Final Publishable Summary Report

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Project acronym	MOMI
Project title	Missed Opportunities in Maternal and Infant Health: reducing maternal and newborn mortality and morbidity in the year after childbirth through combined facility- and community-based interventions
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List of Abbreviations and Acronyms

APEs	Agentes Polivalentes Elementares (formal community health workers cadre in Mozambique)
CHW	Community health worker
DHS	Demographic and health survey
FP	Family planning
IUD	Intrauterine device
MNCH	Maternal, newborn and child health
MOMI	Missed opportunities in maternal and infant health
PHC	Primary health care
PP	postpartum
PPC	postpartum care
TBA	Traditional birth attendance
WHO	World Health Organisation
WP	Work package

1 Executive summary

The 'Missed Opportunities in Maternal and Infant Health' (MOMI) project focused on the need to upgrade postpartum care (PPC). The overall project objective was '*to improve maternal and newborn health through a focus on the postpartum (PP) period, adopting context-specific strategies to strengthen health care delivery and services at both facility and community level in four sub-Saharan countries'*. The study was implemented in Kaya district in Burkina Faso, Matuga constituency (Kwale county) in Kenya, Ntchisi district in Malawi and Chiuta district in Mozambique. It started in February 2011 and has run for 5 years.

Using participatory methods in each study site a package of PP interventions was designed and developed, tailored to the gaps in PPC identified by an initial situation analysis and participatory workshops. The situation analysis, including a policy analysis and analysis of local epidemiological data, showed that there was a lack of standardised and organised provision of PPC across all the sites as well as a general lack of awareness about the importance of PPC among health workers. PPC was not fully and routinely integrated into health services in the intervention settings. There was a general lack of capacity in the health facilities to manage obstetric complications.

Interventions were designed based on the data and information obtained through the situation analysis and on pre-existing knowledge. These were discussed at sequential meetings of relevant stakeholders in each country, held especially for this purpose and the final packages of PPC interventions that should be implemented at each study site were agreed upon. Selection criteria used by the stakeholders to decide on the final package of context specific interventions included feasibility (regarding finances, human resources and the availability of infrastructure, medical equipment and drugs), effectiveness, acceptability and sustainability. This led to the development of a stakeholder-led, context-specific package of interventions targeting newborns, infants and women in the PP period that would be delivered through a combined facility and community based approach. The package of activities varied across the sites but all sites had the following interventions in common: they focussed on upgrading immediate PPC; all sites but Kenya also worked on integrating routine PPC with infant services such as vaccination; increasing uptake of PP family planning (FP) was another common intervention across the sites; and community interventions varied across the sites but their primary objective was to strengthen the linkage between the community and the formal health system. Implementation strength of those interventions – measured in terms of the dose, duration, intensity, specificity and fidelity – varied across the sites.

At the time of the final evaluation, at each of the four study sites, the interventions implementation varied between 18-24 months. The evaluation used quantitative (using routinely available data) and qualitative (using realist evaluation approach) methods. Despite wide variation in intervention choice, design and delivery across settings and differences within the contexts and systems within which they were implemented there are four broad middle range theories – 'Buzz Theory', 'Bridging Theory', 'Motivation by Accountabilities' and 'Together is Stronger' – that appear to underpin whether or not the interventions implemented had an impact at the point of service delivery.

Sustainability and replicability of the interventions was an integral part of the project and was considered in the analysis of the project. Key sustainability factors identified were leadership,

involvement of staff, resources and funding and the length of implementation, while the critical determinants of intervention replicability included identification of the appropriates core components, finding the balance between adaptation and fidelity, involvement of stakeholders and redefining the role of staff and their motivation.

2 Project context and objectives

2.1 Context

Postpartum maternal and infant mortality is high in sub-Saharan Africa[1,2]. Maternal mortality is highest during the first six weeks after birth but remains high throughout the first year after birth due to issues such as untreated anaemia or repeated pregnancies[3,4]. In 2013, in sub-Saharan Africa, 17.6% of all maternal deaths occurred intrapartum and the first 24 hours postpartum, 47.8% occurred 24 hours to 42 days postpartum, and 13.1% 43 days to 1 year postpartum[1]. In 2015, infant mortality (0-364 days) accounted for 68.5% of the under-5 mortality (0-4 years) in sub-Saharan Africa, and neonatal mortality (0-28 days) for 34.8% of the under-5 mortality[2]. The same year, 66% (201,000) of all maternal and 45% (2.0 million) of all infant deaths occurred in this region[5,2], while only 13% of the total female world population[6] and 24% of the global under-5 population[7] live in sub-Saharan Africa.

The pattern of PP mortality and morbidity is clear, but compared to antenatal and childbirth care improvement of PPC as a strategy to enhance maternal and infant health has been neglected[3,8,9]. This is also recognised by the World Health Organisation (WHO) which recently published updated guidelines on PPC for mothers and newborns in resource-limited settings in low- and middle-income countries[9]. The guidelines include recommendations on timing, number and place of postpartum contacts, and on contents of PPC for mothers and babies for the first six weeks after birth[9]. However, an essential package of services to support women throughout the first year after childbirth remains poorly defined, and the optimum service delivery configuration and number of

[1] Kassebaum NJ, Bertozzi-Villa A, Coggeshall MS *et al*. (2014) 'Global, regional, and national levels and causes of maternal mortality during 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013'. *Lancet* 384: 980-1004.

[2] UNICEF, WHO, World Bank & UN (2015*) Levels & Trends in Child Mortality - Report 2015 - Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation*. United Nations Children's Fund, New York, USA.

[3] Chersich MF, Kley N, Luchters SM, Njeru C, Yard E, Othigo MJ, Temmerman M (2009) 'Maternal morbidity in the first year after childbirth in Mombasa Kenya; a needs assessment'. *BMC Pregnancy and Childbirth* 9:51.

[4] Hoj L, da Silva D, Hedegaard K, Sandstrom A & Aaby P (2003) 'Maternal mortality: only 42 days?'. *Bjog* 110(11):995-1000.

[5] WHO, UNICEF, UNFPA, World Bank & UN (2015) *Trends in maternal mortality: 1990 to 2015: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division.* WHO Press, World Health Organization, Geneva, Switzerland.

[6] UN DESA (2015b) '*World Population Prospects, the 2015 Revision: Data - Interactive Data - Total Population by sex (thousands) - 2015'*, [Online], Available: http://esa.un.org/unpd/wpp/DataQuery/ [Accessed 2 November 2015], United Nations Department of Economic and Social Affairs – Population Division.

[7] UN DESA (2015a) '*World Population Prospects, the 2015 Revision: Data - Interactive Data - Population by age and sex (thousands) - 2015'*, [Online], Available: http://esa.un.org/unpd/wpp/DataQuery/ [Accessed 2 November 2015], United Nations Department of Economic and Social Affairs – Population Division.

[8] WHO (2010) *WHO Technical consultation on postpartum and postnatal care*. World Health Organization, Geneva, Switzerland.

[9] WHO (2014a) *WHO recommendations on postnatal care of the mother and newborn, 2013*. WHO Press, World Health Organization, Geneva, Switzerland.

routine visits for these services remain unclear[3,9,10,11,12]. The lesser attention to PPC is also reflected in Figure 1 which shows that the coverage of PPC in selected low- and middle-income countries is lower than the coverage for antenatal and delivery care and for infant immunisation.

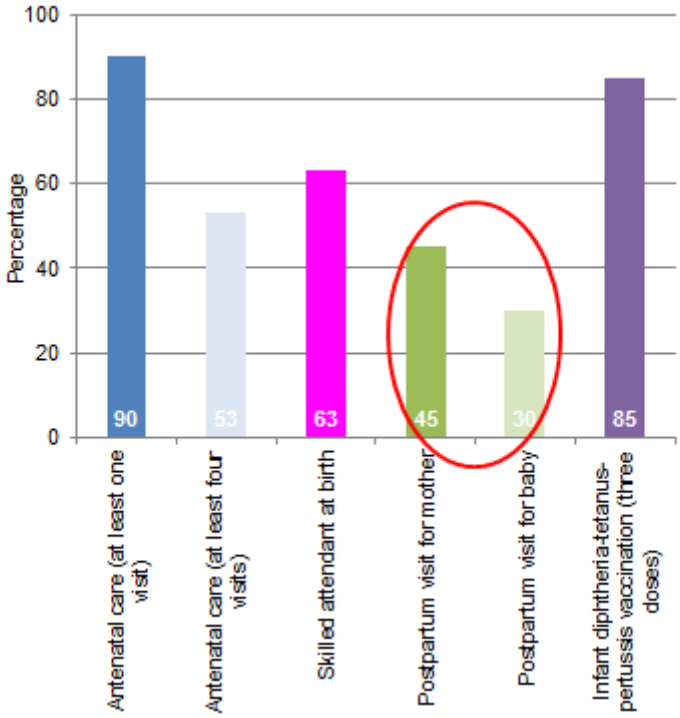

Figure 1: Coverage of maternal and infant interventions across the continuum of care (median national coverage of 75 Countdown priority countries[13] with available data, most recent survey 2008 or later) (UNICEF & WHO 2014)[14]

[10] Levitt C, Shaw E, Wong S, Kaczorowski J, Springate R, Sellors J & Enkin M (2004) 'Systematic review of the literature on postpartum care: methodology and literature search results'. *Birth* 31(3):196-202.

[11] Medhanyie A, Spigt M, Kifle Y *et al.* (2012) 'The role of health extension workers in improving utilization of maternal health services in rural areas in Ethiopia: a cross sectional study'. *BMC health services research* 12:352.

[12] Rawlins BJ, Kim YM, Rozario AM *et al*. (2013) 'Reproductive health services in Malawi: an evaluation of a quality improvement intervention'. Midwifery 29(1):53-59.

[13] Countdown to 2015 tracks key global maternal, newborn, and child health data by country for the 75 highest-burden countries; the 75 countdown priority countries account for over 95% of all maternal and child deaths.

[14] UNICEF & WHO (2014) *Countdown to 2015, Maternal, Newborn & Child Survival - Fulfilling the Health Agenda for Women and Children: The 2014 Report*. UNICEF and World Health Organization, Geneva, Switzerland.

Community involvement in improving maternal and infant health in general[15,16,17,18] and postpartum care specifically[19,20] is important. Particularly the establishment of women's groups and the provision of home visits by community health workers, have shown positive effects on maternal and newborn health[15,16,17,18,20]. The importance of upgrading PPC provided at health facilities is stressed in several studies and reports[21,22]. A combined package including several interventions, adapted to local needs, has the potential to be most effective in improving maternal and child health outcomes[22]. Integration of mother PPC services in child health clinics, which have generally high coverage, is an opportunity to provide the needed but at present often absent PPC for the mother[3]. Involvement of stakeholders and good knowledge of the health system are recognised to be important when designing and introducing new interventions or strategies to improve care[23,24].

2.2 Objectives

The 'Missed Opportunities in Maternal and Infant Health' (MOMI) project focused on the need to upgrade PPC. The overall objective of the MOMI research was '*to improve maternal and newborn health through a focus on the postpartum (PP) period, adopting context-specific strategies to strengthen health care delivery and services at both facility and community level in four sub-Saharan countries'*, namely Burkina Faso, Kenya, Malawi and Mozambique.

The specific scientific and technical objectives for the whole duration of the MOMI project were:

1. To assess the feasibility and practicability of integrating maternal and reproductive health services within child health clinics and of strengthening existing postpartum services for women;

[15] Lewycka S, Mwansambo C, Rosato M *et al.* (2013) 'Effect of women's groups and volunteer peer counselling on rates of mortality, morbidity, and health behaviours in mothers and children in rural Malawi (MaiMwana): a factorial, cluster-randomised controlled trial'. *Lancet* 381(9879):1721-1735.

[16] Nair N, Tripathy P, Costello A & Prost A (2012) 'Mobilizing women's groups for improved maternal and newborn health: evidence for impact, and challenges for sustainability and scale up'. *Int J Gynaecol Obstet* 119 Suppl 1:S22-25.

[17] Prost A, Colbourn T, Seward N *et al.* (2013) 'Women's groups practising participatory learning and action to improve maternal and newborn health in low-resource settings: a systematic review and meta-analysis'. Lancet 381(9879):1736-1746.

[18] Rosato M, Laverack G, Grabman LH *et al.* (2008) 'Community participation: lessons for maternal, newborn, and child health'. *Lancet* 372(9642):962-971.

[19] Bhutta ZA, Soofi S, Cousens S *et al.* (2011) Improvement of perinatal and newborn care in rural Pakistan through community-based strategies: a cluster-randomised effectiveness trial. *Lancet*

[20] Koblinsky M (2005) *Community-based Postpartum Care: an urgent unmet need*. Washington DC, USA: USAID, The CATALYST Consortium.

[21] Bhutta ZA, Ali S, Cousens S, Ali TM *et al.* (2008) 'Alma-Ata: Rebirth and Revision 6 Interventions to address maternal, newborn, and child survival: what difference can integrated primary health care strategies make?'. *Lancet* 372(9642):972-989.

[22] PMNCH (2011) Essential Interventions, Commodities and Guidelines for Reproductive, Maternal, Newborn and Child Health. Geneva, Switzerland: Partnership for Maternal, Newborn and Child Health.

[23] de Savigny D & Adam T (2009) *Systems thinking for health systems strengthening*. Geneva, Switzerland: Alliance for Health Policy and Systems Research, WHO.

[24] Grodos D & Mercenier P (2000) *Health systems research: a clearer methodology for a more effective action,* in Studies in Health Service Organisation and Policy. Antwerp, Belgium: Institute of Tropical Medicine.

2. To assess the feasibility and practicability of using participatory processes, involving local service delivery partners and the community in maternal and newborn health care delivery;
3. To design packages of postpartum interventions which are feasible, appropriate, sustainable, effective, scalable and tailored to the conditions of each study site, to improve maternal and newborn health in the postpartum period;
4. To implement and evaluate the site-specific packages of interventions to improve maternal and newborn health in the postpartum period through providing facility- and community-based services;
5. To evaluate the effectiveness of two years of strengthened facility- and community-based postpartum services and the health system variables that determine effectiveness, and conduct a cross-country analysis of outcomes of postpartum services and care; and
6. To engage policy makers from the outset in planning, but also in implementing and evaluating the project, to enhance sustainability and dissemination of the strategies at provincial and national level.

These objectives were reflected in ten work packages (WPs), including seven research and three supporting work packages (consortium and project management, capacity building and dissemination) (see Figure 2).

In MOMI we defined the PP period as the period that starts immediately after the birth of the baby and extends up to one year after birth, and PPC as the care provided for mother and infant during this period.

MOMI was implemented by a consortium of eight partners; five from sub-Saharan countries (Institut de Recherche en Sciences de la Santé, Burkina Faso; International Centre for Reproductive Health, Kenya; Parent and Child Health Initiative Trust, Malawi; International Centre for Reproductive Health, Mozambique; and Eduardo Mondlane University, Mozambique) and three from European countries (International Centre for Reproductive Health - Ghent University, Belgium; Faculdade de Medicina da Universidade do Porto, Portugal; and Institute for Global Health, University College London, United Kingdom). The International Centre for Reproductive Health, Gent University, coordinated the project.

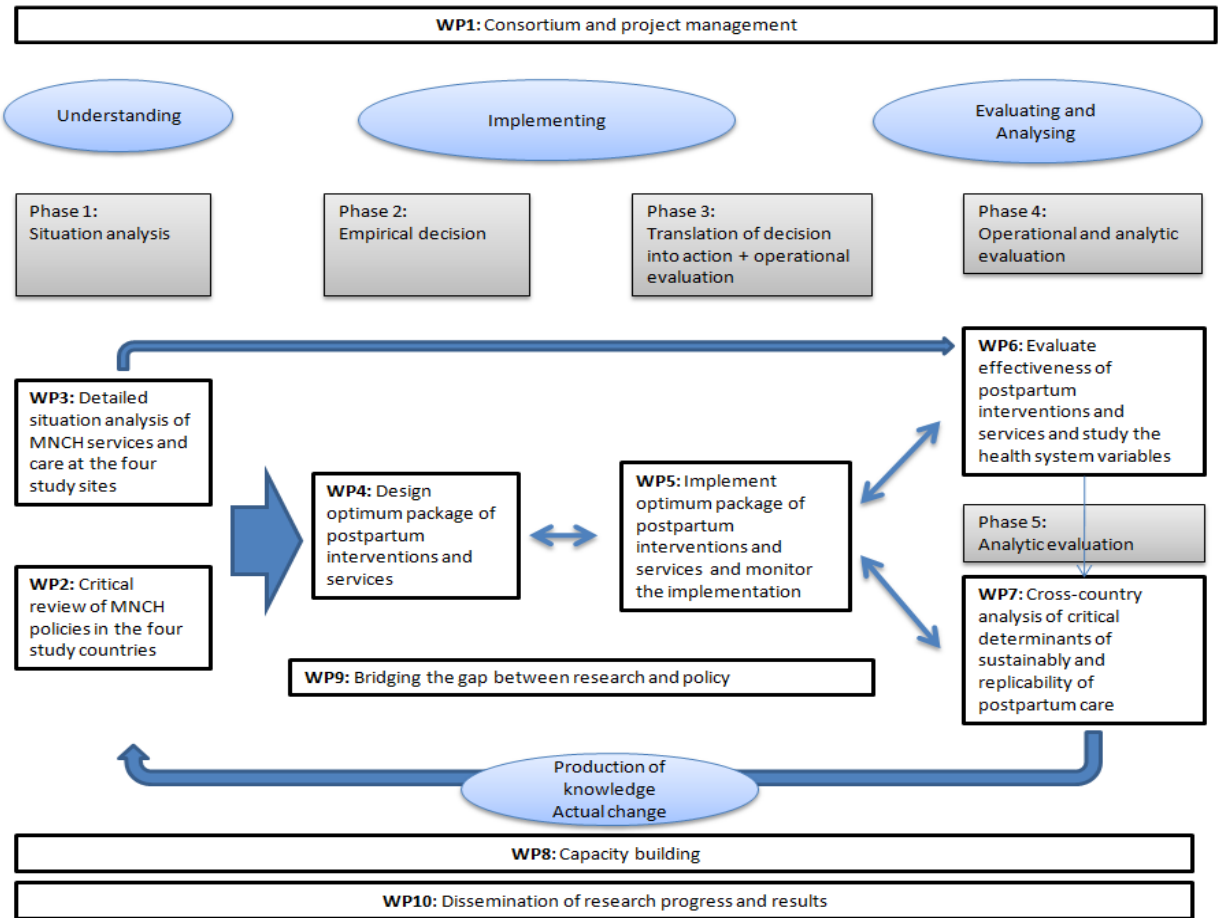

Figure 2: MOMI work packages and their relationship

3 Main science & technology results

3.1 Methods

3.1.1 Study setting

MOMI was conducted in four health districts: Kaya district in Burkina Faso, Matuga constituency (Kwale county) in Kenya, Ntchisi district in Malawi, and Chiúta district in Mozambique (Figure 3). Selection of districts was based on being typical for the country in terms of medical infrastructure, equipment and staffing. All levels of care, from community to referral level, were included in the study. Selected demographic, health system and maternal, newborn, and child health related data of the four districts are presented in Table 1. While a minority of women in these districts receive PPC during the first week after childbirth, at least 70% of infants attended the health facility for Bacille de Calmette et Guérin (BCG) and 85% for measles vaccination. Demographic and health survey (DHS) data show that the uptake of FP among women of child-bearing age in the respective study districts is low.

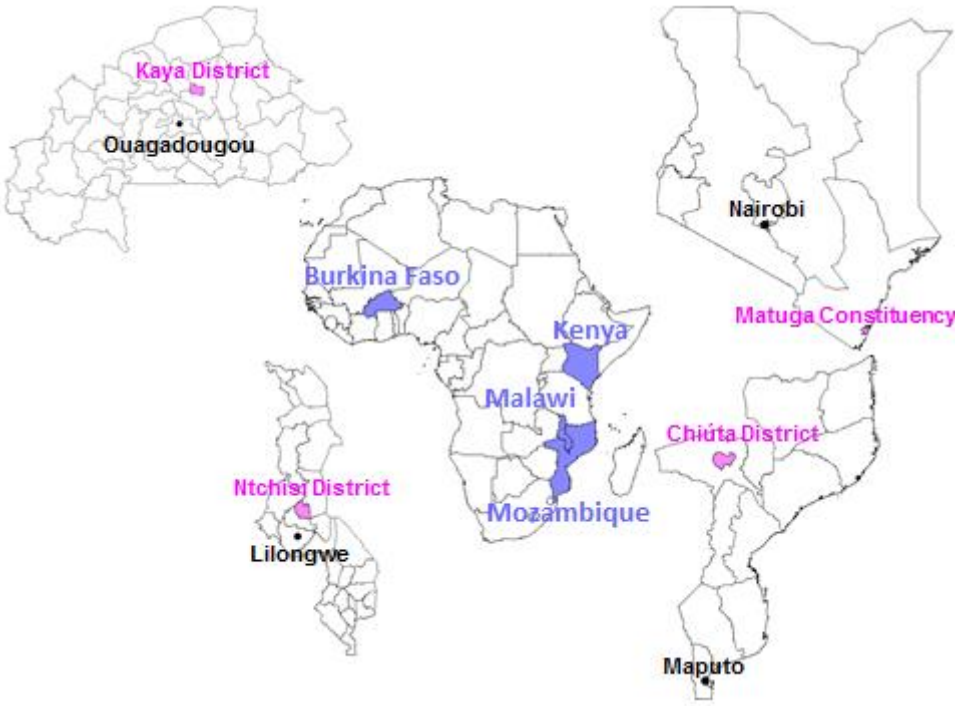

Figure 3: MOMI study countries and districts

Table 1: District demographic, maternal, newborn, and child health and health system related indicators

	Kaya district (Burkina Faso)	Kwale county (Kenya)	Ntchisi district (Malawi)	Chiúta district (Mozambique)
District population	507,018	162,092	265,470	85,808
% of women of childbearing age	22.0	23.5	22.6	21.6
Number of health facilities	51	20	12	4
Primary healthcare facility	50	19	11	4
Referral district hospital	1[1]	1	1	0
Median catchment area population per primary healthcare facility (range)	9,781 (2,382-25,934)	5,651 (2,944-22,117)	17,141 (7,346-47,794)	21,881 (6,007-36,039)
Percentage women delivered by a skilled provider[2]	84	40	69	65
Percentage women who received PPC at a health facility within 7 days after childbirth[2,3]	25	33	41	40
Percentage children who received BCG vaccination[2]	111	72	112	129
Percentage children who received measles vaccination[2]	96	91	85	105
Number of skilled health workers per 10,000 population	9.4	11.4	5.8	2.4
Contraception use among women aged 15-49 and currently married[4]				
Any method of contraception	9.5%	41.5%	46.1%[5]	15.3%
A modern method of contraception	9.3%	38.2%	42.2%[5]	15.1%

Source data (except data on contraception use): Data from the respective district registers: Kenya, January 2012; Burkina Faso and Mozambique, January-December 2011; Malawi, July 2010-June 2011

[1] regional hospital

[2] % of estimated number of live births in the research district. Vaccination coverage above 100% can probably be explained because the used number of 'estimated live births' is lower than the real figure. We calculated the 'estimated live births' for each district by using the total population of the district and the countries' crude birth rates as provided in the respective most recent DHS for Burkina Faso, Malawi and Mozambique and by WHO for Kenya (Institut National de la Statistique et de la Démographie (INSD) & ICF International 2012; Ministerio da Saude (MISAU) *et al.* 2013; National Statistical Office (NSO) & ICF Macro 2011; WHO 2013)

[3] PPC included the services and care as defined by the respective national MNCH/PPC policies and guidelines

[4] Respective DHS (Institut National de la Statistique et de la Démographie (INSD) & ICF International 2012; Kenya National Bureau of Statistics (KNBS) & ICF Macro 2015; Ministerio da Saude (MISAU) *et al.* 2013; National Statistical Office (NSO) & ICF Macro 2011)

[5] This is national data, no regional data available

3.1.2 Study design

A cross-sectional study was conducted to identify opportunities and design, select, implement and evaluate interventions to improve PPC in the four selected districts.

As overall research methodology the health system research approached was used which is visualised in Figure 4[25]. As this figure shows, the different stages that are building up this research approach interact dynamically; after consideration of the results of the situation analysis, pre-existing knowledge, and the conceptualisation of the reference model, a change is introduced into

[25] Grodos D & Mercenier P (2000) Health systems research: a clearer methodology for a more effective action, in Studies in Health Service Organisation and Policy. Antwerp, Belgium: Institute of Tropical Medicine.

the health system. This empirical decision is then investigated and validated, and translated into action. The next steps are the evaluation of the process and the evaluation of the results.

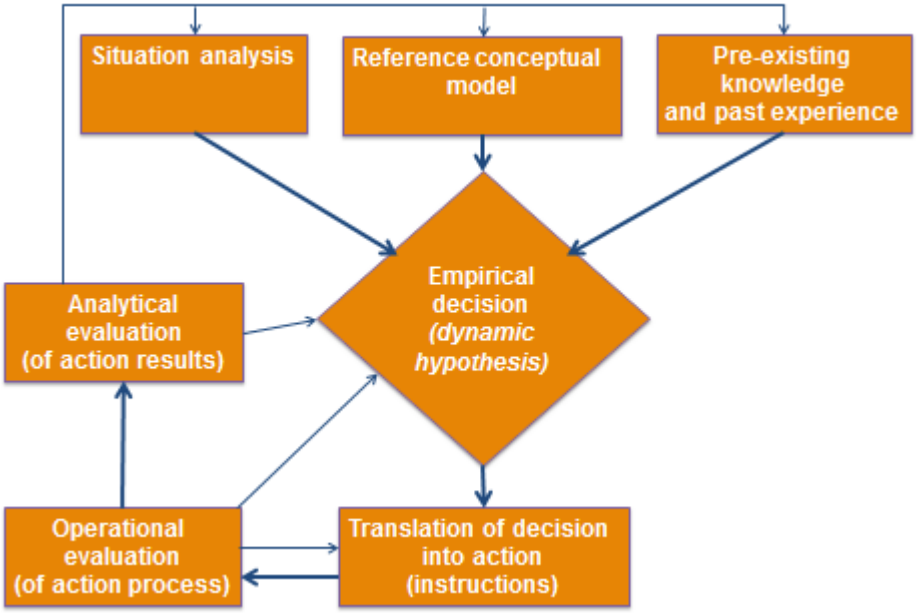

Figure 4: Basic methodological scheme for health system research[25]

Applying this approach in the MOMI project gave the study approach and steps as visualised in Figure 5.

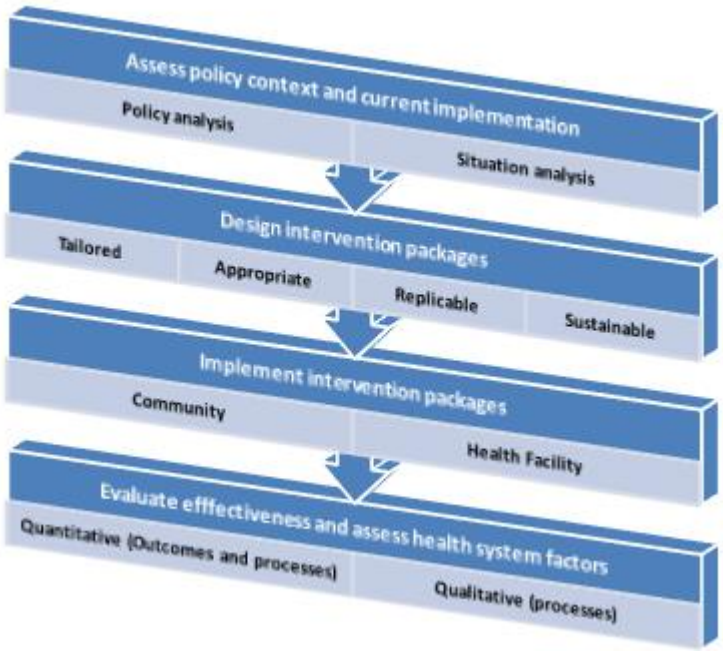

Figure 5: MOMI project study approach

MOMI started with a comprehensive assessment of the policy context and current implementation of PP care and services at each of the four research sites. This assessment took place in spring 2012 (the final report was available in January 2013). Based on the assessment results context-

specific packages of interventions to upgrade postpartum care were designs, selected and implemented. At each site, intervention implementation was initiated in summer 2013. Implementation of the intervention was regularly monitored and supervised and interventions were adapted based on the supervision and monitoring results. MOMI ended with the evaluation of the effectiveness of the implemented interventions and an assessment of the health system factors affecting the intervention implementation. The evaluation field work took place from half June till September 2015. Evaluation results should inform policy makers and researchers on next steps and decisions to be taken to further upgrade PPC. As such the outcome of the MOMI study contributed to upgrade the knowledge regarding PPC in the MOMI study countries and in the sub-Saharan region.

The next four chapters describe more detailed the methodology used in the different research steps of the MOMI project (see Figure 5).

Health system research also means that all building blocks[26] of the health system are considered, covered and address. This was also the case in the MOMI study.

3.1.2.1 Comprehensive needs assessment

The assessment objective was to identify present provision of PPC and gaps in this care and to understand how PP services could be more effectively organised. A mixed methods approach was used to collect data about national PP policy, factors that affect health system change, and barriers to provision of, and demand for, PPC.

The needs assessment included:

1. A stakeholders causal analysis workshop
2. A critical review of the maternal, newborn and child health (MNCH) policies at the four study countries through
   - document analysis of national, regional and local policies and guidelines,
   - semi-structured in-depth interviews with stakeholders at national, regional, and district levels and facility and community health health workers, and
   - focus group discussions with women and men from the local community
3. A detailed quantitative situation analysis of existing MNCH services and care at the four study sites using routinely collected and available data on MNCH at national and study site level.

For the document review Google, Google Scholar, PubMed, and individual sites were searched to identify major national and local documents, supplemented by advice from key local informants. Semi-structured interviews with between four and eight stakeholders at national, regional, and district levels, and two to three focus groups of ten to 15 participants were conducted at each site. Interviewees were selected on the basis that they would be able to provide the information that was needed. Data about current PPC processes and outcomes were collected for each site.

[26] The health system is defined by six building blocks – (1) service delivery, (2) health workforce; (3) health information system, (4) medical products, vaccines and technologies, (5) health financing and (6) leadership and governance (WHO (2007) *Everybody business: strengthening health systems to improve health outcomes: WHO's framework for action*. WHO Press, World Health Organization, Geneva, Switzerland).

Checklist and interview guides to collect the needs assessment data were developed. Data collection took place between December 2011 and April 2012 and was performed by project research staff. In-depth interviews and focus group discussions were audio recorded, transcribed and translated if needed. Qualitative data was analysed by extracting themes and triangulating. Quantitative data was entered in an Access database, and checked for errors by the lead partner. A descriptive analysis of the quantitative data was undertaken using SPSS 20.

3.1.2.2 Design and selection of context-specific postpartum care intervention packages[27]

To design and select the interventions we used the 'systems thinking' approach as described by *de Savigny and Adam*[28]. Systems thinking provides a way forward for operating more successfully and effectively in complex, real-world settings. It can open powerful pathways to identifying and resolving health system challenges, and as such is a crucial ingredient for any health system strengthening effort[28]. Regarding intervention design the approach has four steps, being; (1) identify and convene stakeholders, (2) collectively deliberate with stakeholders on proposed interventions and their possible system-wide effects, (3) describe how the proposed interventions will affect health and the health system, and (4) adapt and redesign interventions to optimise positive effects[28].

For 'Step 1' a stakeholder mapping to identify the main stakeholders within PPC and their importance in improving PPC was conducted. Stakeholders included implementers, managers, policy makers and members of the community and civil society.

For 'Step 2' a stakeholders causal analysis workshop was organised at each study site in which the local PPC situation and challenges and possible interventions were discussed[29].

In 'Step 3', for each study site, a list of potential interventions was developed by the study researchers. These lists were based on the synthesis of the findings from a comprehensive needs assessment conducted at each research site (see chapter 3.1.2.1), the inputs from the stakeholders received through the causal analysis workshop and on internationally recognised evidence and guidelines on effective PPC[30,31,32,33,34,35,36,37,38]. Using all this information local and

[27] Duysburgh E, Kerstens E, Kouanda S *et al.* (2015) 'Opportunities to improve postpartum care for mothers and infants: design of context-specific packages of postpartum interventions in rural districts in four sub-Saharan African countries'. *BMC Pregnancy and Childbirth* 15: 131

[28] de Savigny D & Adam T (2009) *Systems thinking for health systems strengthening*. Geneva, Switzerland: Alliance for Health Policy and Systems Research, WHO.

[29] Lefevre P, Kolsteren P, De Wael MP, Byekwaso F & Beghin I (2001) *Comprehensive Participatory Planning and Evaluation*. Antwerp, Belgium, Institute of Tropical Medicine, Nutrition Unit.

[30] WHO (2010) *WHO Technical consultation on postpartum and postnatal care*. Geneva, World Health Organization.

[31] Koblinsky M (2005) *Community-based Postpartum Care: an urgent unmet need*. Washington DC, USA, USAID, The CATALYST Consortium.

[32] PMNCH (2011) *Essential Interventions, Commodities and Guidelines for Reproductive, Maternal, Newborn and Child Health*. Geneva, Switzerland, Partnership for Maternal, Newborn and Child Health.

[33] NICE (2011) *Postnatal care overview*. Manchester, UK, National Institute for Health and Care Excellence.

[34] NICE (2011) *Infant feeding and maternal nutrition in postnatal care*. Manchester, UK, National Institute for Health and Care Excellence.

international MOMI project researchers developed for each study site a list of proposed interventions, described for each of these interventions health system challenges, opportunities and preconditions, and assessed the interventions for their suitability against the following criteria: acceptability, evidence-based, feasibility (taking into account financial and human resources and the availability of infrastructure, medical equipment and drugs), effectiveness, sustainability, and the degree to which the suggested intervention is already included in local MNCH policies (Table 2). A report including this information (including the list of provisional recommended interventions) was compiled for each site[39.40,41,42] to be used to guide stakeholders to agree upon final context-specific intervention packages. This agreement on and selection of final context-specific intervention packages is 'Step 4' of 'systems thinking' intervention design.

At each study site, Step 4 was conducted through two stakeholders meetings. In the first meeting, the needs assessment results and proposed interventions described in the country reports were discussed. These meetings took place in October 2012 (in Kenya and Mozambique), November 2012 (in Burkina Faso) and February 2013 (in Malawi). A second round of meetings took place in May 2013 in Burkina Faso and Kenya, in July 2013 in Mozambique and in September 2013 in Malawi. At these meetings the final packages of PPC interventions that should be implemented at each study site were agreed upon. Stakeholders decided on the final intervention packages in cooperation with the local study researchers. Stakeholders were free to adapt and select the interventions they wanted, however they had to take care that it was realistic and feasible to implement the selected interventions in the frame of the MOMI study. No financial resources were provided by the MOMI project to maintain and manage the selected interventions.

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[35] NICE (2011) *Health problems in women and babies in postnatal care*. Manchester, UK, National Institute for Health and Care Excellence.

[36] WHO, UNFPA, UNICEF & The World Bank (2006) *Pregnancy, Childbirth, Postpartum and Newborn Care: A guide for essential practice*. Geneva: World Health Organization.

[37] Barros H &Lopes SC (2013) *Cross-Country Situation Analysis of Maternal and Newborn Care in Burkina Faso, Kenya, Malawi and Mozambique.* Porto, Portugal: Department of Hygiene and Epidemiology, Faculdade de Medicina da Universidade do Porto.

[38] Mann S (2013) *Cross-Country Analysis of Maternal, Newborn and Child Health Policies in Burkina Faso, Kenya, Malawi and Mozambique*. London, UK: Institute for Global Health, University College London.

[39] Duysburgh E & Kerstens B (2012) *Burkina Faso Country Report - Baseline Assessment Results and Suggested Interventions for Improving Postpartum Care in Kaya district - Working document to be used by Stakeholders and Policy Advisory Board Members*. Gent, Belgium, MOMI Consortium.

[40] Duysburgh E & Kerstens B (2012) *Kenya Country Report - Baseline Assessment Results and Suggested Interventions for Improving Postpartum Care in Kwale District - Working document to be used by Stakeholders and Policy Advisory Board Members*. Gent, Belgium, MOMI Consortium.

[41] Duysburgh E & Kerstens B (2012) *Malawi Country Report - Baseline Assessment Results and Suggested Interventions for Improving Postpartum Care in Ntchisi district - Working document to be used by Stakeholders and Policy Advisory Board Members*. Gent, Belgium, MOMI Consortium.

[42] Duysburgh E & Kerstens B (2012) *Mozambique Country Report - Baseline Assessment Results and Suggested Interventions for Improving Postpartum Care in Chiúta district - Working document to be used by Stakeholders and Policy Advisory Board Members*. Gent, Belgium, MOMI Consortium.

Table 2: Development of list of proposed interventions[43]

For each study site the development of a list of proposed interventions included the following process:

- First, baseline assessment and stakeholders causal analysis workshop PPC findings were summarised in a SWOT analysis. The following characteristics and categories were assessed:
  - Characteristics of postpartum policies – category: postpartum policies
  - Characteristics of postpartum system – categories: health system organization, integration of PPC in other services (child clinic, HIV, FP, etc.), human resources, financial resources, PPC payment modalities for users/clients, and health information system
  - Characteristics of postpartum services – categories: facility-based PP services, community-based PP services, socio-cultural issues and access to PPC, geographic issues and access to PPC, financial issues and access to PPC, and access 'in time' to PPC
  - Characteristics of postpartum care – categories: technical effectiveness, patient centeredness, integration, continuity

Example Kwale district, Kenya (Characteristics of postpartum services – facility-based PP services)

	Strengths	***Weaknesses***	***Opportunities***	***Threats***
….				
Characteristics of postpartum services				
Facility-based PP services	• none	• PPC is neglected compared to antenatal and childbirth care • Health workers are not aware of importance of PPC • Health workers do not know guidelines on PPC • BEmOC services are in part not available at first line health facilities	• Framework to upgrade facility-based PPC services is available	• Understaffing • Lack of interest among health facility staff
…				

- Using the SWOT analysis results and internationally recognised evidence, problems and possible interventions to tackle these problems were identified. Problems were listed for four categories: health system, health services, health care and others.

[43] Duysburgh E, Kerstens E, Kouanda S et al. (2015) 'Opportunities to improve postpartum care for mothers and infants: design of context-specific packages of postpartum interventions in rural districts in four sub-Saharan African countries'. BMC Pregnancy and Childbirth 15: 131

Example Kwale district, Kenya (Care)

Problem identified regarding postpartum care in Kwale district	Intervention proposed
…	
Care	
Attitude of health workers: lack of patient centred care, no respect for cultural beliefs and practices	• Train HWs on patient centred care and culturally appropriate behaviour and approaches
Quality of care, poor skills of health workers	• Train HWs and establish regular supportive supervision of the HWs by district health management team. • Involvement of district QIT to improve quality of care and HW skills regarding PPC
Postpartum care not felt as a priority among the health workers	• Sensitize HWs on the importance of PPC and train them on the contents of PPC
Women discharged less than 24 hour after delivery	• Upgrade logistical arrangements in the health HF to enable women to stay at least 24 hours after they delivered. • Sensitize HWs and clients on the importance of staying at least 24 hours at the HF before being discharged
…	

- Next the identified possible interventions were described in more detail by mentioning for each the challenges, opportunities and preconditions. Interventions were classified in four groups: (1) community-based interventions, (2) improvement of available PPC services, (3) integration of PPC for the mother in child clinics, and (4) interventions linking the community and health facility.

Example Kwale district, Kenya (some interventions on improvement of available PPC services)

Possible Intervention	Challenges	Opportunities	Preconditions
…			
Improvement of available PPC services			
Improve BEmOC, PPC and other skills of health workers	• Availability of regular supportive supervision	• Availability of QIT to support improvement of quality of PPC	• none
Train health workers on patient-centred care and culturally adapted behaviour and approaches	• none	• none	• Trainers available
Sensitisation of health workers on importance of PPC for mother and newborn and PPC training	• Availability of regular supervision to support HWs to deliver PPC	• none	• Make arrangements to enable mother and newborn to stay at least 24 hours after delivery
Dissemination of national guidelines and strategies regarding PPC among the health workers and training on PPC	• none	• Guidelines already available	• none

…

- Finally each of the above described interventions was assessed against a set of criteria.

Example Kwale district, Kenya (some interventions on improvement of available PPC services)

Possible interventions	***Criteria*[1]**										
	Feasible/ realistic to implement:									***Effectiveness***	***Sustainability (long-term)***
	Inclusion in local MNCH policy	***Acceptability***	***Evidence-base***	*Financial*	*Human resources*	*Infrastructure, equipment & supplies*	*Health system*	*Referral structure*	*Supervision*		
…											
Improvement of available PPC services											
Improve BEmOC, PPC and other skills of health workers	+++	+++	++	+	+	++	++	++	±	++	+
Train health workers on patient-centred care and culturally adapted behaviour and approaches	+	+	+	+	+	+	+		+	+	++
Sensitizing of health workers on importance of PPC for mother and newborn and PPC training	+++	-		++	++	++	+++		+	±	±
Dissemination of national guidelines and strategies regarding PPC among the health workers and training on PPC	+++	++		+	++	++	+++		+++	+	++
…											

[1] The codes range from '- - -' to '+++' to assess the feasibility/relevance of the mentioned criteria.

BEmOC, basic emergency obstetric care; FP, family planning; HF, health facility; HIV, human immunodeficiency virus; HW, health worker; PP, postpartum; PPC, postpartum care; QIT, quality improvement team; SWOT, strengths, weaknesses, opportunities and threats

3.1.2.3 Implementation of context-specific postpartum care intervention packages

At each research site a detailed action plan was developed to support the implementation of the selected intervention package. In Ntchisi district, Malawi and Chiúta district, Mozambique all district health facilities were included in the MOMI PPC intervention implementation. In Kaya district, Burkina Faso 12 of the 50 PHC facilities were included and in Matuga constituency, 9 of the 19 PHC facilities (Table 3). In Burkina Faso it was logistically not possible to cover all PHC facilities. For Kenya, only the PHC facilities having functional community units attached were included in the MOMI intervention implementation. Because the referral hospital in Kaya district, Burkina Faso, was a regional hospital, serving not only Kaya district but the whole region, it was decided not to include this hospital in the intervention implementation.

Table 3: MOMI intervention implementation health facilities and communities

	district hospital	*PHC facilities*	*communities*
Burkina Faso - Kaya district	none	12	65 communities – 65 CHWs
Kenya - Matuga constituency	1	9	11 community units – 546 CHWs
Malawi - Ntchisi district	1	11	1 traditional authority – 27 CHWs
Mozambique - Chiúta district	none	4	25 APEs and 25 TBAs

Implementation was supported by regular supervision and monitoring. For monitoring a mixed methods approach was used, comprising qualitative and quantitative data collected. Quantitative data were collected through community health workers diaries, event logs, policy advisory board observations and scrutiny of meetings, papers and reports relevant to the project (e.g. supervision reports and reports of the field visits conducted by partners from the northern research institution to the project research sites)[44,45]. Quantitative indicators were collected at health facility and community level by MOMI staff in conjunction with facility and community health workers respectively. The indicators collected were based on routine data and specific to each site and were determined with respect to the processes and intended outcomes of the MOMI interventions at each site. Throughout the implementation period, interventions were adapted based on monitoring and supervision results.

At each research site, local MOMI researchers also kept track of the MOMI intervention implementation by regularly completing the MOMI interventions implementation timeline where they reported all the activities that were conducted to support the MOMI interventions implementation (e.g. training, refresher training, supervision visits, distribution of non-financial incentives).

[44] Mann S, Moura S, Nambiar B, Colbourn T & Barros H (2014) *Interim Baseline Report – MOMI Evaluation.* European Commission FP7 MOMI project.

[45] Mann S & Lopes S (2013) *Integrated process evaluation methods and tools.* European Commission FP7 MOMI project.

3.1.2.4 End evaluation[46]

The effectiveness and impact of the implemented intervention packages on the respective health systems as well as on maternal and newborn health outcomes was studied aiming to improve knowledge on health system options for delivery of PPC. The evaluation aimed to uncover how the interventions implemented resulted in increased uptake, frequency of delivery and quality of evidence based postpartum care and, in particular, what worked, for whom and within which contexts.

The objective of the MOMI end evaluation was to understand how integrating service delivery and strengthening health systems could improve the uptake and delivery of evidence-informed PPC both in the community and health facilities. The nature of the interventions themselves and the contexts within which they were implemented were complex requiring an evaluation strategy (rather than a single research method). The evaluation strategy thus, consisted of three parts. (1) The first part consisted of an impact evaluation, based on MOMI monitoring data for each site. A visual analysis was initially conducted relating the occurrence of particular events concerning MOMI intervention implementation to observed trends of relevant indicators on graphs. Findings from this impact evaluation were compared to the findings of a realist evaluation to determine if the programme theory was plausible given the data, and also to determine if the data was plausible given the programme theory. (2) The second part involved an evaluation of implementation strength where each of the four sites was scored on key domains: the dose, duration, intensity, specificity and fidelity of the intervention implemented. (3) The last part was the realist evaluation using an embedded multiple case study design whereby community and health facility observations were conducted and key stakeholders interviewed[47]. Context – Mechanism – Outcome configurations to describe the ways the programme worked were tested using the case studies findings and triangulated with supplementary data and the findings of the impact and the implementation strength evaluations.

Sustainability and replicability of the interventions was an integral part of the project and was considered in the analysis of the project.

3.1.3 Ethics

Ethics clearance for the MOMI project was granted by: (1) the Comité d'Ethique pour la Recherche en Santé of the Ministry of Health, Ouagadougou, Burkina Faso; (2) Kenyatta National Hospital, University of Nairobi – Ethics & Research Committee, Nairobi, Kenya; (3) the National Health Science Research Committee, Lilongwe, Malawi; (4) the Comité Nacional de Bioética para a Saude, Maputo, Mozambique; (5) the Ethics Committee 'Hospital se São João, E.P.E' Faculdade de Medicina Universidade do Porto, Portugal; (6) the UCL Research Ethics Committee, London, UK; and (7) the Ethics Committee of the University of Ghent, Ghent, Belgium.

[46] Djellouli N, Mann S, Nambiar B, Meireles P, Miranda D, Barros H, Colbourn T (2016) *Final Evaluation of the MOMI Project in Burkina Faso, Kenya, Malawi and Mozambique*. European Commission FP7 MOMI project.

[47] Pawson R & Tilley N (1997) *Realistic Evaluation*. London: SAGE Publications.

3.2 Results

3.2.1 Comprehensive needs assessment results[48,49]

A detailed description of the needs assessment results is given in two project reports[50,51]. Following is a summary of findings to show how these supported the design and selection of context-specific PPC interventions.

In all four study countries, maternal, infant, and child health was a national priority but specific policy for postpartum care, particularly for maternal health, was weak. All countries used a problem-driven approach to post-partum care; neither preventive care nor strategies that improve early identification of complications were prioritised. Emphasis on provision of evidence-based post-partum care varied between countries, with the most policy gaps in Burkina Faso. Dissemination of guidance at provincial to district levels was poor at all sites, which contributed to failure to implement, along with low staff capacity, poor quality of services, lack of knowledge in the community, and use of traditional practices that delay or inhibit care.

While a minority of women (25% in Kaya district - Burkina Faso, 33% in Kwale county - Kenya, 41% in Ntchisi district - Malawi, 40% in Chiúta district - Mozambique) received PPC during the first week after childbirth, at least 70% of infants attended the health facility for BCG and 85% for measles vaccination. For facility-based deliveries, immediate postpartum care was provided at almost all sites, usually by skilled health worker, although women were often discharged early. Few health facilities provided subsequent PPC; 53 of 86 health facilities at 72 h and 28 of 86 at 7 days. Care in the postpartum period was poorly integrated with other services, such as child immunisation services, family planning clinics and HIV clinics.

Involvement of the community and community health workers in PPC was poor.

Little attention was given to the opportunities presented in the postpartum period for effective FP at any of the sites, though FP utilisation was highlighted as a priority in all study countries. All facilities except one in Kaya, Burkina Faso, reported offering FP services. In most of these health facilities several FP methods were available, with pills, injectables and male condoms being the most commonly available methods. Despite the availability of these services, DHS data show that the uptake of FP among women of child-bearing age in the respective study districts was low. Following contraception use is reported by the respective DHS: in Burkina Faso's Central Northern region, in which Kaya district is located, among women aged 15-49 and currently married, 9.5%

[48] Duysburgh E, Kerstens E, Kouanda S *et al.* (2015) 'Opportunities to improve postpartum care for mothers and infants: design of context-specific packages of postpartum interventions in rural districts in four sub-Saharan African countries'. *BMC Pregnancy and Childbirth* 15: 131.

[49] Mann S, Colbourn T, Barros H, Lopes S & Duysburgh E, for the MOMI consortium (2012) 'Post-partum mother and child care: a comparison of four African countries' *Lancet* abstract published online October 21.

[50] Barros H &Lopes SC (2013) *Cross-Country Situation Analysis of Maternal and Newborn Care in Burkina Faso, Kenya, Malawi and Mozambique.* Porto, Portugal: Department of Hygiene and Epidemiology, Faculdade de Medicina da Universidade do Porto.

[51] Mann S (2013) *Cross-Country Analysis of Maternal, Newborn and Child Health Policies in Burkina Faso, Kenya, Malawi and Mozambique*. London, UK: Institute for Global Health, University College London.

use any method of contraception and 9.3% use a modern method of contraception; in Kenya's Coast province, in which Kwale county, Matuga constituency is located, these figures are 34.3% and 29.7% respectively; in Malawi 46.1% and 42.2%; and in Tete province, Mozambique, in which Chiúta district is located, 15.3% and 15.1%[52,53,54,55].

Stakeholders and health workers reported understaffing, high staff turnover, poor motivation and lack of staff knowledge and skills on PPC during the causal analysis workshops and the semi-structured interviews. These factors were identified as hampering provision of good quality PPC.

3.2.2 Results designs and selection of the context-specific intervention packages[56]

At all four sites the intervention packages chosen include interventions to upgrade the PPC provided at the health facilities and the introduction or upgrading of community-based PPC (Table 4).

Kaya district, Burkina Faso

In Kaya district three interventions were chosen: (1) upgrading immediate PPC provided at the health facilities with a focus on detection and management of postpartum haemorrhage and sepsis and immediate postpartum FP, (2) supporting mother and infant during the PP period by female community health workers and (3) integration of PPC in the child vaccination clinics. In order to implement the interventions, all facility health workers involved in providing maternal and child care and all female CHWs were trained backed-up by the provision of guidelines and checklists (written for facility health workers and a picture book for CHWs) on PP care and services. The picture book also served to provide health education at PPC clients and in the community. To deal with the high staff turnover, yearly refresher training were organised. To support the implementation quarterly supervision visits of facility and community health workers were conducted in cooperation with the district health team. Information meetings with community leaders and male CHWs took place to inform them on the project and discuss with them cultural issues and beliefs regarding PPC and FP.

Matuga constituency, Kwale county, Kenya

In Matuga constituency the final selected package of interventions included two interventions: (1) strengthening immediate postpartum care for mother and newborn by upgrading knowledge and skills of facility and community health workers and (2) increasing knowledge on and uptake of

[52] Institut National de la Statistique et de la Démographie (INSD), ICF International (2012) *Enquête Démographique et de Santé et à Indicateurs Multiples du Burkina Faso 2010*. Calverton, Maryland, USA, INSD et ICF International.

[53] Kenya National Bureau of Statistics (KNBS), ICF Macro (2010) *Kenya Demographic and Health Survey 2008-09*. Calverton, Maryland, USA, KNBS and ICF Macro.

[54] National Statistical Office (NSO), ICF Macro (2011) *Malawi Demographic and Health Survey 2010*. Zomba, Malawi, and Calverton, Maryland, USA: NSO and ICF Macro.

[55] Ministerio da Saude (MISAU), Instituto Nacional de Estatística (INE), ICF International (ICFI) (2011) *Moçambique Inquérito Demográfico e de Saúde 2011*. Calverton, Maryland, USA, MISAU INE e ICFI.

[56] Duysburgh E, Kerstens E, Kouanda S *et al.* (2015) 'Opportunities to improve postpartum care for mothers and infants: design of context-specific packages of postpartum interventions in rural districts in four sub-Saharan African countries'. *BMC Pregnancy and Childbirth* 15: 131.

postpartum FP during the first year after childbirth. As in Burkina Faso training, distribution of PPC guidelines and regular supervision were chosen as methods of delivering the interventions. To increase postpartum FP uptake it was planned to establish health education sessions using the community dialogue model will be established[57].

Ntchisi district, Malawi

In Ntchisi district three interventions were included in final intervention package: (1) strengthening clinical management of postpartum care during the postpartum period in the health facilities, (2) increasing utilization of postpartum FP, and (3) strengthening community PPC management. Unlike the other research sites, in Malawi they chose a system of on-the-job mentorship and training to upgrade PPC knowledge and skills (including knowledge on postpartum FP) of the facility health workers combined with, similar to the other sites, distribution of PPC guidelines and regular supervision visits. To further enhance postpartum FP utilisation, it was planned to organise health education sessions with a special focus on involving males at health facility and community level. Three villages were selected for implementation of the PPC community intervention. In these villages volunteers would be identified and community women, men and youth groups established. Volunteers would be trained to perform PPC home visits and facilitate community women, men and youth groups. In these groups PPC problems and local feasible solutions for these problems would be identified and discussed.

Chiúta district, Mozambique

In Chiúta district the final selected package of interventions included three interventions: (1) upgrading mother, newborn and infant postpartum risk assessment and management at community and facility level, (2) increasing access to and use of FP through making immediate PP intrauterine device (IUD) insertion available, and (3) improving access to and use of maternal PPC and services by integrating PPC in child clinics and by organising outreach activities. Training, supervision and the use of specially designed checklists to be completed by the facility or community health worker during each PPC consultation were used to upgrade PP risk assessment and management. A training session, including skills training, was organised on PP IUD insertion and availability of IUDs and equipment needed for the insertion would be provided by the authorities. During training and supervision sessions, integration of services were discussed, monitored and adjusted if needed.

From the start of the MOMI project the project researchers made it clear that CHWs would not receive a financial incentive at any of the study sites through the project, although non-financial incentives (among others bicycles, T-shirts and gowns, bags) could be used to motivate CHWs and support their work.

[57] Figueroa ME, Kincaid DL, Rani M & Lewis G (2002) *Communication for Social Change: An Integrated Model for Measuring the Process and Its Outcomes*. New York, USA, The Rockefeller Foundation.

Table 4: Selected context-specific intervention packages

Study site	Selected interventions
Burkina Faso – Kaya district	1. Female community health worker support mother and infant during the postpartum period by: • conducting home visits • providing individual counselling and group health education on danger signs (for mother and infant) • identification of danger signs and referral if needed • providing counselling on FP 2. Upgrade the delivery of immediate postpartum care in the health facilities with focus on the prevention, detection and management of postpartum haemorrhage and sepsis (in mother and newborn) and immediate postpartum FP. 3. Integration of PPC (including FP counselling and provision) for the mother and newborn/infant in the child vaccination clinic.
Kenya – Matuga constituency	1. Strengthening immediate postpartum care for mother and newborn by upgrading knowledge and skills of facility and community health workers on detection and management of common maternal and neonatal complications (danger signs counselling, detection and management), promotion of early breastfeeding, counselling and provision of family planning, and by providing postpartum home visits (conducted by the community health worker). 2. Increase knowledge on and uptake of postpartum family planning during the first year after childbirth using the dialogue model approach at community and facility level.
Malawi - Ntchisi district	1. Strengthen clinical management of postpartum care during the postpartum period in the district hospital and health centres (using clinical mentorship and quality of care reviews) with focus on anaemia, sepsis, HIV screening and management, FP and nutrition for the mother and sepsis, pneumonia, feeding and growth monitoring for the infant. 2. Increase utilization of postpartum family planning through awareness raising by providing FP counselling at health facility and community level and by involving males. 3. Strengthen community postpartum care management through home visits conducted by community volunteers and through the establishment and use of men's, women's and youth groups. Community volunteers will promote facility-based delivery and provide counselling on nutrition, hygiene, danger signs and FP for the mother and nutrition, immunisation, hygiene and danger signs for the infant.
Mozambique - Chiúta district	1. Mother and newborn/infant postpartum risk assessment and management at community and facility level upgraded during the postpartum period through early detection, treatment and referral of postpartum complication cases in health facilities and communities by using a risk assessment checklist. The assessment will focus on following risks, complications and conditions: for mother: sepsis, postpartum haemorrhage, mental/emotional status, anaemia, FP, exclusive breastfeeding and HIV/STI counselling and testing or follow-up, and for infant: sepsis, immunization and growth monitoring, exclusive breastfeeding and HIV/STI exposure. 2. Scale-up access to and use of family planning through making immediate postpartum IUD insertion available at all district health facilities. 3. Improve access to and use of maternal PPC and services by integrating maternal PPC in child clinics (growth monitoring and immunisation clinics) and by organising quarterly maternal and child health community outreach activities.

FP, family planning; HIV, human immunodeficiency virus; IUD, intrauterine device; PPC, postpartum care; STI, sexually transmitted infection.

3.2.3 Implementation of the context-specific intervention packages

The implementation plans developed at each of the research sites (see chapter 3.1.2.3) were implemented and executed at the four MOMI research sites with mixed success. This resulted in different implementation strengths and had its impact on the end evaluation results (see following chapter 3.2.4).

The MOMI interventions implementation timeline gives an overview of all the activities that were conducted at each research site to support the MOMI interventions implementation (Annex 1). In Burkina Faso, the MOMI intervention implementation was executed almost entirely as planned including regular upgrading and adapting of the implementation activities based on the monitoring and supervision results. In Kenya, intervention implementation started as planned but supervision, monitoring and adaptation of the interventions was suboptimal. For example less supervision have been conducted than planned and supporting material to upgrade interventions (pictures to support the dialogue model sessions and individual provided health educations) were distributed rather late and without instructions/training on how to use this material. In Malawi, intervention implementation was delayed due to the quite ambitious approach relying totally on the local district authorities to initiate and implement MOMI and due to staff problems at the Malawian MOMI partner. This had particularly an impact on the community MOMI intervention in Malawi[58] which never got fully implemented. In Mozambique the implementation of interventions at health facility level started as planned but intervention implementation at community level was delayed. Supervision and monitoring were rather weak the first implementation year but became very strong the second and last year of the intervention implementation, after the employment of the new Mozambican MOMI project coordinator. During this last intervention implementation year, refresher training was organised for facility and community health workers, supervision was strengthen, and interventions adapted based on supervision and monitoring findings.

Coordination with local health authorities (district health management team, district healthcare director, district maternal and child health officer, etc.) during the implementation of the MOMI interventions was well established at the MOMI research sites in Burkina Faso, Malawi and Mozambique but less established at the site in Kenya.

Implementation strength and conditions required for full intervention implementation are also addressed in the next chapter as part of the process evaluation/realistic evaluation results.

[58] The establishment of women, men and youth community groups following the WHO recommended community group approach (Reference: WHO (2014) *WHO recommendation on community mobilization through facilitated participatory learning and action cycles with women's groups for maternal and newborn health.* WHO Document Production Services, Geneva, Switzerland).

3.2.4 End evaluation results[59]

3.2.4.1 Evaluation Results (WP 6)

Interventions were carried out to various degrees of implementation across the sites. For instance, the intervention 'dose' was high in Burkina Faso and Kenya while it was relatively lower in Mozambique and particularly low in Malawi. After a long lead-in and design phase, most sites were able to implement the interventions over a period of 18-24 months although the intensity with which the interventions were applied varied across sites. Intervention fidelity was low amongst all sites except Burkina Faso, where interventions were executed as it was originally planned.

All study sites had a community component in their intervention packages with the aim of increasing the demand for postpartum care and family planning in a critical mass of women so that it becomes, through forces of social cohesion, the 'norm'. Community health workers, chosen by their own community, were to support this change by building trust with postpartum women and by bridging the gap between the community and the formal health sector. This intervention was most successful in Burkina Faso where this change occurred. There was less success in other settings where community health workers could not reach a critical number of women due to various barriers such as low retention rate of community workers (Kenya), communities scattered over large and remote distances (Mozambique) and delayed implementation of the community intervention (Malawi).

Interventions directed at improving PPC delivery worked best when yearly refreshers and regular supervision were provided but were dependent upon the accountability systems operating in each setting. In Burkina Faso (Pay for Performance system available) and Kenya, the accountability system was favourable to MOMI implementation. On the other hand, accountability systems were a hindrance in Mozambique where healthcare workers fear looking incapable if they refer women with complications, and in Malawi where healthcare workers are not held accountable for leaving their clinical duties or for delivering PPC interventions. Furthermore, the lack of leadership and the fact that PPC is not as high of a priority at the national level than other aspects of maternal and child health had an impact on healthcare workers' motivation to implement postpartum interventions in all countries.

Service integration between maternal and infant services was also included in the intervention packages of Burkina Faso, Mozambique and Malawi. It seemed to have been the most difficult component to implement in the three countries – where full implementation was not achieved – given the tight boundaries to healthcare workers' responsibilities for delivering care, often compounded by separate managerial and financing arrangements for maternal care and infant care. Service integration was therefore more successful in smaller rural health facilities where responsibilities for maternal and infant care were already overlapping.

Increasing the demand for and provision of PP FP was a common component to all countries. A mixture of external factors (strategy highly supported at the national level and large presence of

[59] Djellouli N, Mann S, Nambiar B, Meireles P, Miranda D, Barros H, Colbourn T (2016) *Final Evaluation of the MOMI Project in Burkina Faso, Kenya, Malawi and Mozambique*. European Commission FP7 MOMI project.

non-governmental organisations in this field) combined with MOMI community and health facility interventions led to changed perceptions of women and to an increase in demand for FP. However, in all countries, the main barrier to demand is the husband, who needs to provide permission, unless women are willing and able to get FP secretly. On the supply side in all countries, healthcare workers do not spend enough time explaining to women the advantages and disadvantages of each method, even when appropriate training was provided. As a result, Depo-Provera injections remain the most administered method, despite the availability of other long lasting methods, as women are more familiar with Depo-Provera injections and it is the most convenient for healthcare workers to administer.

Discussion

Four broad middle range theories[60] - which have been named “Buzz Theory”, “Bridging Theory”, “Motivation by Accountabilities” and “Together is Stronger” – appeared to underpin whether or not the interventions implemented had an impact at the point of service delivery, despite wide variation in intervention choice, design and delivery across settings and differences within the contexts and systems within which they were implemented. Indeed, the results of the MOMI evaluation suggest that if community level interventions lead to postpartum healthcare seeking for a critical mass of women, a “buzz” for change is created. Reinforced by social cohesion and local dialogue, norms shift and appear to create a critical tipping point leading to a social movement that holds a collective belief in the acceptability of and perceived value of attending for PPC that outweighs the costs. Our findings further supported the concepts of social capital as having an important effect on demand for PP services mediated through the community health workers who could bridge trust between communities and the formal health sector. The degree to which community health workers are linked to the formal health sector, the range of roles undertaken and the way in which they were incentivised varied across the sites. However, almost regardless of these factors, the community health workers in general held a strong intrinsic sense of responsibility to their communities and, in turn, were closely relied upon by them. For the supply side interventions, the impact of MOMI was dependent upon the accountability systems that operated and largely did not favour PPC. In general it was found that where integration had been attempted, the staff in the better resourced health facilities were observed to have more clearly defined professional roles with little overlap between maternal and infant healthcare and therefore the combined provision of the services was less easily achieved. In a smaller facility individual HCWs were often co-located, knew about each other’s roles and expected to perform overlapping functions to account for absences. The opportunity for maternal care created by infant vaccination was therefore perceived and performed more intuitively by HCWs in smaller rather than larger facilities.

3.2.4.2 Determinants of Sustainability and Replicability (WP 7)

Facilitators and hindrances of sustainability of implemented interventions were analysed. Generally, it was found that the activities must be owned by and included in the plans of the local health authorities, as strong leadership at higher hierarchical level emerged as fundamental to guarantee support and endorsement of activities. Effective collaboration among stakeholders is further needed to assure the success of interventions and enable sustainability. However, the district and/or national health authorities need to address the problem of high staff turnover, understaffing and stock outs that are barriers to sustainability. Concerns were further raised on

[60] Pawson R & Tilley N (1997) *Realistic Evaluation*. London: SAGE Publications.

whether health authorities will continue to focus on PPC and on the lack of good quality routine data to provide an actual picture of the situation on the field. In terms of replicability, one can be confident that opportunities exist to scale up the interventions using the MOMI approach. In particular, the involvement of the stakeholders from inception, often referred as very important, strengthens such belief.

4 Potential impact and main dissemination activities

4.1 Potential impact

The set-up of the MOMI project implied that at each of the four MOMI research sites all relevant stakeholders (healthcare policy makers, managers and providers and civil society) were involved in the project form the project start till the end. In practice, stakeholders involvement in MOMI was established through organising at each of the research sites a causal analysis stakeholders' workshop at the start of the project, a participatory evaluation workshop at the end of the project and having established at each site a local MOMI policy advisory board that met at least once a year and in which MOMI interventions, progress and challenges were discussed. This contributed to the knowledge of health policy makers and managers on what is needed to improve PPC.

Apart from involving stakeholders though these formal meetings, stakeholders were at each site also directly involved by the project implementation. For example by conducting the MOMI supervision visits together with a member of the local district health management team and by involving local stakeholders at national and district level by facilitation and participating in training organised in the frame of the MOMI project.

The MOMI end evaluation findings showed that this approach resulted in having better PPC, especially better PPC for mothers, as a topic or as a more prominent topic on the district and national health policy agendas and action plans.

This approach also resulted in the fact that the MOMI PPC interventions became really embedded in the packages of services provided by the government organised health services which increased the chance for sustainability of the intervention implementation after the end of the project.

At each of the four research sites, to support sustainability of the MOMI project initiated postpartum interventions and strategies actions were taken and arrangements made with the health authorities.

- In Burkina Faso, the local MOMI research team will continue to support the supervision of the formal MOMI health facilities and communities and help to identify local mechanism for community health workers motivation and to mobilize existing resources to continue activities and progressive upscale of MOMI interventions.
- In Kenya, the MOMI team plans a phase-over approach where responsibilities of the MOMI project will be taken over by the county government. This will be possible due to the embedded nature of the intervention implementation and the fact that Interventions are not resource intensive. The emphasis of the MOMI project on institutional capacity building and stakeholder involvement enables this process.
- In Malawi, there are plans to integrate PPC mentorship and supervision into the routine monitoring and supervision activities of the Ntchisi district health management team. A national dissemination conference is planned to be held in Ntchisi for engagement of other district stakeholders.
- In Mozambique the ministry of health showed and expressed their willingness to continue the implementation of the MOMI interventions. Discussions of 'MOMI 2' (adapting interventions

from MOMI and building on opportunities identified) with the ministry of health at district and provincial level and UNICEF started.

4.2 Main dissemination activities

Throughout the project all partners actively participated in dissemination of the project information and results. Our dissemination activities aimed to reach the general public, health officials, health workers and health policy makers in the four research countries, the international scientific community. This was achieved using a wide range of dissemination tools including the MOMI newsletter published twice a year, the MOMI website (http://www.momiproject.eu/), MOMI presentations in the local media (TV, radio and written press), articles on websites and in newsletters from the MOMI project partners, MOMI policy briefs, policy advisory board meetings, presentation of results at national and international conferences, organisation of local dissemination meetings, publication of results in peer review journals.

The ***general public*** was mainly informed about MOMI through the presentation of MOMI in the local media (TV, radio and written press). Of course, people living in the catchment area of the health facilities and communities included in the MOMI project were also informed about MOMI though these health facilities and communities. The ***stakeholders directly involved in the MOMI project*** were specifically informed through the stakeholders meetings at the start and the end of the project and through the policy advisory board meetings. The MOMI website, MOMI newsletters, MOMI policy briefs and the MOMI dissemination conference were another source of information for this group of stakeholders as it also was for the ***policy makers and managers at sub-national, national and regional level.*** Dissemination of information and results to ***international health policy makers and managers and the international scientific community*** was mainly done through the MOMI website, presentations at international and national conferences and publications in peer review journals. The following chapters include more information on the main dissemination tools we used in MOMI[61].

4.2.1 MOMI website

The website remained regularly updated throughout the project. The target population for the website are health policy makers, managers, implementers and researchers in the field of maternal and infant care at the MOMI research countries and beyond.

4.2.2 MOMI newsletter

Throughout the project nine newsletters were published; one newsletter in 2011 and two in 2012, 2013, 2104 and 2015. The newsletters were distributed among the stakeholders in each of the MOMI research countries and in the networks of each of the MOMI consortium partners.

4.2.3 MOMI policy briefs

During the project at each research site two policy briefs were designed and distributed. These policy briefs were mainly aimed to inform sub-national, national and regional health policy makers, managers and implementers on the MOMI project, its progress and results. The policy briefs

[61] Causal analysis and participatory evaluation workshops and policy advisory board meetings are not included here because they are already discussed in the '*Main science & technology results'* chapter.

included also recommendations on how PPC could be upgraded in each of the MOMI research counties. A first set of policy briefs informed on the comprehensive needs assessment results, the second set of policy briefs reported the end evaluation findings.

4.2.4 Presentation of MOMI at national and international conferences

To present MOMI at a wider group of national and international health policy makers, managers, implementers and researchers and civil society organisations, presentations were made at national en international conferences. An overview of the MOMI presentations at national and international conferences is given in Table 5 and 6.

Table 5: Presentation of MOMI at national meetings/conferences, Feb 2011 – Jan 2016

Conference	*Title abstract*	*Authors*	*Status*
XIV Jornadas Científicas de Saúde; 17-21 September 2012; Maputo, Mozambique	Opportunities and gaps in health policies to improve maternal and newborn outcomes in the first year after childbirth in Mozambique	Gilda Gondola, Severiano Foia, Beatrice Crahay, Olivier Koole, Kátia Munguambe, Nafissa Osman	**Oral presentation** Given by Gilda Gondola
Kamuzu College of Nursing, Lilongwe, Malawi (September, 2013)	Investigating factors associated with the uptake of postpartum services	Chrissy Mbwazi	**Oral Presentation** Given by Chrissy Mbwazi
University of Nairobi Collaborators Meeting, Nairobi, Kenya (January, 2014)	Dialogue model to improve uptake of postpartum family planning in Kwale County, Kenya	Eunice Irungu, Vernon Mochache Oyaro, Els Duysburgh, Marleen Temmerman, Peter Gichangi	**Oral presentation** Given by Eunice Irungu
University of Nairobi Collaborators Meeting, Nairobi, Kenya (January 2014)	Health facility characteristics and the risk of poor maternal and perinatal outcomes in Matuga, Kwale County	Vernon Mochache Oyaro, Eunice Irungu, Els Duysburgh, Marleen Temmerman, Peter Gichangi	**Oral presentation** Given by Vernon Mochache Oyaro
Masters and PhD students meeting/ seminar, 7 November 2014; University of Porto, Portugal	Presentation of the MOMI evaluation framework	Bejoy Nambiar	**Oral presentation** Given by Bejoy Nambiar
Seminar held at the Faculty of Health Sciences, Zambeze University,2 March 2015; Tete, Mozambique	Presentation of the Institute of Public Health of the University of Porto activities. Highlight on the MOMI project	Henrique Barros	**Oral presentation** Given by Henrique Barros
3rd Kenyatta National Hospital/University of Nairobi scientific conference, 10-12 June 2015; Nairobi, Kenya	Disparity in health service delivery indicators among primary care facilities reporting adverse maternal and perinatal outcomes in Matuga, Kwale	Mochache V, Lopes S, Barros H, Duysburgh E, Temmerman M, Gichangi P	**Poster presentation** Given by Vernon Mochache Oyaro
Meeting with Dr. Francisco Mbofana, National Director of Public Health of Mozambique, 8 July 2015; Porto, Portugal	Presentation of the MOMI Project and specifically the status of the implementation of interventions selected for Mozambique	Sofia Moura, Paula Meireles and Henrique Barros	**Presentation** given by Sofia Moura and Paula Meireles

Conference	Title abstract	Authors	Status
2nd Kwale scientific conference, 15 October 2015; Kwale, Kenya	MOMI project end-evaluation: realist evaluation framework	Vernon Mochache Oyaro	**Oral presentation** Given by Vernon Mochache Oyaro
MoH Burkina Faso, department of family health – Meeting to share good practices on mother and infant health, 2-4 December 2015; Ouagadougou, Burkina Faso	Presentation of MOMI project (objectives, strategies, activities, recommendations) in collaboration with Kaya district health team.	H. Tougri, A Coulibali	**Oral presentation** Given by Halima Tougri
MoH SWAP MCH group workshop, 28 January 2016; Maputo, Mozambique	Presentation of MOMI activities, evaluation results and exit strategies/next steps	Málica de Melo, Sally Griffin	**Oral Presentation** Given by Málica de Melo

MoH, Ministry of Health; MCH, maternal and child health

Table 6: Presentation of MOMI at international conferences, Feb 2011 – Jan 2016

Conference	Title abstract	Authors	Status
Integration for Impact, 12-14 September 2012; Nairobi, Kenya	**MOMI panel session** with: (1) Reducing maternal and newborn mortality and morbidity in the year after childbirth through combined facility- and community-based interventions in Kwale district, Kenya (2) Improving maternal and newborn outcomes in the year after childbirth in Mozambique: Identifying the opportunities and gaps at policy level to improve service delivery (3) Taking everyone on board: stakeholder involvement in health systems research, an example from Malawi (4) Design of postpartum interventions for reducing maternal and infant morbidity and mortality by integrating mother and child services in Burkina Faso	(1) Katingima C, Jao I, Mandaliya K, Temmerman M (2) Gilda Gondola, Beatrice Crahay, Olivier Koole, Nafissa Osman; (3) Gibson Masache, Christine Katingima, Irena Jao, Gilda Gondola, Charles Kabore, Danielle Belemsaga; (4) Danielle Belemsaga, Charles Kabore, Seni Kouanda	**Panel session** Presentations given by (1) Christina Katingima, (2) Gilda Gondola, (3) Gibson Masache and (4) Danielle Yugbare Belemsaga.
GLOW Research conference, 23 October 2012; Liverpool, UK	What are the lessons from international comparisons of postpartum care provision in Africa ? Results of a comparative policy and situation analysis across 4 countries	Sue Mann, Bejoy Nambiar Henrique Barros, Sofia Lopes, Els Duysburgh	**Poster presentation** Els Duysburgh attended

Conference	Title abstract	Authors	Status
World Health Summit, 21-24 October 2012; Berlin, Germany	Where is the 'M' in postpartum care for mother and child? Results of a comparative policy and situation analysis across four African countries	Sue Mann, Tim Colbourn Henrique Barros, Sofia Lopes, Els Duysburgh	**Poster presentation** Sue Mann attended
Second Global Symposium on Health Systems Research, 31 October - 3 November 2012; Beijing, People's Republic of China	Stakeholders' inclusion for translating health systems research into policy and action: experiences in Africa, China and Latin America	Els Duysburgh, Wei-Hong Zhang, Peter Decat, Birgit Kerstens, Sara De Meyer	**Poster presentation** Wei-Hong Zhang (UG-ICRH) attended
8th European Congress on Tropical Medicine and International Health, 10-13 September 2013; Copenhagen, Denmark	Utilization and quality of postpartum services for mother and infant in Kaya health district (Burkina Faso)	Danielle Yugbare Belemsaga, Aristide Bado, Charles Kabore, Seni Kouanda	**Poster presentation** Danielle Belemsaga attended
ISPUP Perinatal and Paediatric Epidemiology Group meeting, 7 July 2014; Porto, Portugal	Presentation of MOMI Burkina Faso baseline results	Sofia Moura, Henrique Barros	**Oral presentation** Given by Sofia Moura, Henrique Barros
Third Global Symposium on Health Systems Research, 20 September-3 October, 2014; Cape Town, South Africa	Opportunities to Improve Postpartum Care for Mothers and Infants: Development of Context Specific Packages of Postpartum Interventions in Rural Districts in Four sub-Saharan African Countries	Duysburgh E, Kouanda S, Gichangi P, Masache G, Gondola G, Barros H, Castro Lopes S, Colbourn T, Nambiar B, Mann S	**Poster presentation** Given by Els Duysburgh
1st International Conference on Realist Approaches to Evaluation and Synthesis, 27-30 October 2014; Liverpool, UK	A framework for evaluating Missed Opportunities in Maternal and Infant Health (MOMI) across four African countries	B Nambiar, T Colbourn, S Mann, S Moura, H Barros, S Kouanda, V Mochache, G Masache, S Griffin, N Osman, E Duysburgh	**Poster presentation** Given by Bejoy Nambiar
International conference on Sexual and reproductive health and rights today and tomorrow, 4-5 December 2014; ICRH, Ghent, Belgium	Presentation on MOMI Kenya baseline results	Vernon Mochache	**Oral presentation** Given by Vernon Mochache Oyaro
	Integration of maternal and infant services in the postpartum period in Kaya health district (Burkina Faso)	DY Belemsaga, S Kouanda, E Duysburgh, H Tougri, A Goujon, O Degomme, M Temmerman	**Poster presentation** Given by Danielle Yugbare Belemsaga
ISPUP Perinatal and Paediatric Epidemiology Group meeting; 30 March 2015; Porto, Portugal	Factors that can hinder sustainability of MOMI interventions: results from the baseline analysis	Sofia Moura	**Oral Presentation** Given by Sofia Moura

Conference	Title abstract	Authors	Status
EUROPEAID External Cooperation InfoPoint Session, 13 April 2015; Brussels, Belgium	Opportunities to improve postpartum care for mother and infants: Design of context specific packages of post-partum interventions	Emilomo Ogbe, Els Duysburgh	**Oral presentation** Given by Emilomo Ogbe
	Factors that can hinder sustainability of interventions: results from the baseline analysis	Sofia Moura	**Oral presentation** Given by Sofia Moura
ISPUP Perinatal and Paediatric Epidemiology Group meeting; 11 May 2015; Porto, Portugal	Perceived barriers to contraceptive use in Burkina Faso: results from the MOMI project	Sofia Moura	**Oral presentation** Given by Sofia Moura
International Health Economic Association, 11th World Congress on Health Economics, 12-15 July 2015; Milan, Italy	Opportunity to integrate mother postpartum health services in child clinics in Kaya health district (Burkina Faso)	DY Belemsaga, A Bado, S Kouanda, E Duysburgh, A Goujon, O Degomme, M Temmerman	**Oral presentation** Given by Danielle Yugbare Belemsaga
MAGic 2015 - Anthropology and Global Health Conference, 9-11 September 2015; University of Sussex, Brighton, UK	Translating maternal and child health policies into local interventions: Provision of postpartum care services in Sub-Saharan Africa, the missing link?'	Ogbe EA, Mann S, Duysburgh E	**Oral presentation** Given by Emilomo Ogbe
Institute of Tropical Medicine Colloquium - Maternal and Neonatal Health beyond 2015, 24-27 November 2015; Rabat, Morocco	Disrespectful maternal care in health facilities in four sub-Saharan African countries: recognised as a problem but not prioritised	E Duysburgh, Z Dembo, S Kouanda, B Nambiar, T Colbourn, S Mann	**Oral presentation** Given by Els Duysburgh

4.2.5 International MOMI conference

An international MOMI conference took place the 22nd of January 2016 in Mombasa, Kenya. was this conference was attended by MOMI project researchers, stakeholders from each of the MOMI research sites (Ministry of Health staff), MOMI policy advisory board members, MOMI scientific advisory board members, facility health workers based at the MOMI health facilities in Kenya and Burkina Faso, and Kenyan medical school students. At this conference, the MOMI project approach, implementation, results and project challenges and opportunities were presented by the MOMI researchers and discussed with the present stakeholders. A total of about 90 stakeholders attended the conference including also people from the press.

4.2.6 Papers in peer-reviewed scientific journals

Until now two peer-reviewed MOMI project papers were published:

- Duysburgh E, Kerstens E, Kouanda S *et al.* (2015) 'Opportunities to improve postpartum care for mothers and infants: design of context-specific packages of postpartum interventions in rural districts in four sub-Saharan African countries'. *BMC Pregnancy and Childbirth* 15: 131. (http://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-015-0562-8)
- Yugbare Belemsaga D, Kouanda S, Goujon A, Kiendrebeogo JA, Duysburgh E, Degomme O & Temmerman M (2015) 'A review of factors associated with the utilization of healthcare services and strategies for improving postpartum care in Africa'. *Afrika focus* - Volume 28, Nr. 2: 83-105. (http://www.afrikafocus.eu/file/90)

Papers reporting on MOMI project findings and assessment results are expected to be published in peer reviewed journals in 2016 (see Table 7).

Table 7: MOMI pending publications in peer-reviewed journals, 2016

Tentative topic/title	*End responsible*	*Co-responsible(s)/co-authors*	*Journal considered*	*Submission*
MOMI cross-country (WP responsible results) publications				
Limited comparative policy analysis of actual postpartum care policy and guidance and its implementation (from *qualitative data* perspective; mainly WP2)	Sue Mann, Emi	Seni, Peter, Sally, Charles Mwansambo, TBC	Health Policy and Planning	First draft: end of November 2015
Detailed cross-country comparison about postpartum family planning (using WP2 and 3 data)	Sue Mann	Mochache, Misete, Malica, Nehla	Contraception Studies in Family Planning Journal of Family Planning and Reproductive health care	First draft: end of January 2016
Protocol paper	Sue Mann, Nehla,	Bejoy, Tim	Implementation Science	First draft: end of November 2015
Results paper – combined qual and quant WP6 & WP7	Nehla, Sue, Bejoy, Tim (need to decide order!)	everyone	Lancet Global Health PLoS Medicine BMC Global Health	First draft: end of January 2016
Consolidated results from the implementation's process and monitoring (WP5)	Seni Kouanda	Abou, Tim	Public health	End of January 2016
Experiences with capacity building and project management and implementation in an EU funded collaboration project	Els	Emi….	Commentary in Health Policy and Planning or Lancet Global Health or BMC Public Health or Global Health Action	First draft: end March 2016
Sustainability and replicability of postpartum interventions in four African countries - facilitators and barriers.	Henrique, Paula and Diana	Nehla, Sue, Els …	Health Policy and Planning Lancet Global Health BMC Public Health	First draft: end of January 2016
The role of human and financial resources to improve sustainability of postpartum interventions.	Diana, Paula and Henrique	Nehla, Sue, Els	Social Science & Medicine	First draft: end of January 2016

Tentative topic/title	End responsible	Co-responsible(s)/co-authors	Journal considered	Submission
Implementation of a research projet in Chiúta-Mozambique - notes from the field	Henrique, Paula and Mozambique team		BMC research notes	First draft: end of January 2016
Individual country results				
Burkina Faso				
Opportunity to integrate maternal postpartum services in child clinics in Kaya health district (Burkina Faso): a cross sectional mixed study	Danielle Yugbare Belemsaga	Aristide Bado, Anne Goujon, Els Duysburgh, Olivier Degomme, Seni Kouanda, Marleen Temmerman	International Journal of Gynecology and Obstetrics	March 2016
Effects of integration of mother and infant postpartum services in Kaya health district (Burkina Faso); before and after the interventions implementation	Danielle Belemsaga	Els, Halima, Marleen, Seni	International Journal of Gynecology and Obstetrics (IJGO)	December 2016
Integration of maternal and infant services in the postpartum period in Kaya health district (Burkina Faso): from monitoring of indicators	Danielle Belemsaga	Tim, Els, Seni Kouanda ….	Health Policy and planning	March 2016
Evaluation of the implementation of the MOMI project	Blandine Bila	Fadima, Maurice, Halima, Seni	BMC Public health	End of January
Prise en charge communautaire du couple mère enfant dans le post post partum par les accoucheuses villageoises: expérience du projet MOMI au Burkina	Halima TOUGRI	Seni Kouanda	BMC Public Health	August 2016

Tentative topic/title	End responsible	Co-responsible(s)/co-authors	Journal considered	Submission
		Kenya		
Disparity in health service delivery indicators among primary care facilities reporting adverse maternal and perinatal outcomes in Matuga, Kwale	Vernon Mochache	Peter Gichangi, Els Duysburgh, Tim Colbourn, Henrique, Marleen	BMC Research Notes	Baseline publication: Dec 2015
The voices of health workers and community members with regards to postpartum care in Kwale, Kenya	Vernon Mochache	Peter Gichangi, Nehla Djellouli, Emilomo, Sue Mann, Els Duysburgh, Tim Colbourn, Bejoy Nambiar	BMC Public Health	Post intervention publication: First draft end Jan 2016
The impact of postpartum care interventions on healthcare workers' motivation in Kwale, Kenya	Vernon Mochache	Peter Gichangi, Nehla Djellouli, Emilomo, Sue Mann, Els Duysburgh, Bejoy Nambiar, Tim Colbourn	BMC Public Health	Post intervention publication: first draft end Jan 2016
Dialogue model: a community-participatory, structured communication model to increase uptake of MCH services	Eunice Irungu	Peter Gichangi, Vernon Mochache, Els Duysburgh, Emilomo Ogbe	BMC Research Notes	< February 2016
		Malawi		
Determinants of postpartum care uptake in a district in Malawi: a qualitative case study of Ntchisi district	Zione Dembo	Zione Dembo, Charles Makwenda, Angela Kadzakumanja and Bejoy Nambiar	BMC Pregnancy and childbirth	First draft end Jan 2016
		Mozambique		
Barriers on PPIUD utilization in Chiuta District, Tete, Mozambique	Nafissa Osman, Malica de Melo	Judite Timoteo, Misete Cossa and Sally Griffin	Studies in Family Planning	First draft: end January 2016
Descriptive analysis of MOMI intervention: development, implementation and evaluation	Malica de Melo	Misete Cossa, Nafissa Osman, Sally Griffin and Judite Timoteo,	International Journal of Gynecology & Obstetrics	First draft: end January 2016

Tentative topic/title	End responsible	Co-responsible(s)/co-authors	Journal considered	Submission
Post-partum interventions work experience between the traditional birth attendance and APE on community work (*How cooperation between APEs and TBAs has the potential to upgrade postpartum care: experiences from a research project in rural Mozambique)*	Malica de Melo, Misete Cossa, Judite timoteo	Severiano Foia, Sally Griffin, Nafissa Osman	International Journal of Gynecology & Obstetrics	First draft: end January 2016

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Annex 1: Implementation timelines MOMI interventions

Abbreviations

ADC	Area Development Committee
APEs	Agentes Polivalentes Elementares
AV	Accoucheuse Villageoise
CBDAs	Community Based Drug Administrators
CHAI	Clinton Health Access Initiative
CHEW	Community Health Extension Worker
CHW	Community Health Worker
CORPs	Community Own Resource Persons
CSPS	Centre de Santé et de Promotion Sociale
CU	Community Unit
DH	District Hospital
DHO	District Health Office
DHMT	District Health Management Team
Disp	Dispensary
FP	Family Planning
FMUP	Faculdade de Medicina da Universidade do Porto (Portugal)
HC	Health Centre
HF	Health Facility
HSA	Health Surveillance Assistant
HW	Health Worker
ICRHK	International Centre for Reproductive Health Kenya (Kenya)
IUD	Intrauterine Device
M&E	Monitoring and Evaluation
MCH	Maternal and Child Health
MNCH	Maternal, Newborn and Child Health
MoH	Ministry of Health
MOMI	Missed Opportunities in Maternal and Infant Health
PACHI	Parent and Child Health Initiative (Malawi)
PP	Postpartum
PPC	Postpartum Care
PPFP	Postpartum Family Planning
STA	Sub-Traditional Authority
TA	Traditional Authority
TBA	Traditional Birth Attendant
VSLA	Village Saving and Loans Associations
WP	Work Package

1 Burkina Faso – Kaya District

Interventions implemented in 12 health facilities and 72 communities (table 1).

Table 8: Names MOMI intervention health facilities and communities, Burkina Faso

Health Facilities (CSPS)	Communities[1]
1. Basnéré (rural)	**1. Basnéré**
	2. Tibtenga
	3. Yangdo
	4. Tifou
	5. Baobokin
	6. Roumtenga
2. Damesma (rural)	**7. Damesma**
	8. Gantodogo
	9. Irastenga
	10. Goulgin
	11. Toécé
	12. Sian
3. Delga (rural)	**13. Delga**
	14. Zandogo
	15. Bakouta
	16. Bandaga Peulh
	17. Koutoula Yarcé
4. Kalambaogo (rural)	**18. Kalambaogo**
	19. Sanrgo
	20. Bangassé
	21. Gnounoumba
	22. Nongfair-bagré
	23. Nongfair- mossi[2]
	24. Konkin
	25. Kankandé
5. Lebda (rural)	**26. Lebda**
	27. Goema
	28. Diassa
	29. Rimkilga
	30. Kamcé
	31. Komsilga[3]
	32. Toèguin
6. Namsigui (rural)	**33. Namsigui**
	34. Oualga
	35. Gah
	36. Dapolgo
	37. Pampa
	38. Foura- Bissinogo
7. Napalgué (rural)	**39. Napalgué**
	40. Bindogo
	41. Gounghin
	42. Harwin
	43. Kougrin
8. Tangasgo (rural)	**44. Tangasgo**
	45. Damané
	46. Paspanga
	47. Bisnogo
9. Secteur 1 (urban)	**48. Secteur 1**
	49. Raïsm
	50. Tanyiba
	51. Kanrtenga

	52. Koulogo
	53. Secteur 2
10. Secteur 4 (urban)	**54. Secteur 4**
	55. Sibiougou
	56. Silgkoom
	57. Bangsom
	58. Lélégcé
	59. Moukadam
	60. Kalwagdo
11. Secteur 6 (urban)	**61. Secteur 6**
	62. Bissiga
	63. Basbéréké
	64. Silmiougou
	65. Fanka
	66. Konéan
	67. Dondolé
12. Secteur 7 (urban)	**68. Secteur 7**
	69. Secteur 3
	70. Secteur 5
	71. Zablo
	72. Foulo

[1] In bold are the communities in which the CSPS is located, the communities mentioned under the bold title are those linked with the CSPS located in the 'bold' community. There is 1 female community health worker (accoucheuse villageoise (AV) also referred to as TBAs (traditional birth attendants)) per community.
[2] In red are the communities in which the trained AVs were not active during the project.
[3] This community replace the older AV by a young AV who performs MOMI activities since May 2014 (the older AV was not active in implementing MOMI PPC services)

Three interventions are implemented in Burkina Faso. The tables below give for each of these interventions the implementation timeline (table 2 to 4).

Table 9: Intervention 1: Enhance the delivery of immediate postpartum care in the health facilities with focus on the detection and management of postpartum haemorrhage and sepsis

Date	Activity conducted as part of/supporting the intervention implementation
1. 10 Jul 2013	Preparatory meeting with health facility responsible, regional and district health care team
2. 15 Jul 2013	Preparatory meeting with immunisation and maternal health responsible
3. Sep 2013	Training of 18 facility HWs (health workers) on PPC (postpartum care)
4. 1 Oct 2013	Start intervention implementation
5. 2 – 9 Oct 2013	1st supervision visit of all HFs (health facilities)
6. Dec 2013	Training of another 46 facility HWs (health workers) on PPC (postpartum care) (in total 64 HWs trained)
7. 20 Jan – 5 Feb 2014	2nd supervision visit of all HFs
8. 20 Jan to 5 Feb 2014	Inform the facility HWs on the PPC work/activities provided by the AVs/TBAs by giving them a copy of the AVs/TBAs checklist and discuss the AVs/TBA tasks with them
9. 20 Jan to 5 Feb 2014	Development, distribution and explanation of use of PPC checklist for health facility workers (one format A4 and another format A3)
10. 31 Mar – 12 Apr 2014	3rd supervision visit of all HFs
11. 16 May 2014	Distribution of 97 blouses (non-financial incentive) for facility health workers
12. 7 – 23 Jul 2014	4th supervision visit of all HFs

13. 12 – 19 Oct 2014	5th supervision visits of all HFs
14. 21 – 31 Dec 2014	6th supervision visits of all HFs
15. 23 - 28 Mar 2015	HW training on MOMI project interventions (same training provided twice from 23 to 25 and from 26 to 28 March)
16. 26 and 28 Mar 2015	7th supervision of all HFs – done in group as part of the training
17. 23 Mar to 7 Apr 2015	Base line data collection
18. 20 – 31 Jul 2015	8th supervision visits of all HFs (included on-the-job anaemia awareness and training)
19. 2-7 Nov 2015	9th supervision visits of all HFs (included integration of postpartum care services awareness and reinforcement)
20. 28 Jan 2016	Print T-shirt with MOMI project logo
21. 29 Jan 2016	MOMI results dissemination meeting for all MOMI facility health workers. Including the distribution of a MOMI T-shirt and a certificate of participation to all facility health workers

Table 10: Intervention 2: Integration of maternal and infant services in the postpartum period

Date	Activity conducted as part of/supporting the intervention implementation
1. 10 Jul 2013	Preparatory meeting with health facility responsible, regional and district health care team
2. 15 Jul 2013	Preparatory meeting with immunisation and maternal health responsible
3. 16 - 25 Jul 2013	Workshops with health workers in each facility to explain integrated services
4. 1 Oct 2013	Start intervention implementation
5. 2 - 9 Oct 2013	1st supervision visit of all HFs (health facilities)
6. 20 Jan – 5 Feb 2014	2nd supervision visit of all HFs
7. 20 Jan to 5 Feb 2014	Development, distribution and explanation of checklist for facility health workers to support the integration of PPC consultation for mothers in the infant/child and immunisation clinics.
8. 31 Mar – 12 Apr 2014	3rd supervision visit of all HFs
9. 7 – 23 Jul 2014	4th supervision visit of all HFs
10. 12 – 19 Oct 2014	5th supervision visit of all HFs
11. 21 – 31 Dec 2014	6th supervision visits of all HFs
12. 2 – 9 Jan 2015	Collection of monitoring indicators at health facilities (done every quarter by Abou – collection of data from health facility registers)
13. 23 - 28 Mar 2015	HW training on MOMI project interventions (same training provided twice from 23 to 25 and from 26 to 28 March)
14. 26 and 28 Mar 2015	7thsupervision of all HFs – done in group as part of the training above
15. 1 – 9 Jun 2015	Collection of monitoring indicators at health facilities (done every quarter by Abou – collection of data from health facility registers)
16. 20 – 31 Jul 2015	8th supervision visits of all HFs (included integration awareness and reinforcement)
17. 2-7 Nov 2015	9thsupervision visits of all HFs (included integration of postpartum care services awareness and reinforcement)

18. 29 Jan 2016	MOMI results dissemination meeting for all MOMI facility health workers. Including the distribution of a MOMI T-shirt and a certificate of participation to all facility health workers

Table 11: Intervention 3: AVs/TBAs in the community support mother and infant during the postpartum period[1]

Date	Activity conducted as part of/supporting the intervention implementation
1. 10 Jul 2013	Preparatory meeting with AV/TBA (is female community health worker) responsible, regional and district health care team
2. 12 - 14 Sep 2013	72 AVs/TBAs trained on PPC
3. 16 Sep 2013	Start implementation community MOMI intervention
4. 2 – 9 Oct 2013	1st supervision visit of all AVs/TBAs
5. 15 – 26 Nov 2013	Information meetings with 262 community leaders. Community leaders were informed on the MOMI project and the work of AVs/TBAs in MOMI
6. 26 Nov 2013	Information meetings with 98 male community health workers (CHWs). CHWs were informed on the MOMI project and the work of AVs/TBAs in MOMI
7. 20 Jan – 5 Feb 2014	2nd supervision visit of all AVs/TBAs
8. Jan - Feb 2014	Development, distribution and explanation of use of health education (HE) material (pictures) for AVs/TBAs
9. Jan - Feb 2014	Development, distribution and explanation of use of PPC checklist for AVs/TBAs
10. Mar – Apr 2014	Implementation of incentives system for AVs/TBAs (only non-financial incentives are provided through MOMI): distribution of 70 bags and overcoats among AVs/TBAs
11. 31 Mar – 12 Apr 2014	3rd supervision visit of all AVs/TBAs
12. 16 May 2014	Implementation of incentives system for AVs/TBAs (only non-financial incentives are provided through MOMI): distribution of 70 bicycles among AVs/TBAs
13. Jul 2014	Development, distribution and explanation of use of ideogram (pictures) for TBAs to collect data regarding their activities
14. 7 – 23 Jul 2014	4th supervision visit of all AVs/TBAs
15. 25 – 26 Aug 2014	Refresher training of AVs/TBAs on MOMI project interventions. 67 AVs/TBAs participated.
16. 12 – 19 Oct 2014	5th supervision visit of all AVs/TBAs
17. 21 – 31 Dec 2014	6th supervision visits of all AVs/TBAs
18. 21 – 31 Dec 2014	AVs/TBAs data collection through ideogram
19. 18 Apr 2015	7th supervision of all HFs TBA – done in group
20. 1 – 8 Jun 2015	TBAs activities data collection through ideogram (pictures), card and MOMI register
21. 20 – 31 Jun 2015	8th supervision visits of all HFs and linked AVs
19. 2 - 7 Nov 2015	9thsupervision visits of all HFs and linked AVs
20. 30 Jan 2016	MOMI results dissemination meeting for all MOMI AVs. Distribution of a certificate of participation to all AVs. The meeting included an AV champion ceremony and all AVs received a small bicycle maintenance incentive (to cover the costs of the maintenance they had at their bicycles received through MOMI).

21.	28 -31 Jan 2016	MOMI results dissemination among the community leaders

[1] Each community has 1 female and 1 male community health worker identified. The female community health worker is called AV (accoucheuse villageoise) or translated to the English term TBA (traditional birth attendant)

2 Kenya – Matuga Constituency, Kwale County

Interventions implemented in 10 health facilities and 12 established community units (CUs)[62] (table 5).

Table 12: Names MOMI intervention health facilities and community units, Kenya

Health Facilities	Community Units[1]
1. Kwale DH (District Hospital)	1. Chitsanze CU (Kwale DH)
2. Tiwi HC (Health Centre)	2. Mwachema CU (Tiwi HC) Mkoyo CU (Tiwi HC)[2]
3. Mkongani HC	3. Mkomba CU (Mkongani HC)
4. Kizibe Disp (Dispensary)	4. Kizibe CU (Kizibe Disp.)
5. Magodzoni Disp	5. Simkumbe CU (Magodzoni Disp.)[3]
6. Matuga Disp	6. Matuga CU (Matuga Disp.)[3]
7. Mazumalume Disp	7. Mazumalume CU (Mazumalume Disp.)[3]
8. Mwaluphamba Disp	8. Tserezani CU (Mwaluphamba Disp.)
9. Vyongwani Disp	9. Vyocuta CU (Vyongwani Disp.)[3]
10. Ngombeni Disp	10. Mtamazide CU (Ngombeni Disp.)[3]
	11. 4Ms CU (Ngombeni Disp.)

[1] In brackets is the name of the HF to which the CU is linked

[2] In Aug 2014 this CU received training as per the national guidelines for CORPs (Community Own Resource Persons). This training was organised by ICRHK. The CU received no MOMI training (see table 6)

[3] These are the CU with focus for the implementation of MOMI dialogue model sessions. Mtamazide CU (Ngombeni Disp.) and Matuga CU (Matuga Disp.) were added later as focus CU.

Two interventions are implemented in Kenya. The tables below give for each of these interventions the implementation timeline (table 6 and 7).

Table 13: Strengthening immediate postpartum care for mother and newborn by upgrading knowledge and skills of facility and community based health workers and by providing home visits

Date	Activity conducted as part of/supporting the intervention implementation
Health facility component	
1. 22 – 26 Jul 2013	18 facility health workers trained on PPC with emphasis on skills update on emergency obstetrics care. At the end of the training all participant received a copy of the recommended PPC guidelines and a certificate of attendance.
2. Sep 2013	Start implementation strengthening PPC at health facility level intervention
3. 16 -18 Oct 2013	1st supportive supervision and mentorship visit. All 10 health facilities visited. Supervision done by Ms Esther Mwachiro (District Reproductive Health Nurse), Dr Vernon Mochache and Eunice Irungu.
4. 27 - 28 Nov 2013	2nd supportive supervision and mentorship visit. All 10 facilities visited by Dr Vernon Mochache and Eunice Irungu. Wall charts for neonatal resuscitation distributed to the facilities.
5. 5 Feb 2014	Participate in data review and dissemination meeting organized by the Kwale county health management team. Participate to raise awareness on strengths and gaps in PPC.

[62] **Community Units (CUs):** CUs are established as part of the community strategy of the Ministry of Health. Ideally each CU has approximately 1,000 households. It is aligned to administrative units (the sub-location) and is served by 50 community health workers (CHWs) with each serving approximately 20 households. Each CU is supervised by a community health extension worker (CHEW) who is a formal staff member of the primary healthcare facility to which the CU is linked. A CHEW is an employee of the ministry of health who received a formal health worker training. Each CU should consist of 50 trained CHWs, however over time some drop out leaving at present around 18 to 30 active CHWs per CU (situation in the MOMI CUs).

6. 3 Mar 2014	MOMI team attended on invitation of the Kwale Director of Health a quarterly meeting on strategic planning and review. During the meeting, MOMI staff requested to include PPC data in the monthly data review meetings in order to increase focus on PPC.
7. 11 – 13 Mar 2014	3rd supportive supervision and mentorship visit in all 10 health facilities by Dr H. Elb-Saidy (Director of Health, Kwale County), Dr Kevin Kinyua (DMOH), Mr Galole Dima (District public health Nurse), Juma Ahmad (Community liaisons officer, Matuga sub-county), Dr Vernon Mochache and Ms Eunice Irungu.
8. 27 Mar 2014	MOMI team attended Kwale Stakeholders Forum meeting organised by Kwale Director of Health. MOMI staff contributed to influence better PPC outcomes.
9. 9 – 11 Apr 2014	4th supportive supervision and mentorship visit. All 10 health facilities supervised by Mr Galole Dima (district public health nurse), Vernon Mochache and Eunice Irungu.
10. 10 – 13 Jun 2014	5th mentorship, supportive supervision and M&E visit by MOMI staff. All 10 health facilities visited.
11. 2 - 3 Sep 2014	9 newly posted facility health workers sensitized on PPC and MOMI interventions, emphasis on management of PPC, birth asphyxia, eclampsia and skills update
12. 4 Sep 2014	Participate in data review and dissemination meeting organized by the Kwale county health management team. Participate to inform and raise attention on strengths and gaps in PPC.
13. 10 - 12 Sep 2014	6th supervision of intervention implementation (all 10 health facilities visited) by Vernon Mochache and attend a consultative meeting on the Kwale health sector strategic plan. MOMI monitoring data collected during this visit.
14. 24 Sep 2014	Vernon Mochache attended the Kwale health forum meeting in Kwale; a stakeholders meeting organised by the Kwale Ministry of health
15. 15 -18 Dec 2014	Supportive supervision and M&E visit by MOMI staff (Eunice). 4 facilities visited.
16. 14 Jan 2015	Supervision visit to four health facilities (Ngombeni (CHEW), Matuga (Nurse), Magodzoni (CHEW) and Mazumalume (Nurse)). Conducted by Eunice.
17. 21 – 22 Jan 2015	Attend a community activity at Matuga dispensary to supervise and support dialogue session during an out-reach activity
18. 24 – 27 Feb 2015	7th supportive supervision visit and collection of monitoring data by Vernon Mochache and Dima Galole (district public health nurse). All health facilities visited
19. 12 Mar 2015	A meeting for all facility in-charges or their representatives and the CHEW. Overall activities, successes, challenges and progress of MOMI interventions were reviewed (Eunice). A refresher training on neonatal resuscitation to be conducted during the next meeting in May/June
20. 12 Mar 2015	Meeting and mentorship for use of picture for dialogue sessions with Matuga CHWs
21. 27 Mar 2015	Distribution of A3 coloured picture booklets for uptake of PPC services to 6 health facilities and their CHEWs by Eunice
22. 13 Apr 2015	Distribution of A3 coloured picture booklets to remaining 4 health facilities (Ng'ombeni dispensary, Tiw'i Rural health Centre, Matuga dispensary, Kwale sub-county hospital)
23. 13 - 17 Apr 2015	8th supervision visit: supervise of intervention implementation in nine health facilities (Tiwi HC was not supervised) by Mochache (ICRHK MOMI staff) and county community liaisons officer
24. 30 Apr 2015	Magodzoni dispensary: mentorship of the facility nurse on rearranging the delivery room to enhance emergencies management and newborn resuscitation
25. 1 May 2015	Supervision Kwale sub-county hospital: support the newly appointed labour ward nurse with setting up and organising newborn resuscitation at the labour ward
26. 12 Jul 2015	Review meeting with Galole Dima (sub-county public health nurse) to discuss progress of MOMI activities and PPC at Kwale sub-county hospital, and plan for meeting with health workers in-charge of the MOMI health facilities and CHEWs

27. 27 – 28 Jul 2015	Meeting with all health workers in-charge of MOMI health facilities. The meeting included refresher training on emergency obstetric and newborn care, with special attention on skill upgrading on maternal and newborn resuscitation. Training held at Kwale Health Resource Centre.
28. 21 Aug 2015	Kwale sub-county hospital supervision and neonatal resuscitation demonstration, with the district reproductive health nurse Galole Dima
29. 22 Aug 2015	Vyongwani dispensary supervision and neonatal resuscitation demonstration, with the district reproductive health nurse Galole Dima
30. 9 – 10 Sep 2015	Skills update on maternal and neonatal resuscitation and eclampia management at Magodzoni dispensary, Matuga dispensary (one clinical officers and one nurse attended the skill training), and Mazumalume dispensary.
31. 15 – 16 Oct 2014	Kwale scientific conference. Capacity building for health care workers for writing abstracts, data analysis and presentation done. Vernon Mochache attended the conference. The conference participants were health care workers from Kwale county. MOMI organized part of the conference. Mochache made a presentation on MOMI data.
32. 14 – 17 Dec 2015	Supervision of previous recommendations made on set-up of labour wards in readiness for delivery, maternal and neonatal resuscitation at Vyongwani and Matuga dispensary and Kwale sub-county hospital. Done by Eunice and district public health nurse Mr Galole Dima
33. 28 – 31 Jan 2016	Skills review and mentorship on setting up labour ward for management of PPC, birth asphyxia, eclampsia, and maternal resuscitation at Kizibe, Mkongani and Mwaluphamba dispensaries.
Community component	
1. Aug – Sep 2013	547 CHWs trained/sensitized on PPC with emphasis on PP visits and referral for PPC within 48h. Certificates and name tags given to all participants.
2. 29 Aug 2013	Sensitization meeting for CHWs in Matuga CU on the reproductive health issues especially to inform CHWs to register all women in postpartum period and accompany them to the health facility. Event organized by the Matuga dispensary
3. 19 Sept 2013	Dialogue session on need for skilled delivery at health facilities conducted for a village in which the majority of deliveries are home deliveries (organised at Magodzoni dispensary)
4. 10 Oct 2013	Community dialogue on different reproductive health issues at Vyokuta CU. Event organized by CHEW from Vyogwani dispensary
5. 14 Nov 2013	TBAs/CHWs/Matuga staff – meeting with TBAs at Matuga dispensary to discuss ways to strengthen skilled delivery at health facility and postpartum care. High numbers of home delivery continue to be recorded.
6. 27 Nov 2013	Meeting to give feedback to the Vyokuta CU members on reproductive health issues especially on identification of postpartum mothers and refer them to the health facility. Meeting organized by the facility linked with Vyokuta CU and the CHEW
7. 28 Nov 2013	Mentorship visit to CHEWs on community dialogue sessions
8. Dec 2013	Start implementation strengthening PPC at community level intervention
9.	Supportive supervision of CHEWs is done by MOMI staff (together with district health staff) when they supervise the health facilities (see supervision visits mentioned under 'health facility component') Supervision of CHWs is done on a continuous basis by the CHEWs (CHEWs go to CU/villages for supervision) and staff from the office of District Public Health nurse (CHWs asked to come to health facility for this supervision). MOMI team members also supervise some of the CHWs.
10. 3 Dec 2013	Community dialogue held at Mwaluphamba, Tseretzani CU
11. 14 Feb 2014	Meeting organized by MOMI trained nurse for TBAs to discuss the need of skilled deliveries conducted health facilities this to increase number of skilled deliveries
12. 20 Mar 2014	Community dialogue held at Mwachema CU to discussion importance of health facility delivery and family planning. Meeting organized and facilitated by the CHEW

13. 23 Apr 2014	Supervision and mentorship by MOMI staff of a community dialogue at Vyogwani conducted by the CHEW. Topic discussed in dialogue session: decrease home deliveries by improving referrals to health facilities.
14. 25 Apr 2014	Distribute pictures for dialogue model sessions on PPC and FP to Magodzoni dispensary and Simkumbe CU, Mazumalume dispensary and Mazumalume CU and Vyogwani dispensary and the Vyokuta CU
15. 2 May 2014	MOMI staff (Eunice) attended a meeting for CHWs at Matuga dispensary. Difficulties of referral to health facility/hospital to avoid home deliveries and ensure skilled deliveries discussed.
16. 4 -11 Aug 2014	A new CU, Mkoyo CU linked to Tiwi health centre, with 50 CHWs and 15 community health committee members (these are special selected community members to be the link between community and health facility) trained as per the national guidelines for CORPs (Community Own Resource Persons) training. (Training on strengthening of immediate PPC included, training on dialogue model for uptake of PPFP not included in this training session)
17. 21 Aug 2014	Meeting (Eunice) with 15 TBAs at Magodzoni health facility (HF) to strengthen referrals by the TBAs for skilled deliveries in health facilities
18. 27 Aug 2014	Meeting (Eunice) with 13 CHWs in Mazumalume HF to increase their knowledge on early signs of labour to address issues related to deliveries occurring before arrival at the health.
19. 22 - 23 Oct 2014	Sensitization conducted by Eunice on Village Saving and loans Associations (VSLA) done at Simkumbe and Mazumalume CUs. Capacity building on VSLA to CHWs will help to keep them together and focus on MOMI interventions beyond the end of the project
20. 22 - 23 Oct 2014	Two page picture cards (to be used as support material during home visits and health education sessions) distributed in seven health facilities to be distributed among the CHWs of the CUs attached to these health facilities (±30 cards per CU - in total 320 picture cards printed for distribution)
21. 29 – 30 Oct 2014	Sensitization conducted by Eunice on VSLA done at Vyokuta and Mtamazide CUs. Capacity building on VSLA to CHWs will help to keep them together and focus on MOMI interventions beyond the end of the project
22. 13 – 16 Nov 2014	Training on VSLA at Simkumbe CU. As part of the training, a group constitution is developed and highlights continued focus on MOMI interventions during their weekly meetings.
23. 9 – 12 Dec 2014	VSLA training of Mazumalume CU
24. 15 – 18 Dec 2014	Supportive supervision visit conducted by Eunice to Simkumbe CU and Mazumalume CU.VSLA training in Ng'ombeni, Mtamazide CU, M&E
25. 18 – 21 Feb 2015	VSLA training of Matuga CU. As part of the training, a group constitution is developed and highlights continued focus on MOMI interventions during their weekly meetings.
26. 12 Mar 2015	A mentorship visit to CHWs at Matuga CU. The proper use of the one page laminated pictures for PPC was revised. (Eunice)
27. 27 Mar and 13 Apr 2015	Distribution of A3 coloured picture booklets for uptake of PPC services to all CHEWs and health facilities by Eunice
28. 29 Apr – 2 May 2015	VSLA Training 4Ms CU, 24 CU members and 1 facility healthcare worker trained
29. 29 Apr 2015	Mentorship meeting with Mazumalume CU members. The meeting was to review the progress of the VSLA group activities and to reinforce use of picture charts for educating their households on PPC.
30. 20 – 23 May 2015	VSLA Training in Mwachema CU at Tiwi rural health centre
31. 20 May 2015	Supervision Mkongani health facility outreach activity conducted by facility nurse and CHW. The MOMI researcher attended an out-reach activity about 40km from the health facility. Dialogue session was held on postpartum care using picture frame. Importance of skilled delivery discussed with community members.

32. 21 May 2015	Mentorship and supervision for use of pictures in dialogue model sessions at 4M CU. Attended a health services out-reach where the CHEW presented postpartum fever. The session was attended by about 50-60 community members, majority women and children.
33. 22 May 2015	MOMI staff attended a regular CHWs meeting during their weekly VSLA meetings at Mazumalume. Review on progress of postpartum care in the community done, review work targets for ensuring skilled deliveries.
34. 30 May 2015	Supervision by VSLA community based trainer (Francis Munguti) of VSLA in Mwachema CU at the start of VSLA savings and table banking. Record keeping and accountability was reinforced.
35. 18 Jun 2015	Supervision by VSLA community based trainer (Francis Munguti) of VSLA in Matuga CU at the start of VSLA savings and table banking. Record keeping and accountability was reinforced.
36. 11 – 14 Aug 2015	VSLA Training at Mkoyo CU in Tiwi
37. 21 Aug 2015	Supervision by VSLA community based trainer (Mwadeje Mgala) of VSLA in Mkoyo CU. Supervision conducted during the first VSLA meeting to support the group leader with registration, documentation and record keeping.
38. 9 Sep 2015	Facilitative supervision (by Mwadeje Mgala) of VSLA in Mkoyo CU. Supervision conducted at the first time taking loans from the VSLA savings and table banking took place. The VSLA community based trainer (supervisor) ensures if the group is proficient in the transaction.
39. 9 Oct 2015	Supportive supervision of community activity (dialogue model sessions to increase uptake of PPC) at 4Ms and Mazumalume CU.
40. 10 Oct 2015	Attended a meeting with CHWs from Matuga to discuss signs of labour. This was done based on reports of late referrals to dispensary for delivery.
41. 14 - 17 Dec 2015	VSLA Training for Vyokuta CU (Vyogwani dispensary) and Chitsanze CU (Kwale sub-county hospital). A total 49 CHWs were training from both CUs
42. 15 – 16 Dec 2015	Meeting with CHWs from Mtamazide and Mazumalume CU to discuss future plans on how to continue and sustain dialogue model sessions during outreach services. Major challenges and opportunities were discussed.
43. 19, 21 and 22 Dec 2015	Facilitation for closure and share out of VSLA table banking at the end of the year in Simkumbe, Mazumalume and Mtamazide CUs. Facilitation done by a trained community based trainer (Beatrice Kauchi) from Dzumbe consultants
44. 28 – 31 Jan 2016	VSLA Training at Tseretsani, Kizibe and Mkomba CUs. The training was facilitated by trained trainers from Dzumbe consultancy. A total of 61 participants trained; Tseretsani 25, Kizibe 17 and Mkongani 19
45. 28 – 31 Jan 2016	Skills update and review of dialogue model session procedure done during the VSLA training in the three CUs (Tseretsani, Kizibe and Mkongani CUs).

Table 14: Increase knowledge on and uptake of postpartum family planning (PPFP) during the first year after delivery using the dialogue model at community and facility level

Date	Activity conducted as part of/supporting the intervention implementation
Health facility component	
1. 22 – 26 Jul 2013	18 facility health workers trained on how to perform dialogue model sessions (same health workers and part of the same training session as mentioned under the intervention above)
2. 16 -18 Oct 2013	1st supportive supervision and mentorship visit. All 10 health facilities visited. Supervision done by Ms Esther Mwachiro (District Reproductive Health Nurse), Dr Vernon Mochache and Eunice Irungu.
3. 18 Oct 2013	Training organised at Tiwi health centre of 3 facility health workers from 3 health facilities, Magodzoni, Mazumalume and Ng'ombeni dispensary, on provision of long term family planning methods
4. 24 Oct 2013	Training organised at Tiwi health centre of 3 facility health workers from 3 health facilities, Kizibe dispensary, Mwaluphamba dispensary and Mkongani health centre, on provision of long term family planning methods

5. 1 Nov 2013	Training organised at Tiwi health centre of 2 facility health workers from 2 health facilities, Matuga and Vyogwani dispensary, on provision of long term family planning methods
6. 27 - 28 Nov 2013	2nd supportive supervision and mentorship visit. All 10 facilities visited by Dr Vernon Mochache and Eunice Irungu. Wall charts for neonatal resuscitation distributed to the facilities.
7. Jan 2014	Structured dialogue model sessions were introduced in the health facilities after finalizing of standardized procedures. It was agreed that focus will be on 3 health facilities being; Vyongwani, Magodzoni and Mwaluphamba.
8. 11 – 13 Mar 2014	3rd supportive supervision and mentorship visit in all 10 health facilities by Dr H. Elb-Saidy (Director of Health, Kwale County), Dr Kevin Kinyua (DMOH), Mr Galole Dima (District public health Nurse), Juma Ahmad (Community liaisons officer, Matuga sub-county), Dr Vernon Mochache and Ms Eunice Irungu.
9. 9 – 11 Apr 2014	4th supportive supervision and mentorship visit. All 10 health facilities supervised by Mr Galole Dima (District public health Nurse), Vernon Mochache and Eunice Irungu
10. 24 – 25 Apr 2014	Distribute pictures for dialogue model sessions on PPC and FP to Magodzoni dispensary and Sumkumbe CU, Mazumalume dispensary and Mazumalume CU and Vyogwani dispensary and the Vyokuta CU
11. 10 – 13 Jun 2014	5th mentorship, supportive supervision and M&E visit by MOMI staff (Vernon Mochache). All 10 health facilities visited.
12. 2 - 3 Sep 2014	9 newly posted facility health workers trained on how to perform dialogue model sessions (same health workers and part of the same training session as mentioned under the intervention above)
13. 10 - 12 Sep 2014	6th supervision of intervention implementation (all health facilities visited) conducted by Eunice and Mochache.
14. 17 – 18 Sep 2014	Distribution of dialogue model presentation booklets to all health facilities (each facility received two booklets). In Simkumbe , Mzumalume and Vyokuta CU the five most active CHWs received also a booklet.
15. 15 – 18 Dec 2014	Supportive supervision and M&E visit by MOMI staff. 4 facilities visited
16. 21 – 22 Jan 2015	Field visit by Eunice to collect health facility and event diaries (only visit of those health facilities who received a diary). Attend a community activity at Matuga to supervise and support dialogue session during an out-reach activity at Nganze village.
17. 27 Mar and 17 Apr 2015	Distribution of A3 coloured picture booklets for uptake of PPC services to all CHEWs and health facilities by Eunice
18. 30 Apr 2015	Review progress of dialogue sessions on uptake of PPFP in Matuga dispensary using the A3 picture materials
19. 1 May 2015	Review progress and supportive supervision of dialogue sessions in Vyogwani dispensary and in Kwale sub-county hospital using the A3 picture materials during a medical out-reach. Discussion was on uptake of PPFP
20. 27 – 28 Jul 2015	Meeting with all health workers in-charge of MOMI health facilities. The meeting included refresher on dialogue model for uptake of PPC services and PPFP. Challenges and modifications of this intervention were discussed.
Community component[63]	
1. Aug – Sep 2013	547 CHWs trained/sensitized on performing dialogue model sessions on PPFP.

[63] The MOMI team together with health workers decided to do dialogue model session (DMS) only during health facility outreach activities (each facility has about 1 to 2 outreach activities a week) and to extend the DMS topics to other issues regarding postpartum care (e.g. danger signs for mother and child, hygiene, nutrition). During these outreach facilities always the CHEW and/or facility nurse is around. So the DMS will be done by the CHEW or by the CHW under direct supervision of the CHEW or nurse.

2. 3 Dec 2013	MOMI staff attends a community dialogue on PPFP at Mwaluphamba to support and supervise the event. The event was organized and facilitated by the CHEW of Mwaluphamba dispensary at Mtsanga Tamu primary school
3. Jan 2014	Structured dialogue model sessions were introduced in the community units after finalizing of standardized procedures. It was agreed to focus on the CUs linked with 3 health facilities, being; Vyongwani, Magodzoni and Mwaluphamba health facility
4.	Supportive supervision of CHEWs is done by MOMI staff (together with district health staff) when they supervise the health facilities (see supervision visits mentioned under 'health facility component') Supervision of CHWs is done on a continuous basis by the CHEWs (CHEWs go to CU/villages for supervision) and staff from the office of District Public Health nurse (CHWs asked to come to health facility for this supervision). MOMI team members also supervise some of the CHWs and CU activities.
5. 26 Feb 2014	Meeting organised by CHEWs Magodzoni dispensary with 17 CHWs from Simkumbe CU. Topics discussed: way forward for community dialogues and action day (including health education on long term FP) work plan.
6. 24 -25 Apr 2014	Distribute pictures for dialogue model sessions on PPC and FP to Magodzoni, Mazumalume and Vyogwani dispensary and the affiliated CUs, Simkumbe, Mazumalume and Vyokuta CU respectively.
7. 30 May 2014	MOMI staff attended a community dialogue at Magodzoni to provide mentorship during session.
8. 22 - 23 Oct 2014	Two page picture cards (to be used as support material during home visits and health education sessions) distributed in seven health facilities to be distributed among the CHWs of the CUs attached to these health facilities (±30 cards per CU - in total 320 picture cards printed for distribution)
9. 12 Mar 2015	A mentorship visit to CHWs at Matuga CU. The proper use of the one page laminated pictures for increasing uptake of PPFP was revised (Eunice)
10. 27 Mar 2015	Distribution of A3 size picture booklets for uptake of PPC services to all CHEWs and health facilities by Eunice
11. 30 Apr 2015	Review progress of dialogue sessions in Magodzoni dispensary and supportive supervision.
12. 22 May 2015	MOMI staff attended the regular VSLA weekly meeting at Matuga to strengthen use of pictures to promote PPFP
13. 27 May 2015	Meeting with Mwachema CU. Supervise initiation of VSLA and MOMI dialogue model sessions on uptake of PPFP. The first session to be held on 3 Jun 2015
14. 3 Jun 2015	Supportive supervision and mentorship at Mwachema CU on use of pictures for uptake of PPFP during out-reach services
15. 11 Jun 2015	Supportive supervision of dialogue model session during community outreach Matuga CU. Session on uptake of PPFP. Session facilitated by a CHW
16. 16 Jun 2015	Supportive supervision of dialogue model session during community outreach Mtamazide CU. Session on uptake of PPFP
17. 7 Jul 2015	Supportive supervision of dialogue model session during community outreach Mtamazide CU. Session on uptake of PPFP
18. 11 – 14 Aug 2015	Meeting to discuss progress of dialogue model sessions and general performance and uptake of PPC and PPFP at the community level. Meeting was held during the regular VSLA meetings by the CHWs at Matuga, Simkumbe, Mtamazide and Mazumalume CUs
19. 9 Oct 2015	Supportive supervision of community activity (dialogue model sessions to increase uptake of PPC and PPFP) at 4Ms and Mazumalume CU.

3 Malawi - Ntchisi District

Interventions implemented in 12 health facilities and one community (called Traditional Authority (TA)) (table 8).

Table 15: Names MOMI intervention health facilities and communities, Malawi

Health Facilities	Communities[1]
1. Ntchisi District Hospital	
2. Malomo Health Centre	
3. Kangorwa HC	
4. Mzandu HC	
5. Chinthembwe HC	
6. Kamtsonga HC	1. Traditional Authority Malenga (Ntchisi district hospital ,Kamtsonga and Chinguluwe HC) Traditional Authority
7. Chinguluwe HC	
8. Khuwi HC	
9. Mndinda HC	
10. Nkhuzi HC	
11. Malambo Dispensary	
12. Nthondo HC	

[1] In brackets is the name of the health facilities to which the TA is linked.

Three interventions are implemented in Malawi. The tables below give for each of these interventions the implementation timeline (table 9 to 11).

Table 16: Strengthen clinical management of post-partum care at the district hospital and 11 health centres (using clinical mentorship and quality care reviews)

Date	Activity conducted as part of/supporting the intervention implementation
1. 19 Aug'13	Joint review of district implementation plan to review commitments for MNCH services for Ntchisi District Health Office (DHO). This meeting was facilitated by DHO who invited all MNCH stakeholders in the district to map and mobilise resources that complements PPC and MOMI objectives
2. 2 Sep 2013	Start MOMI clinical PPC intervention implementation in health facilities
3. 5 - 16 Sep 2013	PACHI MOMI and DHO staff visited all the 11 health centres to brief health workers on the MOMI project, share findings from situation analysis and stakeholder causal analysis and share the draft interventions as well as introduce the mentorship program for MOMI intervention implementation.
4. 25 Nov - 5 Dec 2013	1st round of mentorship visits by DHO MOMI core team members[64] to all the 12 MOMI facilities including the district hospital. The DHO MOMI core team comprises 10 district health office staff members. For each MOMI pillar/intervention (Clinical PPC, PPFP and Community PPC) one of these 10 staff members is the focal person. Supervision is conducted by these three pillar teams together (usually without PACHI MOMI staff). Standard operating procedures (wall charts) and PPC guidelines were distributed during these visits to some of the health facilities[65].

[64] The MOMI core team has 10 staff members who are all MoH staff based at the district hospital. Each MOMI pillar (= MOMI intervention - Clinical PPC, PPFP and Community PPC) has one focal person (this person is one of the 10 MOMI core team staff members) and some MOMI core team members. The MOMI core teams coordinate the implementation of the MOMI interventions in the field.

[65] The wall charts and guidelines were distributed in only some of the MOMI health facilities. Training or instructions for health facility workers on how to used wall charts and/or guidelines were not provided. It is planned to organise this kind of training for the health workers in April 2015.

5. 23 Apr 2014	Mentorship visit by the MOMI core team members at Kangolwa HC. Objective of this visit: target and discuss the many gaps and weakness regarding PPC service delivery identified in this HC.
6. 24 Apr – 9 May 2014	1st supervision visit: the three DHO MOMI responsible MOMI core teams (core team members - Clinical PPC, PPFP and Community PPC) conducted supervision together of all MOMI health facilities in Ntchisi. The objective was to identify gaps and strengths as a basis for mentorship.
7. 29 May 2014	Training on the use of data to help develop responsive PPC interventions based on evidence. The training was organised by PACHI and attended by 26 health workers selected from all the MOMI health facilities.
8. 17 Jun 2014	Meeting to support clinical PPC by reducing maternal and infant deaths due to obstetric haemorrhage and anaemia. The meeting was organised and facilitated by PACHI for health workers from all facilities.
9. 10 Sep 2014	Community based group meeting at senior group Karonga in TA Malenga which is catchment area for Kamsonga health centre. The objective was to mobilise community members on adoption of positive health seeking behaviour for PPC services.
10. 25 Sep 2014	Distribution of PPC guidelines for clinical care to three additional health facilities (Khuwi, Kamsonga and Malomo health centres) by Victoria Minofu , Maimwana and Ntchisi MOMI team. These facilities did not receive guidelines during the first mentorship visit. (still not all facilities received guidelines)
11. 13 Mar 2015	MOMI project orientation to the restructured Ntchisi district health management team (DHMT) following posting of new key personnel (district health officer, district medical officer, district nursing officer and district environmental health officer).The meeting was facilitated by PACHI and Ntchisi DHO MOMI team. Through this meeting the DHMT provided policy and technical guidance on the implementation of MOMI for the remaining study period.
12. 7 - 8 May 2015	Training of 35 health workers from all the 11 MOMI implementing health facilities on MOMI PPC guidelines for clinical care and data management. The training was facilitated by Zione Dembo, the MoH district coordinator and one members of the district health office MOMI core team.
13. 2 Sep 2015	Meeting of the PACHI MOMI project team (Charles Makwenda and Zione Dembo) at the district health office. The aim was to discuss with DHMT the replacement of the DHO MOMI project activities coordinator and to ensure continuity of activities. This followed the resignation of the former coordinator which led to slow down of implementation. A new coordinator was appointed and oriented on the roles and responsibilities regarding the MOMI project.
14. 3 - 4 Sep 2015	Joint supportive supervision of PACHI and DHMT of all 12 facilities. The supervision was done to provide technical support for health service provision including provision of PPC. The team was using a checklist which was focusing on the following areas: availability of human resource, equipment, drugs and supplies and quality of care.

Table 17: Increase utilization of postpartum family planning

Date	**Activity conducted as part of/supporting the intervention implementation**
1. Sep 2013	Start MOMI PPFP intervention implementation at health facilities
2. 5 -16 Sep 2013	PACHI MOMI and DHO staff visited all the 11 health centres to brief health workers on the MOMI project, share findings from situation analysis and stakeholder causal analysis and share the draft interventions as well as introduce the mentorship program for MOMI intervention implementation.
3. period 12 Jan – Feb 2014	1st round of mentorship visits by the core MOMI team on PPFP to all the 12 MOMI facilities including the district hospital
4. 21 Feb 2014	Conduct sensitization meetings and dialogue sessions on PPFP at TA Malenga. Conducted by the MOMI core team on community PPC.
5. period 1 - 30 Apr 2014	1st supervision visit conducted by the PPFP MOMI core team of all MOMI health facilities in Ntchisi. The objective was to identify gaps and strengths as a basis for mentorship.

6.	10 - 18 Nov 2014	Recruitment of 23 community based drug administrators (CBDAs) for door-door distribution of FP commodities in partnership with Clinton Health Access Initiative (CHAI). TA-Malenga, Kasakula. Recruitment is based on set criteria and was facilitated by community leaders and the MOMI DHO coordinator.
7.	11 - 12 Dec 2014	CBDA training of 23 CBDAs & training of 11 HSAs and 11 nurses as supervisors for the CBDAs (CBDAs are supervised by the HSAs and HSAs are supervised by nurses). Training was supported financially by CHAI and coordinated in partnership with DHO MOMI core team members
8.	27 - 28 Dec 2014	Long acting reversible contraceptive awareness conducted in sub-traditional authority (STA) Kasakula. The district family planning coordinator who is also MOMI district coordinator facilitated this event which was attended by community members from STA Kasakula
9.	4 - 30 May 2015	Training of health care workers (clinical officers, medical assistants and nurses) on long acting contraceptive methods by the reproductive health directorate of ministry health.14 health care workers from the 11 MOMI facilities were trained which included the MOMI district coordinator, the community and clinical leader pillars were trained as master trainers. (MOMI played a role by lobbying and liaising with the reproductive health directorate to include the participants from Ntchisi district health office who initially were not part of the targeted districts. The lobbying process was facilitated by Zione and Bwazi through the director of reproductive health at MoH who is a MOMI PAB member.)
10.	22 – 24 Jun 2015	Supervision of family planning intervention at MOMI health facilities. Supervision conducted by officials from the reproductive health directorate together with Bwazi and Eliza Chikoja (the district family planning coordinator).

Table 18: Strengthen community postpartum care management

Date	Activity conducted as part of/supporting the intervention implementation
1. 12 – 15 Nov 2013	Identification of volunteers to become community group facilitators (women, men and youth groups) – Identification of trainers to conduct training of male PPFP motivators (men as male motivators), of women (for home to home visits) and of facilitators for Women, Men and Youth Groups
2. 14 – 18 Feb 2014	MOMI community mobilization meeting involving local leaders (Area Development Committees) and sensitizing community leaders to promote PPC in the MOMI project focus area in three TAs of Chikho, Kasalula and Malenga
3. May 2014	Start MOMI community intervention
4. 10 - 13 Jun 2014	Review of training manuals for community group training (men, women & youth) at Mponela. Facilitated by Maimwana (is previous PACHI MCH project) staff. These training manuals were the tools used for the training of community volunteers that provide community PPC and facilitate community groups.[66]
5. 4 – 8 Aug 2014	Training of 24 MOMI women and men group facilitators (are members of the community) and 3 HSAs at Mponela on how to facilitate group meetings (done by Victoria, Maimwana and Ntchisi DHO MOMI core team) – *first part of the training*
6. 19 – 21 Aug 2014	District area development committee (ADC) meeting on MNCH specifically FP, PPC, antenatal care, labour and delivery in TAs Chilooko, Malenga, Nthondo, Kalumo, Chikho and Vuso Jere in Ntchisi district. ADC is community structures which act as bridge between health workers and community members and they are key in community mobilisation for health issues. The mentioned TAs belong to the catchment area of the MOMI health facilities. The meeting with the ADCs was organised to sensitize communities on the importance of clinical PPC and to mobilise people in the community to go for PPC to the health facilities.

[66] The in MOMI followed community group approach involves women, men and youth groups in a four-phase participatory learning and action cycle. These four phases are: Phase 1, identify and prioritise problems during pregnancy, delivery, and postpartum; phase 2 plan and phase 3 implement locally feasible strategies to address the priority problems; phase 4, assess their activities.

7. 25 - 29 Aug 2014	Training of community group facilitators at Mponela. A total of 24 volunteers were trained The training was facilitated by Maimwana staff who have experience in working with community health volunteers. The subjects discussed were: briefing of MOMI project, basic information on MNCH, participatory approaches and group facilitation principles and skills, male involvement in PPC issues and infant feeding practices – *second part of the training* (first part see row 5)
8. 8 Sep 2014	Community group meeting for senior group village-head Malenga, TA Malenga. This meeting was to introduce the trained community facilitators to the community leaders and entire community and to enhance understanding of the roles of the trained volunteers/facilitators and gain support.
9. 15 - 19 Sep 2014	Supervision visit by MOMI community pillar focal person to assess performance of community group facilitators. Men and women groups were visited. 3 facilitators were supervised.
10. 1 Oct 2014	Meeting with senior group village-heads and families over malpractices in MNCH (postpartum care) TA Malenga. The meeting was facilitated by Ntchisi district safe motherhood coordinator.
11. 21 Oct 2014	Sensitization/awareness meeting with community members at senior group village-head Mtegha on community group activities at TA Malenga This was a community sensitization meeting on PPC to mobilise people to access PPC services in health facilities and communities
12. 21 - 24 Oct 2014	Supervision visit of community based PPC at TA Malenga. HSAs supervised the trained volunteers/facilitators three in village heads - Matenge, Kalonga and Mtema. Supervision was facilitated by the MOMI focal person for Community PPC
13. 22 Oct 2014	Sensitization/awareness meeting with community members at senior group village-head Kalonga on community group activities
14. 29 Oct 2014	Follow up of all TBAs in the TA & reinforcement of the new roles of the TBA at TA Malenga. Objective meeting; to support health facility service delivery for antenatal care, labour and deliver and PPC through education and counselling and referral of patients to health facilities. The meeting was facilitated by Ntchisi DHO MNCH staff. Mrs Bwazi (focal MOMI core team member) took the opportunity to join this meeting to promote PPC.
15. 29 May 2015	Supervision of community interventions by Zione Dembo, Eliza Chokoja (community interventions leader at the district health office) and Allan Mchenga (MOMI research assistant). 25 MOMI community facilitators for the men, women and youth groups were supervised.
16. 29 Jun - 3 Jul 2015	Completing (phase 2 – first part of this phase 2 training see row 7) the training of community facilitators (volunteers) on the community action cycle. 24 community facilitators from the women and male motivator groups and 3 health surveillance assistants were trained. The health surveillance assistants were trained as the supervisor of the volunteers. The training was facilitated by Zione, Esther Kainja, Gladwell Potifala from PACHI and Elizabeth Chikoja (MoH team leader for MOMI community interventions).
17. 1 - 3 Jul 2015	Development and distribution of MOMI community interventions education and counselling materials. Family planning male motivator flyers and PPC picture book were developed and distributed to the 24 community facilitators at the completion of their phase two training.
18. 9 Jul 2015	Supervision of two community facilitators (volunteers) community action cycle meeting at snr group Karonga within traditional authority Malenga. The supervision was done by Allan from PACHI.
19. 12 - 14 Oct 2015	Supervision of community interventions by Zione Dembo, Allan (PACHI) Eliza Chikoja (MoH). Six community facilitator volunteers were visited and supervised on community action cycle meetings. Two volunteers were supervised on home visits for mother and child in the first week postpartum period

4 Mozambique - Chiúta District

Interventions implemented in 4 health facilities and 25 communities (table 12).

Table 19: Names MOMI intervention health facilities and communities, Mozambique

Health Facilities	Communities
1. Manje HC (Type I)	1. Daka 2. Chiritse 3. Malolo 4. Nfigo 5. Chicoco 6. Cachere 7. Lumadzi 8. Mphonde
2. Kaunda HC (Type II)	9. Mpondo 10. Zuze-Lipákwes 11. Mayombe 12. Muana'gombe 13. Chiuta-Serra 14. Kapalautsi
3. Mavudzi Ponte HC (Type II)	15. Nhantsato 16. Chimpunga
4. Kazula HC (Type II)	17. Mantsamba 18. Chipiri 19. Samica 20. Kató 21. Chithe 22. Muchena 23. Matacale 24. Chitutu 25. Ntindiza

Note: The communities mentioned on the same row as the health centres in the first column are those linked with the health centre mentioned in this first column

Three interventions are implemented in Mozambique. The tables below give for each of these interventions the implementation timeline (table 13 to 15).

Table 20: Mother and newborn postpartum risk assessment and management at community and facility level upgraded - Early detection, treatment and referral of PP complication cases in health facilities and communities

Date	Activity conducted as part of/supporting the intervention implementation
Health facility component	
1. 9 - 20 Sep 2013	Training of 10 facility health workers (MCH nurses and health officers) on PPC, PP risk assessment and the use of the checklist
2. 23 -24 Sep 2013	Pre-intervention visit of all health facilities by MOMI supervisor. Checklist were distributed to all facilities and the used of this list was again explained (1st time explained during training above)
3. Oct 2013	Start implementation PPC MOMI intervention at health facility level in Manje HC, Kaunda HC and Madvuzi Ponte HC
4. 4 – 6 Feb 2014	1st field visit/supervision of all MOMI project health facilities. Field visit/supervision conducted in cooperation with MOMI FMUP team.
5. Mar 2014	Start implementation PPC MOMI intervention at health facility level in Kazula HC
6. 4 – 6 Apr 2014	2nd supportive supervision of all MOMI project health facilities. All HFs were visited. Supervision was conducted by Dr Foia (district health officer and MOMI responsible of MOMI implementation at district level) and nurse Berta together with the MOMI coordinator based in Maputo

7. 9 - 13 Jun 2014	3rd supportive supervision of all MOMI project health facilities. All HFs were visited. The objective was to see how checklists are completed. Conducted by Dr Foia and nurse Berta.
8. Jul 2014	Establishment of communication system for referral between type I and type II Health Centres in Manje (use of toll free number)
9. 17 - 27 Nov 2014	4th supportive supervision of all MOMI project health facilities. All HFs were visited. The objective was to see how checklists are completed and to access to the work flow between the HW and the CW on the check list 1 and on complications referrals. Conducted by Dr Foia and nurse Berta.
10. 26 – 27 Jan 2015	Training of 14 facility health worker (MCH nurses and health officers) on the use of the check list 2, and also refresher training on use of the check list 1 and its challenges. (pictures of the flipchart used during the training are in the folder in the Mozambique dropbox WP6-Training-training January 2015-check list2)
11. 2 – 6 Mar 2015	5th field visit/supervision of all MOMI project health facilities. Field visit/ supervision conducted in cooperation with MOMI FMUP team. We visited the health centres of Manje, Kaunda and Mavudzi ponte.
12. 22 – 23 Apr 2015	Refresher training and training of 18 facility health worker (MCH nurses, technical medicine officers and technical preventive officers). Refresher training on PP risk assessment through the use of checklist 1 and 2 and on integration of PP consultations at MCH, vaccination and outpatient care consultation. Flow charts for the use of checklists were developed.
13. 27 – 28 Apr 2015	Training follow-up visits at health facilities of Kazula, Kaunda and Mavudzi ponte and distribution of the checklists.
14. 25 - 28 Aug 2015	6th field visit/supervision of MOMI project health facilities conducted in cooperation with, ICRHM (Maputo and Tete), MOMI FMUP team and Medicine Faculty of UEM. The team visited the health centres of Manje, Kaunda and Mavudzi ponte.
15. 6 Oct 2015	On the Job training at Manje HF following the recommendations of the supervisions of MOMI team (ICRHM Maputo, UEM, FMUP). Training on integration of maternal and child health services, reinforcing the use of the checklist (in order to improve quality of care), and upgrading the referral system. Participants: 1 MCH district officer, 2 MCH nurses, 1 nutrition officer (all based at Manje health facility).
Community component	
1. 21 - 30 Apr 2014	Training of 47 CHWs (APEs and TBAs) on detection and management of PP risk and PP danger signs among mother and newborn using a checklist and distribution of checklists immediately after training.
2. Apr 2014	Establishment of communication system for referral between Community (CHWs and TBAs) and health centres. CHWs and TBAs can use toll free line to call the health centre to refer a patient, seek transport (ambulance) and ask oral assistance/information at facility health workers regarding a client.
3. May 2014	Start implementation PPC MOMI intervention at community level
4. 9 – 23 Jun 2014	Supportive supervision conducted by Dr Foia (district health officer and MOMI responsible of MOMI implementation at district level) and nurse Berta. All CHWs were visited. The objective was to see how checklists are completed.
5. 17 – 27 Nov 2014	Supportive supervision conducted by Dr Foia (district health officer and MOMI responsible of MOMI implementation at district level) and nurse Berta. All CHWs were visited. The objective was to see how checklists are completed and how the CHWs coordinate these activities with the nurses of the peripheral health facilities (referral, delivery of the completed check list).
6. 28 – 31 Jan 2015	Training of 49 CHW (APEs and TBAs) on the use of the check list 2, as well as refresher training on the use of check list 1 and its challenges.
7. 2 – 6 Mar 2015	Field visit/supervision conducted in cooperation with MOMI FMUP team. The team visited the communities and its community health workers of Chiritse, Malolo, Nhansato and Chimpunga.

8. 24 Apr 2015	Refresher training of community health workers (APEs) on PP risk assessment and management of the women, newborn and infants at community level using the risk assessment checklist 1 and 2.
9. 25 Apr 2015	Refresher training of community health workers (TBAs) on PP risk assessment and management of the women, newborn and infants at community level using the risk assessment checklist 1 and 2. And distribution of non-financial incentives for the MOMI TBAs (T-shirts, African cloth/wrapper and scarves)
10. 22 Sep 2015	Meeting with 8 community health workers (APEs), the head of MCH at Manje health facility, the provincial MCH nurse and MOMI Tete province team. The objective of the meeting was to inform the provincial MCH nurse on the MOMI project and also to monitor the performance of the APEs on the filling of the checklists and management of referrals.

Table 21: Scale up Access to Family Planning methods during PP period

Date	Activity conducted as part of/supporting the intervention implementation
1. 9 - 13 Sep 2013	Training of MCH nurses and health officers (Agentes de Medicina) on PPFP (including PP IUD) – 10 in total (training is part of the training mentioned in table 13 that had place between 9 and 20 Sep 2013)
2. Oct 2013	Start MOMI PPFP intervention implementation at health facilities
3. 4 – 6 Feb 2014	1st field visit/supervision of all MOMI project health facilities. Field visit/supervision conducted in cooperation with MOMI FMUP team.
4. 4 – 6 Apr 2014	2nd supportive supervision of all MOMI project health facilities. All HFs were visited. Supervision was conducted by Dr Foia (district health officer and MOMI responsible of MOMI implementation at district level) and nurse Berta together with the MOMI coordinator based in Maputo
5. Mar, Apr and May 2014	The health sector of the Chiuta District realized mobile health team visits to the communities of Daka, Chiritse, Malolo, lumadzi, Zeze-lipakwe, Zuze Camama, Goloi, Camulambe 2, Nhantsato, Cachere, Mpondo, Tsemene, Chicote, Chimpunga, Chithapsu, Capalautsi, Muchena e Mantsamba. The activities integrate vaccination, Vitamin A supplementation, deworming, antenatal care, FP and PPC. Concerning FP and PPC, to 948 women made a consultation on family planning and to 201 was conduct a post-partum consultation
6. 9 - 13 Jun 2014	3rd supportive supervision of all MOMI project health facilities. All HFs were visited. The objective was to see how checklists are completed. Conducted by Dr Foia and nurse Berta.
7. 16 and 30 Jun; 18, 21, 23, 28 and 30 Jul; 18, 20 and 22 Aug 2014	The health sector of the Chiuta District realized mobile health team visits to the communities of Daka, Chiritse, Malolo, Zuze-Lipakwe, Zuze-Canhama, Goloi, Mpondo, Capalautsi, Nfigo, Samica, Chicoco, Muchena, Mantsamba, Sapemba The activities integrate vaccination, Vitamin A supplementation, deworming, antenatal care, FP and PPC. Concerning FP and PPC, to 316 women made I consultation on family planning.
8. 17 – 27 Nov 2014	4th supportive supervision of all MOMI project health facilities. All HFs were visited. The objective was to see how checklists are completed and to assess the work flow between the HW and the CHW on the check list 1 and on complications referrals and to assess the acceptability of the IUD. Conducted by Dr Foia and nurse Berta.
9. 26 Jan 2015	Distribution of FP materials (booklets) at health facilities
16. 2 – 6 Mar 2015	5th field visit/supervision of all MOMI project health facilities. Field visit/ supervision conducted in cooperation with MOMI FMUP team. We visited the health centres of Manje, Kaunda and Mavudzi ponte.
17. 21 Apr 2015	Refresher training of 8 facility health worker (MCH nurses) on FP use and FP counselling with focus on long acting reversible contraceptives.
18. 27 – 29 Apr 2015	Training follow-up visits at health facilities of Kazula, Kaunda and Mavudzi ponte. Family planning issues were particularly focused on. Referral from MCH, vaccination, and outpatient department clinics to FP clinics/services was supervised and its importance stressed.

Table 22: Improve access to and use of maternal PPC and services by integrating PPC for mothers and infants at health centres (one-stop service)

Date	Activity conducted as part of/supporting the intervention implementation
1. 9 - 20 Sep 2013	Training of MCH nurses and health officers (Agentes de Medicina) on integration of maternal and infant services (is same training session as mentioned in table 13 and 14 – same 10 health workers)
2. Oct 2013	Reorganization and integration of maternal and infant services
3. Nov 2013	Start providing integrated services for mother and infants by the same nurse, during the same visit. Integrated care offered during the 42 days after childbirth and in long-term care (vaccination calendar) in all HFs covered by the project
4. 4 – 6 Feb 2014	1st field visit/supervision of all MOMI project health facilities. Field visit/supervision conducted in cooperation with MOMI FMUP team.
5. 4 – 6 Apr 2014	2nd supportive supervision of all MOMI project health facilities. All HFs were visited. Supervision was conducted by Dr Foia (district health officer and MOMI responsible of MOMI implementation at district level) and nurse Berta together with the MOMI coordinator based in Maputo
6. 9 - 13 Jun 2014	3rd supportive supervision of all MOMI project health facilities. All HFs were visited. The objective was to see how checklists are completed. Conducted by Dr Foia and nurse Berta.
7. 17 – 27 Nov 2014	4th supportive supervision of all MOMI project health facilities. All HFs were visited. The objective was to see how checklists are completed and to assess the work flow between the HW and the CHW on the check list 1 and on complications referrals and to access the acceptability of the DIU. Conducted by Dr Foia and nurse Berta.
8. 2 – 6 Mar 2015	5th field visit/supervision of all MOMI project health facilities. Field visit/ supervision conducted in cooperation with MOMI FMUP team. We visited the health centres of Manje, Kaunda and Mavudzi ponte.
9. 22 – 23 Apr 2015	Refresher training and training of 18 facility health worker (MCH nurses, technical medicine officers and technical preventive officers). Refresher training on integration of PP consultations at MCH, vaccination and outpatient care consultation.
10. 27 – 29 Apr 2015	Training follow-up visits at health facilities of Kazula, Kaunda and Mavudzi ponte and distribution of the checklists.
11. 25 - 28 Aug 2015	6th field visit/supervision of MOMI project health facilities conducted in cooperation with ICRHM (Maputo and Tete), MOMI FMUP team and Medicine Faculty of UEM. The team visited the health centres of Manje, Kaunda and Mavudzi ponte.
12. 22 - 23 Sept 2015	Inform the provincial MCH nurse on the activities of MOMI project and supervision of the health facilities of Manje and on the job training on integration of maternal and child health services on Kaunda and Mavudzi-ponte health facilites attended by 2 health care workers in Kaunda and 3 health care workers at Mavuzi ponte.
13. 6 Oct 2015	On the Job training at Manje HF following the recommendations of the supervisions of MOMI team (ICRHM Maputo, UEM, FMUP). Training on integration of maternal and child health services, reinforcing the use of the checklist (in order to improve quality of care), and upgrading the referral system. Participants: 1 MCH district officer, 2 MCH nurses, 1 nutrition officer (all based at Manje health facility).