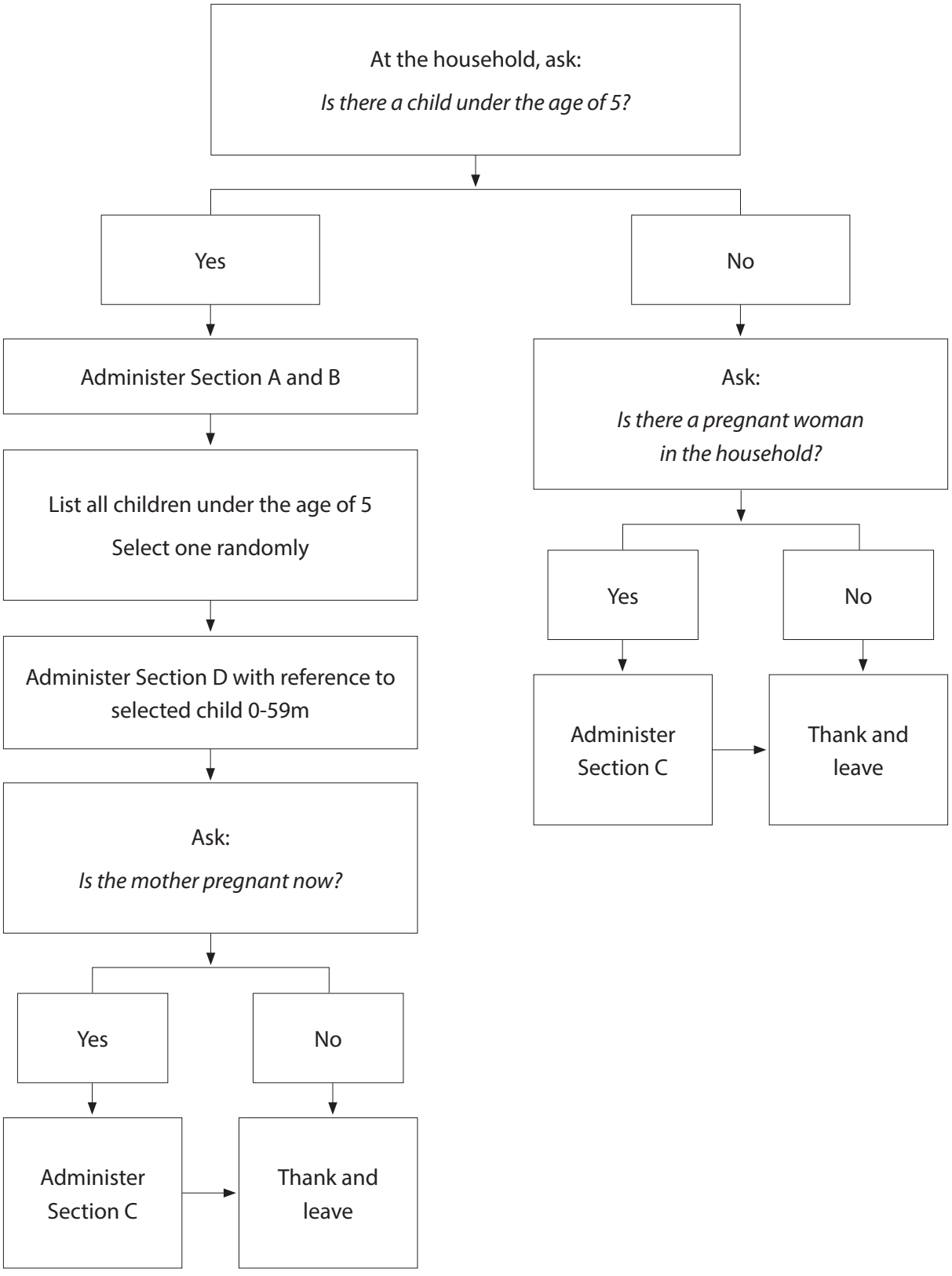
Within each selected cluster, a direction was selected randomly from a central location of the community. The first household was selected in the selected direction, by counting the number of households seen in the selected direction and selecting one of them randomly. Once the first household was selected, subsequent households were selected using the "next nearest door" method, until the required number of households was reached.

For the end line evaluation surveys, a household was defined as all members that cook and eat together –from the same pot. All pregnant women and mothers within a household were selected, but for each mother, only one of her children under five years was selected.

Collection of data at sampled households:

At all sampled households; eligible respondents were identified and interviewed following the steps as presented in Figure 4 below. In addition to interviews with eligible mothers; anthropometric measurements were done for all sampled children below 5. These included measurement of body weight and height.

Figure 1: Steps used in identifying and interviewing household survey respondents



Source: End line evaluation Protocol; September 2015

TABLE OF CONTENTS

End line evaluation – Qualitative study details

Table 2 lists the respondents for focus group discussions (FGDs) and Key informant interviews (KIIs) and the numbers of these conducted at each level.

Table 2: Summary of Qualitative Respondents – By Category

Respondent Categories/Level of operation	Method	Number
In each AIM Health ADP		
Mothers with a child aged 0-23 months and at least 1 older child	FGD	1
Older women living in the same households as participating mothers	FGD	1
Husbands/male partners of mothers	FGD	1
COMM chairman and other members	FGD	1
CVA Working Groups (WG) members	FGD	1
CHWs delivering ttC	FGD	1
Implementing Partners of World Vision on AIM Health	KII	Up to 3
Local Council Chairman (at ADP level and not at district level)	KII	1
AIM Health – Development Facilitator (DF)	KII	1
ADP Manager	KII	1
Liaison/Point person for AIM Health within DHMT	KII	1
District M&E officer at the district medical office	KII	1
District Medical Officer (or equivalent)	KII	1
At Project/Base/National Level		
AIM Project Manager + other staff	KII	Up to 3
Base/zonal manager	KII	1
National Technical Coordinator	KII	1
WV M&E officer at base/zone	KII	1
Grant Finance Accountant – Base	KII	1
Grant Finance Manager – National	KII	1
National MOH point person	KII	1
WV (Global Centre and Support Office)		
WV advisors to AIM	KII	2
WV Ireland – Director of Global Health Programmes, Strategic Partnerships and Innovation	KII	1
WV Ireland – Former Programmes Director	KII	1
WV Ireland – Programmes Officer	KII	1
WV Ireland – Grant Finance Manager	KII	1
Irish Aid (Home Office)		
Civil Society and Development Education Unit	KII	2

World Vision Ireland
The Mews
Garland House
Rathmines Park
Dublin 6, Ireland
www.worldvision.ie

World Vision International
Executive Office
1 Roundwood Avenue
Stockley Park
Uxbridge, Middlesex UB111 1FG, UK
www.wvi.org