

# **Summative evaluation of the WHO Rapid Access Expansion Initiative**

## **Volume 2: Annexes**

Corporate evaluation  
commissioned by the  
WHO Evaluation Office

May 2018



Global Affairs    Affaires mondiales  
Canada            Canada



**World Health  
Organization**

**This independent evaluation was funded by Global Affairs Canada as part of its grant to WHO to implement the Rapid Access Expansion Programme 2011/2012-2017/2018 and was supported by an Evaluation Management Group composed of representatives from the Global Affairs Canada, UNICEF and WHO Evaluation Offices.**

### **Evaluation Management Group**

Elil Renganathan, WHO Evaluation Office, Chair

Beth Ann Plowman, UNICEF Evaluation Office

Pierre J. Tremblay, Global Affairs Canada, Evaluation and Results Bureau

Anne-Claire Luzot, WHO Evaluation Office, Technical Oversight

Anand Sivasanakara Kurup, WHO Evaluation Office, Evaluation Manager

### **Evaluation Reference Group**

Fred Binka, University of Health and Allied Sciences, Ghana

Camille Bouillon Bégin, Global Affairs Canada, Health and Nutrition Bureau

Kimberly Connolly, USAID, Washington DC

Ernest Darkoh, BroadReach Health Care, South Africa

Margaret Gyapong, University of Health and Allied Sciences, Ghana

Chinwoke Isiguzo, Society for Family Health, Abia State, Nigeria

Gomezgani Jenda, Save the Children, Malawi

Elizabeth Juma, Kenya Medical Research Institute, Kenya

Grace Nganga, World Vision, Niger

Pascal Ngoy, International Rescue Committee, Democratic Republic of the Congo

Olusola Oresanya, Malaria Consortium, Niger State, Nigeria

Stefan Peterson, UNICEF, New York

Salim Sadruddin, Global Malaria Programme, WHO, Geneva

Marla Smith, Save the Children and Malaria Consortium, Mozambique

Mark Young, UNICEF, New York



**Right to health & development**

**Evaluation Team:** Josef Decosas (Team Leader), Alice Behrendt, Marieke Devillé, Ingeborg Jille-Traas, Leo Devillé (quality assurance)

**Evaluation Team country specialists:** Abdon Mukalay (Democratic Republic of the Congo), John Phuka (Malawi), Sandra Manuel (Mozambique), Mahamane Karki (Niger) and Vivian Shaahu (Nigeria)

Laarstraat 43

B-2840 Reet

Belgium

Tel: +32 2 844 59 30

Website: [www.hera.eu](http://www.hera.eu)

Email: [hera@hera.eu](mailto:hera@hera.eu)

The analysis and recommendations of this report are those of the independent evaluation team and do not necessarily reflect the views of the World Health Organization. This is an independent publication by the WHO Evaluation Office.

Any enquiries about this evaluation should be addressed to:

Evaluation Office, World Health Organization

Email: [evaluation@who.int](mailto:evaluation@who.int)

## TABLE OF CONTENTS

ANNEX 1: TERMS OF REFERENCE .....	1
ANNEX 2: METHODOLOGY .....	18
ANNEX 3: LITERATURE REVIEW .....	26
ANNEX 4: THEORY OF CHANGE .....	37
ANNEX 5: EVALUATION MATRIX .....	38
ANNEX 6: HOUSEHOLD SURVEYS .....	81
ANNEX 7: STAKEHOLDER MAP .....	85
ANNEX 8: GLOBAL AND REGIONAL STAKEHOLDERS .....	86
ANNEX 9: INTERVIEW AND FOCUS GROUP GUIDES.....	87

# ANNEX 1: TERMS OF REFERENCE

---

## 1. RATIONALE, PURPOSE AND OBJECTIVES

---

### 1.1 RATIONALE AND PURPOSE OF THE EVALUATION

The purpose of the summative evaluation is to:

- Contribute to relevant and practical lessons to inform the global policy and dialogue on Integrated Community Case Management (iCCM);
- Inform WHO MNCH policy dialogue, programming design and implementation and Global Affairs Canada (GAC);
- Ensure accountability of public funds to stakeholders.

The evaluation is being undertaken at this time as programme activities terminate in March 2018.

### 1.2 SPECIFIC OBJECTIVES OF THE EVALUATION

The specific evaluation objectives are:

- Assess the effectiveness, efficiency, relevance, impact<sup>1</sup> and sustainability of results of the RAcE programme;
- Assess sub-grantees delivery model of iCCM;
- Peer-review and validate ICF's evaluation of the RAcE programme's contribution to estimated impact;
- Provide relevant and practical findings, conclusions, recommendations, and lessons to inform policy dialogue, and future design and implementation of iCCM.

## 2. EVALUATION OBJECT AND SCOPE

---

The following sub-sections briefly describe the context of the initiative, the initiative being evaluated (the evaluation object), the intervention logic and stakeholders. The evaluation scope covers the entire RAcE programme described in section 2.2 below.

### 2.1 DEVELOPMENT CONTEXT

The UN and other international organisations have released a number of reports on MDG progress, which illustrate that many countries have made considerable gains despite the challenges in recent years. Since 1990, the world has cut both the rate and number of child deaths by more than half. For example, since 1990 the global under-five mortality rate has dropped from 91 deaths per 1,000 live births to 43 in 2015.<sup>2</sup> In absolute figures, the number of under-five deaths worldwide has declined by 53%; the average annual rate of reduction has accelerated from 1.8% a year over the period 1990-2000 to 3.9% for 2000-2015.

Despite these gains, it was estimated that, in 2015 5.9 million children under the age of five would still die; this is an equivalent to 11 every minute from easily preventable or curable illnesses.<sup>3</sup> The large

---

<sup>1</sup> The evaluation of impact must use methodological alternatives to traditional counterfactual approaches, i.e. assessing with confidence that the RAcE programme had an impact through the use of non-counterfactual mixed methods approaches. GAC, through this evaluation, aims to contribute, to the extent possible, to the widening body of evaluations trying to broaden evaluation approaches to impact evaluations for complex interventions.

<sup>2</sup> [http://www.who.int/gho/child\\_health/mortality/mortality\\_under\\_five\\_text/en/](http://www.who.int/gho/child_health/mortality/mortality_under_five_text/en/)

<sup>3</sup> <https://data.unicef.org/topic/child-survival/under-five-mortality/>

majority of these deaths are in the developing world (Africa and Asia combined account for over 90% of all child deaths), and can be prevented or treated with known interventions. Three diseases - pneumonia, diarrhoeal dehydration, and malaria are responsible for nearly half of all child deaths globally.

There is now ample evidence that by working through an iCCM approach, community health workers (CHWs) can diagnose and correctly treat children with diarrhoea, pneumonia, and malaria, assuming they are provided with adequate initial training, regular re-provisioning of supplies, and ongoing supervision.

Recent estimates suggest that the management of pneumonia at the community level could reduce pneumonia-related mortality in children under five by 70%. Similarly, there is evidence that community case management of malaria is associated with a 40% reduction in overall mortality in children under five years of age, and a 60% reduction in malaria-related deaths in this same age group. It has also been found that oral rehydration salts and zinc are effective against diarrhoea mortality in home and community settings, with oral rehydration salts estimated to prevent 93% of diarrhoea-related deaths, and zinc estimated to decrease diarrhoea mortality by 23%. The WHO-GMP and UNICEF Inter-Agency Joint Statement identified iCCM and the correct treatment of pneumonia, diarrhoea and malaria at the community level as one of the “most powerful interventions to reduce mortality”.

## **2.2 DESCRIPTION OF THE INITIATIVE**

GAC is providing a grant to WHO to implement the Rapid Access Expansion programme (2011/12-17/18). Through this initiative, WHO is sub-granting NGOs to support high burden countries to increase coverage of diagnostic, treatment, and referral services for the major killers of children under 5 (diarrhoea, pneumonia and malaria), through iCCM scale up. WHO is also working to generate evidence to inform WHO policy recommendations and guidance on iCCM. WHO is implementing activities in the Democratic Republic of Congo, Niger, Nigeria, Mozambique and Malawi, all of which have a demonstrated capacity to implement community case management of malaria and iCCM programming.

Funds are being provided to WHO headquarters through a grant arrangement. WHO/Global Malaria Programme RAcE Geneva secretariat manages the technical and operational functions of the grant. WHO regional and country offices provide ongoing support to the sub-grantees hired to implement activities.

## **2.3 LOGIC MODEL**

The Logic Model (results chain) of the programme (in Annex 4) clarifies the expected impact, and outcomes to be achieved over the programme period and identifies the key areas of activities expected to be undertaken to achieve them. This logic model served as a reference for the identification of the indicative areas of investigation (in section 3).

## **2.4 STAKEHOLDERS**

### **2.4.1 Co-operation partners (executing agencies or implementing organisations)**

---

Executing Agency: Established in 1948, the WHO is the specialised United Nations agency for health, made up of 194 Member States and governed by the World Health Assembly. Within WHO, the Global Malaria Programme (GMP) is the technical department charged with providing guidance to Member States on all aspects of malaria prevention, control and elimination. The GMP's key roles are: 1) Set, communicate and promote the adoption of evidence-based norms, standards, policies and guidelines; 2) Independently keep track of global progress; 3) Develop approaches for capacity-building, systems

strengthening and surveillance; and 4) Identify threats to malaria control and elimination as well as new opportunities for action.

One of the strategic advantages of WHO is its presence at global, regional and country levels. WHO is also acting as the governments' technical partner, which gives them a greater capacity to influence and provide sustainability than most NGOs. For the specific purposes of the RAcE programme, the WHO GMP, working together with the Maternal and Child Health Department, the WHO Regional Office for Africa as well as with other agencies such as UNICEF, and key development partners, had for objective to ensure that global policies and guidance documents on iCCM were to be developed. This was done by incorporating and updating elements from documents such as the Roll Back Malaria strategy for home management of malaria (WHO 2004), the Global Action Plan for Prevention and Control of Pneumonia (WHO and UNICEF 2009), and the Management of Sick Children by CHWs (WHO and UNICEF 2006).

WHO/GMP established two independent project advisory and oversight bodies for the RAcE program:

- **International Steering Group:** The International Steering Group (ISG) was established to provide general oversight on the program's implementation, and advise WHO/GMP regarding program and organisational development, in order to help improve the relevance, impact and sustainability of RAcE programme. The ISG was primarily responsible for providing guidance on political and strategic directions, as well as the operational procedures of the Program. The ISG consisted of seven individuals with global level experience in malaria, iCCM, child health or health systems. It met annually to review program progress and provide guidance on policy and program implementation.
- **Project Review Panel:** To ensure the integrity and consistency of an open and transparent application review and selection process based on objective criteria, Project Review Panel (PRP) comprising of six members with global level experience in iCCM, health systems and child health was established. In the beginning, the PRP performed technical and financial evaluation of grant applications submitted by eligible institutions and/or organisations and made recommendations to WHO/GMP concerning the acceptance or rejection of applications for funding, in each case with brief justifications. The PRP also performed a technical and financial evaluation of ongoing projects already recommended for funding (including with regard to compliance by Grantees of the relevant terms and conditions applicable to the grant) and made recommendations to WHO/GMP concerning the continued funding of such projects, in each case with brief justifications.

#### 2.4.2 Implementing Organisations

---

**Malawi: Save the Children** - Save the Children is implementing RAcE Malawi in collaboration with D-Tree International, Medical Care Development International and the MOH. In 2013, when the RAcE programme began, it was implemented in four districts: Ntichisi, Dedza, Ntcheu and Mzimba North Districts. An additional four districts were added midway through the programme, expanding the programme to Likoma, Lilongwe rural, Nkhata Bay and Rumphi districts. In 2014, the programme added a newborn health component to the iCCM package in Ntcheu district in which health surveillance assistants (HSA) conduct home visits to pregnant women and again 8 days after deliver to assess and counsel mothers and newborns.

**Mozambique: Save the Children** - Save the Children is the primary implementing partner collaborating with the MOH in Mozambique, and also collaborating with sub-grantee Malaria Consortium. Save the Children is leading the implementation in Manica, Zambezia and Nampula Provinces. Malaria Consortium is leading implementation in Inhambane Province.

**Niger: World Vision** - World Vision is implementing the RAcE programme in collaboration with the Niger MOH. In Niger, the RAcE programme is implemented in three districts of Dosso Region (Dogondoutchi, Dosso and Boboye) and Keita district in Tahoua Region.

**Nigeria:** There are two sites of the RAcE programme in Nigeria: **Society for Family Health (SFH)** is implementing RAcE in Abia State in collaboration with the Abia State MOH and Abia State Primary Health Care Development Agency. RAcE Abia State is being implemented in 15 of the State's LGA: Arochukwu, Bende, Ikwano, IsialaNgwa South, IsialaNgwa North, Isuikwato, Nneochi, ObiomaNgwa, Ohafia, OsisiomaNgwa, Ogwumago, Ukwu East, Ukwu West, Umuahia North and Umuahia South. **Malaria Consortium** is implementing RAcE in Niger State in collaboration with the Niger State MOH and Niger State Primary Health Care Development Agency. RAcE Niger State is being implemented in six of the State's LGAs: Edati, Lapai, Mariga, Paikoro, Rafi and Rijau.

**DRC: International Rescue Committee** - In DRC, the RAcE programme is being implemented by the International Rescue Committee (IRC) in the following eleven health zones of Tanganyika Province: Kalemie, Niemba, Kansimba, Moba, Kongolo, Nyunzu, Kiambi, Manono, Kabolo, Ankoro and Mbulula.

#### 2.4.3 Monitoring, Evaluation and Capacity Building Organisation

---

ICF has been contracted by WHO to provide monitoring and evaluation (M&E) support to the RAcE programme. This support includes designing standardised baseline and endline household survey protocols and tools and supporting grantees to conduct baseline and endline household surveys in each country; providing technical assistance and quality assurance of routine monitoring data; and conducting a final evaluation of the programme. It also facilitated a sustainability roadmap and transition planning workshops in countries of implementation, and supported implementing partners in building their capacity regarding data quality.

#### 2.4.4 Primary stakeholders (direct beneficiaries)<sup>1</sup>

---

- Children under the age of 5 receiving treatments for malaria, diarrhoea and pneumonia.
- Less directly, national governments benefitting from strengthened iCCM policies, implementation guidelines, and operational research findings that can influence decision making.
- CHWs.

#### 2.4.5 Donor organisations

---

GAC is the sole donor to the RAcE programme.

#### 2.4.6 Interested parties

---

- Other potential donors interested in supporting iCCM.
- Governments with iCCM programs interested in lessons learned within and across countries targeted through the RAcE programme.

### 3. EVALUATION CRITERIA AND INDICATIVE AREAS OF INVESTIGATION

---

The evaluation will apply the widely accepted OECD/DAC evaluation criteria for evaluating development assistance: relevance, efficiency, effectiveness, impact and sustainability. The evaluation will also address cross-cutting issues, such as gender equality and equity.

---

<sup>1</sup> Primary stakeholders must be disaggregated by sex whenever possible and appropriate

The evaluation criteria have been translated into indicative areas for investigation, presented in Table 1. These will be used as a starting point for developing a specific set of evaluation questions during the inception phase. The indicative areas for investigation are intended to give a more precise form to the evaluation criteria and to articulate the key areas of interest that have emerged from consultation with stakeholders, thereby optimising utility of the evaluation.

**Table 1: Indicative areas of investigation for the End-Line Evaluation**

Indicative Areas of Investigation (DAC Criterion / Criteria covered)	Additional Information / Explanations
<p>1. The extent to which the <u>original design of the RAcE programme has responded to the needs and priorities of the main stakeholders</u> in national health systems and is in line with national health strategies. <i>(Relevance)</i></p>	<p>Under this issue, the evaluators should investigate to what extent the objectives of the RAcE programme have been in line with the priorities and needs regarding national health strategies in program countries, including relating to child and newborn mortality. Evaluators should compare and contrast programme priorities (as expressed in the original programme design) a) with the needs identified in relevant government policies and plans, and the corresponding governmental priorities in programme countries; b) with health-related needs identified in relevant third-party analyses of the health situation in programme countries.</p>
<p>2. The extent to which the RAcE programme, through country level activities in combination with implementation research activities, was able to <u>contribute to enhancing the utilisation of essential health commodities and supplies needed to diagnose and treat the main causes of death among children under 5</u> in programme countries. <i>(intermediate outcome - Effectiveness, Sustainability)</i></p>	<p>The approach of the RAcE programme assumed that the successful implementation of the programme in the 6 selected RAcE sites would contribute to catalysing the scale-up of iCCM as an integral part of government health services aimed at reducing child mortality.</p> <p>Assessment of this issue should therefore examine the linkages between RAcE-financed activities of WHO and implementing partners in selected districts or regions in programme countries and the possible resulting changes in national health systems, such as: i) increased capacity of governments and health institutions to diagnose and treat diseases affecting children under 5; ii) enhanced delivery by CHWs of adequate and quality health services in underserved areas; and iii) increased access to health commodities, supplies and services ( 3 <i>immediate outcomes</i>). Assessment of this issue should also examine the introduction of Community Based Maternal and Newborn Care in the iCCM package in Malawi.</p>



Indicative Areas of Investigation (DAC Criterion / Criteria covered)	Additional Information / Explanations
3. The extent to which the RAcE programme has contributed to a supportive policy and regulatory environment in support of iCCM as a key component of health care service delivery. (Sustainability, Value Added, Efficiency and Effectiveness)	<p>Without national buy-in and a national health policy which enables CHWs to provide medicines for malaria, pneumonia and diarrhea, programming will have limited impact and long-term sustainability. As a specialised UN agency for health, WHO's mandate is to provide leadership on global health matters, including setting norms and standards, articulating evidence-based policy options and providing technical support to countries. As such, they are ideally placed to oversee the roll-out of a large-scale health program.</p> <p>Under this issue, the evaluators should investigate:</p> <ul style="list-style-type: none"> <li>• The sub-grantee delivery model used by WHO and its contribution to building government capacity, by enabling greater ownership and implementing capacities of MoH.</li> <li>• How has the policy and regulatory environment specific to iCCM evolved over the course of the implementation of the RAcE programme.</li> <li>• If WHO successfully pursued its mandate by generating evidence to inform normative recommendations on policy and monitoring and evaluation requirements for iCCM.</li> <li>• To what extent WHO used the evidence generated to raise the profile of iCCM among the global community.</li> </ul>
4. The extent to which the assessed changes in iCCM treatment coverage and changes in child mortality in RAcE programme areas, as well as the plausible contributions of RAcE to any changes identified in the evaluation conducted by ICF, can be independently corroborated.	<p>WHO contracted ICF to conduct a final impact evaluation of the RAcE programme at each of the six implementation sites. ICF was also a stakeholder of the RAcE programme as indicated in section 2.4.2. As such, this constitutes a perceived conflict of interest and could undermine the credibility of ICF's evaluation outputs, especially if peer-reviewed guidance or contribution to the global evidence base for iCCM is to be published. Thus, to ensure that ICF's important body of evidence can be used with confidence, evaluators must peer-review and confirm the validity of ICF's evaluation.</p>
5. The extent to which the RAcE programme has contributed to the achievements of gender equality results.	<p>Under this issue, the evaluators should investigate to what extent the RAcE programme has led to the advancement of gender equality, in particular for 1) CHWs, by looking at employment and leadership opportunities for female CHWs; and 2) members of targeted communities, by looking at how RAcE has addressed the barriers impacting how health services are delivered and accessed by hard-to-reach populations, especially women and girls.</p>

#### 4. EVALUATION METHODOLOGY AND APPROACH

The RAcE programme was not designed to be an experimental programme and does not have a counterfactual. In consequence, this evaluation must use non-counterfactual approaches such as Contribution Analysis (CA) or Process Tracing (PT) or better, a combined approach to generative causal inference. The required methodological elements indicated below supports a CA. Evaluators are

encouraged to propose a methodological model that could combine PT to increase the confidence of contribution claims. Obviously, the evaluation will also utilise mixed methods and draw on quantitative and qualitative data.

These complementary methods and collection of different sources of data will be deployed to ensure that the evaluation:

- responds to the needs of users and their intended use of the evaluation results;
- integrates gender and human rights principles<sup>1</sup> throughout the evaluation process including participation and consultation of key stakeholders to the extent possible; and
- triangulates the data collected to provide reliable information on the extent of results and benefits for primary stakeholders.

Data will be disaggregated by relevant criteria (age, sex, etc.) wherever possible. The evaluation will also be sensitive to fair power relations amongst stakeholders.

The evaluation will follow United Nations Evaluation Group (UNEG) Norms and Standards for Evaluation and abide by UNEG Ethical Guidelines and Code of Conduct and any other relevant ethical codes.

#### **4.1 RACE PROGRAMME INTERVENTION LOGIC AND THEORY OF CHANGE**

The evaluation will utilise a theory-based approach, which means that the evaluation methodology will be based on the careful analysis of the intended outcomes, outputs, activities, and the contextual factors (that may have had an effect on implementation of the RAcE programme) and their potential to achieve the desired outcomes. The analysis of the programme's theory of change, and the validation/update of its intervention logic, as necessary, will therefore play a central role in the design of the evaluation (inception phase), in the analysis of the data collected throughout its course, in the reporting of findings, and in the development of conclusions and of relevant and practical recommendations.

Evaluators will base their assessment on the analysis and interpretation of the logical consistency of the chain of effects: linking programme activities and outputs with changes in higher level outcome areas, based on observations and data collected along the chain. This analysis should serve as the basis for a judgment by the evaluators on how well the programme under way is contributing to the achievement of the intended results foreseen in the RAcE programme programming documents.

The evaluation team will develop the evaluation methodology in line with the evaluation approach, and design corresponding tools to collect data and information as a foundation for valid, evidence-based answers to the evaluation questions and an overall assessment of the RAcE programme. The methodological design will include: an analytical framework; a strategy for collecting and analysing data; specifically designed tools; an evaluation matrix; and a detailed work plan.

#### **4.2 FINALISATION OF THE EVALUATION QUESTIONS AND ASSUMPTIONS**

The finalisation of the evaluation questions that will guide the evaluation should clearly reflect the evaluation criteria and indicative areas of the investigation listed in the present terms of reference (ToR). They should also draw on the findings from the validation/update of the intervention logic of the RAcE programme. The evaluation questions will be included in the inception report.

---

<sup>1</sup> UNEG Handbook on Integrating Human Rights and Gender Equality in Evaluation – Towards UNEG Guidance. See: <http://www.uneval.org/document/detail/980>

The evaluation questions must be complemented by sets of assumptions that capture key aspects of the intervention logic associated with the scope of the question; this will enable evaluators to gauge if the preconditions – that allow for increase coverage of diagnostic, treatment, and referral services for the major killers of children under 5 (diarrhoea, pneumonia and malaria), through iCCM scale up – are fulfilled. The data collection for each of the assumptions will be guided by clearly formulated quantitative and qualitative indicators.

#### **4.3 WELL-DESIGNED COUNTRY CASE STUDIES**

A well-designed case-study approach is expected to be at the centre of the evaluation methodology. Case studies will aim to maximise the breadth and depth of insights into the evaluation questions and provide a comprehensive and nuanced picture of the actions of the RAcE programme and their effects. They will, therefore, be illustrative (rather than statistically representative), exemplifying the range of contexts addressed and interventions undertaken by the RAcE programme. Case studies will investigate the design and implementation of the programme's interventions, and the results achieved within the specific context of programme countries, mostly at national level. Local contexts will be reflected to the extent possible. Attention will be given to issues of gender equality and equity. Each case study shall rely on multiple sources and types of evidence (both quantitative and qualitative), to increase the validity of their findings and the resulting conclusions of the final evaluation of the RAcE programme. Data collected from the field-based country case studies will be analysed and documented in a Country Case Study Brief.

Evaluators are expected to begin data collection for the field-based case studies as part of their desk study, but will, in addition, have the opportunity to collect more primary and secondary data and information during their visits to countries. It is expected that at least one member of the core evaluation team will spend about 10 working days in each of the field-based case study countries. This international team will be supported by a national evaluator from the visited country. The schedule for each country visit will be determined on the basis of the data requirements of the field-based case studies and on the basis of other data needs that have to be met to answer the overall evaluation questions.

#### **4.4 WIDE RANGE OF DATA COLLECTION TOOLS (QUANTITATIVE AND QUALITATIVE)**

Data collection for the evaluation will utilise a range of different data collection tools, including but not limited to:

- **Comprehensive document review and data analysis.** The evaluation team will collect secondary data related to the RAcE programme, including third party documents as well as socio-economic and health-related data (such as those from Demographic and Health Surveys) for programme countries. The evaluation team will also collect primary data by means of tools such as interviews, focus groups questionnaires/survey (see below), as well as through direct observations and field visits – e.g. logistics and supply systems, health facilities, training institutes, etc. The data collection work plan is to be finalised in the methodological design (inception report). NOTE: During the inception phase and data collection phases, the evaluation team will peer review and validate ICF's data sets. If validated, the data sets should be used to inform the current evaluation. The evaluation team will not be in a position to duplicate the work done by ICF.
- **Group interviews and focus groups** will be conducted by the evaluation team with members of the RAcE programme country's implementing organisation teams, programme participants/beneficiaries, national and local government officials, service providers, and decision/policy makers as well as other actors, such as participating NGOs and Civil Society

Organisations. The initial protocols for focus group discussions will be developed during the inception phase, and will be finalised when preparing the field visits. When organising focus group discussions and interviews, attention will be given to ensure: gender balance, geographic distribution, and cultural sensitivity, representation of population groups and representation of the stakeholders/duty bearers at all levels (policy/service providers/target groups/communities). In particular, the evaluation team will reflect on the categories of stakeholders targeted by the evaluation as an important component while choosing the type of focus groups (e.g., socially homogeneous groups vs. groups of diverging point of views). Where applicable the evaluation team must detail the characteristics of each sample: the selection method, the rationale for the selection, and the limitations of the sample for interpreting evaluation results.

- **Interviews with key informants** will be conducted by the evaluation team. Key staff from relevant country offices and headquarters/regional advisors/experts will be interviewed during the inception phase. During the field phase, interviews will be conducted with experts and staff involved in managing RAcE programme interventions. Additional interviews will be conducted with policy makers and actors in relevant countries as well as with beneficiaries. Where appropriate, the evaluation team must detail the characteristics of each sample: the selection method, the rationale for the selection, and the limitations of the sample for interpreting evaluation results.

#### 4.5 A WELL-STRUCTURED EVALUATION MATRIX TO ENSURE THE VALIDITY OF EVALUATION FINDINGS

To ensure that the collection and recording of data and information is done systematically, evaluators are required to develop an evaluation matrix<sup>1</sup> during the inception phase, to be annexed to the draft inception report. This matrix will help evaluators to consolidate in a structured manner all collected information corresponding to each evaluation question and to identify data gaps and collect outstanding information before the end of the field phase.

The evaluation matrix will be used through all stages of the evaluation process and therefore will require particular attention from the evaluators (see Annex 2). It will be annexed to the final evaluation report.

## 5. EVALUATION PROCESS

**Table 2: Overview of evaluation phases, methodological stages and associated deliverables**

Evaluation Phase	Methodological Stages	Deliverables
<b>1. Preparatory</b>	<ul style="list-style-type: none"> <li>• Drafting of ToR</li> <li>• Setting up of evaluation management group (EMG) and evaluation reference group (ERG)</li> </ul>	Final ToR
<b>2. Inception</b>	<ul style="list-style-type: none"> <li>• Structuring of the evaluation (evaluation questions, evaluation matrix and methodology)</li> <li>• <u>Initial peer-review</u> of ICF's evaluation's methodology and data sets.</li> <li>• <u>Exploratory mission to one of the countries</u></li> </ul>	<b>Inception report</b> (Draft, Final)

<sup>1</sup> Annex 2: Evaluation Matrix Template

Evaluation Phase	Methodological Stages	Deliverables
<b>3. Data collection</b>	<u>Desk study</u> <ul style="list-style-type: none"> <li>Document analysis; Analysis of other secondary data, formulation of hypotheses (preliminary answers to evaluation questions)</li> </ul>	<b>No official deliverable</b>
	<u>Field study</u> <ul style="list-style-type: none"> <li>Collection of secondary and primary data and information in-country; Collection of other data (surveys, etc.); verification of hypotheses / preliminary answer to evaluation questions</li> </ul>	<b>Field country case study notes (published) (Documentation of other collected data (e.g., survey))</b>
	<ul style="list-style-type: none"> <li>Further review of ICF's evaluation datasets.</li> </ul>	
<b>4. Reporting</b>	<ul style="list-style-type: none"> <li>Data analysis</li> <li>Formulation of evaluation findings (answers to evaluation questions, cross-cutting conclusions)</li> <li>Development of recommendations</li> </ul>	<b>Final Report</b> (Draft, Final)
<b>5. Management response</b>	<ul style="list-style-type: none"> <li>Response to recommendations</li> </ul>	Management response (WHO, GAC)
<b>6. Dissemination</b>	<ul style="list-style-type: none"> <li>Dissemination seminar(s)</li> </ul>	<b>Executive Summary</b> (French, and English versions) <b>Evaluation briefs</b> (English, and French) <b>PowerPoint presentation</b> of the evaluation results

Note: Composition, roles and responsibilities of the EMG are indicated in section 6.3 and of the ERG in section 6.4 below.

## 5.1 PREPARATORY PHASE

The evaluation manager at WHO Evaluation Office leads the preparatory work. This phase includes:

- The constitution of an EMG<sup>1</sup> and the appointment of a chair of the EMG;<sup>2</sup>
- The compilation and initial review of the available documentation on the RAcE programme, and its implementation in programme countries and at regional and global levels;
- The drafting, review and approval of the ToR by the EMG;
- The constitution of an ERG. The ERG will consist of representatives of each of the five implementing organisations that are participating in the RAcE programme, as well as other members of the

<sup>1</sup> The EMG will include a representative of the Evaluation Office of WHO (Chair), a representative of GAC's International Assistance Evaluation Division and a representative of the UNEG.

<sup>2</sup> See section 6 for more information on the role of the EMG and the evaluation manager.

International Steering Group and the global coordinator of RAcE at WHO. GAC will be represented as the donor to the RAcE programme.

- The selection and recruitment of the external evaluation team.

## 5.2 INCEPTION PHASE

---

The evaluation team will conduct the design of the evaluation in consultation with the EMG. This phase includes:

- Inception mission to Geneva to engage with EMG members including a representative from GAC Evaluation Division as well as the ERG (telecon) and key members of the GMP programme in WHO Headquarters.
- The compilation and review of all relevant documents available at WHO headquarters, regional offices and country offices and at each of the five implementing organisations.
- A stakeholder mapping, prepared by the evaluation team (complementing a preliminary mapping prepared by WHO Evaluation Office in collaboration with WHO RAcE/GMP team). The stakeholder mapping will be used to facilitate and illustrate the different (sets of) stakeholders relevant to the evaluation, and their relationships to each other.
- The review and update as necessary of the intervention logic of the RAcE programme, i.e. the theory of change meant to lead from planned activities to the intended results of the programme.
- The development of a list of evaluation questions addressing the main topics/issues identified in Section 3 above), and the identification of the assumptions to be assessed and the respective indicators, sources of information and methods and tools for data collection.
- Development of the evaluation matrix
- The development of a data collection and analysis strategy as well as a concrete work plan for the field and reporting phases.
- Preliminary peer review of ICF's data sets.
- Preliminary interviews of key ERG members to develop the field case studies approach
- The design of the field-based case studies, including case-study questions, theoretical propositions to be tested, and units of analysis and data / data collection strategies.
- An exploratory mission (5 working days) by the evaluation team leader with 2 members of the EMG (including representative from GAC Evaluation Division) to one of the countries. The main purpose of this pilot mission will be to test core features of the evaluation methodology, such as the evaluation questions and assumptions to be assessed, to assess the availability of data and project documentation, as well as the testing and refinement of data collection tools.
- Following the exploratory mission, the evaluation team will produce a draft inception report, displaying the results of the above-listed steps and tasks. On the basis of the comments received, the evaluation team should make appropriate amendments and submit a revised inception report to the EMG. For all comments, the evaluation team will indicate in writing how they have responded ("trail of comments"). The evaluation team will then present it to the EMG and ERG through a telecon. The inception report will be considered final upon approval by the EMG.

### 5.3 DATA COLLECTION PHASE

---

The data collection phase involves three distinct methodological components: (a) a desk study that evaluators will use to examine the secondary data and information available at headquarters, as well as the regional and country levels for each of the RAcE implementing organisations; (b) a field study that will allow evaluators to collect additional data in-country; (c) a peer review and validation of IFC International's evaluation of the RAcE programme's contribution to estimated impact.

#### 5.3.1 DESK STUDY

The desk study will be used to analyse all existing and available documentation, data and information on RAcE that have been compiled during the inception phase of the evaluation. Evaluators will work with the members of the ERG to solicit information, documentation and data from RAcE country teams and the WHO Secretariat.

To the extent possible, the desk study should produce information on all evaluation questions and associated indicators identified during the inception phase. Based on the available information, evaluators should form preliminary assessments of the assumptions they set out to test for each of the evaluation questions; the assessments should become the basis for the preliminary answers of the evaluation questions.

Evaluators are also expected to use the desk study as a preliminary, preparatory portion of the data collection and analysis for the in-depth, field-based country case studies, in accordance with the case study design developed during the inception phase of the evaluation. This is meant to ensure that the time the evaluators spend in-country can be used as effectively and efficiently as possible to deepen the inquiry for the case studies. For this purpose, evaluators should also use the end of the desk study as an opportunity to refine the scope of the subsequent field-based inquiry in the field-studies.

Findings of the desk study will be compiled and documented in the evaluation matrix (to be used as an internal working tool for the evaluation team). For each evaluation question, and the associated "assumptions for verification" and the respective indicators, the evaluators are expected to present the evidence they have analysed during the desk study. Where possible, evaluators are expected to formulate preliminary findings at the level of the "assumptions for verification." Findings are anticipated at each level: global, national and subnational.

#### 5.3.2 Field Study

---

The field study will serve as the opportunity to carry out the in-depth country case studies and to collect other information in the five countries.

Each country visit will last about two weeks. At the end of each mission, the evaluation team will provide the evaluation stakeholders in country with a debriefing presentation on the preliminary data of the field-based case study.

For each field-based country case study, the evaluation team will proceed to prepare a case study note presenting findings per evaluation questions as per the evaluation matrix. The country case study notes will follow the structure as set out in Annex A1.2 of the TOR and will be annexed to the evaluation report.

EMG members would accompany selected field missions as observers.



## 5.4 REPORTING PHASE

---

The reporting phase will open with an internal analysis by the evaluation team of the results of the data collection phase including the case study findings. The purpose of this analysis is to generate a substantive and meaningful comparison between the different case studies. The objective is to help the various team members to deepen their analysis with a strategy for identifying the evaluation's findings, main conclusions and related recommendations. This preliminary analysis will be followed by a telecon with the EMG and the ERG to present and discuss the preliminary findings of the evaluation. The evaluation team then proceeds with the drafting of the report.

This first draft final report will be submitted to the EMG for comments. Prior to submission, the Consultant must ensure that it was internally quality controlled. The EMG will control the quality of the submitted draft report. If the quality of the draft report is satisfactory (form and substance), the report will be circulated to the members of the ERG for comments. In the event that the quality is unsatisfactory, the evaluators will be required to produce a new version of the draft report.

Approximately two weeks after the draft of the final report has been circulated and once comments have been shared with the evaluation team, the findings, conclusions and draft recommendations will be presented by the evaluation team during a workshop with the EMG and the ERG to discuss the main evaluation recommendations

On the basis of the comments expressed, the evaluation team should make appropriate amendments and submit the final report. For all comments, the evaluation team will indicate in writing how they have responded ("trail of comments"). The final report should clearly account for the strength of the evidence on which findings are made so as to support the reliability and validity of the evaluation. The report should reflect a rigorous, methodical and thoughtful approach. Conclusions and recommendations need to be built upon the findings of the evaluation. Conclusions need to clearly reference the specific evaluation questions they have been derived from; recommendations need to reference the conclusions they are responding to.

The report is considered final once it is formally approved by the EMG. The final report will follow the structure as set out in Annex A1.3.

## 5.5 MANAGEMENT RESPONSE

---

The GMP will coordinate and oversee the preparation of the management response to the evaluation report. The members of the ERG in turn will be responsible for presenting the findings of the evaluation to the appropriate stakeholders in their respective agencies. The GMP will compile the management responses from the different agencies into one single management response to the evaluation.

The EMG will determine the modalities for the presentation of the evaluation results to the governance bodies of the WHO as well as to GAC, the GMP will do the same for the management response.

## 5.6 DISSEMINATION

---

The evaluation report (English) and the evaluation brief (in English and French) will be published on the WHO evaluation webpage.

The evaluation team is required to draft the "Evaluation Brief" which consists in a short paper documenting the process of the evaluation and presenting the main results. It is based upon the Final Report and is different and separate from the briefs produced for the case-studies. The Evaluation Brief must be provided in two languages: English and French. The professional translation in French as well as copy-editing of the French version of the brief is the responsibility of the evaluation team.



The evaluation team will be required to assist the WHO Evaluation Office evaluation manager during the dissemination phase. The results, conclusions and recommendations of the evaluation will be shared extensively with internal and external stakeholders. The report and its management response will be available on the WHO evaluation internet site immediately after their finalisation. Among others, the evaluation team leader will present the evaluation results during:

- An information session for the WHO Member State missions in Geneva during which the team leader is expected to present the evaluation results.
- An informal briefing (video conference) for WHO internal stakeholders, the international Steering Committee of the RACE Programme and the EMG and ERG members.

Among others, the WHO Evaluation Office will present a summary of the evaluation results in its annual report to the Executive Board and share them with all WHO stakeholders through its newsletter “Evaluation Matters”. It will also organise a webinar with the global network on evaluation<sup>1</sup> to discuss the evaluation results.

## 6. ROLES AND RESPONSIBILITIES

---

The evaluation is managed jointly by an interagency EMG comprised of representatives from the Evaluation Office/Division of WHO, a member of the UNEG (from the UNICEF evaluation office) and GAC. The roles and responsibilities of the EMG are outlined in section 6.3.

WHO Evaluation Office will act as the main interlocutor between the Consultant, represented by the team leader, and, with the support of the EMG, will facilitate interactions with other counterparts to ensure a smooth implementation process.

### 6.1 THE CONSULTANT

The Consultant must

- Carry out the evaluation in conformity with the UNEG Norms and Standards for Evaluation in the UN system, evaluation quality assessment criteria as spelt out in the Annex 3, and best practices in evaluation;
- Abide by UNEG Ethical Guidelines and Code of Conduct and any other relevant ethical codes;
- Follow the guidance on the integration of gender equality and human rights principles in the evaluation focus and process as established in the UNEG Handbook, Integrating Human Rights and Gender Equality in Evaluation - Towards UNEG Guidance.

Note: please refer to section 8 on Quality Assurance.

**The Consultant will have the overall responsibility for:**

- Dedicating specific resources to quality assurance efforts;
- Ensuring that all products adhere to the UNEG Norms and Standards for Evaluation in the UN system;
- Conducting quality control of all deliverables/outputs prior to submission to WHO (reference Annex 3);
- Reporting regularly on progress to WHO;

---

<sup>1</sup> This network includes WHO colleagues from HQ divisions, regional and country offices involved in evaluation related issues.

- Preparing ToR for the hiring of local consultant(s);
- Assembling a team with the requisite skills, subject to WHO approval;
- Fulfilling the responsibilities including but not limited to section 6.1 of this ToR in order to insure full compliance with the ToR and Deliverables of RFP 2017/DG0/EVL/01.

Stakeholder consultation is fundamental to WHO evaluations of development interventions, thus the Consultant must ensure that stakeholders are consulted throughout the evaluation process. Note: The Consultant shall not however, share draft deliverables with stakeholders without WHO approval. This is required to ensure a robust quality assurance throughout the evaluation process.

## **6.2 WHO**

The WHO Evaluation Office will chair and provide the secretariat function for the EMG and will thus lead the management of the process. The WHO Evaluation Office will be supported in the management of the evaluation by the members of EMG. The WHO evaluation office will assign an evaluation manager for the day to day management of the evaluation process.

The WHO Evaluation Office will be responsible for the following:

- Leading the recruitment of a Consultant (Company) using its established procedures;
- Review of consultant's proposals, made jointly with the other EMG members;
- Managing the Consultant's contract;
- Acting as the main contact person for the Consultant;
- Providing guidance to the Consultant throughout all phases of execution and formally approving all deliverables;
- Ensuring the quality control of all deliverables with the members of EMG and in consultation with the ERG;
- Sharing approved deliverables with EMG and ERG, key stakeholders and those who may benefit from the evaluation;
- Collecting EMG and ERG members' comments on the deliverables;
- Assessing the overall performance of the Consultant for the present mandate, in consultation with the members of the EMG;
- Fulfilling the responsibilities including but not limited to section 6.2 of this ToR in order to insure full compliance with the ToR and Deliverables of RFP 2017/DG0/EVL/01.

## **6.3 EVALUATION MANAGEMENT GROUP**

As the evaluation will be managed jointly by the WHO Evaluation Office and GAC's International Assistance Evaluation Division, a joint EMG has been established as the main decision-making body for the evaluation. It will also include a senior evaluation expert member of the UNEG (from the UNICEF evaluation office). The main responsibilities are to support and oversee the evaluation management and act as a liaison for the evaluation with the appropriate technical units within their own organisations. Using a pragmatic approach that works within the given budget and time, the EMG will manage the entire evaluation process, from the selection of the Consultant (Company) for the evaluation, through to the dissemination and follow-up of the final evaluation report. WHO will lead the management of the process, but all milestone decisions will be made jointly by the EMG on the basis of inputs from

implementing organisations. The EMG is responsible for ensuring the quality and independence of the evaluation and to guarantee its alignment with UNEG Norms and Standards and Ethical Guidelines.

Key roles and responsibilities of the EMG include:

- To lead the hiring of the team of external consultants with inputs from the ERG, reviewing proposals and approving the selection of the evaluation team;
- To supervise and guide the evaluation team at each step of the evaluation process and facilitate access to the documentation and people deemed of importance to the evaluation process;
- To review, provide substantive comments and approve the inception report, including the work plan, analytical framework, methodology, the design and dissemination of the survey;
- To act as a source of knowledge for the evaluation and coordinate feedback from the five participating implementing organisations as well as Canada from headquarters, the regions and from the field, in particular to facilitate access to information and documentation;
- To review and provide substantive feedback on the country notes (annexed to the report) and the draft and final evaluation reports, for quality assurance purposes;
- To approve the final evaluation report after having received comments (factual checks) from the ERG;
- To contribute to learning, knowledge sharing, the dissemination of the evaluation findings and follow-up on the management response;
- To liaise with the ERG and convene review meetings with the evaluation team;
- To identify and ensure the participation of relevant stakeholders in coordination with the ERG throughout the evaluation process;
- To design a dissemination plan for the evaluation results in consultation with the ERG;
- To fulfil the responsibilities including but not limited to section 6.3 of this ToR in order to insure full compliance with the ToR and Deliverables of RFP 2017/DG0/EVL/01.

#### **6.4 EVALUATION REFERENCE GROUP**

An ERG has been established to support the evaluation at key moments and to ensure broad participation in the conceptualisation of the exercise, access to information, high technical quality of the evaluation products as well as learning and knowledge generation. The ERG will be consulted by the EMG on key aspects of the evaluation process. One senior staff from each of the five implementing organizations is represented in the ERG and will provide substantive technical inputs during the evaluation process as well as feedback on the evaluation draft report.

Key roles and responsibilities of ERG members include:

- To contribute to the conceptualisation, preparation, and design of the evaluation, and provide feedback and comments on the inception report;
- To provide comments and fact-checking and feedback to ensure the quality – from a technical point of view - of the country notes as well as of the draft and final evaluation reports;
- To act as a source of knowledge for the evaluation and in particular to facilitate access to information and documentation;
- To assist in identifying external stakeholders to be consulted during the evaluation process;

- To participate in review meetings of the EMG and with the evaluation team as required;
- To fulfil the responsibilities under section 6.4 of this ToR including but not limiting it to insuring full compliance with the ToR and Deliverables of RFP 2017/DG0/EVL/01.

One last important role of the members of the ERG will also be to facilitate learning and knowledge sharing on the basis of the evaluation results. Each member of the ERG will be responsible for contributing to disseminating the findings of the evaluation, and for follow-up on the implementation of the management response.

With the support and guidance from WHO, the implementing organisations in each respective country will serve as focal points to the evaluation and will be responsible to identify relevant stakeholders from the Government at national and sub-national levels and the partners' donors. Broad representation of the relevant parties shall be sought. They will participate to the briefing and debriefing to be organised at the start of each mission.

## ANNEX 2: METHODOLOGY

---

The methodological approach of the evaluation consisted of a combination of Contribution Analysis (CA) and Process Tracing (PT) to respond the investigation areas outlined in the terms of reference (Annex 1) including the validation of the findings reported by ICF. To ensure consistency and quality, it incorporated the following strategies:

- It was participatory, cooperative and combined the local expertise and extensive experience of national and international consultants.
- It used a triangulated evaluation design by working with a variation of tools to collect qualitative and mixed data from different target groups and by exploring a large range of secondary data.
- It included gender and other axes of social differences in the evaluation design, data collection and analysis.
- It was innovative and committed to co-learning.
- It was culture-fair and trans-disciplinary by drawing on ethnic, developmental, sociological, medical and women's studies.

The approach of combining CA and PT was developed by Befani and Mayne.<sup>1</sup> It does not aim at measuring impact, but rather at increasing the confidence that the evaluated intervention had the intended impact. It is grounded in Bayesian probabilistic theory by assigning a prior probability that an impact has occurred and testing it to determine a posterior probability in the light of new evidence. The approach is particularly useful for evaluating impacts that are generated by a complex combination of causes. It unpacks them in order to develop an understanding on how different factors form causal chains that produce results at impact level. The inputs and activities of the RAcE programme were analysed as factors in this causal chain, and evidence was generated to firm up the probability that they contributed to the observed outcomes and impact.

The approach of combining PT and CA has been further refined in recent publications by including Bayesian Updating.<sup>2,3</sup> For the current evaluation, PT was applied without Bayesian Updating as this would have added another layer of complexity to the evaluation design which could not be accommodated within the available resources and the given timeframe.

The following sections provide background information on CA and PT.

### CONTRIBUTION ANALYSIS

The basis of CA is a detailed and highly specific Theory of Change (TOC). It is typically implemented in six steps:<sup>1</sup>

- Identification of the cause-effect issue to be addressed. This step includes the scoping of the problem as well as the nature and extent of the contribution expected from an intervention.
- Development of a postulated TOC including assumptions and other influencing factors.

---

<sup>1</sup> Befani B, Mayne J (2014). Process tracing and contribution analysis: A combined approach to generative causal inference for impact evaluation. IDS Bulletin Volume 45 Number 6

<sup>2</sup> Befani B, D'Errico S, Booker F and Giuliani A (2016) Clearing the Fog: New Tools for Improving the Credibility of Impact Claims. London: International Institute for Environment and Development.

<sup>3</sup> Befani, B, Stedman-Bryce, G (2017). Process Tracing and Bayesian Updating for impact evaluation. Volume 23 Number 6 page 42 - 60

- Gathering of existing evidence to test the causal mechanisms of the TOC to assess the likelihood of the expected results and assumptions being realised.
- Assessment of the contribution claims and challenges based on the available evidence. During this stage, the strengths and weaknesses of the TOC are identified, and the relevance of other influencing factors analysed.
- Gathering of new evidence with focus on the identified evidence gaps.
- Revision and strengthening of the contribution story based on the new data gathered. At the end of this step, a conclusion on the strength of the TOC and the weight of other influencing factors is developed. If the data collected do not yet provide sufficient evidence, additional data have to be collected before finalising the last step.

As part of the contribution analysis, each step in the causal chain of the TOC is tested and the four criteria for causal inference are applied:

- **Plausibility:** The intervention is based on a reasoned TOC: the chain of results and the assumptions why the intervention is expected to work are plausible, sound, informed by existing research and literature, and supported by key stakeholders.
- **Fidelity:** The activities of the intervention were implemented as outlined in the TOC.
- **A verified TOC:** The TOC is verified by evidence: the chain of expected results occurred, and the causal assumptions held.
- **Accounting for other influencing factors:** Context and other factors influencing the intervention are assessed and are either shown not to have made a significant contribution or, if they did, their relative contribution is recognised and included in the TOC, as part of a larger causal package that the TOC captures as faithfully as possible.

The limitations of CA are the strong level of subjectivity and the lack of methodological guidance on how to assess the strengths of the contribution claim. To bridge this methodological gap, a combination of CA and PT was used.

## PROCESS TRACING

PT is an empirical method that builds evidence from single pieces of observation based on the strength of probabilities rather than on quantitative data. Unlike during conventional counterfactual assessments, the inference of the effect of iCCM is not made by comparing outcome data among communities with CHWs and communities without CHWs. PT instead uses a number of tests in the causal chain of the TOC to confirm or to fail to confirm the contribution of outputs and outcomes on the basis of Bayesian probability:

- The **hoop test**: Ideally, all causal mechanisms have to pass the ‘hoop test’ which maximises their certainty of contribution to the expected impact. For instance, if antibiotics to treat pneumonia were not issued to CHWs, then the iCCM programme does not ‘pass the hoop’ of having contributed to reduced mortality for pneumonia. Passing the hoop test is a necessary, but insufficient condition for confirming a causal relationship in the TOC.
- The **smoking gun test** aims at finding unique evidence that greatly increases the confidence in the contribution of the factor to the result. A causal mechanism that passes the smoking gun test is sufficient, but not necessary for confirming a causal relationship. It requires a detailed and in-depth examination of hypothetical causal links of the TOC during field interviews and observations. If

services provided by CHWs, for instance, are highlighted among the factors that parents and community leaders point to when explaining the improved health outcomes among children, particularly when prompted in a way that reduces the probability of them mentioning iCCM, this information can be interpreted as smoking gun evidence for the causal mechanism between iCCM and improved health outcomes.

- The doubly decisive test is a final test applied to the TOC as a whole after it had been reviewed in a validation workshop with programme stakeholders and revised with evidence from interviews, focus groups and field observations. In this test, the following question was analysed: ‘Is this TOC the only (most) plausible explanation for the final outcome?’ It assesses the likelihood that the causal mechanisms displayed in the TOC are both necessary and sufficient to explain the impact. Confirming a TOC through a doubly decisive test invalidates potential other causal mechanisms.

## METHODS AND TOOLS USED IN THE EVALUATION

---

The CA provided the framework for both the design and the implementation of the evaluation. PT was overlaid to all steps of the CA. The evaluation design was phased in three stages. The associated methods and tools are highlighted below.

### STAGE I: DEVELOPMENT OF A GENERIC TOC

Available programme documents were analysed (proposals, PMF, the overall and country specific results frameworks, reports) to construct a generic TOC for the RAcE initiative outlining prior causal probabilities for achieving improvements in the well-being and survival of children under five years of age. This included the definition of general assumptions as well as specific ones for the PT process. In line with the PT methodology, the assumptions were categorised as

- hoop assumptions that have to be confirmed as evidence of a contribution of the programme to the achievement of change at the next higher level;
- smoking gun assumptions that strengthen the evidence for a contribution of the programme to changes at the next higher level; and
- contextual assumptions about the environment and documented external factors that had an effect (positive or negative) on the programme’s contribution to changes at the next higher level.

During the evaluation, these assumptions were verified by analysing evidence from different data sources.

The TOC of the RAcE initiative (Annex 4) was used as a skeleton and departure point for conceptualising the TOCs of the six programmes funded under the initiative. These are presented in the country briefs in Volume 3.

### STAGE II: DESIGN OF THE EVALUATION MATRIX

To start, specific evaluation questions and indicators were formulated for each of the investigation areas in alignment with the causal relationships of the generic TOC. A total of 15 questions with varying sets of sub-questions were identified. In a next step appropriate data sources were identified for providing evidence for each evaluations question. They included published and unpublished documents as well as interviews with different groups of programme stakeholders. A **stakeholder map** was prepared and is presented in Annex 6. It includes:

- at national and global level: the MOH, the implementing partner(s), the WHO Country Office, other international financial and technical partners

- at subnational level: the MOH, the implementing partner(s), the supervisors of the CHWs
- at community level: men and women from 15 – 49 years and the CHWs

The evaluation questions, assumptions and data sources were then inserted into a more detailed evaluation matrix. The matrix provides a rationale for each of the investigation areas as well as the indicators, data sources and data collection methods. In addition, a chain of reasoning that links the evaluation question to the theory of change was provided for each evaluation question.

### STAGE III: DEVELOPMENT OF DATA COLLECTION TOOLS

The next step consisted of identifying the most appropriate data collection tools for the different data sources. The main criteria for selecting the tools were the time available for the evaluation, the availability and preferences of individuals and groups to be interviewed, the desire to work as much as possible with participatory approaches and to triangulate data collected through different methods. For community level stakeholders, focus group discussions (FGD) were chosen combined with participatory learning and action (PLA) tools. For the stakeholders at the two other levels, key informant interviews (KII) were selected. The questions relevant for each identified stakeholder were extracted from the evaluation matrix and simplified and contextualised where needed.

The questionnaires and FGD guides were pre-tested in Niger State (Nigeria) from the 30th – 31st October 2017 by a national and an international consultant. The pre-test included KIIs with implementers at state level, and FGDs at LGA level. The findings of the pre-test were used to further fine-tune the tools, and KII questions and FGD guides were adapted to each programme context on the basis of the programme-specific TOCs.

## DATA SOURCES AND TOOLS

---

### DATA SOURCES

The sources of data for the evaluation can be summarised in four groups, each requiring a specific methodological approach:

- 1) **Document reviews:** To gather evidence that support (or not) the expected results, causal links and assumptions of the TOCs, an extensive document review was performed including sources internal and external to the RAcE initiative. In addition to programme and policy documents relevant to the RAcE Initiative and to each of the six RAcE programmes including the reports prepared by ICF, a literature review of recent studies and reports about iCCM in the five programme countries was conducted. The lists of documents reviewed for each programme are annexed to the country briefs in Volume 3. The list of documents reviewed in the literature review is provided in Annex 3.
- 2) **Peer review of the findings reported by ICF:** To assess the strength of the causal link between the intermediate outcome (increased use of quality iCCM services) and the ultimate outcome (improved child health and reduced mortality), the evaluation findings reported by ICF were re-analysed in a two-fold approach:
  - The reports of the baseline and end-line surveys conducted by the implementing partners with ICF support, including the sampling methodology, data collection tools and analysis of results. For specific questions clarification was sought from ICF in an interview and in email exchanges. The survey results together with data of recent population surveys were used by ICF to model the impact of the RAcE programmes using the Lives Saved Tool (LiST). The evaluation team reviewed the data inputs into the LiST tool to assess the extent to which the modelled outputs were likely to reflect the real impact of the six RAcE programmes.



- To validate the modelled impact reported in the final programme evaluations prepared by ICF alternate data sources from population-based surveys and routine health management information (HMIS) reports were sought. This was not very successful because very few alternate sources of data were found.
- 3) **Country case studies** were conducted for the six RAcE programmes in the five programme countries (Nigeria, Niger, Mozambique, Malawi and DRC). Data were collected by teams comprising one international and one national consultant over a period of two weeks. In Nigeria, where two programmes were implemented, the mission was extended to three weeks. The time of the data collections was about equally split between national level interviews and district and community level work. Detailed data collection plans were developed, shared and discussed with the implementing partners prior to the country missions. The purpose of the country case studies was to collect new primary and secondary data for evidence-based testing of the causal links and assumptions of the TOCs. This included the collection of data on external factors that influenced programme outcomes. Preliminary findings of the country missions were discussed with country stakeholders at the end of each mission. They were summarised in the country briefs presented in Volume 3.
  - 4) **Interviews with iCCM stakeholders and experts:** The interviews were conducted by telephone and aimed at gaining insight in the influence of the RAcE initiative in the global dialogue on iCCM. Participants for global interviews were recommended by the EMG. Interviews were completed for 10 of 15 persons contacted. Four contacts did not respond to requests and one interview was cancelled because saturation had been reached. A list of interviewees is presented in Annex 7.

#### DATA COLLECTION TOOLS

Four methods or tools for data collection were used: (a) a key word guided online document search, (b) key informant interviews (KIIs), (c) participatory working sessions to validate the post hoc TOCs, and (d) focus group discussions (FGDs) including PLA tools. A plan to collect data through direct observations was cancelled because it was not feasible in the allocated time. Nevertheless, in KIIs with CHWs, their equipment, commodities and registers were viewed. The objectives and application of each tool are briefly outlined below.

- 1) **Key word guided online document search:** Documentation about the RAcE initiative and the six RAcE programmes was obtained from WHO, implementing partners and ministries of health. To analyse relevant external documents, a key word guided document search was conducted in the databases of PubMed, Scopus, MEDLINE and Global Health for publications between 2012 and 2017 applying the filters 'DRC', 'Niger', 'Nigeria', 'Malawi', and 'Mozambique' and using the search terms 'integrated community case management', 'iCCM', 'community health workers', 'CHW', 'community treatment/ oral antibiotics', 'community treatment/ pneumonia', 'community treatment/ diarrhoea', and 'community treatment/ malaria'. The methodology and results of the search are presented in Annex 3.
- 2) **Key informant interviews:** The KIIs were loosely structured on the basis of evaluation questions that were relevant for each type of respondent. Six generic guides were developed in English (and translated into French and Portuguese) and further adapted to each programme context for the following stakeholders: (1) implementing agencies at national level (implementing partners, WHO at country level and the MOH), (2) financial and technical development partners at national level, (3) WHO and other key informants at regional and global level, (4) implementing agencies at subnational level, (5) supervisors of CHWs and (6) CHWs. The guides are presented in Annex 8. The

KIIs were recorded, and comments and responses were transcribed into matrices prepared on the basis of the evaluation questions.

- 3) **Participatory working sessions to validate the post hoc TOC:** Short (2 to 4 hour) participatory workshops were organised at national level to review and revise the draft TOCs and its assumptions and causal mechanisms with key stakeholders (WHO and MOH iCCM focal points and implementing partner staff). Workshop attendance varied between four and more than ten. In Niger, the organisation of a workshop was not possible and was replaced by working sessions with individuals and small groups of stakeholders.
- 4) **Focus group discussions using participatory learning and action tools:** FGDs were organised with groups of up to ten CHWs, with groups of caregivers of children and with members of village health committees, in almost all cases separated by gender (in one community in the DRC and in Mozambique women and men insisted on participating together). As much as possible, participants of similar ages were assembled into groups to create a conducive environment. To obtain in-depth information on certain topics, FGDs were combined with participatory learning and action exercises: the Venn diagram and the Participatory Ranking Methodology (PRM). Because of time constraints only the PRM was used in the DRC and in Nigeria. Guides for FGDs are presented in Annex 9.
  - The **Venn Diagram** is a participatory tool to examine and compare the role of individuals, groups and institutions in assuring the health of children at community level. It served to elicit perceptions about the role and position of CHWs in this dynamic. During the process, a variety of circles are outlined, each representing an individual, group or institutions relevant to child health. The group is instructed to arrange the circles according to centrality and overlap.
  - The **PRM** combines key elements of FGD and ranking exercises. Key responses to specific questions were elicited in a structured participatory discussion. The group is then asked to arrange the responses by consensus according to priorities. By repeating the procedure with several groups, trends and determining factors of programmes can be explored.<sup>1</sup> PRMs were used in FGDs with CHWs to assess motivating factors, challenges and difficulties they face, and with caregivers of children to explore what CHW are consulted for, perceptions about CHWs and the impact of their work.

## SAMPLING

---

Key informants at global and national level were purposively selected based on the stakeholder mapping (Annex 5) and after consultations with the EMG and implementing partners at country level to ensure that a group of knowledgeable informants with diverse affiliations were included.

To select the regions, districts and communities for data collection at programme level, **purposeful staged sampling strategies** were applied in Mozambique, Nigeria, Malawi and Niger. They included critical case sampling (regional level) and random and criterion sampling (at the level of districts, health zones and communities) to make sure that relevant criteria such as the sex of the CHW or different geographic factors were taken into consideration. Remote or insecure locations were excluded at all sampling stages.

The participants in community FGDs were mobilised with support of village chiefs and CHWs. Due to time constraints, random sampling of men and women at the household level could not be organised.

---

<sup>1</sup> Ager A, Stark L, Potts A. (2010). Participative Ranking Methodology: A Brief Guide. Mailman School of Public Health, Columbia University, New York

In the DRC, the sampling frame was restricted by the volatile security situation and the availability of in-country flights to health zones. The applied strategy was, thus, purely opportunistic and based on the feasibility of access and return within daylight hours.

The specific country sampling strategies were established during the field visit preparations and finalised after on-site consultations with the implementing partners to make sure that all relevant parameters had been taken into account. They are described in detail in the country briefs (Volume 3).

## METHODS AND TOOLS FOR DATA ANALYSIS

---

The principal method of data analysis was **qualitative content analysis**. To organise and explore the large amount of qualitative data from the six RAcE programmes the Computer Assisted Qualitative Data Analysis Software MAXQDA was used. It is designed to analyse qualitative and mixed data and allows to import, organise and visualise data in various file formats.<sup>1</sup> Once data were imported to MAXQDA a system of codes and sub-codes was developed for data analysis using both deductive and inductive coding styles.<sup>2</sup> Main codes were established based on the causal mechanisms and the evaluation questions (deductive coding). Additional sub-codes were developed while data were being read (inductive coding). After the development of the coding matrix, the response elements of the collected data were attributed to suitable codes. During the coding process, the coding matrix was regularly updated to improve its relevance. Once all data were coded, the coding patterns, coding frequencies and established mappings and relationships were explored. This approach allowed quantification of the frequency and similarity of responses, experiences and reactions to generate evidence in response to the causal mechanisms and evaluation questions.

The data from the PRM exercises were explored with a mixed method data analysis (using both qualitative and quantitative approaches). The data analysis process for the CA and PT are defined by these two approaches.

### METHODS OF JUDGMENT

During the data analysis, all available evidence was coded under specific causal mechanisms to carry out hoop and smoking gun tests to validate or reject the contribution claims of the ToC as well as for assumptions external to the intervention. To use a comparable method of judgement, a traffic light rating system was applied to gauge (a) to what extent the output or outcome was achieved; and (b) the strength of the evidence for the RAcE programme contribution to the outcome. For each causal mechanism, available evidence was examined in a qualitative manner and assigned a traffic light based on the results. Probabilities were not quantified and mathematical formulas to estimate the probability of the strength of the contribution claims were not used.

If the available evidence did not pass the hoop test, the component was eliminated from the TOC. Once all relevant causal mechanisms and the related assumptions had been tested to a level of saturation according to the assessment by the evaluation team, a doubly-decisive test for the TOC as a whole was carried out. The application of the PT tests formed the basis on which the narrative describing the contribution rationale in light of the strength of available evidence was developed.

### THE APPROACH TO TRIANGULATION

To minimise bias and to cross-validate the data and evidence collected during the evaluation, the evaluation team applied four types of triangulation:

---

<sup>1</sup> [www.maxqda.com/](http://www.maxqda.com/)

<sup>2</sup> Often referred to as a Grounded Analysis

- **Investigator triangulation:** For both the country case studies and the global interviews two consultants were systematically paired to be able to discuss notes and to validate interpretations of collected data.
- **Method triangulation:** Data collection tools were combined to generate and compare different types of data: The desk review including an analysis of available quantitative data, FGDs, PRMs, Venn diagrams, KIs, and participatory working sessions.
- **Data triangulation:** Data from different sources and at different levels were collected: from caregivers of children at community level, from CHWs, from their supervisors, district and regional level implementing partners and a diverse group of key informants at national level.
- **Theory triangulation:** Both contribution analysis and process tracing were used as theoretical schemes to analyse existing and newly collected evidence.

## LIMITATIONS OF DATA COLLECTION

---

The time allocated to the field data collections was not sufficient for travelling to remote areas. As a consequence, communities located at greater distances from health centres as well as areas difficult to access were excluded during the sampling process in all countries. It is likely, however, that communities located in distant and inaccessible areas faced more or different constraints and challenges during the implementation of iCCM programmes than communities close to main roads and health facilities. It is unclear to what extent the results of the communities sampled for the programme evaluations are applicable to remote areas and their non-inclusion is a general limitation of the country case studies.

Again, due to time constraints, random sampling of men and women for the focus group discussions could not be implemented. Female and male participants were identified by community leaders and CHWs. It cannot be excluded that the selection of certain focus group participants was purposeful which might have biased the results in favour of positive perceptions of the RAcE programmes.

In DRC and Niger, certain districts or health zones had to be discarded from the sampling due to insecurity and non-availability of in-country flights to reach the health zone during the period of data collection (for DRC). The extent to which the results of the studies of these two countries can be generalised to insecure areas is uncertain.

In Malawi and Mozambique, the programmes had already ended at the time of the evaluation and key staff from the implementing partner agencies were no longer available to share their knowledge and perspectives. This also applies to the evaluation in Niger State, Nigeria where the Programme Director of the Malaria Consortium had retired just prior to the evaluation mission and was not available to be interviewed. Access to some documents in Malawi and Mozambique also proved to be challenging and not all documents from implementing partners were made available. At community level, CHWs and caregivers were not always able to distinguish between what happened during the time of the RAcE programme implementation and afterwards. The missing documents and perceptions of key informants who were no longer available may have biased the results.

## ANNEX 3: LITERATURE REVIEW

---

### METHODOLOGY

---

There is a very large body of international publications about integrated community case management (iCCM). For the literature review of the RAcE programme evaluation, we selected three international publications to summarise the current state of knowledge about iCCM. [6,15,53] We then searched the databases of PubMed, Scopus, MEDLINE and Global Health for publications between 2012 and 2017 applying the filters 'DRC', 'Niger', 'Nigeria', 'Malawi', and 'Mozambique' and using the search terms 'integrated community case management', 'iCCM', 'community health workers', 'CHW', 'community treatment/ oral antibiotics', 'community treatment/ pneumonia', 'community treatment/ diarrhoea', and 'community treatment/ malaria'. We reviewed the abstracts of 84 titles that appeared relevant to the evaluation and then further narrowed the selection and added relevant documents identified in the context of preparing the country briefs. Our literature review is based on 55 publications that were coded and analysed using the MAXDQA content analysis software. They include research reports and editorial reports published in peer reviewed journals as well as reports of conferences and programme evaluations. Many of them resulted from a limited number of multi-country programmes or studies, especially the evaluation of the Integrated Health Systems Strengthening programme under the Catalytic Initiative to Save a Million Lives (IHSS/CI), an international multi-donor partnership implemented from 2007 to 2013 in 11 countries including Malawi, Mozambique and Niger, and a three-country research study on controlling childhood malaria in high burden African countries that was implemented in Burkina Faso, Nigeria and Uganda. By far the largest number of retrieved publications (28) referred to iCCM programmes in Malawi. All publications referring to programmes in Nigeria (9) focused on community case management of malaria.

### iCCM OVERVIEW

---

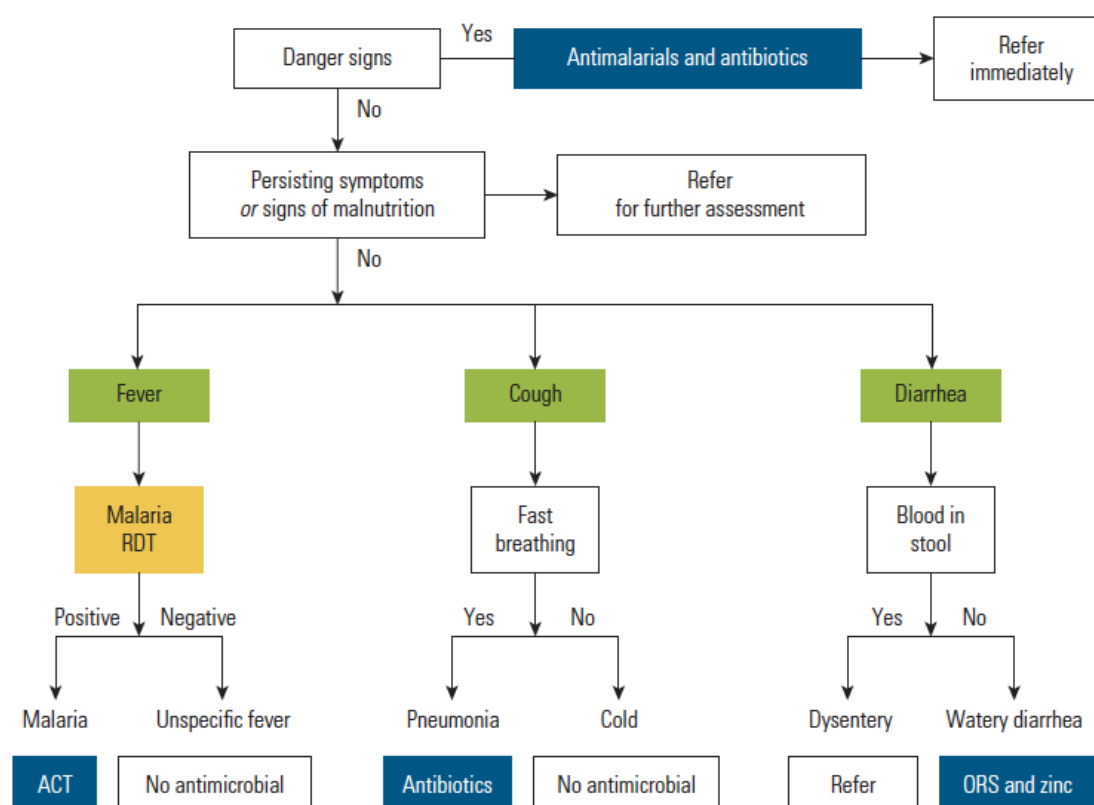
iCCM refers to health care provided by community health workers (CHWs) to children with limited access to health facilities suffering of diseases that are responsible for the greatest number of illness and death among children worldwide. It is based on the application of an algorithm for diagnosis and treatment.

The application of iCCM differs among countries. The basic diagnostic and treatment algorithm is generally limited to children from the age of 2-59 months; it usually includes the use of rectal Artesunate as pre-transfer treatment for severe malaria although this medication is not always available; the antibiotic for the treatment of respiratory infections has recently changed from cotrimoxazole to the more effective dispersible amoxicillin although this is not accepted in all countries because of concerns about drug resistance.

The scope of tasks delegated to CHWs also differs. In some countries it is limited to the narrowly defined diagnosis and treatment services for the three conditions among children under five living more than five kilometres from a health facility. The geographic coverage area may be more flexibly defined and other treatment and prevention services may be added, for instance for malnutrition, neonatal care, tuberculosis control or HIV prevention. In a 2014 survey of community case management (CCM) in Africa, 35 countries reported the implementation of CCM services for diarrhoea, 33 for malaria, 28 for pneumonia, 6 for neonatal sepsis, and 31 for malnutrition. Integrated (iCCM) programmes for diarrhoea, malaria and pneumonia were reported by 28 countries.[41]

The practice of iCCM is based on an algorithm that alerts CHWs to signs and symptoms of life-threatening conditions that require treatment in a health facility, while guiding them in the care of illnesses that can be treated in the community. A general scheme of such an algorithm is presented in the review of Disease Control Priorities in Developing Countries (DCP3). [6]

**Figure 1: Sample iCCM diagnosis and treatment algorithm**



Source: DCP3 [6] (ACT = artemisinin-based combination therapy; ORS = oral rehydration solution; RDT = rapid diagnostic test)

The quality, safety and effectiveness of case management of diarrhoea and malaria by CHWs has been documented in multiple studies. Pneumonia case management has also been found to be effective, however only one of 11 studies included in a meta-analysis was conducted in Africa.[16] Other studies found the CHWs had problems accurately counting the respiratory rate, emphasising the need for enhanced supervision, training and quality control in community case management of respiratory infections.[6] A study in Malawi documented a treatment failure rate for fast-breathing pneumonia of 15 percent, albeit with cotrimoxazole treatment. It pointed to large symptoms overlap and consequent difficulties in diagnosis and treatment of pneumonia in a malaria and HIV endemic setting.[34] The effectiveness of CHW treatment of severe pneumonia, as indicated by chest indrawing, has been documented in studies in Asia,[6] and is the subject of research in the RAcE programme in Niger State, Nigeria.

## IMPACT ON CHILD MORTALITY

A modelling study, applying the Lives Saved Tool (LiST) to data in 42 African countries estimated that a 50 percent coverage of community-based interventions would decrease under-five mortality by 20 percent, and a 90 percent coverage would decrease it by 45 percent. The analysis was not restricted to iCCM but also included high impact prevention such as immunisation and insecticide-treated bed nets.[15] The evaluation of the IHSS/CI in six countries including Mozambique, Malawi and Niger

documented a reduction in child mortality among the target population, however it reported that a causal attribution of impact to the programme was not possible due to the complexity of the environments. It furthermore noted that the results of the LiST analysis did not align with those measured in household surveys.[23] A published paper based on the same initiative in Burkina Faso, Ethiopia and Malawi noted that the programme had no detectable effect on under-five mortality within the two- to four-year evaluation period. In Malawi treatment quality by CHWs was at least as good as in first-level health facilities (63% correct treatment), but there was no overall change in care-seeking from a qualified provider.[29]

## ECONOMIC ANALYSIS

---

The number of studies of the cost-effectiveness of iCCM cited in DCP3 are limited. DCP3 quotes results from a study in Ghana that reported the cost of DALY averted by the use of ACT and amoxicillin was US\$ 114.21 which is considered highly cost-effective. A study in Zambia found that community case management of malaria using RDTs and ACT was more cost-effective than facility-based management (US\$4.22 per case at the home versus US\$6.12 at the facility). A cost analysis from Pakistan found that community case management of pneumonia was associated with a substantially lower cost to households compared to treatment of children referred to facilities.[6]

Three studies retrieved in the literature search included economic analyses. A three-country study of the household costs of community case management of malaria estimated that in Nigeria, community case management of uncomplicated malaria decreased the proportion of households that had any expenditure from 89 percent to 77 percent, and the mean household out-of-pocket expenditure per episode among those who paid anything from US\$ 3.60 to US\$ 1.87.[10]

A seven-country study of the total cost of iCCM services included data for the DRC and Malawi. Costs varied greatly depending on the utilisation of CHW services. In country programmes with low utilisation rates, the fixed costs, particularly for management and supervision, resulted in services being quite costly. In the national programme in Malawi, the average cost per CHW service was estimated at US\$ 2.15, while in an NGO programme in nine health zones of the DRC it was estimated at US\$ 2.35. Programmes in Cameroon, Senegal and South Sudan had considerably lower utilisation rates with the average cost per treatment ranging from US\$ 6.89 to US\$ 16.11.[17]

The third study presented the cost analyses that were conducted for the evaluation of the IHSS/CI in six countries.[23] It confirmed the sensitivity of the cost to the utilisation of services. The number of treatments per year per CHW ranged between 10 in Ghana and 603 in Niger, and the weighted economic cost per treatment from US\$ 2 in Malawi to US\$ 13 in Ghana. Among the three RAcE programme countries included in the study, Mozambique had the lowest utilisation rates with 0.14 treatments delivered in 2013 per child in the target population, while the equivalent statistics were 0.46 for Malawi and 1.05 for Niger. Combined average costs per treatment including economic costs, costs per consultation and cost of consumables were estimated at US\$ 4.20 in Malawi, US\$ 11.20 in Mozambique and US\$ 8.00 in Niger.[21]

## COMMUNITY HEALTH WORKERS

---

In the 2014 survey of community case management policies in Africa among 42 of 45 responding countries, 27 reported that services were provided by volunteer CHWs, while they were paid for their services in 14 countries. User fees were charged for community case management in six countries and mark-ups on commodities in 10 countries, mostly in West Africa. The ministries of health provided salaries to CHWs in six countries and incentive payments in 10. NGOs were reported to provide salaries



in two countries and incentives in 19. In 23 countries, non-monetary incentives were reported.[41] A review of 29 selected iCCM programmes reported considerable differences in the training of CHWs ranging from two to three days in the DRC to one year in Ethiopia. The approach to recruitment or selection also differed with appointments by government or NGOs in four programmes, by community leaders in four programmes and through election by community members in 10 programmes.[7]

The literature search retrieved five recent publications discussing incentives, motivation and retention of CHWs in greater detail. A 2012 study in Malawi collected information about motivating and demotivating factors among the new cadre of Health Service Assistants (HSAs) in the first year of the national iCCM programme. Motivating factors mentioned included the opportunity to learn new skills and the perception of a higher status because of their new curative role. Satisfaction from helping the community and increased recognition and appreciation by the community were also mentioned. Salaries of HSAs had not been adjusted following the expansion of their role which was a point of frustration, but allowances received during iCCM training were appreciated. Demotivating factors included an increased workload and irregular hours, inadequate drug supplies and supervision, and anxiety about not meeting community expectations because of their inability to treat complicated cases and older children.[8]

A study of CHW motivation in Uganda and Mozambique argued that reviews of motivation, retention and performance of CHWs commonly focused on incentives, viewing motivation as an individual cognitive process. The study instead applied the social identity approach which links motivation to group identity, social norms and the group's interest. In Mozambique, the CHWs reported being motivated by the responsibility of being chosen by their communities and the respect afforded them as someone perceived to be doing important work that contributes to a healthier community. They felt challenged on occasion by a lack of community understanding of the purpose and scope of their work and mentioned that more frequent support and supervision would enhance their local credibility.[49]

A qualitative study of community care in Burkina Faso, Nigeria and Uganda, on the other hand, identified inadequate allowances as one of the main challenges faced by CHWs, especially in Nigeria. Because CHWs were not paid any allowance, they found it difficult to pay for the transport to follow up on sick children. Financial incentives, as well as material support such as torchlights, batteries, gumboots and raincoats were strongly supported in focus groups with CHWs in Nigeria and Uganda.[32] A second study by the same group on the motivation of CHWs in the three countries concluded that most CHWs understood the volunteer nature of their position but desired community recognition and modest financial remuneration. Caregivers of children in the three countries were surprised to learn that CHWs received no remuneration. Although community members commended them for their contribution, they also thought that the CHWs were unwise to have left their livelihood to undertake an activity that brought no income. In focus group discussions with CHWs in all three countries they agreed that a salary would motivate them to work harder with honesty.[44] Finally a third study in the same three countries quantified and valued the time of CHW delivery of community care for malaria. Using the country's minimum monthly salary, the CHWs' time allocated to child healthcare for one year was valued at US\$ 52 in Burkina Faso, US\$ 295 in Nigeria and US\$ 141 in Uganda.[9]

## SUPPLY MANAGEMENT

---

Many of the retrieved studies and reports mentioned the supply of medicines, either as a key issue for the motivation of CHWs, or by reporting challenges of achieving uninterrupted supplies. A main factor for the vulnerability of CHWs to supply shortages is described in a study from Ethiopia, Malawi and Rwanda: 'If CCM supplies fail to reach CHW resupply points, or if those resupply points use CCM supplies



to meet the needs of their facility-based patients, CHWs will continue to experience chronic shortages of CCM supplies for treating children in their communities.’[13] Two studies from Malawi underline the consequences of interruptions in the supply chain: (a) That disruptions in supplies will undermine the credibility of the CHWs and the likelihood that families will seek care promptly when children show signs of illness;[37] and (b) that inadequate drug stocks contributed to inappropriate treatment of children presenting with fever and diarrhoea.[25]

The multi-country evaluation of the IHSS/CI found that the programme failed in all countries to strengthen the supply chain management system and ‘instead, in some cases, developed a parallel supply chain system which adequately served the needs of the IHSS programme but that may not be sustained by the governments without developing partners’ assistance.’[23]

Two publications, both from Malawi, document success in strengthening the supply chain for iCCM commodities. A study in 2014 examined the effect of mobilising District Product Availability Teams to monitor the supply chain performance and make informed supply decisions on the basis of the SMS and web-based reporting and resupply system (cStock) used by CHWs to report stock data via SMS through their personal mobile phones. A second publication in 2017 reports about Quality Improvement teams with the same function, possibly referring to the same teams. Both papers reported that stock-out rates over an 18-month period fell to a low of five to seven percent.[46,12]

## COMMUNITY MOBILISATION AND DEMAND GENERATION

---

The success of iCCM programmes depends not only on the supply of well trained, supervised and supplied CHWs, but also on multiple demand-side factors that determine the extent to which caregivers of children will access the services. While the service offer of iCCM by design should overcome financial and geographic barriers to access, the remaining factors such as caregivers’ understanding of illness, preferences for home remedies and alternative treatments, limited decision-making autonomy to seek care, and trust in the quality of iCCM services may constitute barriers that need to be overcome. Our literature search returned four recent papers that focused on these issues.

A paper published in 2014 described programmes of social mobilisation for behaviour change for child survival in Niger, and of an intervention to improve health seeking behaviour and preventive practices for child health in Mozambique. In both countries multiple approaches for social and behavioural change and for community engagement were implemented. Evaluations conducted in 2012 documented increased uptake of child health services and health practices in the intervention areas when compared to national statistics in Niger and to control areas in Mozambique. However, the evaluation methodology did not allow a disaggregation of the effects of community mobilisation from the overall iCCM package. While they provide evidence for the effectiveness of iCCM programmes that combine supply-side and demand-side components, they generated only limited evidence for the effectiveness of each component separately.[45]

A study based on key informant interviews and focus group discussions with communities in Maputo Province of Mozambique explored community expectations of CHW services and the tension between demands for more curative services by communities and the policy guidelines that specify that CHWs should spend 80 percent of their time on prevention and health promotion. The findings of this study suggest a disconnect between the demands of the population and the CHW policy with communities and policy-makers differing in their views about the importance of curative services. It highlights the need to pay attention to the determinants of demand and supply of community interventions in health.[26]

A publication in 2016 was based on the evaluation of the IHSS/CI in 2012/13 and specifically examined the role of and form of community involvement in community-based service delivery in Malawi. CHWs in Malawi are appointed by government rather than by communities, they are generally not recruited among members of the community they serve, and they are often not even resident in that community although this is a requirement. Although villagers are expected to build houses for their CHWs, very few houses have been built, despite government or donor assistance. The study concluded that community involvement and participation operate in a somewhat unconventional way in Malawi, but that nevertheless, village health committees play an important role in the oversight of CHWs and provide legitimacy and credibility for the programme.[55]

The fourth study, conducted in Zambia, Mozambique and Uganda, examined the role of the community engagement strategy of community dialogues in strengthening the support and uptake of iCCM services. CHWs and community leaders received two days of training to organise and lead participatory community dialogues without external facilitation or incentives. Process evaluation was used to assess the adaptation of this approach by local community-based facilitators and participants in purposefully sampled communities. The evaluation concluded that community dialogues can be a powerful approach to make the health promotion activities of CHWs more participatory and effective in addressing social norms around child care practices and to trigger community uptake and support of iCCM services through building trust and cooperation in communities.[35]

## GENDER EQUALITY

---

Very few of the retrieved documents addressed gender issues of iCCM. The 2014 survey of community case management in 42 countries reported that the cadres of CHWs providing CCM services were of mixed gender in 17 countries, mostly female in eight countries, mostly male in nine countries, and exclusively female in one country.[41] The more detailed study on training and supervision in 29 iCCM programmes found that a disaggregation of CHWs by sex was only possible in a few programmes, including the 2009-12 programme of Save the Children and the MOH in Malawi where 25 percent of 838 CHWs were female.[7] In 2013, a study conducted telephone interviews with all CHWs in Malawi that were identified by the MOH as trained in iCCM and deployed to provide iCCM services. 3,392 CHWs were contacted of whom 72 percent were male.[31] There was little discussion of the implications of male preponderance among CHWs in some countries. A study reporting on a programme in Mozambique found that despite programme guidance prioritising female candidates, only one out of five trained CHWs were female. Concerns were raised that male CHWs may deter women from seeking care for their children, particularly newborns. Care after birth for the mother and newborn in Mozambique is in the hands of female relatives and men are excluded.[14]

Sex-differentials in access to treatment were only mentioned in two publications of the same research on community case management of malaria in Burkina Faso, Nigeria and Uganda. They reported no sex difference in access to treatment.[1,47]

The effect of the programme on gender equality was one of the evaluation questions for the multi-country evaluation of the Integrated Health System Strengthening Programme (IHSS) under the Catalytic Initiative to Save a Million Lives (CI). The evaluation report discussed the efforts as well as the successes and challenges of recruiting female CHWs in the six countries. There was also a finding that the programme empowered women by addressing challenges linked to long travel times and costs by providing services closer to the community. This is plausible, however a gender analysis to provide the necessary evidence to support this finding was not conducted.[23]

## POLICY

---

The policy agenda for iCCM was driven by the ambition of most countries to achieve the Millennium Development Goals, specifically MDG 4 on child health. In the national ministries of health, iCCM was primarily promoted by technical officers with a public health or primary health care background, supported by WHO, UNICEF and some bilateral development partners. In several countries it took some effort to convince senior health policymakers of the benefits of iCCM, particularly those with a clinical background who were initially resistant because of concerns about the use of antibiotics and antimalarials outside clinical settings.[4]

WHO and UNICEF established their technical leadership and policy commitment to iCCM in 2012 in a joint statement, declaring that they ‘support iCCM as an essential strategy that can both foster equity and contribute to sustained reduction in child mortality’.[53] In partnership with bilateral agencies, foundations and international NGOs, they employed multiple strategies to support policy transfer, including academic publications and regional meetings.[18] According to the analysis of the role of international partners in iCCM policy development in five countries, funding conditionalities were used in only one case to press for policy change<sup>1</sup>. [3] The largest funders of iCCM programmes in the five countries were Canada and the Bill and Melinda Gates Foundation, with the funds channeled through UNICEF and the Partnership for Maternal Neonatal and Child Health. According to the study, international multilateral organisations were well suited for the role of policy transfer agents because national policy-makers viewed them as trusted partners. *‘However on occasion their role became more that of advocates than neutral facilitators’*. [3]

Although the drivers for iCCM policy development and uptake differs among countries, as does the level of political commitment, all documents that were reviewed for this study underline that iCCM programmes in all five countries included in the RAcE Initiative are still highly dependent on international funding. While there is broad consensus that community case management saves children’s lives, more health systems research is needed to understand the implication of delivering community case management at scale in the differing contexts of countries’ health systems.[8] Key issues to resolve, according to the Africa-wide survey of community case management, are financial sustainability, the persistence of user-fees and mark-ups in several countries, the integration of community data in national health information systems, the position of CHWs in the national system of human resources for health and the debate about voluntarism or salaried employment.[41] These are largely national health policy issues that require national solutions.

---

<sup>1</sup> Community case management of pneumonia was added somewhat reluctantly and only as a pilot in Burkina Faso as part of negotiations with the Partnership for Maternal, Neonatal and Child Health over a proposed grant

## DOCUMENTS INCLUDED IN THE LITERATURE REVIEW

---

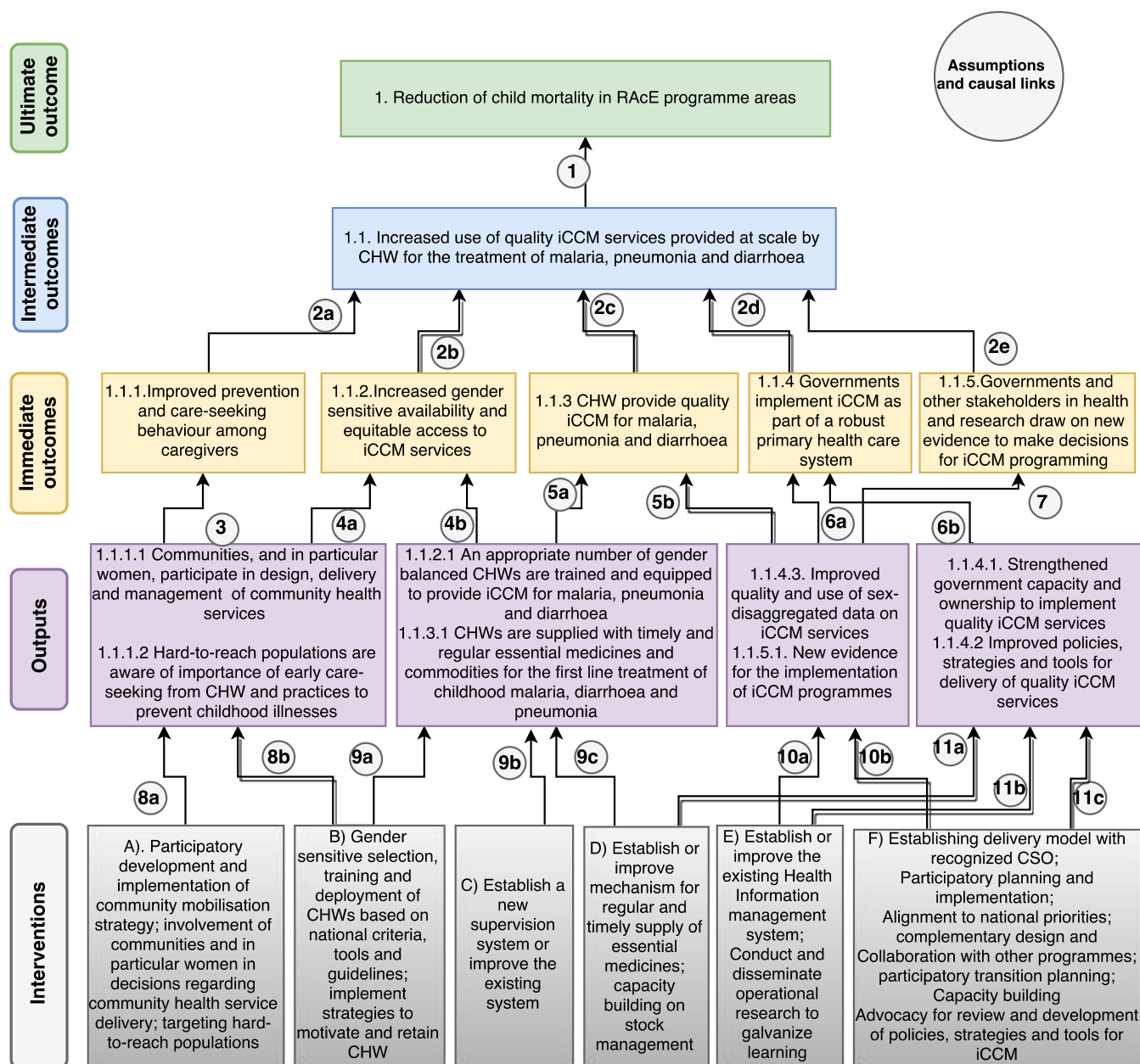
1. Ajayi IO, Nsungwa-Sabiiti J, Siribié M, Falade CO, Sermé L, Balyeku A, Afonne C, Sanou AK, Kabarungi V, Oshiname FO, Gansane Z, Kyaligonza J, Jegede AS, Tiono AB, Sirima SB, Diarra A, Yusuf OB, Fouque F, Castellani J, Petzold M, Singlovic J, Gomes M (2018). Feasibility of Malaria Diagnosis and Management in Burkina Faso, Nigeria, and Uganda: A Community-Based Observational Study. *Clinical Infectious Diseases*
2. Amouzou A, Kanyuka M, Hazel E, Heidkamp R, Marsh A, Mleme T, Munthali S, Park L, Banda B, Moulton LH, Black RE, Hill K, Perin J, Victora CG, Bryce J (2016). Independent Evaluation of the Integrated Community Case Management of Childhood Illness Strategy in Malawi Using a National Evaluation Platform Design. *American Journal of Tropical Medicine and Hygiene*
3. Bennett S, Dalglish SL, Juma PA, Rodríguez DC (2015). Altogether now... understanding the role of international organizations in iCCM policy transfer. *Health Policy Planning*
4. Bennett S, George A, Rodriguez D, Shearer J, Diallo B, Konate M, Dalglish S, Juma P, Namakhoma I, Banda H, Chilundo B, Mariano A, Cliff J (2014). Policy challenges facing integrated community case management in Sub-Saharan Africa. *Tropical Medicine and International Health*
5. Binti Dunia GM (2013). Implantation des sites de soins communautaires en République Démocratique du Congo : consécration d'un double standard dans l'accès aux soins. *Pan African Medical Journal*
6. Black RE, Laxminarayan R, Temmerman M, Walker N (editors) (2016). Reproductive, Maternal, Newborn, and Child Health. Disease Control Priorities, third edition, volume 2. World Bank
7. Bosch-Capblanch X, Marceau C (2014). Training, supervision and quality of care in selected integrated community case management (iCCM) programmes: a scoping review of programmatic evidence. *Journal of Global Health*
8. Callaghan-Koru JA, Hyder AA, George A, Gilroy KE, Nsona H, Mtimuni A, Bryce J (2012). Health workers' and managers' perceptions of the integrated community case management program for childhood illness in Malawi: the importance of expanding access to child health services. *American Journal of Tropical Medicine and Hygiene*
9. Castellani J, Mihaylova B, Ajayi IO, Siribié M, Nsungwa-Sabiiti J, Afonne C, Sermé L, Balyeku A, Kabarungi V, Kyaligonza J, Evers SM, Paulus AT, Petzold M, Singlovic J, Gomes M (2016). Quantifying and Valuing Community Health Worker Time in Improving Access to Malaria Diagnosis and Treatment. *Clinical Infectious Diseases*
10. Castellani J, Nsungwa-Sabiiti J, Mihaylova B, Ajayi IO, Siribié M, Afonne C, Balyeku A, Sermé L, Sanou AK, Sombié BS, Tiono AB, Sirima SB, Kabarungi V, Falade CO, Kyaligonza J, Evers SM, Paulus AT, Petzold M, Singlovic J, Gomes M (2016). Impact of Improving Community-Based Access to Malaria Diagnosis and Treatment on Household Costs. *Clinical Infectious Diseases*
11. Chandani Y, Andersson S, Heaton A, Noel M, Shieshia M, Mwiroti A, Krudwig K, Nsona H, Felling B (2014). Making products available among community health workers: Evidence for improving community health supply chains from Ethiopia, Malawi, and Rwanda. *Journal of Global Health*
12. Chandani Y, Duffy M, Lamphere B, Noel M, Heaton A, Andersson S (2017). Quality improvement practices to institutionalize supply chain best practices for iCCM: Evidence from Rwanda and Malawi. *Research in Social and Administrative Pharmacy*
13. Chandani Y, Noel M, Pomeroy A, Andersson S, Pahl MK, Williams T (2012). Factors affecting availability of essential medicines among community health workers in Ethiopia, Malawi, and Rwanda: solving the last mile puzzle. *American Journal of Tropical Medicine and Hygiene*
14. Chilundo BG, Cliff JL, Mariano AR, Rodríguez DC, George A (2015). Relaunch of the official community health worker programme in Mozambique: is there a sustainable basis for iCCM policy? *Health Policy Planning*

15. Chou VB, Friberg IK, Christian M, Walker N, Perry HB (2017). Expanding the population coverage of evidence-based interventions with community health workers to save the lives of mothers and children: an analysis of potential global impact using the Lives Saved Tool (LiST). *Global Health*
16. Christopher JB, Le May A, Lewin S, Ross DA (2011). Thirty years after Alma-Ata: a systematic review of the impact of community health workers delivering curative interventions against malaria, pneumonia and diarrhoea on child mortality and morbidity in sub-Saharan Africa. *Human Resources for Health*
17. Collins D, Jarrah Z, Gilmartin C, Saya U (2014). The costs of integrated community case management (iCCM) programs: A multi-country analysis. *Global Health*
18. Conference Report (2014). Integrated Community Case Management (iCCM): Evidence Review Symposium, Accra, Ghana, 3-5 March 2014
19. Dalglish SL, Rodríguez DC, Harouna A, Surkana PJ (2017). Knowledge and power in policy-making for child survival in Niger. *Social Science and Medicine*
20. Dalglish SL, Surkan PJ, Diarra A, Harouna A, Bennett S (2015). Power and pro-poor policies: the case of iCCM in Niger. *Health Policy Planning*
21. Daviaud E, Besada D, Leon N, Rohde S, Sanders D, Oliphant N, Doherty T (2017). Costs of implementing integrated community case management (iCCM) in six African countries: implications for sustainability. *Journal of Global Health*
22. Diaz T, Guenther T, Oliphant NP, Muñiz M (2014). A proposed model to conduct process and outcome evaluations and implementation research of child health programs in Africa using integrated community case management as an example. *Global Health*
23. Doherty T, Besada D, Zembe W, Daniels K, Kinney M, Kerber K, Daviaud E, Rohde S, Ngandu N, Jackson D (2014) Report on the Summative External Evaluation of the Catalytic Initiative (CI)/ Integrated Health Systems Strengthening (IHSS) Programme in Ethiopia, Mali, Mozambique, Ghana, Malawi and Niger. South African Medical Research Council, University of the Western Cape and Save the Children
24. Doherty T, Zembe W, Ngandu N, Kinney M, Manda S, Besada D, Jackson D, Daniels K, Rohde S, van Damme W, Kerber K, Daviaud E, Rudan I, Muniz M, Oliphant NP, Zamasiya T, Rohde J, Sanders D (2015). Assessment of Malawi's success in child mortality reduction through the lens of the Catalytic Initiative integrated health systems strengthening programme: Retrospective evaluation. *Journal of Global Health*
25. Gilroy KE, Callaghan-Koru JA, Cardemil CV, Nsona H, Amouzou A, Mtimuni A, Daelmans B, Mgalula L, Bryce J (2013). Quality of sick child care delivered by Health Surveillance Assistants in Malawi. *Health Policy Planning*
26. Give CS, Sidat M, Ormel H, Ndimba S, McCollum R, Taegtmeier M (2015). Exploring competing experiences and expectations of the revitalized community health worker programme in Mozambique: an equity analysis. *Human Resources for Health*
27. Guenther T, Sadruddin S, Chimuna T, Sichamba B, Yeboah-Antwi K, Diakite B, Modibo B, Swedberg E, Marsh DR (2012). Beyond distance: an approach to measure effective access to case management for sick children in Africa. *American Journal of Tropical Medicine and Hygiene*
28. Guenther T, Sadruddin S, Finnegan K, Wetzler E, Ibo F, Rapaz P, Koepsell J, Khan IU, Amouzou A (2017). Contribution of community health workers to improving access to timely and appropriate case management of childhood fever in Mozambique. *Journal of Global Health*
29. Hazel E, Bryce J (2016). On Bathwater, Babies, and Designing Programs for Impact: Evaluations of the Integrated Community Case Management Strategy in Burkina Faso, Ethiopia, and Malawi. *American Journal of Tropical Medicine and Hygiene*

30. Hazel E, Chimbalanga E, Chimuna T, Nsona H, Mtimuni A, Kaludzu E, Gilroy K, Guenther T (2017). Using Data to Improve Programs: Assessment of a Data Quality and Use Intervention Package for Integrated Community Case Management in Malawi. *Global Health Science and Practice*
31. Heidkamp R, Hazel E, Nsona H, Mleme T, Jamali A, Bryce J (2015). Measuring Implementation Strength for Integrated Community Case Management in Malawi: Results from a National Cell Phone Census. *American Journal of Tropical Medicine and Hygiene*
32. Jegede AS, Oshiname FO, Sanou AK, Nsungwa-Sabiiti J, Ajayi IO, Siribié M, Afonne C, Sermé L, Falade CO (2016). Assessing Acceptability of a Diagnostic and Malaria Treatment Package Delivered by Community Health Workers in Malaria-Endemic Settings of Burkina Faso, Nigeria, and Uganda. *Clinical Infectious Diseases*
33. King C, Colbourn T, Mankhambo L, Beard J, Hay Burgess DC, Costello A, Izadnegahdar R, Lufesi N, Mwansambo C, Nambiar B, Johnson ES, Platt RW, Mukanga D, McCollum ED (2016). Non-treatment of children with community health worker-diagnosed fast-breathing pneumonia in rural Malawi: exploratory subanalysis of a prospective cohort study. *BMJ Open*
34. King C, McCollum ED, Mankhambo L, Colbourn T, Beard J, Hay Burgess DC, Costello A, Izadnegahdar R, Lufesi N, Masache G, Mwansambo C, Nambiar B, Johnson E, Platt R, Mukanga D (2017). Can We Predict Oral Antibiotic Treatment Failure in Children with Fast-Breathing Pneumonia Managed at the Community Level? A Prospective Cohort Study in Malawi. *PlosOne*
35. Martin S, Leitão J, Muhangi D, Nuwa A, Magul D, Counihan H (2017). Community dialogues for child health: results from a qualitative process evaluation in three countries. *Journal of Health, Population and Nutrition*
36. Nightingale R, Colbourn T, Mukanga D, Mankhambo L, Lufesi N, McCollum ED, King C (2016). Non-adherence to community oral-antibiotic treatment in children with fast-breathing pneumonia in Malawi- secondary analysis of a prospective cohort study. *Pneumonia*
37. Nsona H, Mtimuni A, Daelmans B, Callaghan-Koru JA, Gilroy K, Mgalula L, Kachule T, Zamasiya T. (2012) Scaling up integrated community case management of childhood illness: update from Malawi. *American Journal of Tropical Medicine and Hygiene*
38. Perin J, Kim JS, Hazel E, Park L, Heidkamp R, Zeger S (2016). Hierarchical Statistical Models to Represent and Visualize Survey Evidence for Program Evaluation: iCCM in Malawi. *PlosOne*
39. Phiri TB, Kaunda-Khangamwa BN, Bauleni A, Chimuna T, Melody D, Kalengamaliro H, Sande JH, Nsona HK, Mathanga DP (2016). Feasibility, acceptability and impact of integrating malaria rapid diagnostic tests and pre-referral rectal artesunate into the integrated community case management programme. A pilot study in Mchinji district, Malawi. *Malaria Journal*
40. Programme Intégré de Santé Maternelle et Infantile (MCHIP) (2012). Prise en charge communautaire intégrée des maladies de l'enfant : Documentation des meilleures pratiques et des goulots d'étranglement à la mise en œuvre du programme en République Démocratique du Congo. USAID
41. Rasanathan K, Muniz M, Bakshi S, Kumar M, Solano A, Kariuki W, George A, Sylla M, Nefdt R, Young M, Diaz T (2014). Community case management of childhood illness in sub-Saharan Africa - findings from a cross-sectional survey on policy and implementation. *Journal of Global Health*
42. Rodríguez DC, Banda H, Namakhoma I (2015). Integrated community case management in Malawi: an analysis of innovation and institutional characteristics for policy adoption. *Health Policy Planning*
43. Rodríguez DC, Shearer J, Mariano AR, Juma PA, Dalglish SL, Bennett S (2015). Evidence-informed policymaking in practice: country-level examples of use of evidence for iCCM policy. *Health Policy Planning*

44. Sanou AK, Jegede AS, Nsungwa-Sabiiti J, Siribié M, Ajayi IO, Turinde A, Oshiname FO, Sermé L, Kabarungi V, Falade CO, Kyaligonza J, Afonne C, Balyeku A, Castellani J, Gomes M (2016). Motivation of Community Health Workers in Diagnosing, Treating, and Referring Sick Young Children in a Multicountry Study. *Clinical Infectious Diseases*
45. Sharkey AB, Martin S, Cerveau T, Wetzler E, Berzal R (2014). Demand generation and social mobilisation for integrated community case management (iCCM) and child health: Lessons learned from successful programmes in Niger and Mozambique. *Journal of Global Health*
46. Shieshia M, Noel M, Andersson S, Felling B, Alva S, Agarwal S, Lefevre A, Misomali A, Chimphanga B, Nsona H, Chandani Y (2014). Strengthening community health supply chain performance through an integrated approach: Using mHealth technology and multilevel teams in Malawi. *Journal of Global Health*
47. Singlovic J, Ajayi IO, Nsungwa-Sabiiti J, Siribié M, Sanou AK, Jegede AS, Falade CO, Sermé L, Gansane Z, Afonne C, Kabarungi V, Kyaligonza J, Castellani J, Petzold M, Gomes M (2016). Compliance with Malaria Rapid Diagnostic Testing by Community Health Workers in 3 Malaria-Endemic Countries of Sub-Saharan Africa: An Observational Study. *Clinical Infectious Diseases*
48. Siribié M, Ajayi IO, Nsungwa-Sabiiti J, Afonne C, Balyeku A, Falade CO, Gansane Z, Jegede AS, Ojanduru L, Oshiname FO, Kabarungi V, Kyaligonza J, Sanou AK, Sermé L, Castellani J, Singlovic J, Gomes M (2016). Training Community Health Workers to Manage Uncomplicated and Severe Malaria: Experience From 3 Rural Malaria-Endemic Areas in Sub-Saharan Africa. *Clinical Infectious Diseases*
49. Strachan DL, Källander K, Nakirunda M, Ndimba S, Muiambo A, Hill Z (2015). Using theory and formative research to design interventions to improve community health worker motivation, retention and performance in Mozambique and Uganda. *Human Resources for Health*
50. Swana EK, Makan GY, Mukeng CK, Mupumba H, Kalaba GM, Luboya ON, Bangs MJ (2016). Feasibility and implementation of community-based malaria case management with integrated vector control in the Democratic Republic of Congo. *Malaria Journal*
51. Tobin-West CI, Briggs N (2015). Effectiveness of trained community volunteers in improving knowledge and management of childhood malaria in a rural area of Rivers State, Nigeria. *Nigerian Journal of Clinical Practice*
52. Wazny K, Sadruddin S, Zipursky A, Hamer DH, Jacobs T, Kallander K, Pagnoni F, Peterson S, Qazi S, Raharison S, Ross K, Young M, Marsh DR (2014). Setting global research priorities for integrated community case management (iCCM): Results from a CHNRI (Child Health and Nutrition Research Initiative) exercise. *Global Health*
53. WHO/UNICEF (2012). Joint Statement on Integrated Community Case Management (iCCM)
54. Yourkavitch J, Zalisk K, Prosnitz D, Luhanga M, Nsona H (2016). How do we know? An assessment of integrated community case management data quality in four districts of Malawi. *Health Policy Planning*
55. Zembe-Mkabile WZ, Jackson D, Sanders D, Besada D, Daniels K, Zamasiya T, Doherty T (2016). The 'community' in community case management of childhood illnesses in Malawi. *Global Health*

## ANNEX 4: THEORY OF CHANGE





## ANNEX 5: EVALUATION MATRIX

INVESTIGATION AREA 1: THE EXTENT TO WHICH THE ORIGINAL DESIGN OF THE RACe PROGRAMME HAS RESPONDED TO THE NEEDS AND PRIORITIES OF THE MAIN STAKEHOLDERS IN NATIONAL HEALTH SYSTEMS AND IS IN LINE WITH NATIONAL HEALTH STRATEGIES RELATED TO CHILD AND NEW-BORN MORTALITY AND SURVIVAL.

Evaluation Criteria	RELEVANCE
Rationale	The main RAcE programme objective is to catalyse the scale-up of community case management of malaria and iCCM in order to increase the coverage of diagnostic, treatment, and referral services for the three major causes of childhood mortality in five countries. This investigation area assesses to what extent the RAcE programme principles of engagement with the government, alignment with national priorities, collaboration with other national health programmes and targeting hard-to-reach populations were applied in the programme countries.

**EVALUATION QUESTION 1: TO WHAT EXTENT WAS THE DESIGN OF THE RACe PROGRAMME AT INCEPTION ALIGNED WITH THE NATIONAL HEALTH STRATEGY? TO WHAT EXTENT HAS IT BEEN COMPLEMENTARY TO OTHER LARGE-SCALE HEALTH PROGRAMMES, AND HAS THERE BEEN AN EFFECTIVE COLLABORATION WITH OTHER HEALTH PROGRAMMES IMPLEMENTED IN THE SAME AREAS?**

Chain of reasoning ( <i>Link to the ToC</i> )	If the RAcE programme is aligned with the national health strategy and priorities of the national and/or State government (Intervention block F), the programme will be more relevant to the country and the government will be more inclined to integrate iCCM as part of the national health system (ToC link 11b). If the RAcE programme was designed to be complementary to other large-scale health programmes and if there was regular collaboration with programmes operating in the same areas (Intervention block F), there will be less duplication of resources and the government will have more (financial and human resource) capacity to implement iCCM as part of the national health system (ToC link 11b)
---	--

Assumptions for verification	Indicators	Evidence
<b>Assumption 1.1</b> The RAcE programme was aligned with the national health strategy and priorities of the national or State government	National and sub-national priorities for child and new-born mortality and survival are reflected in RAcE country proposal and programme design.  Consensus between RAcE partners and health authorities about key barriers to be addressed for scaling up iCCM	In all countries, the alignment with national policies, health strategies and guidelines were strong. Relevant MOH representatives were involved in the development of the proposals.  The country proposals include information on how the programme responds to current government priorities and policy documents. The programme design of the six programmes incorporates the use of available iCCM structures (where existing) and include information on other relevant health programmes implemented in the RAcE programme area and beyond.  Certain adjustments to policies and guidelines were made to increase the geographic coverage in Niger and DRC. In these two countries, the numbers of CHW deployed were lower than minimum numbers defined in the national guidelines.
<b>Assumption 1.2</b> The RAcE programme was designed to be complementary to other large-scale health programmes and has collaborated with other health programmes implemented in the same areas	Programme design takes account of existing structures and design of other large-scale health programmes  Work plans incorporate links to other health programmes at subnational level (e.g. through participation in health cluster meetings)	Presence and activities of other large-scale health programmes was a criterion for programme area selection and complementarity in terms of programme coverage was negotiated under leadership of health ministries  Evidence of collaboration with TGF Principal Recipients, PMI Contractors, CHAI and internationally funded programmes especially in medicines including loan exchanges and procurement support to cover supply gaps.  The work plans of all six programmes include regular coordination meetings at different levels

**EVALUATION QUESTION 2: DID THE RAcE PROGRAMME TARGET THE POPULATIONS IN THE COUNTRY THAT ARE MOST VULNERABLE AND / OR DIFFICULT TO REACH? HOW WERE DISTRICTS AND COMMUNITIES SELECTED?**

<b>Chain of reasoning (Link to the ToC)</b>	If the RAcE programme targets hard-to-reach populations, hard-to-reach populations will be involved in community mobilisation activities ( <i>Intervention block A</i> ), they will be more aware of the importance of early care-seeking from CHW ( <i>ToC link 8a</i> ). If hard-to-reach people are more aware of iCCM services, it will contribute to increased equitable access of community health services ( <i>ToC link 4a</i> ). If there is increased equitable access to iCCM services, more families will use quality iCCM services ( <i>ToC link 2b</i> )
---	--

Assumptions for verification	Indicators	Evidence
<b>Assumption 2.1</b> The RAcE programme has attained hard-to-reach populations and thereby contributed to equitable access to iCCM services	Evidence that considerations were made during programme design and planning to target hard-to-reach populations	<p>Every program used a different set of criteria to carry out the selection of regions/ districts/ States. These sets included relevant health and social development indicators, but also considerations like government commitment or leadership capacity.</p> <p><u>Community level selection:</u> the global standard defines communities as iCCM eligible when they are located at least five kilometres from the nearest health facility or when they are located within reach of a health facility that cannot provide adequate care. This standard was complied with in all six programmes. In Malawi, there is ambiguity about eligibility. According to the national definition, the eligibility criterion is &gt;8km distance from a HF. This was applied at the start of the RAcE programme and later changed to &gt;5km. The change is not confirmed in the national strategy. In Abia State a survey of all 220 ward health centres was conducted and only 20 were defined as 'functional'. Eligibility was defined as &gt;5km from one of these 20 health facilities.</p>
	Opinions of community members on whether hard-to-reach populations were involved in community mobilisation activities	There was no robust evidence that community mobilisation activities included particular efforts for including specific hard to reach groups.
	Evidence that the population reached by the RAcE programme are considered hard-to-reach	Most key informants interviewed during the evaluation perceived that hard to reach communities where equal to iCCM eligible communities/ to communities with no health coverage. Based on their perception, the RAcE programme was fully successful in increasing health coverage to vulnerable rural population groups. In health zones where full coverage wasn't achieved, there was no evidence that communities were chosen based on their remote position or based on particular vulnerabilities.

### EVALUATION QUESTION 3: TO WHAT EXTENT WERE THE MINISTRY OF HEALTH AND TARGET COMMUNITIES INVOLVED IN THE PLANNING AND DESIGN OF THE RAcE PROGRAMME?

- To what extent was the MoH involved in designing and in developing operational plans for the RAcE programme?
- What was the extent, the quality and the inclusiveness of community participation in designing and planning the RAcE programme?

<b>Chain of reasoning (Link to the ToC)</b>	<p>If the RAcE programme actively involved the Government in the design and operationalization of the programme (Intervention block F), there will be improved ownership of the government of iCCM services as part of the national health system (ToC link 11b).</p> <p>If the RAcE programme actively involves hard-to-reach communities in the design and planning of services (Intervention block A) there will be more inclusive participation of communities in community health service design and delivery (ToC link 8b).</p>
---	---

Assumptions for verification	Indicators	Evidence
<b>Assumption 3.1</b> The RAcE programme was designed and operationalised with active involvement of the MoH	Evidence of involvement of key MoH staff in the design of the programme	Relevant departments from central level MOH were closely involved in the design of the RAcE programme in all countries.
	The decision on where to implement was influenced by a needs assessment	<p>The country proposals included an analysis of relevant poverty and health indicators.</p> <p><u>DRC:</u> Social status and health indicators published in the 2013/14 DHS report consistently place the population of Tanganyika Province among the most vulnerable in the country.</p> <p><u>Malawi:</u> Districts were selected based on a set of selection criteria including iCCM coverage, under-5 mortality rates, equity, leadership capacity, and development partner support.</p> <p><u>Mozambique:</u> The selection was carried out jointly with the Ministry of Health (MISAU) based on support available from consortium partners and needs expressed by the APE programme. An analysis of relevant indicators showed that the selection was not based on a needs assessment, but rather on other criteria. Two of the selected provinces scored mostly above national average including on U5MR.</p> <p><u>Niger:</u> In Niger, three of the four targeted districts are part of the region with the highest child mortality. The fourth district scores higher on U5MR than the national average but documentation on the selection criteria for this district could not be found.</p> <p><u>Nigeria:</u> The selection of Abia and Niger State for the RAcE programme was a complex multi-staged process managed by the FMOH based on seven selection criteria. Final decision on short-listed states was made by dividing them into 'northern' and 'southern' states and choosing one from each group for macro-political reasons.</p>

	<p>Evidence of continued involvement of the MoH in the implementation and supervision of the programme</p>	<p>There was conclusive evidence from all six programmes that the decentralized health facilities were the main responsible entity for the supervision of CHW. Higher level entities of the MoH were also involved on a regular basis in supervision activities of the programme. The implementing agencies provided financial and technical support to supervision activities and undertook joint supervision with government partners.</p> <p><u>DRC:</u> iCCM services are fully integrated in the provincial health care delivery system and are to a large extent managed by MSP staff. The MOH provided monitoring, supervision and supply services for the SSCs. AS and BCZS carried out the supervision of CHW.</p> <p><u>Malawi:</u> MOH representations implement iCCM supervision activities at all levels. There are three levels of supervision: primarily level supervision (by Senior HSA), secondary supervision (by district teams), and tertiary supervision (by the central level). Secondary and tertiary supervision teams included staff from both DHO/MOH and the implementing partner (SC)</p> <p><u>Mozambique:</u> One of the implementing partners (SC) recruited district level supervisor who supported health facility supervisors. Supervision visits were mostly carried out jointly. The second implementing partner provided financial support to the HF, district and provincial level supervisors, but later started carrying out joint visits with the decentralized structures of the MOH.</p> <p><u>Niger:</u> In Niger, CHWs' supervisors were recruited and remunerated by the implementing partner for the first years of the programme. In the last programme year, the responsibility for the monthly supervision of CHW was handed over to health zone mayors. Health zones mayors were supervised by the district medical team on a quarterly basis. The district medical team received bi-annual supervision from the regional public health office. At national level, a technical committee led by the MOH oversaw the programme and joint monitoring visits to the field were organised.</p> <p><u>Nigeria:</u> CHW were supervised by CHEWs which are part of the health system pyramid in Nigeria.</p>
<p><b>Assumption 3.2</b> Hard-to-reach communities were involved in the design and planning of relevant</p>	<p>Evidence of involvement of target communities in design and planning of social mobilisation activities</p>	<p>In DRC, Nigeria, Malawi and Mozambique, community health care committees and CHW were involved in the planning and execution of mobilisation activities. In Niger, social mobilisation activities were carried out by CHW with support from village chiefs.</p>

RaCE programme activities	Evidence of involvement of target communities in planning and monitoring of iCCM services	<p><u>DRC:</u> CHWs were elected in village meetings in a competitive election process. There was no evidence in systematic community involvement in monitoring iCCM services. Programme did not invest much effort in working with community committees (COGES) according to key informants</p> <p><u>Malawi:</u> Communities do not participate in the selection of their CHW. The community health committees support the CHW in planning and monitoring iCCM activities, including stock management through the double locked medicine box</p> <p><u>Mozambique:</u> The CHW are selected by their communities in compliance with the national criteria and with support from health facilities. Community health committees support the CHW mostly with awareness raising activities.</p> <p><u>Niger:</u> The selection of CHW was led by village chiefs who suggested a candidate to the RAcE programme. If the candidate did not comply with the criteria, the RAcE programme negotiated with the chiefs to identify an alternative candidate. Once iCCM services started, only CHW were involved in planning and monitoring of iCCM services by providing monthly reports including information on their needs in terms of medical supplies. There was no evidence that other community members were involved in planning and monitoring of the delivery of iCCM services. Community chiefs were also mobilised for contributing to the sustainability planning by raising funds to support the financial or in-kind incentives for CHW.</p> <p><u>Nigeria:</u> Traditional community leaders were used as an entry point and nominated the candidates for CHW positions. Communities were also mobilised for contributing to raising funds to support the financial or in-kind incentives for CHW.</p>
---------------------------	---	--

INVESTIGATION AREA 2: THE EXTENT TO WHICH THE RAcE PROGRAMME, THROUGH COUNTRY LEVEL ACTIVITIES AND OPERATIONAL RESEARCH, WAS ABLE TO CONTRIBUTE TO ENHANCING THE UTILISATION OF ESSENTIAL HEALTH COMMODITIES TO DIAGNOSE AND TREAT THE MAIN CAUSES OF DEATH AMONG CHILDREN UNDER 5 IN PROGRAMME COUNTRIES

---

**Evaluation Criteria**

**EFFECTIVENESS AND SUSTAINABILITY**

**Rationale**

This investigation area assesses to what extent the RAcE programme has contributed to the main objective of the RAcE programme (i.e. to catalyse the scale-up of community case management of malaria and iCCM in order to increase the coverage of diagnostic, treatment, and referral services for the three major causes of childhood mortality). The objective has been translated into the intermediate outcome of 'Enhanced utilisation of essential health commodities and supplies needed to diagnose and treat the main causes of death among children under five at the community level'. Evaluation question 4 assesses the extent to which the RAcE programme has contributed to improving government capacity to integrate iCCM as part of a robust primary health care system. Evaluation question 5 and 6 assess the extent to which the RAcE programme has contributed to increased availability, access and quality of iCCM services by ensuring that an appropriate and gender balanced number of CHWs are trained, supervised, equipped and supplied with regular and timely essential medicines for first-line treatment of childhood malaria, diarrhoea and pneumonia. Evaluation question 7 assesses to what extent operational research, conducted under the RAcE programme, has contributed to new knowledge of iCCM implementation and question 8 and 9 assess the extent to which the RAcE programme has contributed to increased participation of target communities in the health system and improved care-seeking behaviour due to increased awareness of and satisfaction with the services provided.

**EVALUATION QUESTION 4: TO WHAT EXTENT HAS THE RAcE PROGRAMME CONTRIBUTED TO INCREASED CAPACITY OF GOVERNMENT AND HEALTH PROVIDERS TO DELIVER AND MONITOR iCCM SERVICES FOR CHILDREN UNDER FIVE AT DISTRICT, STATE/REGION, AND NATIONAL LEVEL?**

- a) Has the RAcE programme contributed to a noticeable increase in the capacity of the government and health providers to deliver iCCM services?
- b) To what extent has the MoH been involved in monitoring and evaluating the RAcE programme?
- c) Has the RAcE programme contributed to the development of community-based health information systems that feed reliable sex-disaggregated data into the national health management information system?
- d) To what extent has the RAcE programme contributed to increasing capacity for ensuring a regular and timely supply of essential medicines and commodities for first-line treatment of childhood malaria, diarrhoea and pneumonia?

<b>Chain of reasoning (Link to the ToC)</b>	<p>(a) Capacity building for delivery of iCCM services: If the RAcE programme has contributed to capacity building of the MOH to deliver iCCM services (Intervention block F), there will be improved government capacity to implement quality iCCM services (ToC link 11b) If the MoH has increased capacity to implement quality iCCM services, it can integrate iCCM services as part of a robust primary health care system (ToC link 6b) If quality iCCM services are integrated and scaled up, more families will use quality iCCM services (ToC link 2d)</p> <p>(b) Capacity building for monitoring and evaluation: If the RAcE programme has contributed to increased capacity of the MOH to collect, analyse and use community-based health information (Intervention block E), there will be improved quality and use of iCCM data (ToC link 10b). If there is improved quality and use of iCCM data, the government can integrate iCCM services in the national health strategy (ToC link 6a)</p> <p>(c) Capacity building on supply and distribution of essential medicines: If the RAcE programme has conducted capacity building on stock management and distribution (Intervention block D), the government will have increased capacity to manage a system that provides regular and timely delivery and distribution of essential medicines and commodities to the CHWs (ToC link 11a). If the MOH has increased capacity to manage the supply of essential commodities for iCCM services, it can integrate and scale up iCCM services in the national health strategy (ToC link 6b) If quality iCCM services are integrated and scaled up, more families will use quality iCCM services (ToC link 2d)</p>	
Assumptions for verification	Indicators	Evidence
<b>Assumption 4.1</b> The RAcE programme has contributed to increased capacity of the Ministry of Health and health providers to deliver iCCM through review and development of tools, standards, guidelines to diagnose and treat diseases affecting children under five	New tools, standards, guidelines and systems developed by the RAcE programme are adopted by the Government	<p><u>DRC</u>: New registers, training and reporting materials were developed and tested in OR and introduced in wider province. Some partners and other provinces have shown interest but no country-wide adoption yet.</p> <p><u>Malawi</u>: The training curriculum was updated with support of RAcE following the change from presumptive to confirmed malaria treatment through introduction of RDT and the change from cotrimoxazole to dispersible amoxicillin as first line antibiotic treatment for pneumonia.</p> <p><u>Mozambique</u>: tools, guidelines and protocols were developed with a contribution of RAcE and implemented nation-wide.</p> <p><u>Niger</u>: RAcE provided technical support for revision, piloting and validation of iCCM training guides and tools. It was a key milestone for harmonised and scalable iCCM interventions.</p> <p><u>Nigeria</u>: At federal level, guidelines and tools were developed for the implementation of iCCM which were adopted by a number of States (including Niger and Abia States) .</p>



<p><b>Assumption 4.2</b> The RAcE programme has contributed to increased capacity of the Ministry of Health to collect, analyse and use community-based health information data</p>	<p>Increased capacity of government officials and health personnel to collect, monitor and use community-based health information data</p>	<p><u>DRC</u>: Systems for data collection and monitoring were implemented and CHWs and supervisors were trained. IRC maintained database and shared with DPS. Quality issues resolved after introduction new registers</p> <p><u>Malawi</u>: Robust reporting system already in place and good reporting availability at all levels. MOH received one additional M&amp;E resource person during RAcE. Limited evidence of improved data quality and reporting system through use of mHealth application.</p> <p><u>Mozambique</u>: Participatory review of the data collection tools and national indicators. Robust reporting system is in place with good reporting availability. Functional national database exists. Two full-time M&amp;E resource persons supported during RAcE. Regular supervision and data quality audits contributed to improved quality of monitoring data. mHealth application (implemented outside of RAcE) is said to have contributed to improved data quality but has not been confirmed by independent evaluation.</p> <p><u>Niger</u>: Participatory design of data collection tools with National Statistics Department, validation and implementation nation-wide. Regular supervision and data quality audits contributed to improved quality of monitoring data.</p> <p><u>Nigeria</u>: Robust reporting systems from the CHWs through supervisor to local government level were established in both States. Data is shared with the SMOH via the implementing NGOs. Maintenance and analysis of data is still responsibility of NGOs. Data quality issues were improved following first DQA in 2015 in Niger State.</p>
---	--	---

	<p>Community-based health information is integrated in the national health information system and used by the government and health personnel</p>	<p><u>DRC:</u> Monthly iCCM data are used by BCZS and DPS to monitor child morbidity. A data entry module for the on-line DHIS2 exists but at the time of the evaluation no data had been entered.</p> <p><u>Malawi:</u> iCCM data are analysed at regular data review meetings at HF and district level. The DHIS2 includes timely iCCM data and data are used by MOH for monitoring and programming of activities.</p> <p><u>Mozambique:</u> District and provincial coordinators analyse iCCM data and include in monthly reports. At central level data is aggregated in functional national database and relevant information shared with different health departments. Only community-level malaria data are included in the national DHIS2 (although aggregated at HF level).</p> <p><u>Niger:</u> District and regional level technical committees analyse iCCM data at regular meetings. There is anecdotal evidence that data analysis has supported decision-making processes. Only data from RAcE programme communities were integrated with support by the RAcE partners. This is unlikely to continue after the end of the programme.</p> <p><u>Nigeria:</u> iCCM data are analysed by NGO and shared with SMOH for information and decision-making. At federal level, agreement was reached on community health indicators to be integrated into the HMIS, but the list of indicators is very long and there are questions on the feasibility of integrating them into the DHIS2 platform.</p>
--	---	---

<p><b>Assumption 4.3</b> The RAcE programme has contributed to increasing capacity for ensuring a regular and timely supply of essential medicines and commodities for first-line treatment of childhood malaria, diarrhoea and pneumonia</p>	<p>Capacity building activities for management of essential drugs were conducted (i.e. Trainings on stock management, use of digital IS)</p> <p>Evidence of increased capacity for stock management and distribution</p>	<p><u>DRC</u>: The provincial structure for procurement and supply management of essential medicines (CADMETA) has since 2015 managed the storage and distribution of medicines and commodities to CHW and since 2016 also the procurement. This has strengthened the capacity and sales volume of the parastatal institution and indirectly increased the availability of quality-assured medicines to other public facilities through financing a rolling fund.</p> <p><u>Malawi</u>: District Product Availability Teams (DPAT) and Health Product Availability Teams (HPAT) were revitalised to monitor the availability of medicines at community level and discuss possible solutions to medicines supply chain challenges for iCCM in the district. RAcE used a parallel procurement, storage and distribution system because of the limited capacity of the CMST to ensure uninterrupted supply to CHWs</p> <p><u>Mozambique</u>: Technical support was provided to improve forecasting, wastage and stock management at provincial level, however, procurement and supply was dependent on the national medicines supply and distribution system which encountered various difficulties.</p> <p><u>Niger</u>: Health facility and district level staff received training on stock planning and management, however the capacity for managing medicine distribution to CHWs is still limited and attribution of increased capacity to the RAcE programme cannot be universally confirmed.</p> <p><u>Niger State</u>: The SMOH staff are responsible for supply chain management to the CHWs, while procurement is still facilitated by MC.</p> <p><u>Abia State</u>: In Abia State, a procurement and supply chain management systems were developed with Crown Agents and fully transferred to public sector management in year 2 of the programme.</p>
---	--	--

**EVALUATION QUESTION 5: TO WHAT EXTENT HAS THE RACe PROGRAMME CONTRIBUTED TO A SUSTAINED IMPROVEMENT IN THE SUPPLY OF ESSENTIAL MEDICINES AND COMMODITIES FOR THE FIRST-LINE TREATMENT OF CHILDHOOD MALARIA, DIARRHOEA AND PNEUMONIA? TO WHAT EXTENT DID STOCK OUTS EFFECT THE EFFECTIVENESS OF THE RACe PROGRAMME?**

<p><b>Chain of reasoning (<i>Link to the ToC</i>)</b></p>	<p>(a) <u>Contribution to increased availability</u>: If the RACe programme has identified the most appropriate mechanism to ensure regular supply and distribution of essential medicines and commodities to the CHW (<i>Intervention block D</i>), there will be system in place that provides regular and timely delivery and distribution of essential medicines and commodities to the CHWs and CHWs will have the means to treat sick children for malaria, pneumonia and diarrhoea (<i>ToC link 9d</i>). If essential medicines and commodities are continuously available to CHWs (i.e. there are no stock-outs), the availability of iCCM services in the communities will improve (<i>ToC link 4b</i>). If the availability of iCCM services in the communities improves, families will be more likely to use iCCM services for treatment of their children (<i>ToC link 2b</i>).</p> <p>(b) <u>Contribution to improved quality</u>: If the RACe programme has identified the most appropriate mechanism to ensure regular supply and distribution of essential medicines and commodities to the CHWs (<i>Intervention block D</i>), there will be system in place that provides regular and timely delivery and distribution of essential medicines and commodities to the CHWs and CHWs will have the means to treat sick children for malaria, pneumonia and diarrhoea (<i>ToC link 9d</i>). If essential medicines and commodities are continuously available to CHWs (i.e. there are no stock-outs), the quality of iCCM services in the communities will improve (<i>ToC link 5a</i>). If the quality of iCCM services in the communities improves, families will be more likely to use iCCM services for treatment of their children (<i>ToC link 2c</i>).</p>
---	--

Assumptions for verification	Indicators	Evidence
<b>Assumption 5.1</b> The RAcE programme has contributed to improving mechanisms for ensuring a regular and timely supply of essential medicines and commodities for first-line treatment of childhood malaria, diarrhoea and pneumonia	<p>Needs assessment of the existing supply chain was conducted and areas for improvement identified by the RAcE programme</p> <p>A functional system is in place to distribute essential medicines to the CHW for treatment of childhood malaria, diarrhoea and pneumonia</p>	<p><u>DRC</u>: An agreement was signed with CADMETA for storage and distribution and since 2016 also procurement of essential medicines and commodities. Not all medicines were continuously available, however, the supply to CHWs supported by RAcE was considerably better than documented in other CCM programmes in the country.</p> <p><u>Malawi</u>: Contrary to plans, stakeholders decided to set up a vertical procurement, storage and distribution system because of the limited capacity of the CMST to ensure uninterrupted supply to CHWs. This has contributed to an improved availability of essential medicines and commodities in RAcE supported districts but is not continued after the end of RAcE.</p> <p><u>Mozambique</u>: In consultation with the MOH RAcE used the national medicines supply and distribution system which uses a 'push' system with essential medicines and commodities being provided in two separate kits. RAcE distributed left-over stock from a previous GAC project in the first programme year and supported distribution from provincial to district and HF level.</p> <p><u>Niger</u>: An agreement was signed with ONPPC for procurement and delivery of iCCM medicines and commodities to district level pharmacies from which WV organised the distribution to CHW. In 2017 distribution to CHWs was handed over to the health facilities which as impacted negatively on availability.</p> <p><u>Niger State</u>: Medicines are procured by MC and supplied to the CHWs by SMOH. Active lending and borrowing between TGF and RAcE programme stock.</p> <p><u>Abia State</u>: Procurement and supply chain management system was developed with Crown Agents and transferred to public sector, except for ORS and zinc which were procured by CHAI.</p>
	CHWs make correct use of medical supplies and stock them well.	Evidence that CHWs stock medicines in cabinets in DRC and boxes of good quality boxes in Niger State, Niger and Malawi. Quality of medicine boxes in Abia State was poor. In Mozambique CHWs complained about lack of adequate medicines storage. In response, WHO developed a protocol for a low-cost storage box and produced 300 boxes for Inhambane and Manica in 2016.

<p><b>Assumption 5.2</b> There are no stock-outs of essential drugs for the first-line treatment of childhood malaria, diarrhoea and pneumonia</p>	<p>Reduced incidence of stock-outs of essential medicines and commodities for first-line treatment of childhood malaria, diarrhoea and pneumonia in RAcE programme areas</p> <p>Opinions of community stakeholders on the availability of essential medicines and commodities during the RAcE programme</p>	<p><u>DRC:</u> In 2014, more than 50% of CHWs experienced stock-outs of amoxicillin over 7 months, and again over 5 months in 2016. Excluding rectal Artesunate, the average availability of all medicines was 79% (86% for diarrhoea medicines, 85% for malaria medicines, and 64% for amoxicillin). Rectal Artesunate was procured but suffered from extended periods of stock-outs. Communities mention availability of medicines as main achievement but also mention stock-outs.</p> <p><u>Malawi:</u> Uninterrupted supply of iCCM commodities was not achieved. Stock-outs were mostly reported for amoxicillin/cotrimoxazole (24% of CHWs reported stock outs in Year 3). Referrals of children with malaria because of stock-outs were relatively common in Year 3 but decreased significantly in Year 4. From Year 3 onwards, 90% of CHWs reported no stock-outs of six commodities. Key informants reported increased stock-out since the end of the RAcE programme.</p> <p><u>Mozambique:</u> An uninterrupted supply of essential medicines and commodities was not achieved. Stock-outs of APE Kit C were regular in 2013 and 2014 but improved in 2015 and were minimal in 2016. Stock out of antimalarial (AL) kit was frequent, particularly in 2014-2015 and 2015. CHWs report stock-outs ranging from 1 to 3 months, mostly for AL kit. In Oct 2016 only 28% of CHWs reported no stock-out of AL in previous month, 53% reported no stock-out of amoxicillin. Communities and CHWs complain about frequent stock-outs.</p> <p><u>Niger:</u> Stock-outs have been minimal until October 2017, since then stocks outs of ORS/Zinc and Amoxicillin were reported at CHW level but were still available at district level. Communities confirm that availability of medicines at CHW level is major incentive. Rectal Artesunate was not supplied to CHW, even though it is included in the national iCCM algorithm</p> <p><u>Nigeria:</u> In Abia State, shortages of medicines were recorded between May and Aug 2016 and Sep to Nov 2017, primarily for ACTs. Although they affected less than two percent of children seen by CORPs between 2014 and 2017, they were mentioned in all KII and FGD and coincided with relatively large decreases in demand for services. In Niger State, stock-outs of malaria medicines started in September 2017. In the last quarter of 2017, a majority of CORPs were out of stock for ACTs, and many also for other medicines. Rectal Artesunate was not procured by RAcE in Niger or Abia State, although it is included in the FMOH guidelines.</p>
--	---	--

	Systems are in place to monitor iCCM commodity stock levels of the CHWs	<p><u>DRC</u>: Monthly registers recorded the number of doses available for each drug and they were re-supplied accordingly (either during supervision visits or they picked them up at the HC)</p> <p><u>Malawi</u>: Existing reporting systems monitor stock levels but not consumption. cStock is used to determine quantities for resupply of HSAs; HSAs provide details about stock once per month to the central level via SMS and this is used to calculate resupplies. cStock does not monitor the stock for CHWs available at HF and accountability is therefore limited.</p> <p><u>Mozambique</u>: Medicines are supplied based on a 'push' system. RAcE supported the revision of the medicines consumption form and its roll-out in 2016. Evidence of use observed in Inhambane where CHWs receive medicines based on number of treatments conducted. Upscale application (not supported by RAcE but piloted in Inhambane) is helping to register real consumption needs.</p> <p><u>Niger</u>: CHWs include data on available stock in the monthly reports which are used to calculate supply based on average previous consumption.</p> <p><u>Nigeria/Abia State</u>: Restocking of supply is based on consumption. Registers include all cases that could not be treated because of stock-out. Supervisors collect medicines at LGA Store, store them in the HF and deliver them to CORPs during supervision or on demand.</p> <p><u>Nigeria/Niger State</u>: CORPs keep separate medicine registers but these are not captured in MC database. MC recorded stock-out if CORP was without medicine for two weeks. Initial push-system for distribution but at end of first year changed to pull-system. CORPs supplied by supervisors on basis of consumption recorded in medicine register.</p>
--	---	--

**EVALUATION QUESTION 6: TO WHAT EXTENT AND HOW HAS THE RAcE PROGRAMME CONTRIBUTED TO INCREASING THE SCOPE, COVERAGE AND QUALITY OF CHILD HEALTH SERVICES PROVIDED BY CHWs TO HARD-TO-REACH POPULATIONS?**

- Has the number of CHWs been appropriate to satisfy the demand? How frequent were CHW staff turnovers and how were they managed?
- How satisfied are CHW and supervisors with their working conditions and are they currently motivated?
- What were the main challenges for the mobilisation of CHWs and how have they been overcome?
- How do CHWs and supervisors perceive the CHW training and supervision?
- How do key stakeholders perceive the quality of services provided? Can this be confirmed by data collected by the RAcE programme?
- What is the impact of adding a newborn and maternal health package to the iCCM services?

<b>Chain of reasoning (Link to the ToC)</b>	<p>(A) <u>For increasing coverage</u>: If the RAcE programme has contributed to the selection and training of CHWs and employed sustainable strategies to motivate and retain CHW (<i>Intervention block B</i>), CHWs are adequately trained and motivated to provide iCCM services for malaria, pneumonia and diarrhoea (<i>ToC link 9b</i>). If a sufficient number of CHW is adequately trained on iCCM for malaria, pneumonia and diarrhoea, the availability of these services in the target communities will increase (<i>ToC link 4b</i>). If the availability of iCCM services in the communities improves, families will be more likely to use iCCM services for treatment of their children (<i>ToC link 2b</i>).</p> <p>(B) <u>For increasing quality</u>: If the RAcE programme has contributed to a supportive supervision mechanism for CHWs (<i>Intervention block C</i>), CHWs will be regularly supervised and they will be able to provide iCCM services for malaria, pneumonia and diarrhoea (<i>ToC link 9c</i>). If CHWs are adequately trained and supervised, they are able to provide quality iCCM services for malaria, pneumonia and diarrhoea (<i>ToC link 5b</i>). If the quality of iCCM services in the communities improves, families will use iCCM services for treatment of their children (<i>ToC link 2c</i>).</p> <p>(C) <u>For increasing scope</u>: In Malawi, piloting the component on new-born and maternal health will contribute to evidence about the possibilities to expand the scope of iCCM services</p>	
Assumptions for verification	Indicators	Evidence
<p><b>Assumption 6.1</b> Increasing the number of trained and motivated CHWs will contributed to an increase availability of child health services</p>	<p>Evidence of an appropriate number of CHWs providing iCCM services (Percentage of CHW actively providing iCCM services at the end of the RAcE programme; Proportion of CHW in relation to the target population)</p> <p>Opinions of community stakeholders on the availability and accessibility of the CHWs</p>	<p><u>DRC</u>: 1,866 ReCos were trained and 1,220 were active in Oct 2017 (attrition 35%) covering an estimated 2/3 of the population living &gt;5km from a health facility. Communities were satisfied with the availability and accessibility of ReCos.</p> <p><u>Malawi</u>: No HSAs were recruited by RAcE but 1,192 were trained of which 995 were still active (attrition 17%). HSAs served on average 2,500 people while national policy aims for 1,000 people/HSAs. Only 51% of HSAs resided in the catchment area in Jan 2017. Majority of HSAs (83%) provides iCCM services only 2 days/week. Communities expressed concerns about limited availability and opening hours of village clinics.</p> <p><u>Mozambique</u>: Number of APEs in RAcE provinces increased from 622 to 1,445 with 1,344 active in March 2017 (attrition 7%). RAcE financially supported the training of 197 APEs and partially covered training for 379 APEs. APEs covered between 2,000 (Inhambane) and 3,600 (Zambezia) people. (National policy recommends 500 and 2,000 people). 91% of APEs reside in the catchment area; 82% of caregivers found APEs at first visit; FGDs confirmed good availability of APEs. Universal coverage achieved only in Inhambane.</p> <p><u>Niger</u>: 1,313 RComs were trained. Attrition was around 7%. RComs served on average 925 people, whereas the national policy stipulates 2 RComs per 300 people. Universal coverage was reached in two of the districts (Keita and Doutchi), but not as defined in the national. Communities, RComs and supervisors report consistently 24h availability of the RComs</p> <p><u>Nigeria Niger State</u> 1,698 CORPs were trained and 1,320 reported active by MC, but not all attritions captured (confirmed at LGA level). On average &lt;1,000 monthly reports submitted in 2017. CORPs served on average 1,400 people. FGDs confirmed general availability of CORPs. <u>Abia State</u>, 1,351 CORPs were trained and 1,251 were active (attrition 7%). CORPs served on average between 2,700 and 3,000 people. Coverage area was defined as people living &gt;5km from <u>functional</u> Ward Health Centre. FGDs confirmed general availability of CORPs.</p>



	<p>Evidence of strategies used to maintain motivation of CHWs</p> <p>Opinions of key stakeholders on the barriers that prevent CHWs from staying motivated and in place</p>	<p><u>DRC</u>: Earlier transport allowances were later replaced by the provision of a bicycle. ReCos complain about limited community support to facilitate their work as volunteers. Supervisors consider lack of incentives only a minor contributor to ReCo attrition. Main cause for attrition was displacement due to conflict. Other reasons cited were due to mobility (move for employment, marriage, or travel for trade)</p> <p><u>Malawi</u>: HSAs are employed by the MOH and the deployment strategy is the responsibility of the MOH. Material for construction and rehabilitation of HSA houses was provided by partners (not part of RAcE). Over the life of the project, 373 HSAs who were trained in iCCM stopped providing iCCM services in their target areas. Reasons included transfers, death and upgrading to higher positions. Reluctance to relocate to target communities was also cited in KIIs.</p> <p><u>Mozambique</u>: APEs are considered volunteers but receive a monthly stipend through payment in a bank account. APEs are dissatisfied with delayed payment of stipends by World Bank and UNICEF and the value which has devaluated with 50%, whereas the workload has increased. Availability of medicines is an important incentive. Reasons for attrition include career progression, marriage and death.</p> <p><u>Niger</u>: RComs receive a financial incentive which is an important condition for motivation and retention. Most male RComs consider the incentive insufficient, in particular in light of the high workload and limited time available for income generating activities. The main reason for attrition was migration for male RComs and marriage or divorce for female RComs.</p> <p><u>Nigeria</u>: No clear national policy about the status of CORPs and levels / modalities of incentives. In <u>Abia State</u>, motivation of CORPs is high. CORPs receive a monthly transport allowance which is, however, not received timely nor considered sufficient. In <u>Niger State</u>, changes in levels and procedures for payment of stipends have contributed to demotivation of CORPs. Community financial and in-kind support of CORPs in Niger State estimated at US\$121,000 by MC. However, CORPs in FGDs mentioned that it only applied to few communities. Uninterrupted supply of medicines was seen as the most important motivating factor by CORPs in FGDs in Nigeria.</p>
--	---	---

<p><b>Assumption 6.2</b> The training and supervision mechanisms supported by the RAcE programme have improved the quality of child health services provided by CHWs</p>	<p>Opinions of CHW and supervisors on the quality of training provided</p>	<p><u>DRC</u>: ReCos received six days of initial training and at least one three-day retraining session. Always considered sufficient</p> <p><u>Malawi</u>: A six-day module of iCCM training is added to the basic training course for CHWs. Interviewed HSAs considered training sufficient. It consists of theory and practical components</p> <p><u>Mozambique</u>: CHWs are trained for 4.5 months (including 5 weeks for iCCM) and supervisors for 5 days. Both trainings included theoretical and clinical components. CHW and supervisors were generally satisfied with the training provided.</p> <p><u>Niger</u>: The training for RComs was 10 days and they were satisfied with the quality of the training but stated that more regular refresher training sessions were needed. Three of four interviewed supervisors were recent in their position and had not participated in the training.</p> <p><u>Nigeria</u>: CORPS receive 6 days of training and CHEWS 9 days of training. It was considered good and sufficient by all CORPs and CHEWs interviewed.</p>
--	--	--

	<p>Supportive supervision mechanism is in place ensuring frequent supervision of the quality of work of CHWs</p> <p>Opinions of key stakeholders on the effectiveness of the supervision system</p>	<p><u>DRC</u>: Health facility and district supervisors were trained and responsible for providing monitoring support and clinical supervision to ReCos on a monthly basis. Data confirm that more than 80% were supervised monthly.</p> <p><u>Malawi</u>: HSA supervisors and mentors were trained. Mentors are trained clinicians or nurses who provided clinical mentoring at the health facility. HSA supervisors include senior HSAs who provide supervision in the communities (primary level supervision). Secondary and tertiary level supervision was conducted jointly between government and SC staff and the proportion of HSAs supervised and mentored increased significantly between end-line and baseline (22% to 91% and 24% to 82% respectively). The mentorship programme has challenges as mentors are not always available or the HSA does not show up for mentorship at HF. Not all HSAs considered the supervision by senior HSAs useful.</p> <p><u>Mozambique</u>: District and HF supervisors were trained, a manual and checklists developed, and financial and technical support provided. Two types of supervision models were used: regular (joint) supervision in Inhambane and two-tiered supervision using RAcE district supervisors in Manica, Nampula and Zambezia. Supervision includes review of registers and checklists and clinical assessments; however, clinical assessments happen less frequently. Monthly supervision to the community was revised down to quarterly by the MOH in 2016. 84% of APEs reported supervision in last quarter in Oct 2016 and continues to happen quarterly according to key informants. Supervision from the province to district level happens quarterly.</p> <p><u>Niger</u>: Monthly supervision was supported by RAcE partners in the first two years and handed over to health facility supervisors in March 2017. RComs confirm supervision used to be provided on a monthly basis but is now happening on a quarterly basis. Training, transport facilities and financial incentives were provided to health facility supervisors to facilitate supervision. Supervision is considered critical to correct diagnostic and treatment mistakes and support RComs to fill out monthly registers and reports. Supervision also contributed to increased credibility of RComs in the communities.</p> <p><u>Nigeria</u>: In <u>Niger State</u>, a pyramidal supervision structure from SMOH/MC level to CORP was established. CHEWs received supervision training, tools and check lists. Supervision frequency changed from initial monthly on-site supervision to quarterly supervision with monthly cluster meetings and back to monthly supervision. In first quarter of 2017, between 60 to 80% of monthly supervision visits were carried out. In <u>Abia State</u>, a quality supervision system was observed with frequent directly observed treatment of children. CHEWs, nurses and LGA focal points were trained and supervision tools were developed. Joint supervision with LGA focal points happens quarterly. In 2016/17 more than 80% of CORPS received at least one monthly supervision visit and 46%-87% included case observation. CORPs confirm monthly supervision.</p>
--	---	---

	<p>Evidence is available on improved quality of child health services provided (quality of treatment, referral practices, etc.)</p> <p>Opinions of key stakeholder on the quality of iCCM services provided</p> <p>Opinions of community stakeholders on the quality iCCM services provided by the CHW</p>	<p><u>DRC:</u> According to surveys, appropriate treatment by any provider in the programme area increased (see Annex 6). Key informants confirm that ReCos provide effective treatment and perception of high quality and effectiveness of CORP treatments expressed in all community FGDs. 96% of caregivers perceive that CORPS provide quality services.</p> <p><u>Malawi:</u> According to surveys, appropriate treatment by any provider in the programme area improved only for pneumonia treatment (see Annex 6). 21% of children were referred to HF and 87% of parents adhered to the advice (although this was a decrease compared to baseline). Reverse referral occurred frequently due to lack of medicines at HF. In FGDs communities were satisfied with quality provided, however only 62% of caregivers stated in end-line survey their perception that HSAs provide quality services. Supervisors report that HSAs follow the diagnosis and treatment protocols.</p> <p><u>Mozambique:</u> According to surveys, appropriate treatment by any provider in the programme area increased only for diarrhoea treatment (see Annex 6). A QoC assessment in January 2016, reported that 63% of children were checked for iCCM disease symptoms but only 48% of sick children received correct treatment (87% of children tested for malaria; 75% of children assessed for fast breathing) but only 22% of children with diarrhoea were correctly treated with ORS and zinc. 48% of children were referred to HF and 65% of parents adhered to the advice. Communities were satisfied with quality provided but complained about lack of medicines. In surveys, 77% of caregivers perceived that APEs provide quality services.</p> <p><u>Niger:</u> According to surveys, appropriate treatment by any provider in the programme area increased only for diarrhoea treatment (see Annex 6). A standardised referral system was piloted and rolled out with surveys reporting high referral rates (32%) and adherence levels (91%), however findings from FGDs and KIIs indicate that this finding may be biased. Regular stock-outs at HF discourages caregivers from adhering to referral advice. QoC study confirmed that RComs comply with iCCM protocols. 98% of caregivers perceive that RComs provide quality services and in FGDs stated that they were more effective than those provided at HFs.</p> <p><u>Niger State:</u> According to surveys, appropriate treatment by any provider in the programme area increased (see Annex 6). Clinical audit in July 2017 reported good performance on assessment (94% malaria RDTs; 84% respiratory rate count, 86% malnutrition assessment) but only 63% correct treatment for confirmed malaria and only 28% correct treatment for pneumonia. The referral system had limited success. 39% of cases were referred at end-line and according to survey 93% reported adherence, however the MC database indicates that this finding may be biased as it only shows 35% adherence. Distance, cost and lack of trust in quality of care were main barrier mentioned in FGDs. 96% of caregivers perceive that CORPS provide quality services.</p> <p><u>Abia State:</u> According to surveys, appropriate treatment by any provider in the programme area increased (see Annex 6). A QoC assessment in 2017, found that 49% were correctly treated or referred for all illness classifications. The referral system was weak. 9% of children were referred and 57% reported adherence according to survey, but SFH database only shows 1% referrals and 49% of adherence. Caregivers mentioned lack of trust in quality of care as the main barrier. Reverse referrals are common. 84% of caregivers perceive that CORPS provide quality services.</p>
--	--	--

<p><b>Assumption 6.3</b> A component on newborn and maternal health as part of the iCCM service package was tested in Malawi</p>	<p>Level of adherence in the pilot communities</p> <p>Results of the CBMNC package piloted in Malawi in terms of neonatal mortality reduction</p> <p>Opinions about results of CBMNCH pilot by key informants</p>	<p>While communities appreciate the increased support of HSAs during pregnancy and after delivery, the intended results were not achieved. HSAs conducted on average 12-13 home visits per quarter (against target of 66); 31% of women surveyed received at least one home visit during pregnancy (against target of &gt;45%); only 11% of mothers and newborn infants were visited by a HSA within 3 days of delivery (against target of &gt;30%).</p> <p>Main reasons for low coverage included lack of appropriate transport, limited access for male HSAs to pregnant women or young mothers in their homes, difficulties to adequately plan home visits, and an inefficient birth notification system.</p> <p>No sufficient data are available to measure outcome changes however the 2015/2016 DHS continues to report high newborn mortality rates (30/1,000 live births) in Ntcheu compared to the national average (25/1,000)</p> <p>The CBMNCH package was not fully integrated in the RAcE programme and tools in Malawi and parallel systems existed for supervision and data monitoring. The package was also not included in the sustainability roadmap for Malawi, but it was piloted in other areas with support of other partners and has been rolled out country-wide.</p>
--	---	---

**EVALUATION QUESTION 7: HAS OPERATIONAL RESEARCH CONDUCTED UNDER THE RACE PROGRAMME GENERATED NEW KNOWLEDGE ABOUT THE IMPLEMENTATION OF ICCM LOCALLY OR NATIONALLY?**

<p><b>Chain of reasoning (<i>Link to the ToC</i>)</b></p>	<p>If operational research is conducted and disseminated, new learnings on iCCM are generated (<i>Intervention block E</i>), there will be improved evidence for the implementation of iCCM services (<i>ToC link 10c</i>). If iCCM programmes are improved, the government will be able to better integrate quality iCCM services in the national health strategy. (<i>ToC link 6a</i>) If quality iCCM services are integrated and scaled up, more families will use quality iCCM services (<i>ToC link 2d</i>).</p>
---	--

Assumptions for verification	Indicators	Evidence
<p><b>Assumption 7.1</b> Operational research conducted under the RAcE programme has generated new knowledge about the implementation of iCCM locally and nationally</p>	<p>Operational research is conducted, and results are disseminated</p> <p>Operational research results have informed programme changes</p>	<p><u>DRC</u>: OR to document and validate the findings on the use of simplified CHW registers and reporting tools was conducted and disseminated. The results are well-known to government and development partners, have been adopted by the Provincial MOH, and use outside of Tanganyika Province is being discussed.</p> <p><u>Malawi</u>: OR on Treatment of Young Infant Infection in Ntcheu District was conducted but final study results are not yet published. Preliminary findings are positive and show that when hospital referral is not possible, adequate management of serious bacterial infections and fast breathing management in young infants can be provided by HSAs in village clinics. The pilot programme will be extended to the whole Ntcheu District and the MOH is committed to revise its policy depending on the outcome of this pilot</p> <p><u>Mozambique</u>: Three OR studies were conducted on the workload of the APEs, the different supervision models and quality of care. These studies have not yet been disseminated due to lack of budget and very few key informants were aware of the study results. The results of the APE workload study did not influence the decision to increase the scope of the APE package of services.</p> <p><u>Niger</u>: Two OR studies were conducted on RComs' compliance with the IMCI diagnostic and treatment protocol and assessing the potential of a mobile phone (mHealth) application to improve the quality of care provided by RComs. The reports are available but have not yet been disseminated at national or sub-national level. There was no evidence for any impact at the moment of the evaluation.</p> <p><u>Niger State</u>: Two operational research studies were conducted, a study on community management of severe pneumonia, and a study on peer supervision of CORPs. Data are currently being analysed. No information was available to the evaluation team on the status of the peer supervision study.</p> <p><u>Abia State</u>: Research on effectiveness of peer supervision of CORPs was conducted and results were disseminated. The study found no advantage of peer supervision and recommended that traditional supervisory models and structures should not be replaced. This led to the abandonment of peer supervision pilots in Abia and Niger State.</p> <p>In all programme sites, baseline and end-line surveys were conducted with the support of ICF. ICF also conducted at least one data quality assessments in each programme site and two in DRC and Mozambique. In addition, ICF also supported several Quality of Care assessments/audits and conducted the evaluation of the mHealth application in Malawi. These surveys, assessments and evaluations are not considered operational research but have informed programme changes.</p>

**EVALUATION QUESTION 8: WHAT HAS BEEN THE CONTRIBUTION OF THE RAcE PROGRAMME TO THE STRENGTHENING OF COMMUNITY PARTICIPATION AND INCLUSION IN HEALTH SYSTEMS?**

<b>Chain of reasoning (<i>Link to the ToC</i>)</b>	If the RAcE programme has involved communities in decisions regarding health service delivery in their communities ( <i>Intervention block A</i> ), communities will more actively participate in the delivery of community health services ( <i>ToC link 8c</i> ). If communities participate more actively, there will be improved care-seeking behaviour because the services will be more acceptable to them ( <i>ToC link 3</i> ). If there is improved care-seeking behaviour for childhood malaria, pneumonia and diarrhoea, families with difficult access to health facilities will use CHWs as first option for treatment of their children ( <i>ToC link 2a</i> ).
--	---

Assumptions for verification	Link to the ToC	Evidence
<p><b>Assumption 8.1</b> Communities are mobilised to participate in decisions on health service delivery at community level</p>	<p>Evidence of strategies used to engage communities in decision-making regarding the selection of CHW</p> <p>Opinions of community stakeholders on their extent of participation in decisions regarding the activities implemented by the RAcE programme</p>	<p><u>DRC</u>: Communities were engaged in the establishment of SSCs and the election of ReCos. However, insufficient attention was given to strengthening the community structures to support the operation of these sites.</p> <p><u>Malawi</u>: Community members were engaged through village health committees (VHC) and community action groups (CAGs). 4,605 community members were trained on raising awareness and community mobilisation but follow up and monitoring was limited. VHC members participated in stock management through a double lock system of the drugs box. Community members do not participate in the selection of HSAs but are encouraged to support the construction of HSA houses, village clinics and waste disposal facilities in these clinics.</p> <p><u>Mozambique</u>: Community leaders and members participate in the selection of APEs. 75 community health committees (CHC) were trained on community dialogue in Inhambane and Manica; 189 CHCs were trained on community involvement in Zambezia and Nampula. No data are available on number of community dialogues/activities conducted; qualitative study found that communities that received training had higher levels of community participation.</p> <p><u>Niger</u>: Community leaders participated in the identification of RComs. Community chiefs were involved in sustainability planning and signed statements of commitment for support RComs. Village chiefs were supportive to RComs but few resources were mobilised. In KIIs and FGDs respondents expressed reluctance to support RComs because iCCM services had been announced to be free-of-charge.</p> <p><u>Niger State</u>: CORPs are nominated by village chiefs. Communities were engaged through ward and village committees. 126 volunteer community mobilisers were trained and feedback meetings with State policy makers were organised. WDC and VHC were mobilised to support CORPs. Documented community support to CORPS was estimated at US\$121,000. CORPs confirm engagement and support from community leaders but considered it insufficient.</p> <p><u>Abia State</u>: CORPs are nominated by village chiefs. Sensitisation meetings were conducted with re-activated ward development committees. CORPs received some support from communities including recognition, exemption from community levies and tasks and occasional assistance in farm labour. CORPs were generally satisfied with support received.</p>

**EVALUATION QUESTION 9: TO WHAT EXTENT HAS THE RAcE PROGRAMME CONTRIBUTED TO INCREASED SATISFACTION BY COMMUNITIES WITH THE CHILD HEALTH SERVICES PROVIDED BY CHWs?**

- How have parents and caregivers learnt about iCCM services and how do they perceive them?
- Are CHWs the first option when seeking health services for children among families with difficult access to health facilities? Why or why not?
- How do key opinion leaders perceive the iCCM services?



<b>Chain of reasoning (Link to the ToC)</b>	If the RAcE programme has supported demand creation for iCCM services by involving caregivers and opinion leaders in community mobilisation strategies and activities ( <i>Intervention block A</i> ), caregivers and opinion leaders will be more aware of the importance of early care-seeking and behaviours to prevent childhood mortality ( <i>ToC link 8b</i> ). If the awareness and importance of early care-seeking increases, there will be improved prevention and care-seeking behaviour among caregivers ( <i>ToC link 3</i> ). If there is improved prevention and care-seeking behaviour among caregivers, families with difficult access to health facilities will use iCCM as first option for treatment of their children ( <i>ToC link 2</i> ).	
Assumptions for verification	Indicators	Evidence
<b>Assumption 9.1</b> Caregivers and opinion leaders are aware of the iCCM services and perceive them as satisfactory	Caregivers and opinion leaders were involved in community mobilisation activities	<p><u>DRC</u>: Community mobilisation meetings were held for the establishment of SSCs. There were further activities, primarily through interpersonal communication by ReCos, but key informants stated that insufficient support was provided to community structures (COGES)</p> <p><u>Malawi</u>: Community members were trained to conduct community mobilisation activities, but few data are available on community mobilisation activities conducted after the training</p> <p><u>Mozambique</u>: Community members were trained to conduct community mobilisation activities, but no data are available on community mobilisation conducted after the trainings. APEs conducted 858,205 awareness raising sessions over 4 years and caregivers confirm participation in recent awareness raising activities. 10 radio dramas were produced and aired on national radio in 2015 and community radio in Inhambane and Manica in 2016. Little evidence could be found on the effectiveness of the radio dramas.</p> <p><u>Niger</u>: RComs regularly conducted awareness raising activities (after baptisms etc.) and reported them back to their supervisors. RComs perceived awareness raising as important to help caregivers understand the work of the RCom and to support them in adopting preventive practices. Caregivers also benefit from awareness raising activities on malaria prevention provided by CSI facilitators under the TGF-funded programme.</p> <p><u>Niger State</u>: A community-based organisation FoMWAN was engaged to assist with entry into communities. MC trained volunteer community mobilisers and supported a range of social mobilisation and public education activities, including through community radio. CHAI conducted health education and demand generation activities for diarrhoea treatment in the programme area under the 'Shaping Local Markets' programme funded by GAC.</p> <p><u>Abia State</u>: Community mobilisation and initial uptake of iCCM services was low. GRACODEV, was sub-contracted to assist with mobilising communities through community dialogues, community drama and other sensitisation activities that were largely effective.</p>
	Evidence that caregivers are aware that a CHW works in their community and that they perceive the services as satisfactory	<u>DRC</u> : 95% of caregivers are aware of a CHW providing iCCM in their community, 78% among them know 2+ curative services provided by these CHWs and 98% viewed them as trusted health care providers (see Annex 6). Community groups and community leaders consistently expressed appreciation of SSCs and satisfaction with ReCo services in all interviews and FGDs. They

	<p>Opinions of key stakeholders on the awareness and satisfaction level by the community members of the iCCM services provided</p>	<p>requested that the scope of services be increased (age limits).</p> <p><u>Malawi</u>: 93% of caregivers are aware of a CHW providing iCCM in their community, but only 35% among them know 2+ curative services provided these CHWs and 78% viewed them as trusted health care providers (see Annex 6). Communities interviewed expressed appreciation of village clinics/HSAs but were concerned about limited availability and opening hours and requested an expansion of services in terms of age limits and illnesses to be treated.</p> <p><u>Mozambique</u>: 93% of caregivers are aware of a CHW providing iCCM in their community, 69% among them know 2+ curative services provided by these CHWs and 78% viewed them as trusted health care providers (see Annex 6). Community members expressed consistent appreciation of services delivered by APEs but complained about lack of sufficient medicines and limited services provided.</p> <p><u>Niger</u>: 100% of caregivers are aware of a CHW providing iCCM in their community, 77% of them know 2+ curative services provided these CHWs and 99% viewed them as trusted health care providers (see Annex 6). Caregivers consistently reported high satisfaction with services provided by RComs</p> <p><u>Niger State</u>: 93% of caregivers are aware of a CHW providing iCCM in their community, 78% among them know 2+ curative services provided by these CHWs and 94% viewed them as trusted health care providers (see Annex 6). Community group discussions confirmed a high level of satisfaction with CORP services, and that there were few, if any, accepted alternatives to caregivers. Ease of accessing care and readily available effective treatment were changes due to RAcE mentioned by caretakers of children in all community FGDs.</p> <p><u>Abia State</u>: 65% of caregivers are aware of a CHW providing iCCM in their community, 72% among them know 2+ curative services provided by these CHWs and 83% viewed them as trusted health care providers (see Annex 6). The appreciation of iCCM services expressed by caregivers in community FGDs was very high and caregivers cited facility of access, cost, and familiarity/friendliness as the main reason for shifting to COPRs for child health care</p>
	<p>Opinions of community stakeholders on use of CHW as first option for treatment of sick child</p>	<p><u>DRC</u>: Community groups consistently rank SSCs/ReCos as the first point of contact for seeking care for their sick children. End-line survey reports that 67% of sick children were taken to an ReCo as first point of contact (see Annex 6)</p> <p><u>Malawi</u>: Communities visited consistently rank HSAs as first point of contact for seeking care for their sick children. End-line survey reports that 46% of sick children were taken to an HSA as first point of contact (see Annex 6)</p> <p><u>Mozambique</u>: Communities consistently rank APEs as first points of contact for any health-related issue except in one community that was located at less than 5km from the HF and caregivers opt between APE and HF depending on illness. Caregivers also highlight more timely care-seeking due to APE availability. End-line survey reports that 57% of sick children were taken to an APE as first</p>

		<p>point of contact</p> <p><u>Niger</u>: The majority of caregivers named RComs as first source of care for their children. Caregivers consistently report that they consult RComs at first signs of illness while previously they used to wait longer. End-line survey reports that 88% of sick children were taken to RCom as first point of contact.</p> <p><u>Niger State</u>: Parents consistently rank CORPs as first point of care of sick children. However, in two communities, the health facility or hospital was ranked as most important source of care. End-line survey reports that 77% of sick children were taken to CORP as first point of contact</p> <p><u>Abia State</u>: In all communities visited, CORPs are ranked as first and most important source of health care for children. Between baseline and end-line surveys, the number of children receiving any treatment did not change (proportion for whom no care was sought remained unchanged around 14%), but there was a major shift to care by CORPs (from 0 to 44%). According to one community interview, previous first contact was private proprietary medicine vendor.</p>
--	--	--

### INVESTIGATION AREA 3: THE EXTENT TO WHICH THE RAcE PROGRAMME HAS CONTRIBUTED TO A SUPPORTIVE POLICY AND REGULATORY ENVIRONMENT FOR iCCM AS A KEY COMPONENT OF HEALTH CARE SERVICE DELIVERY<sup>1</sup>

#### Evaluation Criteria

#### SUSTAINABILITY; EFFECTIVENESS; VALUE ADDED

#### Rationale

A supportive national health policy that enables CHWs to provide treatment for malaria, pneumonia and diarrhoea is important to ensure that the programme achieves the intermediate outcome and is sustainable. WHO as the leading UN agency for health responsible for promoting the adoption of evidence-based norms, standards, policies and guidelines at national, regional and global level is well-placed to coordinate the roll-out of the RAcE Programme. In addition, the secondary objective of the RAcE programme is to generate evidence to inform WHO recommendations on iCCM policy and to develop programmatic tools to support its large-scale implementation in malaria endemic countries. Finally, GAC has opted for a sub-grantee model recognising the role of WHO as a leader in the national health policy dialogue while recognising the strength of CSOs in supporting programme implementation. This investigation area therefore assesses to what extent the RAcE programme has contributed to national and global evidence supporting the scale-up of iCCM (evaluation question 10), to what extent the sub-grantee delivery model has contributed to strengthening government ownership and implementation capacity (evaluation question 11), and to what extent the strategies for assuring the sustainability of programme results have been effective. (evaluation question 13)

#### EVALUATION QUESTION 10: WHAT HAS BEEN THE CONTRIBUTION OF THE RAcE INITIATIVE TO LOCAL, NATIONAL AND GLOBAL EVIDENCE ON iCCM?

- What evidence have the RAcE programmes contributed to the feasibility and health system requirements for scaling up iCCM?
- What evidence have the RAcE programmes contributed to the effectiveness of community case management?
- What evidence have the RAcE programmes contributed to the effectiveness of community demand-side interventions for iCCM?

<b>Chain of reasoning (Link to the ToC)</b>	The RAcE initiative was not a 'proof of concept' project. The efficacy and safety of community case management has been documented in and sufficient evidence exists to support to scale-up of iCCM. There are, nevertheless, many lessons to be learnt by implementing iCCM at a scale to achieve universal coverage in different contexts. Many of these lessons have not yet been completely evaluated and the evaluation team did not have access to preliminary results of several studies such as the ongoing study of the health systems impact of the initiative and the results of several operational research studies at programme level. There are, nevertheless, some preliminary findings that can be documented ( <i>ToC link 10b</i> )	
<b>Assumptions for verification</b>	<b>Indicators</b>	<b>Evidence</b>
<b>Assumption 10.1</b> The RAcE initiative has contributed to the generation of new evidence that has informed policies and	Documented and undocumented evidence generated by RAcE programmes about health systems issues (service delivery, information	<u>All implementation areas:</u> Strongly expressed conviction by community groups and interviewed clinical staff that child deaths have decreased in programme areas but no data available to confirm this. Modelled estimates (see evaluation question 13) cannot be validated. No <u>new</u> evidence about the benefits of community case management of pneumonia using dispersible

<sup>1</sup> Evaluation questions and indicators under this investigation area were realigned during data collection and analysis to differentiate evidence on iCCM scale-up from evidence on policy influence, and to accommodate information collected about sustainability

<p>guidance on the scale-up of iCCM</p>	<p>management, human resources, procurement and supply management) raised by delivering iCCM at scale</p>	<p>amoxicillin, nor about the benefits of malaria RDT testing at the community level. Little to no evidence about the effectiveness of community mobilisation activities to increase use of iCCM services.</p> <p><u>DRC</u>: Lowest access to care at baseline and largest increase at end-line among all programmes (23%). About 2/3 of estimated population with limited access to HFs reached. Unreached population due to low population density; too inaccessible – cannot be supervised and supplied (e.g. access only by lake); insecurity and violence. However, some displaced ReComs continue to work in IDP camps. QoC assessment (as part of OR): 93% correctly use RDTs but only 55% correctly count respiratory rate (with counting beads). No evaluation of counting beads. Introduction of simplified registers and tools: Correct treatment increased 2.5 times, assessment and reporting took 30% less time.</p> <p><u>Malawi</u> Minor increase in access to care (5%) with larger shift from other providers to HSAs (15%). Question of defining population near CHAM clinics as having limited access (because of user fees). Reports of reverse referrals from HF to HSA because of medicine stock-outs at facilities. QoC assessment in 2014: 59% correctly count respiratory rate. Difficulties experienced by HSAs in correctly counting respiratory rate documented by SC (in ICF evaluation report). Mobilisation of communities to support HSAs (building of accommodation) not very effective. Pilot study of feasibility of treating serious bacterial infections at community level generated positive preliminary results and national adoption is under consideration.</p> <p><u>Mozambique</u>: No increase in access to care but shift to APEs. QoC assessment in 2017: 91% correctly use RDTs but only 62% correctly count respiratory rate. Shortage of medicines is major issue identified by community groups. Deterioration in supply reported after end of RACE programme. Study on demand-side barriers to care planned but later cancelled.</p> <p><u>Niger</u>: Increase in access to care from 69% at baseline to 85% at end-line. According to OR, The percentage of CHW who correctly count the respiratory rate is estimated at 86% and between 80 – 99% of the classifications done by CHW are equivalent to those of health professionals. Mobilisation of communities to support incentives of RComs not consistent.</p> <p><u>Abia State</u>: Densely populated area with many public primary health facilities but 90% ‘not functional’ and many private providers. Increase in access to care small (8%) but major shift from other providers to CORPs. Reports of reverse referrals from HF to CORP because of medicine stock-out at facilities. Difficulties of CORPs in counting respiratory rate reported by supervisors in KIs. Uninterrupted supply of medicines identified as main motivation factor for CHWs and main contributor to community uptake of iCCM services. No assurance of continued supply after the end of the programme (no buffer stock, no procurement in progress)</p> <p><u>Niger State</u>: Increase in access to care intermediate (16%) with major shift from other providers to CORPs. Evidence of demotivation and attrition of CORPs following changes in modalities and level</p>
---	---	---

		of financial incentives. Analysis of level of community support to CORPs but no evaluation of effectiveness of community mobilisation and demand-side interventions.
<b>Assumption 10.2</b> The RAcE programme has contributed to the generation of new evidence on iCCM at global level and this has informed WHO policy recommendations and programmatic guidance	Evidence that WHO has used information from the RAcE programme in policy recommendations or programmatic guidance	Input from RAcE programme activities in the normative work of WHO COs throughout the programme period in all countries. In all five countries, joint transition and sustainability planning processes translated the programme experience into future programmatic guidance.  Policy action on OR results (peer monitoring) in Nigeria and (infection) in Malawi. Most other studies not yet finalised and translated reviewed for policy implication

**EVALUATION QUESTION 11: TO WHAT EXTENT DID THE SUB-GRANTEE DELIVERY MODEL USED BY THE RAcE INITIATIVE CONTRIBUTE TO INCREASED GOVERNMENT OWNERSHIP AND CAPACITY TO IMPLEMENT iCCM AT DISTRICT, STATE/REGION, AND NATIONAL LEVEL?**

- How did the RAcE programmes contribute to the development or strengthening of national iCCM policies, strategies and guidelines?
- How did the RAcE programmes contribute to strengthening national capacity to deliver iCCM programmes?

<b>Chain of reasoning (Link to the ToC)</b>	Implementing the programme at country level by WHO as a leader in the health policy dialogue with government and by civil society organisations as sub-grantees with a strong track record of timely delivery of results and capacity building in the country increases the potential of the programme for collaboration with the ministries of health and for feeding programme results into the national health partner dialogue. (Intervention block F) This contributes to sustainability, country ownership of iCCM and integration of iCCM in the national health strategy. (ToC link 11c)	
<b>Assumptions for verification</b>	<b>Indicators</b>	<b>Evidence</b>
<b>Assumption 11.1</b> WHO, as the lead grantee, has effectively supported the development and reform of policies and strategies for iCCM in programme countries.	Opinions of government partners about the acceptability of cooperation with WHO sub-grantees  Policies, strategies and guidelines on iCCM that were developed or revised in the five programme countries with the technical support of the WHO COs under the RAcE Initiative	Under the sub-grantee delivery model of the RAcE Initiative, WHO COs in all countries established iCCM focal points either as NPOs or as an IPO position in the DRC. The focal points were primarily active at national level, supporting the MOH in the development or review of national iCCM policies, strategies and guidelines and in their function as coordinators of international partner programmes. In addition, they monitored the implementation of operational support to iCCM provided by sub-contracted CSOs.  In KIIs at national level, the role of WHO in providing policy support was highly appreciated by MOH officials and also acknowledged as very effective by international partners. In global-level interviews, the approach was characterised by one respondent as a ‘transitional model’ to be phased out once programmes are well established.  Little progress was achieved in reviewing and reforming the position of CHWs in the national human resources for health frameworks. In Malawi, the only one of the RAcE programme countries where CHWs are paid employees, the issue of overburdening the HSAs with a growing number of tasks has not yet been addressed. In Mozambique, the results of an APE workload study conducted with RAcE support did not influence the decision to increase the scope of the

		<p>APE package of services. In Nigeria, the creation of a cadre of Village Health Workers is being discussed with input from WHO, but no decision has yet been reached. Meanwhile, in Nigeria as in the DRC, international projects implement their own systems for incentivising CHWs with relative independent of national guidelines.</p> <p><u>DRC</u>: WHO CO was active in the national policy dialogue and used lessons learned from the RAcE programme to support strategy development towards universal coverage. A (draft) national iCCM strategy was developed with CO support and largely informed by the experience of the RAcE programme, iCCM was included in the 2016-2010 national health strategy. The CO also supported the MSP in its effort to coordinate future funding from TGF and PMI to achieve national coverage of iCCM and advocated the inclusion of diarrhoea and pneumonia treatment in the malaria community case management sites to be supported by these two agencies. The CO also provided technical support for the development and evaluation of the simplified ReCo registers and training materials in Tanganyika Province and promoted the adoption of these tools nationwide and among international partners.</p> <p><u>Malawi</u>: The WHO CO supported the MOH in the development of the Health Sector Strategic Plan II 2017-2022, the National Child Health Strategy for Survival and Health Development of Under-five Children 2014-2020, and the National Community Health Strategy 2017-2022 which all include iCCM in their strategies. It successfully advocated for the introduction of malaria RDTs at community level and for a change of the antibiotic in the community case management protocol for pneumonia from cotrimoxazole to dispersible amoxicillin. In 2014, it supported the adaptation of the WHO caring for the sick newborn package to the Malawian context, and the operational research project 'Treatment of Young Infant infection in Ntcheu District' which, if a limited scale-up is successful, may result in policy changes to introduce the treatment of serious bacterial infections at community level.</p> <p><u>Mozambique</u>: Lessons learned from the RAcE programme were shared in national technical working groups which include representatives of WHO, SC, MC, UNICEF, USAID, World Bank. World Bank plans to support the APE programme through the Global Financing Facility were at least partially informed by the increasing recognition this programme received through advocacy by the CO based on evidence generated by the RAcE programme.</p> <p><u>Niger</u>: Four key health strategy documents were revised with WHO CO/ World Vision support: the national strategy for community participation in health 2016 – 2020, the national guidelines for the implementation of integrated community health interventions, the national strategic plan for child survival 2016-2020, and the orientation and reference guide for community development agents.</p> <p><u>Nigeria</u>: The development partners interviewed by the evaluation team, including the FMOH, confirmed that the advocacy and technical support provided by the WHO CO on the basis of the</p>
--	--	--

		<p>RACe programme experience was key for the introduction of iCCM in the Nigerian health policy. The culmination of this successful cooperation was the endorsement of iCCM by the National Council on Health in 2016, the highest Nigerian health policy forum. The negative results of the research on peer supervision by the RACe programme in Abia State informed national and international partners about supervision systems through WHO CO participation in the technical working group on iCCM.</p>
<p><b>Assumption 11.2</b> The implementing partners subcontracted under the RACe Initiative have strengthened the capacity of the MOHs to deliver iCCM programmes</p>	<p>Public sector institutions, structures and procedures for iCCM implementation that were developed or strengthened in the programme areas with support of the sub-contracted implementing partners</p>	<p>Under the sub-contracting model, contracted CSOs provided policy and operational support for the implementation of iCCM at the decentralised level in states, provinces or districts. Only in Nigeria and Malawi did national MOH officials express reservations about the division of tasks between WHO COs and the sub-contracted CSOs, stating that they had the capacity for programme implementation without support by CSOs. All MOH partners at the decentralised level, however, rated the support provided by the CSOs as a positive contribution towards the goal of universal health coverage. International stakeholders who were interviewed by the evaluation team had mixed response. One respondent thought that through the approach, sustainability was traded against the achievement of quick results. Another respondent saw an opportunity in this approach to overcome previously experienced disconnects between simultaneous policy projects by UN partner agencies and separately funded and governed CSO implementation projects. Yet another respondent characterised the approach as a transitional model for scale-up that should be abandoned once iCCM policies and implementation structures have been established in a country.</p> <p>The support provided by CSOs in <u>Malawi</u> and <u>Mozambique</u> focused on strengthening existing iCCM programmes through additional training, quality control and the strengthening of operational aspects in supervision and supply management. RDT testing for malaria was successfully introduced in Malawi. At the time of the end-line survey 61% of children with fever seen by a HSA had an RDT test compared to zero at baseline. The proportion of children with respiratory infections whose respiratory rate was counted by an HAS to diagnose pneumonia doubled to 58%. No changes in terms of improvements in the diagnosis were, however, observed in Mozambique.</p> <p>In the <u>DRC</u>, <u>Niger</u> and <u>Nigeria</u> the implementing partners helped establish community care sites, including facilitating the entry into communities and the appointment and equipment of CHWs, as well as community mobilisation to stimulate demand and generate community support for iCCM services. The effectiveness of the demand-side activities which were also implemented in Malawi and Mozambique are discussed under Evaluation Question 9. Other activities such as the strengthening of iCCM supply management, supervision systems and information management are also discussed under the preceding evaluation questions.</p>



## EVALUATION QUESTION 12: HAVE THE RAcE PROGRAMMES DEVELOPED AND IMPLEMENTED REALISTIC AND EFFECTIVE SUSTAINABILITY PLANS?

- Are the transition and sustainability plans developed for the RAcE programmes feasible and are they being implemented?
- Have the ministries of health included iCCM as a costed element in the national health sector plan and budget, as a result of RAcE advocacy?

<b>Chain of reasoning (Link to the ToC)</b>	The transition and sustainability planning processes were not included in the TOC and the evaluation team only became aware of the extent of this exercise during data collection. Additional questions were added to the KII guides and documentation of the process prepared by ICF was added to the documents to be analysed. Evaluation questions about sustainability and MOH budgeting for iCCM that were included in the evaluation matrix under question 11 were moved to question 12.	
<b>Assumptions for verification</b>	<b>Indicators</b>	<b>Evidence</b>
<b>Assumption 12.1</b> The RAcE programme has a clear and realistic schedule for handing over the iCCM intervention to national authorities	Extent to which RAcE programmes have developed transition and sustainability plans which have been appropriated and are being used by ministries of health in the programme countries	<p>In all programmes, the development of sustainability and transition plans merged, the former focusing on the long-term sustainability of iCCM while the latter had a more short-term focus on the full transition of RAcE programme activities to the ministries of health and of funding to other international sources. Although these plans are related, they have a different time horizon and different allocations of responsibilities. The processes were started simultaneously at the beginning of the last programme year.</p> <p><u>DRC:</u> IRC has assisted the provincial MOH and the health zones in the integration of coverage plans and budgets for community care sites. The sites were integrated in the provincial and zonal operational plans and budgets, but there was no allocation of funds to these budget lines from domestic sources. The provincial MOH is anticipating funding from PMI and other partners to cover the costs. Negotiations with PMI were ongoing but key informants considered it highly unlikely that PMI would cover the full network of sites established under RAcE. The implementing partner for the PMI programme had not yet been selected and key informants expressed concerns about the effects of a prolonged funding gap. Provincial and zonal health administrators participated in the planning process and expressed their appreciation of the process, but all admitted that they did not use the roadmap document in their own planning. At national level, the malaria programme and the primary health care directorate stated that they were not aware of the planning documents (they participated in the workshop but there have been personnel changes since then). Key informants at MOH and WHO level stated that sustainability planning was initiated too late in the programme.</p> <p><u>Malawi:</u> The sustainability roadmap identified a number of challenges including (a) Competing priorities of HSAs who have other responsibilities besides iCCM, as well as issues of residency, training and transport; (b) Financial sustainability of iCCM and mechanisms of channelling funds; (c) Coordination among partners and across different levels in the health system; (c) Implementation issues, especially the strengthening of primary health care facilities, the improvement of the supply chain for iCCM commodities and the overburdening of HSAs (c) timing of sustainability planning which focused on the transition of the programme from RAcE to another</p>

		<p>externally funded programme rather than on longer term sustainability of iCCM. As part of the transition plan, SC supported a rapid assessment of hard-to-reach areas in the programme districts and the procurement of a buffer stock of iCCM commodities. The CMST, however, does not yet include iCCM supplies in its budget and planning. iCCM is included in planning and budgeting cycle MOH under IMCI. District transition plans have been prepared in the RAcE programme districts.</p> <p><u>Mozambique:</u> Gaps identified in the development of the sustainability roadmap included that the Ministry of Policy and Planning and Human Resource units that are responsible for APEs did not participate in the process. Sustainability planning began as the RAcE project was nearing an end and focused on who was going to continue funding the RAcE activities rather than focusing on concepts of sustainability. The ongoing funding of iCCM initiatives continues to be unclear. The timelines in the roadmap are vague. Provincial-level transition plans had been developed and implementation had started, but appropriation of the sustainability roadmap at the level of key national ministries was not evident and key informants expressed the view that the process started too late. Funds have nevertheless been mobilised from international sources to continue iCCM programmes.</p> <p><u>Niger:</u> The identified gaps in the development of the sustainability roadmap for Niger as presented in the final report of ICF are identical to those in Mozambique (identical wording) which raises a concern about the depth of analysis although it is likely that similar challenges about the participation of key government departments in the process and the focus on transferring programme activities rather than addressing their longer-term sustainability were the same. Policy and strategy documents of the MSP reviewed by the evaluation team provide a foundation for the future institutionalisation of RComs in the health system and the inclusion of a specific line for iCCM in the national health budget. Most tasks in the sustainability roadmap, however, require financing that is substantially above the resources available to the assigned institutions. The implementation capacity at decentralised level is inconsistent; there are endemic problems in the supply of medicines and there is not yet a budget line to cover 50 percent of the cost of RCom incentives to which the government is committed.</p> <p><u>Nigeria:</u> Transition and sustainability planning was conducted at national level but with individual plans and roadmaps for the two states. The FMOH indicated that it is aware of its responsibility in coordinating national policy and has, with its own IMCI budget, already funded its participation in iCCM monitoring and has funded a workshop for a national cadre of high-level iCCM trainers. Key informants at the MOH in both states as well as at the WHO CO expressed the opinion that sustainability planning was started too late in the RAcE programmes.</p> <p><u>Abia State:</u> The transfer of key programme tasks from SFH to the State PHCDA was near completion at the time of the evaluation mission, facilitated by the fact that they share premises. This included training in data management and use. SFH procured a sufficient amount of data</p>
--	--	---

		<p>tools for Abia State to use until the first quarter of 2018. According to the transition plan, the SMOH was to organise meetings of the Ward Development Committees and the establishment of Village Development Committees to implement social mobilisation and community-led awareness-raising and monitoring initiatives. The evaluation team found no evidence that this has been implemented. The State Commissioner of Health, a budget line has been created in the state budget for funding iCCM but no funds have as yet been appropriated. The SMOH is anticipating a major funding programme for primary health care from the World Bank but was not yet certain if these funds would be used for iCCM or only for strengthening primary health care facility services. The State multi-year budget estimates (2016-2018) include an allocation to the PHCDA for IMCI of N 100 million (about USD 280K) per year. Whether a portion of these funds can be used for iCCM is not certain. The Executive Director of the State PHCDA expressed concerns about continued funding of RAcE programme activities. All medicines and commodities have been distributed and no further procurement is planned under the RAcE programme.</p> <p><u>Niger State:</u> Similar to the Abia State, the ongoing funding for social mobilisation activities in Niger State is unclear. MC stopped paying regular stipends to CORPs in March 2017 which has already resulted in reduced motivation as documented by decreasing receipts of monthly register reports. The system and level of incentives for supervisors and LGA focal points is also not clear. The M&amp;E officer in the SMOH iCCM unit was working with LGA M&amp;E staff to assure continued data flow after the end of the programme, but it is not clear whether the data management structure he developed will be adopted by the SMOH. Because of a disruption of commodity supplies in the last half of 2017, the SMOH and MC were able to resupply the CORPs with iCCM commodities in January 2018, but there is no assurance of funding for commodities after these are exhausted. The SMOH has a costed operational plan for iCCM services in 2018 with a total cost of N 701 million (about US\$ 1.9 million). BMGF is listed as the main financing source, although this grant is still under negotiation. The State PHCDA anticipates becoming the implementing partner under the proposed BMGF grant which foresees the funding of Village Health Workers who will be recruited in the RACE programme LGAs among current CORPs but will have a greatly expanded scope of tasks. Under these plans they would receive regular stipends although the level has not yet been determined. The PHCDA participated in the sustainability planning workshop but is not using the outcome for its own planning. Informants at LGA level were aware of the process but not of the outcome.</p>
--	--	--

INVESTIGATION AREA 4: THE EXTENT TO WHICH THE ASSESSED CHANGES IN ICCM TREATMENT COVERAGE AND CHANGES IN CHILD MORTALITY IN RACe PROGRAMME AREAS, AS WELL AS THE PLAUSIBLE CONTRIBUTIONS OF RACe TO ANY CHANGES IDENTIFIED IN THE EVALUATION CONDUCTED BY ICF, CAN BE INDEPENDENTLY CORROBORATED.

<b>Evaluation Criteria</b>	<b>IMPACT</b>
<b>Rationale</b>	ICF was contracted by WHO to estimate the impact of the RACe Initiative by modelling the reduction of child mortality with the aid of the Lives Saved Tool (LiST). This investigation area assesses the extent to which the outcome of this estimate can be independently validated. Reliable and timely data on child deaths in communities are not available from vital statistics or health information systems in the programme areas. The LiST tool is a widely accepted modelling application, but the validity of estimates derived by this method is highly dependent on the validity of input data. Under evaluation question 13, the validity of input data is examined, and alternate data collected through document reviews, key informant interviews and focus group discussions are triangulated with the modelled estimates.

**EVALUATION QUESTION 13: CAN THE CONTRIBUTION OF THE RACe PROGRAMMES TO THE REDUCTION IN DISEASE-SPECIFIC AND TOTAL CHILD MORBIDITY AND MORTALITY IN THE PROGRAMME AREAS AS REPORTED BY ICF BE EXTERNALLY VALIDATED?**

<b>Chain of reasoning (Link to the ToC)</b>	Reduction of child mortality in programme areas is the targeted ultimate outcome of the RACe Initiative. It was to be achieved through increased access and increased quality of treatment for malaria, diarrhoea and pneumonia. <i>(TOC link 1)</i>  (The initially formulated three assumptions were reduced to two, and indicators were reformulated after better understanding of the role of ICF in surveys. The evaluation question is specifically about the impact estimates of ICF which is better reflected in the revised assumptions and indicators)	
<b>Assumptions for verification</b>	<b>Indicators</b>	<b>Evidence</b>
<b>Assumption 13.1:</b> The application of the LiST model to available data provides a reasonable estimate of the impact of the RACe programme on child mortality and on the number of lives saved by iCCM in the targeted population	Degree to which the baseline U5MR data used in the model are representative of the U5MR in the programme areas.  Degree to which U5MR data from alternate sources corroborate modelled impact on child mortality  Degree to which community members and clinical staff perceive that there are fewer childhood deaths since iCCM services have been introduced or scaled up.	<u>DRC</u> : The baseline U5MR applies to the period from 2003 to 2013 in Katanga Province which at the time included the programme province of Tanganyika. It also included four other new provinces some with a social profile and health infrastructure well above national average. It is not likely to reflect the reality of the programme area in 2013. Community members in FGDs and clinicians in KIIs (supervisors at HFs and Zonal Medical Officers) firmly expressed their perception of a major decrease in the number of childhood deaths since the start of the programme. Facility-based HMIS data show a sharp reduction in the number of blood transfusions for children with severe malaria since the introduction of iCCM.  <u>Malawi</u> : The baseline U5MR of 124.3‰ is based on an extrapolation of the rural U5MR for the period from 2000 to 2010 reported in the 2010 DHS (130‰). Data from the 2015/16 DHS (U5MR 77‰ from 2005 to 2015) indicate that the extrapolation significantly underestimated the rate of change between 2010 and 2013. The baseline rate used in the model is unlikely to reflect the 2013 U5MR in the programme area. The Malawi 2015/16 DHS reports a decrease in U5MR among rural populations in Malawi averaging an annual U5MR reduction of 10.6/1,000 compared to the

		<p>modelled annual reduction of 1.9/1,000. Community members and primary level health workers unanimously expressed their perception of decreased child mortality due to village clinics.</p> <p><u>Mozambique</u>: The baseline U5MR of 94‰ applies to the period of 2001 to 2011 for the combined four programme provinces which ranged from 48‰ in Inhambane to 142‰ in Zambezia. It did not account for the significantly different levels of programme coverage among the provinces which was highest in Inhambane and is therefore unlikely to be representative of the RAcE target populations in 2013. •Community level data collected by the National APE programme show a decrease in number of under 5 deaths reported per APE in the 4 provinces with a clear reduction between 2014 and 2016. The decrease is higher than the national (10 province) average in Nampula, Inhambane and Manica. Community members and primary level health staff refer to a decrease in key childhood illnesses, in particular diarrhoea and malaria since the presence of APE in the community</p> <p><u>Niger</u>: The baseline U5MR of 137‰ applies to the period of 2002 to 2012 for rural areas in the two programme regions of Dosso and Tahoua. Although this is likely the best geographical approximation of the survey sample and the RAcE programme areas, the long historic period over which the U5MR was calculated makes it unlikely that the baseline U5MR of the model reflects the rate experienced in 2013 in the two programme areas. Community members and primary level health staff unanimously expressed their perception that child mortality has decreased since the start of RAcE.</p> <p><u>Abia State</u>: The baseline U5MR of 131‰ applies to the period from 2003 to 2013 in the south-east region of Nigeria which includes five states. According to MICS estimates in 2011, the U5MR in these states ranged from 111 to 194‰. The baseline rate used in the model is unlikely to reflect the 2013 U5MR in the RAcE programme area in 15/16 LGAs of Abia State. The 2016/17 MICS for Abia State reports an average annual U5MR reduction of 6.6/1,000 since the 2010 MICS which is in the same range as the modelled estimate of 5.8/1,000. Community members in FGDs and clinicians in KIIs (supervisors at HFs and Zonal Medical Officers) firmly expressed their perception of a major decrease in the number of childhood deaths since the start of the programme</p> <p><u>Niger State</u>: The baseline U5MR of 100‰ applies to the period from 2003 to 2013 in the north-central region of Nigeria which includes six states and the Federal Capital Region. According to MICS estimates in 2011, the U5MR in these states ranged from 110 to 182‰. The baseline rate used in the model is unlikely to reflect the 2013 U5MR in the RAcE programme area in 6/25 LGAs of Niger State. The 2016/17 MICS for Niger State reports an average annual U5MR <u>increase</u> of 5.2/1,000 since the 2010 MICS while the modelled estimate is of an average annual <u>decrease</u> of 4/1,000. Community members in FGDs and clinicians in KIIs (supervisors at HFs and Zonal Medical Officers) firmly expressed their perception of a major decrease in the number of childhood deaths since the start of the programme</p>
--	--	--

<p><b>Assumption 13.2</b> Methods used to estimate the programme impact on child mortality are sound</p>	<p>Degree to which the input data for the modelled estimates of lives saved by community case management of each of the three iCCM diseases are sufficiently robust to generate valid estimates</p>	<p>Modelled estimates of disease-specific mortality reduction are based on internationally agreed efficacy estimates of specific treatments that do, however, not differentiate between the sites of treatment (hospital, health centre, community). Input data are from baseline and end-line surveys ignoring statistical significance (i.e. also modelling observed differences that are likely due to chance rather than intervention).</p> <p>Data are based on report of ‘appropriate treatment’ by caregivers introducing a high level of reporting error as caregivers may not know whether the condition was correctly diagnosed, the treatment given corresponded to the diagnosis; nor may they always know what treatment was given or may not have followed the treatment instructions.</p> <p>Challenges to the modelled data are the same in all countries. The introduction and improvement of malaria diagnosis using RDTs and of the diagnosis of pneumonia using respiratory rate counting would in all countries result in a decrease in ACT and antibiotic treatments which would have previously been used on a more presumptive basis. This is an improvement of treatment but in the model reduces the estimates of lives saved.</p> <p><u>DRC</u>: Modelled lives saved: ORS: 395; Zn: 136; Antibiotics: 521; ACT: 615; Total: 1,667</p> <p><u>Malawi</u>: Modelled lives saved: ORS: 20; Zn: 48; Antibiotics: 534; ACTs: -2; Total: 600. The change of antibiotic from cotrimoxazole to amoxicillin is not modelled.</p> <p><u>Mozambique</u>: ORS: 15; Zn: 213; Antibiotics: -1,247; ACTs: -1,426; Total: -2,445.</p> <p><u>Niger</u>: ORS 562; Zn 178; Antibiotics: 53; ACTs 327; Total: 1,120</p> <p><u>Abia State</u>: ORS: 375; Zn: 102; Antibiotics: 517; ACTs: 399; Total: 1,393. The impact of the social marketing of ORS+Zn supported by CHAI in the programme area is not considered</p> <p><u>Niger State</u>: ORS: 275; Zn: 88; Antibiotics: 415; ACTs 486; Total: 1,264</p>
--	---	---

## INVESTIGATION AREA 5: THE EXTENT TO WHICH THE RAcE PROGRAMME HAS CONTRIBUTED TO THE ACHIEVEMENTS OF GENDER EQUALITY RESULTS

### Evaluation Criteria

### GENDER EQUALITY

#### Rationale

The RAcE programme proposal mentioned that it would report results in a gender disaggregated way and also efforts would be done to ensure gender equality in the selection and training of CHWs. Furthermore, it acknowledges that enhancing access to appropriate care for malaria, pneumonia and diarrhoea in young children is considered a gender issue because women are most often the only or the most important caretakers of sick children, which puts an additional burden on their daily routines and can interfere with occupational duties. With this investigation area, we try to assess how the RAcE programme has included gender equality dimensions in the design of the programme and to what extent the programme through its implementation contributed to improved gender equality results for the CHW and at the community level.

### EVALUATION QUESTION 14: TO WHAT EXTENT WERE GENDER EQUALITY DIMENSIONS INCLUDED IN THE DESIGN AND DEVELOPMENT OF RAcE PROGRAMMES?

- Did the design and development of the RAcE programme by each implementing partner include a thorough and participatory gender analysis? How have the results of the analysis been reflected in the M&E framework and implementation design?
- Do the RAcE programme monitoring systems collect, analyse and communicate sex-disaggregated data?
- Has the RAcE programme contributed to a reflection on potential reasons for gaps in service provision between girls and boys?

#### Chain of reasoning (*Link to the ToC*)

If gender equality dimensions are applied during the programme design and in the M&E framework (Intervention block E), the programme can provide useful learnings about the potential reasons for differences in service provision to girls and boys and thereby contribute to improved evidence and quality of iCCM data (ToC link 10a)

Assumptions for verification	Indicators	Evidence (data sources)
<b>Assumption 14.1</b> A participatory gender analysis identifies what the barriers are for women and men in terms of access to child health services and how this impacts on their daily lives	Evidence that a gender analysis was conducted and informed the RAcE programme design and implementation	<p>None of the RAcE program countries carried out a gender analysis. [annual reports]</p> <p>In four of the countries (DRC, Mozambique, Malawi, Nigeria) a gender analysis was not included in the grant agreement with WHO and the implementing agencies did neither plan nor implement any related activity,</p> <p>In Niger, the implementation of a gender analysis and the development and implementation of a gender strategy were part of the contract, but not implemented. The first-year annual progress report from World Vision makes reference to a study conducted on gender related bottlenecks, but the report was not available and key informants had no information about the study. There was no evidence that a gender strategy was developed. While the initial proposal and PMF were developed with a consistent gender lens, there is no evidence of gender mainstreaming (e.g. trainings on gender or the development of gender sensitive materials) after the first year of the programme.</p>
<b>Assumption 14.2</b> The monitoring systems used allows to collect and analyse sex-disaggregated data for treatment	M&E frameworks capture sex-disaggregated data	<p>The CHW registers in all countries record the sex of the child. In the aggregation of CHW reports, sex-disaggregated data by consultation are maintained at programme level in all programmes but not by diagnosis or treatment. In the process of data transfer to the national health information system, disaggregation is lost in all countries but Niger.</p> <p>The country M&amp;E frameworks and annual reports from the five countries are also not consistent in terms of capturing sex-disaggregated data:</p> <p><u>DRC</u>: The PMF does not mention sex-disaggregation for treatment data and annual reports do not provide them.</p> <p><u>Malawi</u>: The PMF requires sex-disaggregation for the majority of diagnostic and treatment indicators. The programme reports, however, do not comply with this requirement.</p> <p><u>Mozambique</u>: As for Malawi. Annual indicator progress reports include a note that sex-disaggregated data were not available at the MOH for specific illnesses and that they would only be provided for all three diseases combined. They were, however, not provided.</p> <p><u>Niger</u>: The approved PMF requires sex-disaggregated data for all diagnosis and treatment indicators and the referral of malnutrition cases. This requirement was not respected: the year 1 reports provides sex-disaggregated data for one indicator only. The year 2 report, does not provide any disaggregated data but includes a reference that a comparable number of girls and boys were consulted by CHWs. The annual reports for the following years do not provide any new information on gender; data for key performance indicators were not disaggregated by sex.</p> <p><u>Nigeria</u>: The PMF of both implementing partners specify that data should be presented disaggregated by gender, but none of them are.</p>



	<p>Evidence that sex-disaggregated data have been analysed and used to adapt the programme</p>	<p>Sex-disaggregated data were in most cases not available beyond community level and not presented in quarterly or annual reports of the implementing agencies.</p> <p>Neither programme reports nor KIIs provided any evidence that gender specificities in treatment access were analysed and acted upon at any time in the five RAcE programmes. The final evaluation report of ICF, however, includes a section on gender related treatment differentials based on data collected in baseline and end-line population-based surveys. For all countries but Nigeria, there were no significant differences between girls and boys in the assessment or treatment of iCCM illnesses.</p> <p><u>Nigeria</u>: Both the baseline and end-line survey as well as the CORPs databases document sex differentials in treatment access, diagnosis or treatment. The <u>analysis of survey data by ICF</u> for Abia State showed that a significantly larger number of sick boys than girls were seen by an appropriate provider at baseline (71.7% versus 65.7%) but that this difference disappeared at end-line. The assessment in Niger State found significant but inconsistent differences, with more boys than girls assessed by CORPs, more boys than girls treated for malaria, but more girls than boys treated for diarrhoea. The <u>analysis of the CORP databases by the evaluation team</u> documented that in Abia State five percent more girls than boys were seen by CORPs (481,024 girls and 458,589 boys), and in Niger State 12 percent more boys than girls (224,412 boys and 199,541 girls). The Niger State data are confirmed by a MC data quality audit report of registers from Nov 2016 (10.4% more boys) . The difference was discussed with communities and key informants at all levels, but it had not been noted and there were no plausible explanations. It is noteworthy that the routine reporting data were at variance with the results of the household surveys.</p>
--	--	---

**EVALUATION QUESTION 15: TO WHAT EXTENT HAS THE RAcE PROGRAM CONTRIBUTED TO GENDER EQUALITY FOR THE COMMUNITY HEALTH WORKERS AND MEMBERS OF THE TARGETED COMMUNITIES?**

- How were gender dimensions taken into account during the selection of CHWs?
- How are gender equality dimensions included in the training materials and health promotion tools of the CHWs mobilised under the RAcE programme?
- To what extent did the programme increase participation by women in health service design, delivery and review at community level?
- Has the programme empowered women to make informed choices to protect their health and rights and those of their children?

<b>Chain of reasoning (Link to the ToC)</b>	<p>(A) <u>Gender balance in CHW recruitment</u>: If the RAcE programme used strategies to obtain a gender balance in the recruitment of CHW (Intervention block B), there will be an improved gender balance in the CHWs that are trained, supervised and equipped to provide iCCM services (ToC link 9a). If there is an improved gender balance, there will be an increased gender-sensitive availability of iCCM services (ToC link 4b). If there is an increased gender-sensitive availability of iCCM services, more families may use iCCM services because female caretakers carry the main responsibility for child care in the programme communities and may be more likely to consult a female CHW (ToC link 2b)</p> <p>(B) Increased participation by women in health service design, delivery and review: If the RAcE programme has involved women in the decisions regarding community health service delivery (Intervention block A), there will be an increased participation of women in community health service design, delivery and review (ToC link 8d). If there is increased participation by women in health service provision in rural areas, there will be improved care-seeking behaviour among women as the principal caregivers for children under five (ToC link 3). If there is improved care-seeking behaviour, more families will use iCCM services (ToC link 2a)</p>	
Assumptions for verification	Indicators	Evidence (data sources)
<b>Assumption 15.1</b> Gender equality dimensions were taken into account during selection of CHWs and supervisors and included in training materials and health promotion tools used as part of the RAcE programme	Opinions of key stakeholders on the strategies used to obtain a gender balance in the recruitment of CHWs	<p><u>DRC</u>: Key informants consistently reported that the election of female CHW was strongly promoted during community mobilisation meetings. This objective could not be met in most (but not all) health zones because of the low literacy rate of rural women in the province and because of social gender norms that required women in some communities to seek authorisation from their husbands before volunteering.</p> <p><u>Malawi</u>: The RAcE programme was not involved in the recruitment of CHW and no strategy was implemented to increase the percentage of women.</p> <p><u>Mozambique</u>: The programme had a target to increase the percentage of female CHWs. According to key informants, the issue of the underrepresentation of women among CHWs was widely discussed but no strategy or concrete actions were implemented to increase the ratio.</p> <p><u>Niger</u>: Programme and key informants provided inconsistent information on the target for gender balanced CHW recruitment. The proposal intended to ensure an equal representation of male and female CHW, but most key informants (not including RComs) who had been present during the period of CHW recruitment stated that no effort was made to achieve the target. One key informant from the implementing agency reported, for example that preference was given to male candidates due to their more advanced literacy level whereas another key informant reported that any female applicant complying with the criteria was directly selected. Key informants at both national and decentralised level confirmed, however, substantial difficulties in identifying female candidates due to their low literacy level. There was also no agreement on whether or not the sex of the CHW had an influence on the access to and quality of services.</p> <p><u>Nigeria</u>: both programmes included a preference for women in their call for CORPS nomination by community leaders which led to an increased nomination of women in Abia, but not in Niger State, reportedly because of the low literacy rate of rural women in the State and social gender norms in rural communities.</p>

	Ratio of male versus female CHWs	<p><u>DRC</u>: 18% of CORPs were female with variations by health zone.</p> <p><u>Malawi</u>: The majority of HSAs are male, although training reports of SC and data of the 2017 HSA survey (based on a small sample) suggest a slight shift from the reported male/female balance of 75/25 reported in 2014.</p> <p><u>Mozambique</u>: 25% of CHWs were female with substantial variations between Inhambane (48%) and Nampula (18%), Zambezia (21%) and Manica (22%).</p> <p><u>Niger</u>: 32% of CHW were female. One district (Keita in Tahoua region) had a considerably higher representation (51%) (June 2017)</p> <p><u>Nigeria</u>: Sex disaggregated data for CHW were not available, but annual reports stated that the majority of the CHW in Abia State were female and in Niger State they were male</p>
	Evidence that the tools developed by the RAcE programme reflect gender equality dimensions	<p>We screened iCCM training modules for the following gender equality dimensions: (a) equal balance of images presenting men and women as caregivers; (b) equal balance of images presenting men and women as health care professionals; (c) discussion of gender specific norms related to roles in child care and how they might be impacting on community awareness raising, prevention, treatment and home visits. Overall, with exception of the DRC, the iCCM training materials were either gender neutral or gender insensitive.</p> <p><u>DRC</u>: The graphics included in the training material show both men and women involved in child care. They also refer to the roles of men and women in child care.</p> <p><u>Malawi</u>: The images in the training materiel show only women as care seekers and health care professionals; many of them seem to be of Asian origin. There is no discussion on gender related social norms and practices in child care and examples use mostly mothers as care seekers or are gender neutral.</p> <p><u>Mozambique</u>: The training tools are not gender sensitive. Caregivers are mostly depicted as women and CHWs as men which perpetuates the stereotype of women being solely in charge of child care and of men occupying health care positions. Discussion points on gender specific social norms in health care are not included.</p> <p><u>Niger</u>: Unlike planned in the proposal, there is no specific module on gender in the training material for CHWs and trainers. The few images included are either gender neutral (by only showing body parts that do not disclose the sex of the provider or parent) or gender unaware by using images that show exclusively women as caregivers.</p> <p><u>Nigeria</u>: There are very few images used in the training material (prepared at federal level), there are two images of health professionals and they are gender balanced. There is only one image of a caregivers which is a mother. There is also no content on gender specific social norms related to child care.</p>

## ANNEX 6: HOUSEHOLD SURVEYS

The data of baseline and end-line household surveys conducted by the implementing partners were used throughout the evaluation as evidence of programme results, triangulated with data from KIIs, FGDs and the review of documents and databases. The baseline surveys were conducted between September 2013 and May 2014, the end-line surveys between August 2016 and February 2017. The data were summarised for each programme in end-line survey reports prepared by ICF. For data collection, the implementing agencies contracted specialised firms or organisations. ICF provided on-site and remote technical assistance and performed the data analysis for the end-line surveys at which time it also re-analysed the baseline data in order to document changes between baseline and end-line. The data quality was variable, especially for the baseline surveys, which was documented by ICF.

### Timing of baseline and end-line surveys

Programme	Baseline survey*	End-line survey
DRC	February 2014	October 2016
Malawi	September 2013	August 2016
Mozambique	February 2014	October 2016
Niger	September 2013	Oct / Nov 2016
Nigeria, Abia State	May 2014	January 2017
Nigeria, Niger State	June 2014	February 2017

\* Approximate dates, not all survey reports are dated

The data have limitations that are documented in the reports of ICF. As in any household survey, they include response biases that are quite evident, for instance an over-reporting of adherence to referral advice. The limitations that affected several survey reports were:

- Data on treatment coverage and access as presented in the reports are not disaggregated by sex. Sex-disaggregated data were collected and were used by ICF in a chapter on gender presented in the final evaluation reports. The findings of these analyses, however, do not concur with data obtained from the analysis of the programme databases by the evaluation team. A likely reason is that the surveys did not have sufficient power to detect sex differences in access to treatment.
- The sampling areas and sampling frames of the baseline and end-line surveys do not always match. The reasons are context specific, for instance related to insecurity in the DRC. In Mozambique, Inhambane province was not included in the baseline sample because the households in the province had just been surveyed for another study and there was a concern of over-surveying. Data from this study were however not used in the end-line report. A sub-analysis of only the 30 evaluation clusters for which both baseline and end-line data were available was done. Data in the tables in the next section are from this sub-analysis. In Malawi, not all clusters in the end-line sample had an active CHW. A sub-analysis of only the active clusters was done and is reflected in the tables.
- The evaluation questionnaires in baseline and end-line surveys did not record the sex of the respondent caregiver. Although it was assumed that in most cases the questionnaire was applied to mothers of children, it may also have been applied to fathers who, in some of the programme countries, have significantly less involvement in the care of their children and would therefore have provided less reliable responses to the questions.

Comparisons of baseline and end-line data on 'appropriate treatment' presented in the end-line survey reports and used for LiST modelling assume that the respondent caregivers correctly remembered the diagnosis of their child as well as the appropriateness of the treatment. This can be assumed for

diarrhoea as no diagnostic test is required and ORS and zinc treatment is easy to identify. For malaria, it assumes that there was a positive RDT which cannot be affirmed, especially at baseline when the use of RDTs was not included in community case management, for instance in Malawi, and when treatment by 'any provider' is asked in the survey, including by community pharmacists and medicine vendors who rarely use RDTs. For pneumonia it assumes that there was a correct count of the respiratory rate and that the caregiver was aware of the results of this count. This cannot be assumed. Reliable responses about 'appropriate treatment' are therefore only likely for the treatment of diarrhoea.

## SELECTED SURVEY RESULTS (FROM ICF END-LINE REPORTS)

### CARE-SEEKING

Programme	Baseline	End-line	Difference	Statistical significance (p)
<b>Percentage of children aged 2-59 months who were sick in the two weeks preceding the survey for whom advice or treatment was sought from an appropriate provider* (all iCCM conditions)</b>				
DRC	53.3%	81.1%	27.8%	<0.01
Malawi	65.6%	70.0%	4.4%	N.S.
Mozambique	79.1%	79.5%	0.4%	N.S.
Niger	68.8%	84.7%	15.9%	<0.01
Nigeria, Abia State	68.7%	76.8%	8.1%	<0.01
Nigeria, Niger State	75.5%	91.4%	15.9%	<0.01
<b>Percentage of children aged 2-59 months who were sick in the two weeks preceding the survey who were taken to a CHW as first source of care</b>				
DRC	0.5%	67.1%	66.6%	<0.01
Malawi	25.7%	33.4%	7.7%	N.S.
Mozambique	23.1%	57.0%	33.9%	<0.01
Niger	0.1%	75.5%	75.4%	<0.01
Nigeria, Abia State	0.1%	37.7%	37.6%	<0.01
Nigeria, Niger State	--	76.6%	--	n.a.

\* The definitions of 'appropriate provider' differs from country to country. It always includes private or public hospitals, health centres, health posts, clinics, or iCCM-trained CHWs. Pharmacies and private proprietary medicine vendors are included in some surveys for treatment of fever and diarrhoea, but not for treatment of respiratory infections with fast breathing.

N.S. = not significant at  $p < 0.01$ ; n.a. = not applicable

### PERCEPTION OF ICCM SERVICES

Programme	Baseline	End-line	Difference	Statistical significance (p)
<b>Percentage of caregivers of children aged 2-59 months who have been sick in the two weeks preceding the survey who view CCM-trained CHWs as trusted health care providers*</b>				
DRC	11.3%	97.7%	86.4%	<0.01
Malawi	82.3%	70.3%	-12.0%	<0.01 (negative)
Mozambique	82.9%	78.2%	-4.7%	N.S.
Niger	--	98.5%	--	n.a.
Nigeria, Abia State	33.3%	82.8%	49.5%	<0.01.
Nigeria, Niger State	--	94.1%	--	n.a.

Programme	Baseline	End-line	Difference	Statistical significance (p)
<b>Percentage of caregivers of the children who were sick in the two weeks preceding the survey who believe CHWs provide quality services*</b>				
DRC	9.4%	96.0%	86.6%	<0.01
Malawi	68.4%	57.6%	-10.8%	<0.01 (negative)
Mozambique	74.8%	76.7%	1.9%	N.S.
Niger	--	97.6%	--	n.a.
Nigeria, Abia State	75.0%	84.0%	9.0%	N.S.
Nigeria, Niger State	--	95.6%	--	n.a.

\* Includes only caregivers who were aware of a community case management-trained CORP in their community;  
N.S. = not significant at  $p < 0.01$ ; n.a. = not applicable

## DIAGNOSIS

Programme	Baseline	End-line	Difference	Statistical significance (p)
<b>Percentage of children aged 2-59 months with fever in the two weeks preceding the survey who had a finger or heel stick</b>				
DRC	22.0%	75.8%	53.8%	<0.01
Malawi	35.6%	59.0%	23.4%	<0.01
Mozambique	43.9%	51.1%	7.2%	N.S.
Niger	20.6%	68.2%	47.6%	<0.01
Nigeria/Abia State	9.3%	41.0%	31.7%	<0.01
Nigeria/Niger State	33.9%	76.7%	42.8%	<0.01

**Percentage of children aged 2-59 months with fever in the two weeks preceding the survey who had a finger or heel stick by a CHW (*among those who sought care from a CHW*)**

DRC	--	90.5%	--	n.a.
Malawi	0.0%	61.7%	61.7%	<0.01
Mozambique	19.1%	51.2%	32.1%	<0.01
Niger	--	75.4%	--	n.a.
Nigeria/Abia State	--	77.3%	--	n.a.
Nigeria/Niger State	--	77.1%	--	n.a.

N.S. = not significant at  $p < 0.01$ ; n.a. = not applicable

## TREATMENT

Programme	Baseline	End-line	Difference	Statistical significance (p)
<b>Percentage of children aged 2-59 months who received both ORS and zinc among all children who had diarrhoea in the two weeks preceding the survey</b>				
DRC	1.6%	52.9%	51.3%	<0.01
Malawi*	21.4%	24.0%	2.6%	N.S.
Mozambique	8.1%	31.1%	23.0%	<0.01
Niger	23.3%	64.4%	41.1%	<0.01
Nigeria/Abia State	6.4%	35.2%	28.8%	<0.01
Nigeria/Niger State	12.8%	74.0%	61.2%	<0.01

Programme	Baseline	End-line	Difference	Statistical significance (p)
<b>Percentage of children aged 2-59 months who received both ORS and zinc <i>from an iCCM-trained CHW</i> among all children who had diarrhoea in the two weeks preceding the survey</b>				
DRC	--	49.5%	--	n.a.
Malawi*	24.8%	28.8%	4.0%	N.S.
Mozambique	2.2%	22.6%	20.4%	<0.01
Niger	--	60.1%	--	n.a.
Nigeria/Abia State	--	26.5%	--	n.a.
Nigeria/Niger State	--	66.3%	--	n.a.

\* Data are for zinc only (ORS treatment data are separate) N.S. = not significant at  $p < 0.01$ ; n.a. = not applicable

#### CAREGIVERS' KNOWLEDGE

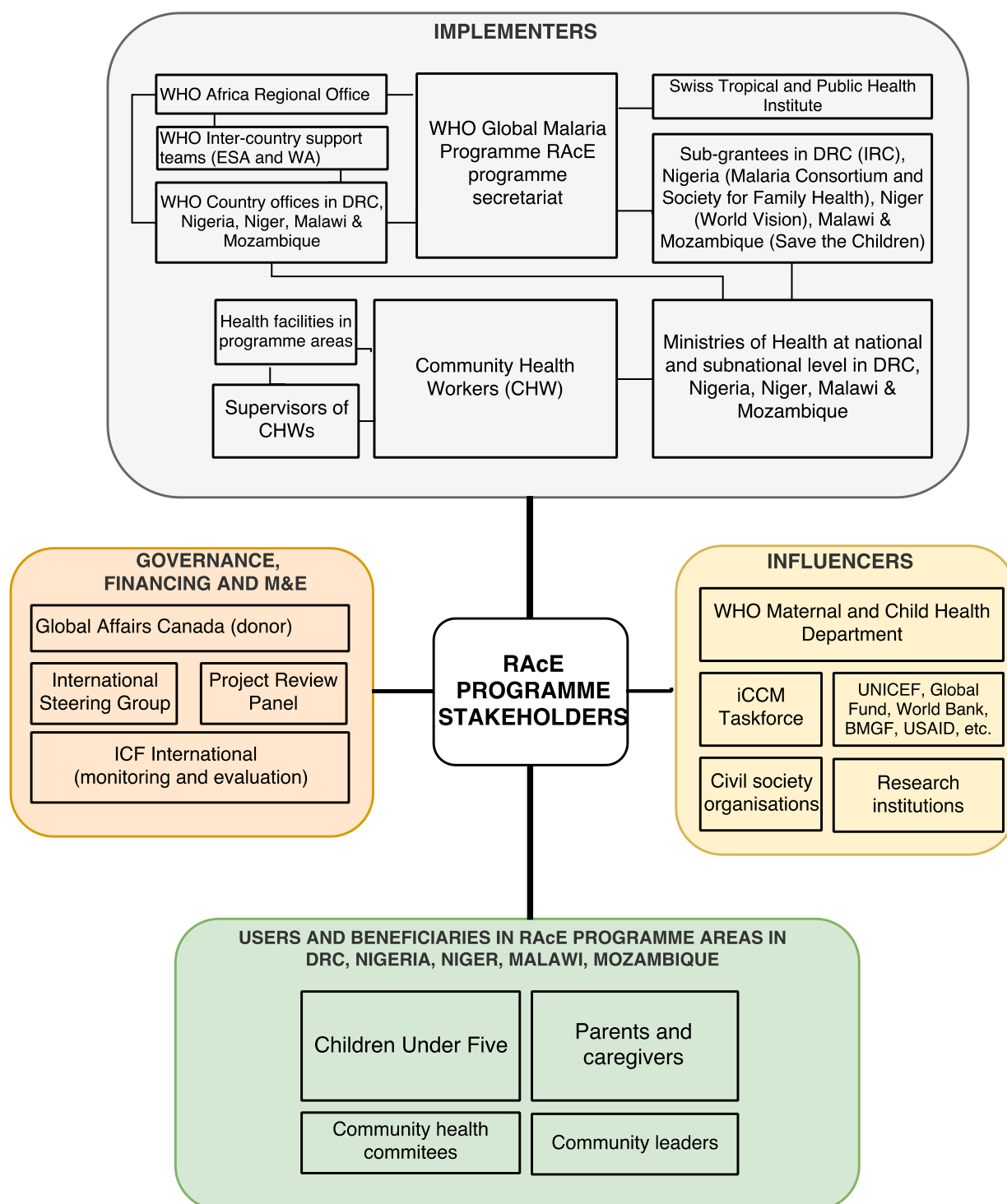
Programme	Baseline	End-line	Difference	Statistical significance (p)
<b>Percentage of caregivers of children aged 2-59 months who have been sick in the two weeks preceding the survey who are aware of an iCCM trained CHW in their community</b>				
DRC	10.4%	94.7%	84.3%	<0.01
Malawi	90.0%	83.4%	-6.6%	N.S.
Mozambique	62.0%	93.4%	31.4%	<0.01
Niger	1.0%	99.8%	98.8%	<0.01
Abia State	2.1%	65.4%	63.3%	<0.01
Niger State	--	92.9%	--	n.a.

**Percentage of caregivers of children age 2-59 months who have been sick in the two weeks preceding the survey who know two or more signs of childhood illness that require immediate assessment by an appropriately trained provider**

DRC	85.4%	71.0%	-14.4%	<0.01 (negative)
Malawi	97.5%	95.7%	-1.8%	N.S.
Mozambique	86.5%	92.9%	6.4%	N.S.
Niger	75.8%	81.1%	5.3%	N.S.
Abia State	65.3%	77.5%	12.2%	<0.01
Niger State	55.9%	68.2%	12.3%	N.S.

N.S. = not significant at  $p < 0.01$ ; n.a. = not applicable

## ANNEX 7: STAKEHOLDER MAP





## ANNEX 8: GLOBAL AND REGIONAL STAKEHOLDERS

Boston University School of Public Health	David Hamer	Interviewed
Global Affairs Canada (current grant manager)	Camille Bouillon Bégin	Interviewed
Global Affairs Canada (previous grant manager RAcE)	Julie MacCormack	Interviewed
Independent (previously WHO GMP – Director RAcE Initiative)	Franco Pagnoni	Interviewed
Maternal and Child Survival Program / John Snow International	Dyness Kasungami	Interviewed
Swiss Tropical and Public Health Institute	Don de Savigny / Aliya Karim	Interviewed
The Global Fund for Fight AIDS, Tuberculosis and Malaria	Olga Bornemisza	Interviewed
UNICEF	Mark Young	Interviewed
WHO AFRO	Phanuel Habimana	Interviewed
WHO GMP	Andrea Bosman	Interviewed
WHO GMP	Pedro Alonso	Contacted – no answer
WHO IST ESA	Desta Teshome	Cancelled by here after delays
WHO IST WA	Adjoa Agbodjan-Prince	Contacted – no answer
WHO MNCAH	Samira Aboubaker	Contacted – no answer
WHO MNCAH	Bernadette Daelmans	Contacted – no answer

**Note:** Briefings by current RAcE Initiative management and subject-specific discussions with ICF are not included in this list

## ANNEX 9: INTERVIEW AND FOCUS GROUP GUIDES

---

### KEY INFORMANT INTERVIEW GUIDES<sup>1</sup>

---

#### GLOBAL AND REGIONAL STAKEHOLDERS

- 1) *(Introductory questions for technical and/or financial partners that were not involved directly with RAcE)* Can you briefly explain your/your organisation's involvement in iCCM at global, regional and/or country level? Is your agency/organisation funding and/or implementing any iCCM project/programme (budget, objectives, region, implementing partners)? How familiar are you with the RAcE programme?
- 2) *(Introductory question for WHO staff members, or members of ISG and PRP):* To what extent have you been involved in the RAcE programme? (Briefly describe your role and involvement)
- 3) Do you have any knowledge as to whether the RAcE programme has been complementary to other large-scale health programmes in the five countries where RAcE was implemented? Do you know if there has been effective collaboration with other health programmes implemented in the same areas?
- 4) Are you aware of changes in terms of child health service coverage and/or quality as a result of the RAcE programme? What change is most striking or relevant to you? Why?
- 5) Are you aware of any operational research that has been conducted in the RAcE programme? If yes, how have you learnt about it? Have you or are you aware of anyone who has used the results from these studies to improve the delivery of iCCM programmes at country, regional and/or global level?
- 6) Are you aware of any changes in regional or global policies or programmatic guidance that the RAcE programme contributed to?
- 7) Are you aware of any particular policy change in favour of iCCM in one of the five countries that the RAcE programme contributed to? If yes, how?
- 8) To what extent did the sub-grantee delivery model as used by the RAcE programme contribute to a noticeable increase in government planning and coordination skills for iCCM scale up?
- 9) In your point of view, did the RAcE programme contribute to strengthening community participation and inclusion in health systems? If so, how, and if not, why not?
- 10) What do you consider as the most important contribution of the RAcE programme to the reduction of child morbidity and mortality?
- 11) What were the major challenges of the RAcE programme, and what was done to overcome these?
- 12) In your opinion and based on your experience, could the planned reduction in child morbidity and mortality in the programme areas have been achieved without a contribution of iCCM services? Why yes or no?

---

<sup>1</sup> All KII guides were adapted to contexts and respondents and translated into French, Portuguese and some of them into Kiswahili

## **MOH AND IMPLEMENTING PARTNERS AT NATIONAL LEVEL (INCLUDING WHO CO)**

1. Since when and how have you been involved in the RAcE programme?
2. To what extent was the design of the RAcE programme at inception aligned with the national health strategy? To what extent was it complementary to other large-scale health programmes? To what extent has there been an effective collaboration with other health programs implemented in the same areas?
3. To what extent was the MOH involved in designing and in developing operational plans for the RAcE programme? What was the extent, the quality and the inclusiveness of community participation in designing and planning the RAcE programme?
4. Did the RAcE programme target the populations in the country that are most vulnerable and/or difficult to reach? How were districts and communities selected and who was involved?
5. Has the RAcE programme contributed to a sustained improvement in the supply of essential medicines and commodities for the first-line treatment of childhood malaria, diarrhoea and pneumonia? If not, what were the problems and what has been done to overcome these? How is the supply ensured after the end of the programme? To what extent did stock outs effect the effectiveness of the RAcE programme?
6. How has the monitoring and evaluation of the RAcE programme been organised? What has been the role of the MOH?
7. (If not mentioned before) Has the RAcE programme contributed to the development of community-based health information systems that feed reliable sex-disaggregated data into the national health management information system?
8. What are in your opinion the necessary conditions to achieve accessible and quality iCCM services at scale? To what extent has the RAcE programme contributed to achieving these? What were main barriers and have they been successfully overcome?
9. Has there been any operational research conducted in the RAcE programme? If yes, what were the results and how have they been used at local and national level and beyond?
10. Are you aware of any changes in national policies, programmes and health sector budgets in favour of scaling up iCCM at district, state/region, and national level that the RAcE programme contributed to? If yes, could you please elaborate on the type of changes or what policy/strategy/guideline?
11. (If not mentioned before) Did the RAcE programme contribute to changes in the status of CHWs in the national human resources for health framework? If yes, how?
12. Has the MOH embedded iCCM as a costed element in the national health sector plan with a clear and sufficient budget line? If yes, is funding disbursed to districts on time and are districts reimbursed on time?
13. What has been the contribution of the RAcE programme to the strengthening of community participation and inclusion in health systems?
14. Could morbidity and mortality of children under five be decreased without use of quality iCCM services at scale?
15. Did the design and development of the RAcE programme by each implementing partner include a thorough and participatory gender analysis? How have the results of the analysis been reflected in the M&E framework and implementation design?
16. Has the RAcE programme contributed to any particular changes for women or men in the community?

17. Are you aware of the transition roadmaps and sustainability plans that were developed by RAcE? Have you participated in the process? Are you using the roadmaps as planning tools?

#### **OTHER NATIONAL-LEVEL STAKEHOLDERS**

1. What do you know about the RAcE programme and how have you heard about it?
2. Could you tell us about the child or community health programmes that your agency/organisation is implementing (budget, objectives, region, implementing partners)?
3. To what extent is it complementary to the RAcE programme? Overall, how effectively are child or community health programmes of different development agencies coordinated?
4. Have you seen any major changes in terms of child health service scope, coverage and/or quality as a result of the RAcE programme?
5. Are you aware of any operational research that has been conducted in the RAcE programme? If yes, how have you learnt about it? Have you or are you aware of anyone who has used the results from these studies to improve the delivery of iCCM programmes at local, national and international level?
6. Are you aware of any changes in national policies, programmes and health sector budgets in favour of scaling up iCCM at district, state/region, and national level that the RAcE programme contributed to? If yes, could you please elaborate on the type of changes or what policy/strategy/guideline?
7. (If not mentioned before): Did the RAcE programme contribute to changes in the status of CHWs in the national human resources for health framework? If yes, how?
8. Has the MOH embedded iCCM as a costed element in the national health sector plan with a clear and sufficient budget line? If yes, is funding disbursed to districts on time and are districts reimbursed on time?
9. Could morbidity and mortality of children under five be decreased without use of quality iCCM services at scale?

## **MOH AND IMPLEMENTING PARTNERS AT SUB-NATIONAL LEVEL**

1. Can you tell us about the RAcE programme and about how you are involved?
2. Does/did the RAcE programme reach the populations (at regional and district level) that are most vulnerable and/ or difficult to reach? How were districts and communities for the RAcE programme selected and who was involved?
3. How were communities involved in designing and planning the RAcE programme?
4. Have you been involved in designing and in developing operational plans for the RAcE programme? If yes, how?
5. Has the RAcE programme contributed to improvement in the supply of essential medicines and commodities for the first-line treatment of childhood malaria, diarrhoea and pneumonia? If not, what were the problems and what has been done to overcome these? How is the supply ensured after the end of the programme?
6. How has the monitoring and evaluation of the RAcE programme been organised? What has been the role of the MOH at community and district level?
7. (If not mentioned before) Has the RAcE programme contributed to the development of community-based health information systems that feed reliable sex-disaggregated data into the national health management information system?
8. What is your opinion about the system that was put in place for supervision? What were the barriers and how were these been addressed?
9. Are the CHW motivated? Are there any issues with retention of the CHW? What has the RAcE programme done to overcome this?
10. Has the number of CHW been appropriate to satisfy the demand? How frequent were CHW staff attritions and how were they managed?
11. How were gender dimensions taken into account during the selection of CHWs and of supervisors? What were the barriers and what was done to overcome these?
12. How are gender equality dimensions included in the training materials and health promotion tools of the CHWs mobilised under the RAcE programme?
13. How effective are child health services provided by the CHWs under the RAcE programme? How do communities perceive them? What do they like and dislike? Do CHW refer when necessary and do families comply with the referral?
14. Has the RAcE programme strengthened community participation and inclusion in health systems? If yes, how? To what extent did the programme increase participation by women in health service design, delivery and review at community level?
15. How has the RAcE programme facilitated participation by and mobilisation of communities? To what extent has this contributed to increased community demand for the child health services? How has the RAcE programme engaged religious and traditional leaders?
16. Are you aware of any research conducted as part of the RAcE programme? If yes, what were the results and how have they been used in yours or in other districts?
17. Are you aware of any changes in national policies, programmes and health sector budgets in favour of scaling up iCCM at district or state/region level that the RAcE programme contributed to? If yes, could you please elaborate on the type of changes?
18. Has the RAcE programme contributed to changes for women or men in the communities?
19. What are in your opinion the necessary conditions to achieve accessible and quality iCCM services at scale? To what extent has the RAcE programme contributed to achieving these?
20. What other health programmes were/are implemented in the district? How did the RAcE programme coordinate and collaborate with these?
21. Are you aware of the transition roadmaps and sustainability plans that were developed by RAcE? Have you participated in the process? Are you using the roadmaps as planning tools?

## **SUPERVISORS OF CHWs**

1. Can you tell us about the RAcE programme and about what the work as a supervisor looks like? How many CHW do you supervise?
2. What is your opinion about the selection criteria for becoming a supervisor? To what extent are you satisfied with the training received by the RAcE programme?
3. How often do you receive supervision visits from the subnational level or implementing partners? Have these been useful? If yes, how?
4. What systems exist in terms of monitoring and reporting? Are there any challenges in preparing or using the reports? What has the RAcE programme done to overcome these?
5. Do the CHW make correct use of medical supplies and stock these well?
6. Have essential medicines and commodities for the treatment of childhood malaria, diarrhoea and pneumonia been available to the CHWs at all time? Have there been gaps in the supply? If yes, what were the reasons and how affect the treatment of sick children?
7. Have CHW referred children correctly to the health centre? Do families comply with the referral?
8. What is your opinion about the quality of the child health services provided by the CHWs? What are the main difficulties in providing the best possible treatment and how do you support them in dealing with them?
9. Has the number of community health workers been appropriate to satisfy the demand? How frequent were CHW staff turnover and how were they managed?
10. Are there advantages to having female or male CHW? Do communities have easier access / more trust in women or men CHW?
11. What helps you to succeed in your work? What are the barriers?
12. To what extent are you satisfied with your working conditions? What drives you to keep working as a supervisor?
13. Has the programme changed anything for women and men in the communities?

### **COMMUNITY HEALTH WORKERS**

1. As part of your work, you receive training and supervision. Can you tell us how they are organised? How useful have they been to you?
2. How satisfied are you with your working conditions?
3. How have communities perceived your services? What has been appreciated and what hasn't been? How do traditional and public authorities perceive the services you provide?
4. How are referrals organised and how well do they work? What are the key challenges?
5. Are there families who are not reached, or who prefer not to consult you? For what reason?
6. Have other community members been involved in planning and in supporting your work? If yes, how? How are caregivers informed about your work?
7. Who is bringing the sick children for consultation to you: the mother, father or other caretakers? Has your work led to an increased participation of men in child health care?
8. Did your work have any positive or negative impact on the life of women and of men in your community? How has it impacted on your life?



## FOCUS GROUP DISCUSSION GUIDES

---

### GROUP DISCUSSIONS WITH CHWs

#### **Discussion Themes<sup>1</sup>**

1. Training and supervision - How useful has it been?
2. How satisfied are you with your working conditions?
3. How have communities perceived the CHW services? What has been appreciated and what hasn't been? How do traditional and public authorities perceive the services of CHWs?
4. How are referrals organised and how well do they work? What are the key challenges?
5. Are there families who are not reached, or who prefer not to consult CHWs? For what reason?
6. Have other community members been involved in planning and in supporting your work? If yes, how? How are caregivers informed about your work?
7. Who is bringing the sick children for consultation to the CHW: the mother, father or other caretakers? Has the work of the CHWs led to an increased participation of men in child health care?
8. Did the work of the CHWs have any positive or negative impact on the life of women and of men in your community? How has it impacted on the life of CHWs, in particular the female CHWs?

#### **Participatory ranking exercise 1**

- Which type of health problems do parents and caretakers consult you for?
- Which ones are the most frequent and why?
- Can you rank them by frequency with the most frequent on top and the least frequent on the bottom?
- Which health problem(s) require(s) the most referrals?
- Which health problems do you find the most difficult to deal with? (Note taker: please highlight those in red)

#### **Participatory ranking exercise 2**

- Imagine all was in place so you could do your work without difficulties: what are the conditions needed to enable you to provide appropriate treatment and/or referral to all sick children in your community? What needs to happen to ensure that all parents bring their children to you on time? What do you need for doing your work properly?
- Which of these conditions are the most important and why?
- Can you rank your responses by order of importance with the most important on top and the least important on the bottom?
- Which of the conditions have been consistently fulfilled during the implementation of the RAcE programme? Partially fulfilled? Which ones have experienced serious gaps or were not in place?

#### **Participatory ranking exercise 3**

- What have been the challenges and difficulties in your day to day work?
- Which challenges/difficulties have most negatively impacted on your work and why?
- Can you rank your responses by putting those with the strongest negative impact on top?

**Discussion:** What solutions are most effective to tackle the top three challenges/ difficulties? Have you discussed them with your supervisor? Have any of them been implemented during the RAcE programme?

---

<sup>1</sup> Not all themes can be covered in a single FGD. They are also taken up in KIIs with individual CHWs

## GROUP DISCUSSIONS WITH COMMUNITY MEMBERS

### **Participatory ranking exercise and Venn diagram**

- Which organisations, groups or individuals contribute to keeping children from 0-5 years healthy in your community?
- Which organisations, groups or individuals do you regard as most important for keeping children healthy and which are less important? Why?
- Can you group them by order of importance?
- To whom would you turn first if your child is ill?

*We will now transfer these groups to paper circles: the larger circle sizes are for more important groups or individuals and the smaller one for less important ones*

- Which of them work together?
- Do any of the circles only have or only accept men or women as members? Are there any institutions or groups that provide services either only for men or only for women? (
- Are there any services from any of these circles from which the poorer people are usually excluded?

*You mentioned the CHW and ..... in the previous exercise: can you explain in which ways you and your children benefit from their work?*

### **Discussion themes:**

1. Are there participants in the group who have already brought children to the CHW? Who had informed you about his/her work? How many times did you consult her/him? What was your experience?
2. Has the presence of the CHW allowed to treat more sick children than before? Does s/he always have sufficient medication and equipment available?
3. Are there families who are not reached by or who prefer not to consult the CHW? For what reason?
4. What do you like and dislike about the work of the CHW? What could s/he do differently to support you in keeping your children healthy and for reaching more children?
5. Have other community members been involved in planning and in supporting the work of the community health workers? If yes, how? How do traditional and public leaders perceive the work of the CHW?
6. Who is bringing the sick children for consultation to the CHW: the mother, father or other caretakers? Has the work of the CHW changed the participation of men in child health care?
7. Did the work of the CHW have any positive or negative impact on the life of women and of men in your community? If yes, how?

## PARTICIPATORY LEARNING AND ACTION (PLA) TOOLS

---

### **PARTICIPATORY RANKING METHODOLOGIES (PRM)<sup>1</sup>**

#### **WHAT DOES THE TOOL ASSESS?**

Participative Ranking Methodology is a 'mixed methods' approach to data collection, in which a group of knowledgeable participants are guided in generating responses to a specific question or set of questions. It is a 'mixed methods' approach because it draws on both quantitative and qualitative methodologies to generate rich, contextualised data that can be counted, ranked, and compared across or within groups.

This methodology promotes an engaged and participatory process, which rapidly highlights key findings while providing the opportunity for deeper analysis as resources permit. Collected in a structured manner, results can be swiftly consolidated and used in multiple ways.

#### **WHEN CAN THE PRM BE USED?**

Participative Ranking Methodology (PRM) has been used in a range of circumstances and settings, including indicator identification, need or situation assessments, research studies, mid-term reviews and final evaluations.

#### **HOW MUCH TIME DOES THE IMPLEMENTATION TAKE AND WHEN WILL WE USE IT DURING THE RAcE EVALUATIONS?**

The implementation time for PRM is about 20 minutes for each question to be ranked.

For the purpose of the RAcE evaluation, we will use PRM exercise during the focus group discussions with CHWs. We will also use it during the focus group discussions with communities in a combined version with the Venn diagram. Detailed instructions on how to conduct the combined PRM/Venn diagram exercise are included in the guidelines of the Venn diagram.

#### **WHAT MATERIAL IS NEEDED?**

- Pens and the reporting sheet for the note-taker; for literate groups: paper cards and markers.
- Optional: a camera

#### **IMPLEMENTATION STEP BY STEP**

##### 1. Presentations and introduction of method and first question

A moderator and a note-taker should be present for all groups. Once everybody is there, the moderator can start with giving the opportunity to everyone to present him/herself.

The moderator has to:

- explain to the participants that they can speak freely. Who says what will not be recorded. It is the views of the group that is important and that will be written down by the note taker.
- the answers of the participants are very important to improve the work that is taking place in the community;
- encourage participants to name what they think and to focus on the question;

The moderator names the first question and if necessary explains it to the participants (e.g. to learn which organisations, groups or individuals they regard as most important for keeping children healthy).

##### 2. The participants start discussing

Once the question is launched, the participants start responding spontaneously.

---

<sup>1</sup> Ager A, Stark L, Potts A (2010). Participative Ranking Methodology: A Brief Guide Participative Ranking Methodology

Roles of the moderator:

- Continue until ten separate responses have been identified, or until there are no additional suggestions.
- Encourage everybody to speak.
- Ask clarifying/ supplementary questions to clarify the nature of each suggested 'response'.

The note-taker lists the answers in the sequence they are suggested (numbering each clearly in turn).

What to do if the participants do not come up with answers?

If the participants do not come up with answers like, the moderator may ask "In the reports for this programme \_\_\_\_\_ has been mentioned as an answer; is that also an answer here?". If the participants do not think it applies to their context, it should not be listed by the note-taker. If the participants think that it does apply to their context, it should be added to the list by the note-taker (with a star or asterisk used to mark it as a response that was only mentioned after prompting).

### 3. Selecting objects

Once the responses are identified, the moderator and participants start selecting objects (e.g. stones, pencils, leaves, a piece of cloth etc.) to represent each of the identified responses. The moderator goes through each response in turn and lets the participants decide what object can be used to represent it. If the participants can write, they can also write it down on an A4 paper. Once linked with a response, the objects are put in a pile on the ground in front of the moderator.

### 4. Ranking

In the next step, the moderator explains that all answers are relevant, but that some are more important than others. The moderator asks the group to agree among themselves which are the most important answers, and which are less important by ordering the objects in a line on the ground: the most important answer at one end of the line, and the less important ones at the other. It is important that the participants have opportunity to discuss and revise the positioning of objects on the line.

The moderator helps this process but does not direct it.

The note-taker records what participants discuss/ say while negotiating the positioning of objects.

If participants have difficulties understanding the idea of ranking, the "snake analogy" usually helps: the moderator asks them to imagine a snake and to tell her/him which part of the snake is the most dangerous/ important. They will name the head. Compare the line on the ground to a snake and ask them to rank the most important answers close to the head and the others progressively closer to the tail.

## **GUIDELINES FOR CONDUCTING A VENN DIAGRAM WITH COMMUNITIES<sup>1</sup>**

### **WHAT DOES THE TOOL ASSESS?**

A Venn diagram (also known as a Chapati or Roti Diagram) is a useful tool to examine relationships between institutions, groups and individuals in a community. Venn diagrams are made up of a variety of circles, each representing a different actor, group or institution in the community. They are sized and placed accordingly to their importance and interactions with others. They are useful for clarifying the different interest groups, institutions and individuals that intervene on a given topic. as indicated by the different types below.

### **WHEN CAN VENN DIAGRAMS BE USED?**

Venn diagrams are used for situation analysis exercises, learning reviews, inclusion/exclusion assessments and mid-term and final evaluations.

### **HOW MUCH TIME DOES THE IMPLEMENTATION TAKE AND WHEN WILL WE USE IT FOR THE PURPOSE OF THE RACE EVALUATION?**

Venn diagrams in their typical form can take 2 – 3 hours. We apply, however, a simplified version which focusses on children's health only. The implementation time for the Venn diagram during the RAcE evaluation is estimated to last 20 – 40 minutes, but the skills of the facilitator usually have an impact on the time it takes to facilitate the exercise. Good preparation and understanding of the tool are critical for facilitating the process of establishing a Venn diagram.

The Venn diagram will be the first exercise for focus group discussions with men and women at community level. It is not used with any other group. We will combine the Venn diagram with a PRM exercise and start by ranking the answers before placing them on the circles of the Venn diagram.

### **WHAT MATERIAL IS NEEDED?**

- Paper cards, 18 paper circles of four different sizes (if possible in different colors), markers, blue tag (to scotch the paper cards to the circles), pens and a reporting sheet for the note taker; optional: a camera

### **IMPLEMENTATION STEP BY STEP**

#### **1. Presentations and introduction of method and first question**

The start will be the same as for the PRM exercise: a moderator and a note-taker should be present for all groups. Once everybody is there, the moderator can start with giving the opportunity to everyone to present him/herself.

The moderator has to:

- explain to the participants that they can speak freely. Who says what will not be recorded. It is the views of the group that is important and that will be written down by the note taker.
- the answers of the participants are very important to improve the work that is taking place in the community;
- encourage participants to name what they think and to focus on the question;

The moderator names the first question and, if necessary, explains it to the participants: could you tell us which organisations, groups or individuals you regard as most important for keeping your children healthy?

#### **2. The participants start discussing**

---

<sup>1</sup> Ager A, Stark L, Potts A (2010). Participative Ranking Methodology: A Brief Guide Participative Ranking Methodology

Once the question is launched, the participants start responding spontaneously.

Roles of the moderator:

- Continue until ten separate responses have been identified, or until there are no additional suggestions.
- Encourage everybody to speak.
- Ask clarifying/ supplementary questions to clarify the nature of each suggested 'response'.

The note-taker lists the answers in the sequence they are suggested (numbering each clearly in turn).

What to do if the participants do not come up with answers?

If the participants do not come up with answers like, the moderator may ask "In the reports for this programme \_\_\_\_\_ has been mentioned as an answer; is that also an answer here?". If the participants do not think it applies to their context, it should not be listed by the note-taker. If the participants think that it does apply to their context, it should be added to the list by the note-taker (with a star or asterisk used to mark it as a response that was only mentioned after prompting).

### 3. Selecting objects

Once the responses are identified, the moderator and participants start selecting objects (e.g. stones, pencils, leaves, a piece of cloth etc.) to represent each of the identified responses. The moderator goes through each response in turn and lets the participants decide what object can be used to represent it. If the participants can write, they can also write it down on an A4 paper. Once linked with a response, the objects are put in a pile on the ground in front of the moderator.

### 4. Ranking

In the next step, the moderator explains that all answers are relevant, but that some are more important than others. The moderator asks the group to agree among themselves which are the most important answers, and which are less important by ordering the objects in a line on the ground: the most important answer at one end of the line, and the less important ones at the other. It is important that the participants have opportunity to discuss and revise the positioning of objects on the line.

The moderator helps this process but does not direct it.

The note-taker records what participants discuss/ say while negotiating the positioning of objects. If participants have difficulties understanding the idea of ranking, the "snake analogy" usually helps: the moderator asks them to imagine a snake and to tell her/him which part of the snake is the most dangerous/ important. They will name the head. Compare the line on the ground to a snake and ask them to rank the most important answers close to the head and the others progressively closer to the tail.

### 5. Validation of previous steps

When the line is complete, the moderator checks with the group by asking: "So you are saying that X is the most important answer for the health of children here, then also Y is a very important, then comes Z etc. etc.".

The moderator prompts the group to make adjustments to the line if their discussion suggests they wish to change their ranking.

The note-taker then records the final ranking of responses. This provides a prioritised listing of the question treated.

### 6. Take a picture of the exercise (optional)

### 7. Start of Venn diagram

During the ranking discussions, the note-taker writes the responses on paper cards. Once step 6 is completed, s/he shows the cards to the group and the paper cards are placed next to the objects on the line of the floor. The moderator presents the paper circles to the participants and explains that the larger circles stand for most important institutions, groups or individuals for children's health and the smaller circles for less important ones. On the basis of the ranking, the responses are transferred to the circles. The participants determine which circles size they select for the answers, but it should be aligned with the logic of the ranking.

#### 8. Organising the Venn diagram

Once all responses are placed on paper circles (the objects can still be placed on the circle along with the paper card), the moderator asks the participants: which of these institutions, groups or individuals work together? The moderator listens to the participants and asks them to organise the circles on the floor as outlined:

- largely distanced circles:                      no or little contact or co-operation
- circles close to each other:                      only loose contacts exist
- touching circles:                                      some co-operation
- overlapping circles:                                      close co-operation

#### 9. Explore composition of groups and patterns of exclusion

The group and the moderator look now at the organised Venn diagram on the floor. The moderator asks: Do any of the circles only have or only accept men or women as members? The answers are noted by marking the circles with a common symbol for men or women.

The next question is: Are there any institutions or groups that do provide services either only for men or only for women? The answers to this question should again be noted with a common circle for men and women, but crossed through. The next question of the moderator is: Are there any services from any of these circles from which the poorer people are usually excluded and why? The note taker or a participant mark these circles on the map by using an agreed symbol for poverty. If time is short, feel free to suggest one to the group.

#### 10. Wrapping up of the exercise

When the Venn diagram is finalised, the moderator asks the group if they would like to add any more information to it. If time allows, s/he can also ask what would need to change on the Venn diagram to make sure that all children under five have timely access to quality health care.