Promoting contraceptive uptake to reduce the unmet need for family planning during the postpartum period in Ethiopia

Jima, Gebi Husein

DOI:
10.33612/diss.866054484

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2024

Link to publication in University of Groningen/UMCG research database

Citation for published version (APA):
Jima, G. H. (2024). Promoting contraceptive uptake to reduce the unmet need for family planning during the postpartum period in Ethiopia: PPFP in Ethiopia. [Thesis fully internal (DIV), University of Groningen]. University of Groningen. https://doi.org/10.33612/diss.866054484

Copyright
Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the “Taverne” license. More information can be found on the University of Groningen website: https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment.

Take-down policy
If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): http://www.rug.nl/research/portal. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.
Summary
Summary

This thesis explores how postpartum family planning (PPFP) could be enhanced and promoted in Ethiopia. It attempts to recommend approaches and strategies that can improve and promote the PPFP in the Ethiopian context, which can also be adopted in other similar settings. This thesis was designed to address five different research questions, each of which was dealt with in a separate study.

Chapter 1 of this thesis provided background information, including the history of modern family planning in Ethiopia, an overview of maternal and child health services in Ethiopia, the Ethiopian health service delivery arrangement, the organization of family planning services by level of care in the public health structure, and study areas and settings. It also described a general introduction to the thesis, including the problem statement and justification, the thesis conceptual framework, the research aim and questions, and the thesis outline.

Chapter 2 presents findings from the study conducted to determine whether integrating PPFP counseling and services into health system structures at the community level increased the adoption of modern contraception during the extended postpartum period in Ethiopia. The research question was assessed using a quasi-experimental study with a controlled trial design in two woredas/ districts. We randomly assigned primary health care units (PHCUs) to intervention and comparison arms. We enrolled a total of 772 pregnant women in the study and re-interviewed them 15 months later. As part of the study's design, we used several inputs to determine how they affected the adoption of PPFP during the prolonged postpartum period. The study revealed that women who delivered at home in the intervention arm were more likely to adopt contraception over the first year postpartum compared to women who delivered at home in the comparison arm.

In Chapter 3, we examined the effect of women's contact with health facilities during maternal, neonatal, and child health (MNCH) contacts that included a discussion of family planning on the uptake of contraception during the extended postpartum period (within 12 months after childbirth) in Ethiopia. In addition, we also tested which specific MNCH contacts were more important for increased PPFP uptake during the extended postpartum period. We used a cohort study design to evaluate the research questions. Findings from the paper showed that each additional MNCH contact where
Summary

family planning was discussed increased the likelihood of PPFP uptake. In this cohort, family planning discussions during pregnancy and child immunization contacts were found to have an impact on PPFP uptake for women who delivered at home, and family planning discussions during postnatal care were important for women who delivered in health facilities.

Chapter 4 presented the pooled factors influencing the use of modern contraceptives in Ethiopia during the first year following childbirth (the extended postpartum period). In the paper, we used a systematic review and meta-analysis of observational studies published in English. The findings from this paper showed that PPFP counseling during ANC and having contact with the health professionals at the health facility for PNC and childbirth influenced PPFP uptake.

In Chapter 5, we evaluated the effect of women’s contact with health professionals at a health facility during MNCH contacts that included a discussion about family planning on the uptake of contraception during the postpartum period (the first 6 weeks after childbirth). The findings from this study revealed that contacts with health professionals for MNCH services that included family planning discussions increased the likelihood of modern contraceptive uptake during the six weeks after childbirth.

Chapter 6 describes factors contributing to the short inter-pregnancy intervals (SIPI) among Ethiopian women of reproductive age. We used a community-based cross-sectional study in three woredas located in the similar lowland ecology of Arsi Zone and East Shoa Zone, Oromia Regional State, Southeast Ethiopia. The findings from this paper showed that women’s perception that low contraceptive use contributes to a higher SIPI and their belief that SIPI can impact adverse child health outcomes (small gestational ages and birth defects) were found to be significantly associated with a SIPI. These are women’s family planning literacy-related characteristics, which urge increasing the literacy of women about family planning to promote the advised Healthy Timing and Spacing of Pregnancy (HTSP).

Chapter 7 presents a general discussion of the findings from all five papers. It also outlined conclusions and recommendations, including policy implications. This chapter provides a comprehensive discussion of the findings from all five papers and is presented on four main topics: Integrating Postpartum Family Planning (PPFP) into Health Structures at
the Community Level, Promoting Women’s Contact with Health Professionals, Integrating PPFP Information and Service with the Existing Maternal, Neonatal, and Child Health (MNCH) Services at the Health Facility, Women’s Family Planning Literacy and the Healthy Timing and Space of Pregnancy (HTSP), and Social Determinants of Health (SDOH). The discussion implies that multiple stakeholders must work collaboratively at all levels in order to promote the advised HTSP, increase the use of PPFP soon after birth, and reduce the short inter-pregnancy interval (SIPI). This can lead to lasting improvements in the PPFP uptake rate and quality of PPFP services in Ethiopia. As a result, adverse maternal, prenatal, neonatal, and child health outcomes will be significantly reduced in Ethiopia.
Samenvatting
Samenvatting

Dit proefschrift gaat over postpartum family planning (PPFP) in Ethiopië. PPFP is een strategie die er van uit gaat dat met alle vrouwen die net bevallen zijn (en ook al tijdens de zwangerschap) moet worden besproken hoe ze een volgende zwangerschap gaan voorkomen of uitstellen. In dit proefschrift wordt een aantal studies besproken, waarin werd gekeken naar hoe PPFP het beste kan worden geïmplementeerd in Ethiopië, en hopelijk ook in andere, vergelijkbare, settings.

Hoofdstuk 1 van dit proefschrift bevat achtergrondinformatie, waaronder de geschiedenis van Family Planning in Ethiopië en een overzicht van hoe in Ethiopië de zorg voor moeder en kind is georganiseerd. Het beschrijft ook een algemene inleiding tot het proefschrift, inclusief de probleemstelling en rechtvaardiging, het conceptuele raamwerk van het proefschrift, het onderzoeksdoel en de onderzoeksvragen en de opzet van het proefschrift.

Hoofdstuk 2 presenteert de bevindingen van het onderzoek dat werd uitgevoerd om te bepalen of het integreren van PPFP-counseling op gemeenschapsniveau de adoptie van moderne anticonceptie tijdens de verlengde postpartumperiode in Ethiopië verhoogde. De onderzoeksvraag werd beantwoord met behulp van een quasi-experimenteel onderzoek met een gecontroleerde proefopzet in twee woreda’s/districten. We wezen de eerstelijns gezondheidszorgunits willekeurig toe aan de interventie- en vergelijkingsarmen. We namen in totaal 772 zwangere vrouwen op in het onderzoek en interviewden hen 15 maanden later opnieuw. Uit het onderzoek bleek dat vrouwen die thuis bevielen in de interventiegroep meer geneigd waren om anticonceptie te gebruiken in het eerste jaar na de bevalling in vergelijking met vrouwen die thuis bevielen in de vergelijkingsgroep.

In hoofdstuk 3 onderzochten we het effect van het contact van vrouwen in Ethiopië tijdens MNCH-contacten (maternal, neonatal, and child health) waarin gezinsplanning werd besproken, op het gebruik van anticonceptie tijdens de verlengde postpartumperiode (binnen 12 maanden na de bevalling). Daarnaast testten we ook welke specifieke MNCH-contacten belangrijker waren voor meer gebruik van anticonceptie tijdens de verlengde postpartumperiode. We gebruikten een cohortstudie om de onderzoeksvragen te evalueren. Het onderzoek toonde aan dat elk extra
Samenvatting

MNCH-contact waarin gezinsplanning werd besproken, de kans op het gebruik van PPFP vergrootte. In dit cohort bleken gesprekken over gezinsplanning tijdens de zwangerschap en bij immunisatie van de baby’s van invloed te zijn op het gebruik van voorbehoedsmiddelen door vrouwen die thuis bevielen, en waren gesprekken over gezinsplanning tijdens de postnatale zorg belangrijk voor vrouwen die in een kliniek bevielen.

In hoofdstuk 4 wordt een studie gepresenteerd waarin factoren die van invloed zijn op het gebruik van moderne anticonceptiemiddelen in Ethiopië gedurende het eerste jaar na de bevalling (de verlengde postpartumperiode) werden onderzocht. Deze studie betreft een systematische review en meta-analyse van observationele onderzoeken die in het Engels zijn gepubliceerd. De bevindingen tonen aan dat PPFP-counseling tijdens pre- en postnatale zorg en contact met de gezondheidswerkers van invloed zijn op het gebruik van PPFP.

In hoofdstuk 5 evalueerden we het effect van het contact van vrouwen met gezondheidswerkers tijdens MNCH-contacten waarbij ook gezinsplanning werd besproken, op het gebruik van anticonceptie tijdens de postpartumperiode (de eerste 6 weken na de bevalling). De bevindingen van dit onderzoek toonden aan dat contacten met gezondheidswerkers voor MNCH-diensten waarbij ook over gezinsplanning werd gesproken, de waarschijnlijkheid van het gebruik van moderne anticonceptiemiddelen gedurende de eerste zes weken na de bevalling verhoogden.

Hoofdstuk 6 beschrijft factoren die bijdragen aan de vaak snel opeenvolgende zwangerschappen bij Ethiopische vrouwen. We gebruikten een cross-sectioneel onderzoek op gemeenschapsniveau in drie districten in Arsi Zone en East Shoa Zone, Oromia Regional State, Zuidoost-Ethiopië. In dit onderzoek werd aangetoond aan dat de perceptie van vrouwen dat anticonceptiegebruik kan bijdragen aan langere zwangerschapsintervallen en daarmee ook gunstig is voor de gezondheid van hun kinderen significant geassocieerd bleek te zijn met korte zwangerschapsintervallen. Met andere woorden: het loont om vrouwen te helpen meer kennis te vergaren over gezinsplanning.

Hoofdstuk 7 bevat een algemene discussie van de bevindingen van alle vijf de artikelen. Conclusies worden getrokken en aanbevelingen geformuleerd, waaronder ook implicaties voor beleid. De discussie impliceert dat meerdere
belanghebbenden op alle niveaus moeten samenwerken om het geadviseerde beleid te implementeren, bevorderen en verbeteren, het gebruik van PPFP kort na de geboorte te verhogen en het korte interval tussen bevalling en volgende zwangerschap te verminderen. Dit kan leiden tot blijvende verbeteringen in het gebruik van PPFP in Ethiopië. Als gevolg hiervan zullen ongunstige gezondheidsuitkomsten voor moeders en kinderen in Ethiopië aanzienlijk afnemen.
Acknowledgments
Acknowledgements

I owe a huge debt of gratitude to Anne Pfitzer, who was the main impetus behind the start of my PhD journey. I recall that it all began when we collaborated on a PPFP study in Arsi, Ethiopia. At the point when we finished the study and presented the results to different stakeholders in Addis, I talked to her about PhD opportunities in the USA and Europe. She didn't take the time to connect me with Dr. Young-Mi Kim, who subsequently introduced me to professors at universities in the Netherlands. I was really amazed and excited by it.

I would like to express my deepest gratitude to Dr. Young-Mi Kim for trusting me and connecting me with professors at universities in the Netherlands. She instantly sent me an email asking for the draft thesis plan once Anne talked to her about the possibility of my PhD. She gave me a quick review with comments and a very clear guide to improving the plan. She then put me in touch with Prof. Dr. Jelle Stekelenburg. That was just another incredible incident I've seen in my life from a person that I didn't even physically meet. Thank you, Dr. Young-Mi Kim.

My sincere gratitude goes out to Prof. Dr. Jelle Stekelenburg and Prof. Dr. T.H. van den Akker, who interviewed me for the first time, trusted me, and enrolled me in the PhD programme at the University of Groningen (RUG)/University Medical Centre Groningen (UMCG). They were quite open-minded during the interview, which gave me even more inspiration. These guys are now more than just my supervisors and mentors; they are now my friends and role models, and their deeds and behaviors always inspire me. Having these guys in my life makes me very happy.

I want to express my gratitude to UMCG/Graduate School Medical Science (GSMS) for providing me with the chance to pursue my PhD at this prestigious university. I enjoyed all your facilities, teaching materials, course facilitators, and other resources I used during my PhD.

I would like to offer my profound gratitude to my promotor, Prof. Dr. Jelle Stekelenburg, and my co-promotors, Dr. Regien Biesma and Dr. Tegbar Yigzaw, for their continued guidance and support throughout my PhD process. I am very satisfied with your mentorship and support. I was able to perform all of my activities freely because of how flexible you were. You
Acknowledgments

created a large space for me in which I can freely do my activities and develop the competencies I need to have at this level. I gained so much knowledge, a good mind set, and skill from you, and it helped me advance professionally as a researcher, public health specialist, teacher, and advocate.

I feel honoured that respected professors reviewed my thesis. Dear Prof. T.H. van den Akker, Prof. M.J. Postma, and Prof. M. Molla, I sincerely appreciate you dedicating your precious time and expertise to being on my assessment committee.

My deepest gratitude is to Jhpiego, Ethiopia, for collaborating with me on the PPFP study that was carried out in Arsi, Ethiopia, and that I used for my thesis. Two of my publications in this thesis are based on this Ethiopia PPFP study.

I am grateful to my employer, Arsi University, for helping to cover part of the costs of gathering the data for the two studies (papers four and five) in my thesis.

I would also like to thank the study's woredas health office (Digelu-Tijo, Dodota, Dugda, Hetosa, Lode Hetosa, Tiyo, and Zeway Dugda) and staff for their incredible support during data collection. I also acknowledge the supervisors and data collectors for their enormous contributions to this work. I also value the essential information that all study participants shared.

I want to express my gratitude to all of my co-authors for their high-level contributions to the publications.

My lovely wife Medina Kurkie and our children Ifnan, Hawine, and Fayo deserve a very special thank you. I appreciate your understanding that I was unable to give you the time you needed due to my PhD work. I am grateful for all the support, inspiration, and frequent checking of the progress of my PhD trajectory throughout my studies. I also want to congratulate you since you played a significant part in this triumph that belongs to all of us.
CV of the Author
Jima, G.H.
CV of the Author

Gebi Husein Jima was born in Arsi, Ethiopia, on July 21, 1986. He grew up in the same province where he was born, Arsi. He attended his primary education at Kelbo Primary School and Bulbula Junior Secondary Education, East Shoa Zone, Oromia, Ethiopia. After that, he went to Asella Comprehensive Secondary School in Asella, Ethiopia, for his secondary education. He did really well in his primary and secondary education.

He was assigned to Haramaya University for his BSC study by the Ethiopian Ministry of Education as a result of his outstanding performance in the Grade 12 National Examination. He later earned a BSC in Public Health Nursing from the Faculty of Health at Haramaya University. He also received a Master’s degree (Master of Public Health in Epidemiology) from Jimma University College of Public Health and Medical Sciences.

Gebi has been working in different higher education institutions as a teacher, researcher, advisor/mentor, consultant, and different academic unit leader for the last 15 years: Adama University School of Health and Hospital, Adama Science and Technology University School of Health Science, and now Arsi University.

In his role as a teacher, Gebi has been teaching Public Health courses, mostly Epidemiology, Research Methods, and Biostatistics. In addition to teaching, he has been doing research, mostly in the areas of Maternal and child health and nutrition, and has 18 publications in the area. He also advises and mentors undergraduate and postgraduate students in their theses.

Along with the responsibilities listed above, he has held a number of academic administrative positions, including director of the Community Service and University-Industry Linkage (CS and UIL) directorate for four years, Chief Academic and Research Director (CARD) for four years, academic vice dean for two years, registrar head for two years, and head of continuing and distance education for a year. He has also contributed to university affairs by being an active member of different committees at the university, college, and department levels.
CV of the author

He has been working as a consultant with different international partners like Jhpiego, KOIKA, and good neighbors on research projects, training, and other professional activities. He received national-level Training of trainers (TOT) from the Ministry of Health and providing training for health care professionals on different Maternal and Child Health-related issues, including SIT's syndromic management approach.

Gebi is married and has three kids. He has a good relationship with his seniors, colleagues, and students.

List of publications


**Jima GH.** Merera D. (2021) Precancerous cervical lesions and associated factors among women attending cervical screening at Adama Hospital Medical College, Central Ethiopia, Cancer Management and Research, 13; 2181-2189, DOI: 10.2147/CMAR.S288398


Erena BY., Jima GH(2020) Under Nutrition and Associated Factors among Children aged 6 months to 24 months in Gida Ayana District, East Wollega, Western Ethiopia; Arsi Journal of Science and Innovation 2(2).


CV of the author


Research Institute SHARE

This thesis is published within the Research Institute SHARE (Science in Healthy Ageing and healthcare) of the University Medical Center Groningen / University of Groningen. Further information regarding the institute and its research can be obtained from our internet site: https://umcgresearch.org/w/share

More recent theses can be found in the list below (supervisors are between brackets).

2023

Boersema HJM
The concept of ‘Inability to Work Fulltime’ in work disability benefit assessment
(Prof S Brouwer, Dr FI Abma, Dr T Hoekstra)

Ots P
The role of individual and contextual factors in paid employment of workers with a chronic disease
(Prof S Brouwer, Dr SKR van Zon)

Kool E
Untangling the elements of midwives’ occupational wellbeing: A study among newly qualified and experienced midwives
(Prof ADC Jaarsma, Prof FG Schellevis, Dr EI Feijen-de Jong)

Jansma FFI
Self-management in rehabilitation practice: On the design and implementation of a serious theory-based analogue problem-solving game called ‘Think Along?’
(Prof R Sanderman, Dr I Wenzler)

Erpecum CPL van
The role of fast-food outlet exposure in Body Mass Index
(Dr N Smidt, Prof U Bültmann, Dr SKR van Zon)

Kerver N
The effectiveness and cost-effectiveness of upper limb prostheses
(Prof CK van der Sluis, Dr RM Bongers, Dr S van Twillert)

Deviandri R
Management of anterior cruciate ligament injury in lower-middle income countries: Focus on outcomes and health economics in Indonesia
The previous dissertation of SHARE

(Dr I van den Akker-Scheek, Prof MJ Postma, Dr HC van der Veen, Dr Andri MT Lubis)

Mangot Sala L
Disruptive Life Events and Health: Longitudinal evidence from a large cohort in the Netherlands
(Prof AC Liefbroer, Dr N Smidt)

Wijk DC
From prosperity to parenthood: How employment, income, and perceived economic uncertainty influence family formation
(Prof AC Liefbroer, Prof HAG de Valk)

Dai Y
Effects of exposure to polycyclic aromatic hydrocarbons and heavy metals on placental trophoblasts and childhood inflammation
(Dr MM Faas, Prof X Xu, Prof X Huo)

Menting SGP
Picking up the pace: The development of pacing behaviour during adolescence
(Dr MT Elferink-Gemser, Prof FJ Hettinga)

Vos M
My name is legion for we are many: Lessons learned from linking and splitting psychiatric Disorder
(Prof CA Hartman, Prof NNJ Rommelse)

Haan-Du J De
Cancer risk, stage, and survivorship among patients with type 2 diabetes
(Prof GH de Bock, Dr GWD Landman, Dr N Kleefstra)

Nieboer P
Teaching and learning in the operating room: Navigating treacherous waters
(Prof SK Bulstra, Prof M Huiskes, Dr M Stevens, Dr F Cnossen)

He Z
Risk factors for elevated blood pressure: focus on perimenopausal women and potential causality
(Prof H Snieder, Dr CHL Thio, Prof QYZ Qingying Zhang)

Peeters CMM
Brace therapy and radiographic imaging in adolescent idiopathic scoliosis; where do we
stand?
(Prof PC Jutte, Dr C Faber, Dr FH Wapstra, Dr DHR Kempen)

For earlier theses visit the website: Find Research outputs — the University of Groningen research portal (rug.nl)
The previous dissertation of SHARE
The Safe Motherhood Series
The Dutch Working Party ‘International Safe Motherhood and Reproductive Health’ aims to contribute to improvement of the reproductive health status of women around the globe, in particular by collaborating with local health workers (http://www.safemotherhood.nl). The Working Party is part of both the Dutch Society of Obstetrics and Gynaecology (NVOG) and the Dutch Society for International Health and Tropical Medicine (NVTG). The activities that are undertaken under the umbrella of the Working Party can be grouped into four pillars: education, patient care, research and advocacy. Research activities are undertaken by (medical) students, Medical Doctors International Health and Tropical Medicine and many others. Some research activities develop into PhD-trajectories. PhD- candidates all over the world, Dutch and non-Dutch, work on finding locally acceptable and achievable ways to improve the quality of maternal health services, supervised by different members of the Working Party. Professor Jos van Roosmalen initiated the Safe Motherhood Series, which started in 1995.

**The Safe Motherhood Series**
- The role of oral (methyl)ergometrin in the prevention of postpartum haemorrhage. *(Akosua de Groot)*, Radboud UMC, Nijmegen, the Netherlands, 1995
- Perinatal assessment in rural Tanzania. *(Gijs Walraven)*, Radboud UMC, Nijmegen, the Netherlands, 1995
- Confidential enquiries into Maternal Deaths in Surinam. *(Ashok Mungra)*, Leiden UMC, the Netherlands, 1999
- Reproductive health matters in rural Ghana. *(Diederike Geelhoed)*, Leiden UMC, the Netherlands, 2003
- Vaginal birth after caesarean section in Zimbabwe and The Netherlands *(Wilbert Spaans)*, AMC Amsterdam, the Netherlands, 2004
The safe motherhood series

- Safe Motherhood and Health systems research: Health care seeking behaviour and utilization of health services in Kalabo District (Jelle Stekelenburg), VU Amsterdam, the Netherlands, 2004
- Enhancing survival of mothers and their newborns in Tanzania (Godfrey Mbaruku), Karolinska Institute, Stockholm, Sweden, 2005
- Beyond the numbers: confidential enquiries into maternal deaths in Accra-Ghana (Afisah Yakubu Zakariah, Accra, Ghana), Vrije Universiteit Brussel, Belgium, 2008
- Severe maternal morbidity in the Netherlands: the LEMMoN study (Joost Zwart), UMC Leiden, the Netherlands, 2009
- Obstetric audit in Namibia and the Netherlands (Jeroen van Dillen), VU Amsterdam, the Netherlands, 2009
- Confidential enquiries into maternal deaths in the Netherlands 1993-2005 (Joke Schutte), VU Amsterdam, the Netherlands, 2010
- Delay in Safe Motherhood (Luc van Lonkhuijzen), UMC Groningen, the Netherlands, 2011
- Medical Mirrors: Maternal care in a Malawian district (Thomas van den Akker), VU University Medical Centre, Amsterdam, the Netherlands, 2012
- Leading change in the maternal health care system in Tanzania: application of operations research (Angelo Nyamtema, Ifakara, Tanzania), VU Amsterdam, the Netherlands, 2012
- Health professionals and maternal health in Malawi: mortality and morbidity at district level (Jogchum Beltman), VU Amsterdam, the Netherlands, 2013
- Obstetric emergencies in primary midwifery care in the Netherlands (Marrit Smit), Leiden UMC, the Netherlands, 2014
- Improving maternal outcome in rural Tanzania using obstetric simulation-based training (Ellen Nelissen), VU Amsterdam, the Netherlands, 2014
- The aberrant third stage of labour (Giel van Stralen), UMC Leiden, the Netherlands, 2015
- Terugvinden van waardigheid, community-based sociotherapie in Rwanda, Oost-Congo en Liberia (Cora Bakker), VU Amsterdam, the Netherlands, 2016
- Severe acute maternal morbidity, risk factors in the Netherlands and validation of the WHO Maternal Near-Miss Tool (Tom Witteveen), Leiden UMC, the Netherlands, 2016
- Getting the job done, providing lifelong HIV-treatment in settings with limited human resources for health: innovative approaches (Marielle Bemelmans), VU Amsterdam, the Netherlands, 2016
- Identifying needs for optimizing the health work force in Ethiopia (Tegbar Yigzaw Sindekie), VU Amsterdam, the Netherlands, 2017
- Improving frontline health workers’ performance in low resource settings; the case of Ethiopia (Firew Ayalew Desta), VU Amsterdam, the Netherlands, 2017
• Increasing access to anesthesia in Ethiopia: task shifting (Sharon J.N. Kibwana), VU Amsterdam, the Netherlands, 2017
• Diagnostic and clinical decision support systems for antenatal care: is mHealth the future in low-resource settings? (Ibukun-Oluwa O. Abejirinde), VU Amsterdam, the Netherlands, 2018
• Assisting birth attendants in providing acceptable care under unacceptable clinical realities: The Partoma Intervention Study at Zanzibar’s Tertiary Hospital (Nanna Maaløe), University of Kopenhagen, Denmark, 2019
• Severe Maternal Morbidity and Mortality in Eastern Ethiopia (Abera Kenay Tura), UMC Groningen, the Netherlands, 2019
• Maternity Waiting Homes in Ethiopia to improve women’s access to maternity care (Tienke Vermeiden), UMC Groningen, the Netherlands, 2019
• Improving access to quality maternal and newborn care in low-resource settings: the case of Tanzania (Dunstan Raphael Bishanga), UMC Groningen, the Netherlands, 2019
• Towards better prognostic and diagnostic strategies for major obstetric haemorrhage (Ada Gillissen), Leiden UMC, the Netherlands, 2019
• Hospital based audit of obstetric care and birth preparedness in rural Rwanda (Richard Kalisa), VU University Amsterdam, the Netherlands, 2019
• Re-introduction of vacuum extraction in a tertiary referral hospital in Uganda (Barbara Nolens), VU University Amsterdam, the Netherlands, 2019
• Health system determinants of maternal and neonatal health in Rwanda (Felix Sayinzoga), Radboud UMC, Nijmegen, the Netherlands, 2019
• The Netherlands Obstetric Surveillance System (Timme Schaap), UMC Utrecht, the Netherlands, 2019
• Context-appropriate innovative solutions for improving the access to quality intra- and immediate postpartum care in India (Somesh Kumar), UMC Groningen, the Netherlands, 2019
• Quality of maternal and newborn health care in health facilities in Afghanistan (Nasratullah Ansari), VU Amsterdam, the Netherlands, 2019
• Safe Motherhood: Improving the quality of maternal and perinatal health care in a rural hospital in Tanzania (Rob Mooij), UMC Groningen, the Netherlands, 2020
• Strategies to improve intrapartum care: foetal monitoring in low resource settings (Natasha Housseine), UMC Utrecht, the Netherlands, 2020
• Maternal mortality in Suriname: Implementation of Maternal Death Surveillance and Response to reduce preventable maternal deaths (Lachmi Kodan), UMC Utrecht, the Netherlands, 2020
• Maternal mortality, near-miss and stillbirths in Suriname: time to respond (Kim Verschueren), UMC Utrecht, the Netherlands, 2020
• Key factors to improve maternal and child health in Sindh province, Pakistan (Jin Won Noh), UMC Groningen, the Netherlands, 2021
The safe motherhood series

- Innovative partnerships for Safe Motherhood: participation and transdisciplinary collaboration as tools towards increasing skilled birth attendants *(Yadira Roggeveen)*, VU University Amsterdam, the Netherlands, 2021
- Improving respectful maternity care provision in Ethiopia *(Ephrem Daniel Sheferaw)*, UMC Groningen, the Netherlands, 2021
- Improving access to quality Family Planning Services in Kenya by Addressing Contraceptive Discontinuation *(Susan Ontiri)*, UMC Groningen, the Netherlands, 2021
- Postpartum Hemorrhage: From Insight to Action *(Paul Ramler)*, Leiden UMC, the Netherlands, 2022
- Optimizing care and patient experience of preeclampsia in low- and middle-income countries – the case of Ghana *(Titus Kofi Beyuo)*, UMC Utrecht, the Netherlands, 2022
- Epidemiology and etiology of genital fistulas in East Africa *(Carrie J. Ngongo)*, Ghent University, Belgium, 2023
- Maternal morbidity and mortality in the Netherlands and their association with obstetric interventions *(Athanasios Kallianidis)*, Leiden UMC, the Netherlands, 2023
- Maternal health in Namibia: Lessons learned from obstetric surveillance *(Steffie Heemelaar)*, Leiden UMC, the Netherlands, 2023
- Maternal deaths, near misses and great saves: severe maternal outcomes in Metro East, the Western Cape Province, South Africa *(Anke Heitkamp)*, Stellenbosch University, Cape Town, South Africa/VU University Amsterdam, the Netherlands, 2023
- Maternity care for refugees and asylum seekers in the Netherlands *(Anouk Verschuuren)*, University Medical Centre Groningen, the Netherlands, 2024
- Poverty and high parity in rural settings: accumulation of disadvantage in use of hospitals for childbirth in sub-Saharan Africa with a focus on Tanzania *(Manuela Straneo)*, VU University Amsterdam, the Netherlands, 2024
- Contraceptive use and method choice among young people in sub-Saharan Africa: Are we meeting their reproductive health needs? *(Lisa Calhoun)*, VU University Amsterdam, the Netherlands, 2024
- Promoting contraceptive uptake to reduce the unmet need for family planning during the postpartum period in Ethiopia *(Gebi Husein Jima)*, University Medical Centre Groningen, the Netherlands, 2024
Promoting contraceptive uptake to reduce the unmet need for family planning during the postpartum period in Ethiopia

Gebi Husein Jima