

## Publishable summary



The postpartum period is a high risk period for mortality and morbidity in both mother and child in sub-Saharan Africa. This risk is highest in the first six weeks but remains increased due to issues such as anaemia or inadequate birth spacing throughout the first year. Although the pattern of postpartum mortality and morbidity is clear, the essential package of services to support women in the first year after childbirth is poorly defined, and the optimum service delivery configuration and number of routine visits for these services remain unclear. Improving provision and uptake of postpartum care has been

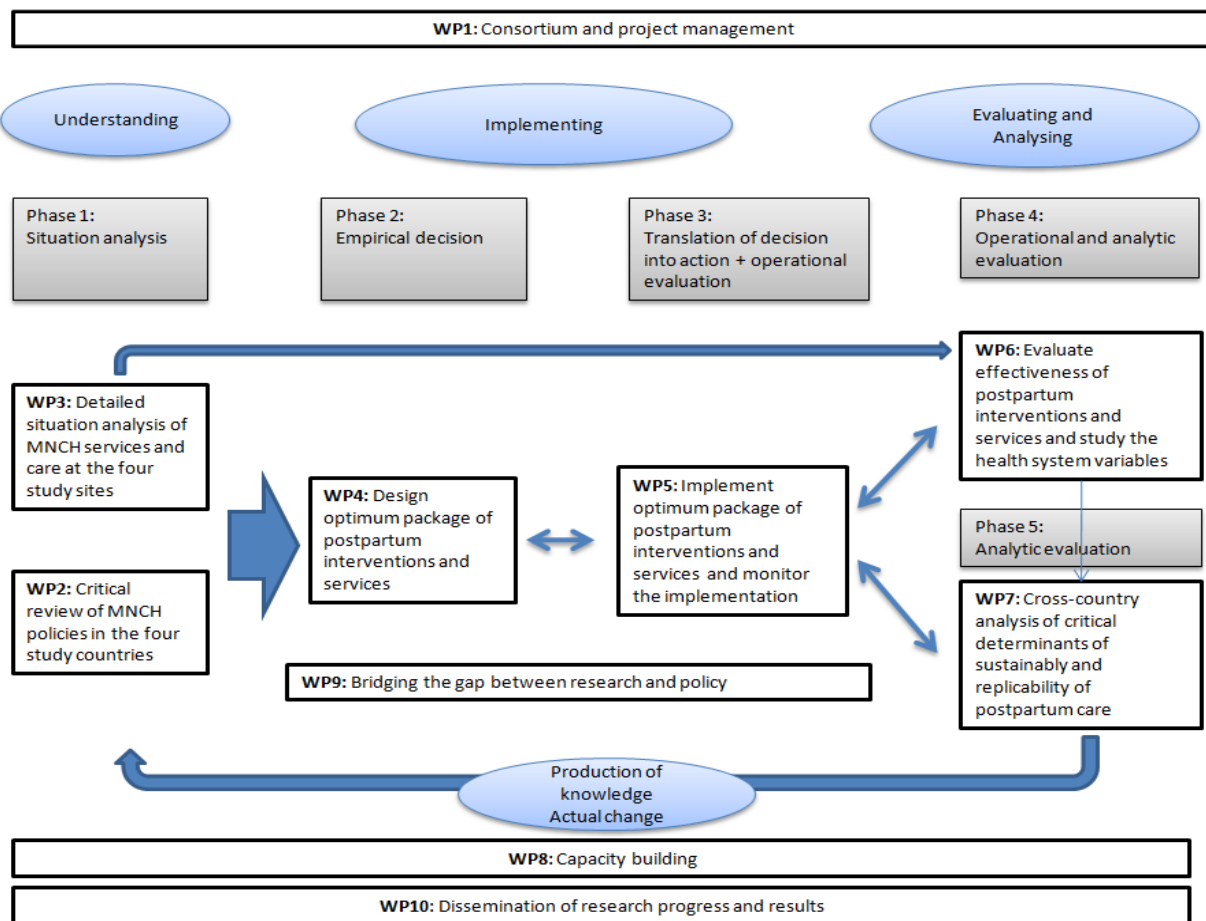
relatively neglected as a strategy for improving maternal, newborn and child health outcomes. The MOMI (**Missed Opportunities for Maternal and Infant Health**) project aimed *to contribute to the improvement of maternal and infant health in Africa through a focus on the postpartum period, adopting context-specific strategies to strengthen health care delivery and services at both facility and community level in four sub-Saharan countries.*

The overarching **study design** for the project was a *longitudinal, multiple case study*, with the 'case' being a 'health district', more precisely Kaya district (Burkina Faso), Kwale district – Matuga sub-county (Kenya), Ntchisi district (Malawi) and Chiúta district (Mozambique). Based on the results of a maternal and newborn health policy and system analysis conducted at each research site, context-specific packages of interventions to strengthen postpartum care delivery were designed and implemented at each site. The effectiveness and impact of these 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 postpartum care. The study was divided in five phases: (1) situation analysis and pre-existing knowledge, (2) empirical decision, (3) translation of decision into action, (4) operational and analytical evaluation of the effectiveness of the package of postpartum interventions and (5) analytical evaluation of the cross-country findings on determinants of sustainability and replicability of the interventions (see Figure 1). Capacity strengthening, and reporting and dissemination of research results occurred throughout the research cycle, with the latter two components a major feature of the two final project phases (phase 4 and 5).

The specific **scientific and technical objectives** and related expected outputs of the MOMI project were:

- 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;
- 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;
- 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;
- 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;
- To evaluate the effectiveness 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
- To engage policy makers from the onset 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 1).



**Figure 1: Relationship of the MOMI work packages**

**Work performed from February 2011 until January 2016**

In February 2011 the MOMI project was launched during a kick-off meeting at the International Centre for Reproductive Health at Ghent University (UG-ICRH). During the first year and a half the project focus was on the research WPs 2, 3, 4 and 9. The following project years focussed on research WPs 5, 6 and 7 with a special focus on WPs 6 and 7 during the last project year. Throughout the whole project period the consortium partners and the project were supported by work packages 1, 8 and 10 (see Figure 1). MOMI ended the 31<sup>st</sup> January 2016. Final MOMI findings were disseminated at an international MOMI conference organised the 22<sup>nd</sup> January 2016 at Mombasa, Kenya.

*Research work packages*

A cross-country comparative analysis of maternal and newborn health policies and services at the four study sites was conducted in order to facilitate cross-country learning and add to global knowledge about how postpartum services could be more effectively organized, both at facility and community level, this in order to improve maternal and newborn health. A mixed methods approach to collect data on national postpartum policy, health system drivers and barriers to provision of, and demand for, postpartum care, was used. Triangulation of data from documentary analysis, stakeholder mapping and qualitative analyses of semi-structured interviews and community focus group discussions (*work package 2*) were combined with quantitative analysis of routinely collected national and facility level data (*work package 3*). From the onset, the African research partners in Burkina Faso, Kenya, Malawi and Mozambique closely involved health authorities and policymakers in the research process (*work package 9*). Stakeholders such as the ministry of health, national and international NGOs, faith-based organisations, civil society

organisations and health providers were represented in local policy advisory boards which met at least once a year to discuss and review research progress. A causal analysis workshop in which stakeholders assessed the problems they met in the field of postpartum and newborn health was organised in each of the respective countries at the start of the project.

These workshops revealed observations and findings, which, together with the input from work packages 2 and 3, fed the design of context-specific packages of interventions to be implemented in the four African sites (*work package 4*). As part of work package 4, country reports were developed. These reports combined the main findings of the baseline postpartum care assessments resulting from the analyses of work packages 2, 3 and 9 and provided, based on these main findings, a list of feasible context-specific interventions having the potential to improve postpartum care and services at the four study sites. In autumn 2012 these reports were distributed among each country's maternal, newborn and infant health key stakeholders and among the MOMI policy advisory board members in order to be used to define and agree on the package of postpartum interventions. A meeting between the project management and the scientific advisory board members took also place in autumn 2012. The objective of this one day meeting was to receive advise of the scientific advisory board members on how to optimise postpartum care in our four study sites.



*Scientific advisory board meeting, London, October 2012*

The consultation with key stakeholders, policy advisory board members and scientific advisory board members resulted in the selection of agreed upon context-specific packages of postpartum interventions to be implemented at each of the study sites. By June 2013 implementation plans for the selected interventions, including a detailed activity plan and budget, were available at each of the study sites and the implementation of the interventions started at each site at the beginning of summer 2013 (*work package 5*).



*Implementation of postpartum interventions in Kaya district – The facility health worker meets with community health workers to discuss provision of postpartum care at community level, October 2013.*



*Community health workers in Kaya district, Burkina Faso received bicycles to enhance their MOMI work, May 2014.*

Based on the selected interventions, process evaluation methods and tools (*work package 6 and 7*) and tools and indicators needed to conduct pre-/post evaluation (*work package 6*) and monitoring (*work package 5*) were defined and developed. To enhance the intervention implementation, apart from the regular locally organised supervision, the MOMI partners from the north visited twice a year each of the MOMI implementation sites to discuss with the local MOMI researchers and stakeholders implementation challenges and find together solutions for observed obstacles and barriers.

A baseline process evaluation was conducted during the first intervention implementation months. The results of this evaluation were distributed among the partners in August 2014 and in-depth discussed with the partners during the project management meeting in Lilongwe in September 2014. Based on the regular monitoring and the process evaluation results, additional activities (e.g. refresher training, additional training on defined gaps in postpartum care, additional distribution of health education material (picture books, leaflets)) were conducted to upgrade the MOMI intervention implementation.



*MOMI project interventions: community based postpartum intervention in Kaya district, Burkina Faso and facility based MOMI supported PPC in Matuga sub-county, Kwale district, Kenya, 2014*

Reflecting on the baseline process evaluation experiences, the evaluation tools were refined for their use at the end-evaluation. Inputs from the scientific advisory board members on how to optimise the end-evaluation tools were received during the scientific advisory board meeting that took place in March 2015.



*Scientific advisory board meeting, Porto, March 2015*

Final end-evaluation protocol and tools were available in March 2015 (*work packages 6 and 7*). The MOMI end-evaluation included four case studies conducted at each of the MOMI research sites (16 case studies in total). A one week training for all the researchers involved in the end of project process evaluation took place beginning June 2015. This training was hosted by ICRH-Kenya in Mombasa. The training was immediately followed by process evaluation data collection. At each of the four MOMI study sites, case study data collection was finalised at the end of September 2015. Each study site also organised a participatory evaluation workshop in which stakeholders involved in the MOMI project discussed and evaluated MOMI project outcomes and reflected on MOMI project achievements (*work package 9*). This fieldwork was followed by transcription, translation and analysis of the case study and participatory evaluation workshop data. The quantitative indicators routinely collected for MOMI intervention monitoring were also included in the end-evaluation analysis. MOMI end-evaluation findings, meaning findings from the case study data analysis, the participatory evaluation workshop data analysis and the quantitative indicators analysis, were reported and discussed in the end-evaluation report which was available that in January 2016. We found that 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. 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.

### *Supporting work packages*

The analysis of the individual and cross-country findings on postpartum policy and services in the four sub-Saharan countries gives insights into factors relevant to international debate on postpartum care policies and services in Africa. These findings were therefore disseminated through presentations at national and international workshops and conferences in Africa and Europe.



*MOMI session at the Integration for Impact Conference, Nairobi, September 2012 and Health Systems Research Symposium, Cape Town, October 2014*



*International Conference on Realist Approaches to Evaluation and Synthesis, Liverpool, October 2014 and EUROPEAID InfoPoint lunch-time Conference ‘Rethinking development & EU Aid: a focus on Reproductive Health’, Brussels, April 2015*

In June 2015 the MOMI paper with as title ‘*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*’, was published in the peer reviewed journal ‘*BMC Pregnancy and Childbirth*’. In January 2016 the paper titled ‘*A review of factors associated with the utilization of healthcare services and strategies for improving postpartum care in Africa*’ was published in *Afrika Focus*. Consortium partners are finalising drafts of papers to be published in peer-reviewed journals. Dissemination of project progress and research results (*work package 10*) was also done through the distribution of the MOMI newsletter (two issues per year), local media, policy briefs and the MOMI website. At the end of the project, 22<sup>nd</sup> January 2016, a one-day international MOMI conference was organised in Mombasa, Kenya. During this conference the MOMI project findings

were presented and discussed. The conference was attended by MOMI researchers from all MOMI consortium partners and by MOMI stakeholders from all the African MOMI research countries and sites.

In terms of the capacity building within the MOMI partnership (*work package 8*) each African study site identified and appointed at least one student to enrol in a PhD or master programme within the context of the MOMI project. Three African MOMI researcher received as such a master degree and two African MOMI researchers are on track to defend the PhD work which they did in the frame of MOMI. From 2013 until the end of the MOMI project between five and eight capacity building workshops/training took place at each research site.

The MOMI project was managed and coordinated (*work package 1*) on a daily basis by the lead partner UG-ICRH. Teleconferences with the other partners of the MOMI consortium were regularly scheduled, normally three-monthly. In order to consolidate the dynamics between the consortium partners, discuss the progress of the project and plan for the next project phase, face-to-face project management team meetings were held regularly. A second project management team meeting was held in Ouagadougou in February 2012, a third meeting in Maputo in March 2013, a fourth in Lilongwe in September 2014 and a final meeting in Mombasa in January 2016.



*Third project management team meeting, Maputo, March 2013*



*Fourth project management team meeting, Lilongwe, Malawi, September 2014*



*Fifth project management team meeting, Mombasa, Kenya, January 2016*

### Contact details

The MOMI project is a five-year collaboration between five African and three European partners, funded by the EU's Seventh Framework Programme. The consortium is composed of:

- **Lead partner:** International Centre for Reproductive Health of the Ghent University (UG-ICRH), Sint-Pietersnieuwstraat 25, 9000 Gent, Belgium. Contact person: Prof Dr Marleen Temmerman & Dr Els Duysburgh, e-mail: [marleen.temmerman@ugent.be](mailto:marleen.temmerman@ugent.be) & [els.duysburgh@ugent.be](mailto:els.duysburgh@ugent.be)
- **Partner 2:** Institut de Recherche en Sciences de la Santé (IRSS), Po Box 7192, Ouagadougou 03, Burkina Faso. Contact person: Prof Dr Seni Kouanda, e-mail: [skouanda@irss.bf](mailto:skouanda@irss.bf)
- **Partner 3:** International Centre for Reproductive Health - Kenya (ICRHK), Tudor Four Estate, Tom Mboya Avenue, P.O. Box 91109-80103, Mombasa, Kenya. Contact person: Prof Dr Peter Gichangi, e-mail: [peter@icrhk.org](mailto:peter@icrhk.org)
- **Partner 4:** Parent and Child Health Initiative Trust (PACHI), P.O. BOX 31686, Lilongwe 3, Malawi. Contact person: Charles Makwenda, e-mail: [charlesvmakwenda@gmail.com](mailto:charlesvmakwenda@gmail.com)
- **Partner 5:** International Centre for Reproductive Health - Mozambique (ICRHM), Rua Maguiguana, Praceta 1067, Predio 100, 1 andar Maputo, Mozambique. Contact person: Laurence Hendrickx, e-mail: [icrh.moz@tdm.co.mz](mailto:icrh.moz@tdm.co.mz)
- **Partner 6:** Eduardo Mondlane University (UEM), Faculdade de Medicina, Av. Salvador Allende 702, Maputo, Mozambique. Contact person: Prof Dr Nafissa Osman, e-mail: [nafissa.osman@gmail.com](mailto:nafissa.osman@gmail.com)
- **Partner 7:** Faculdade de Medicina da Universidade do Porto - Department of Hygiene and Epidemiology (FMUP), Alameda Prof. Hernani Monteiro, 4200-319 Porto, Portugal. Contact person: Prof Dr Henrique Barros, e-mail: [hbarros@med.up.pt](mailto:hbarros@med.up.pt)
- **Partner 8:** Institute for Global Health, University College of London (UCL), 30 Guilford Street, WC1N 1EH, London, United Kingdom. Contact person: Timothy Colbourn, e-mail: [t.colbourn@ucl.ac.uk](mailto:t.colbourn@ucl.ac.uk)

More information can be found on [www.momiproject.eu](http://www.momiproject.eu).