FRAMEWORK FOR ACTION

STRENGTHENING QUALITY MIDWIFERY EDUCATION

for Universal Health Coverage 2030

UNFPA

unicef for every child

World Health Organization

International Confederation of Midwives

FRAMEWORK FOR ACTION

STRENGTHENING QUALITY MIDWIFERY EDUCATION

for Universal Health Coverage 2030

Strengthening quality midwifery education for Universal Health Coverage 2030: framework for action

ISBN 978-92-4-151584-9

Suggested citation. Strengthening quality midwifery education for Universal Health Coverage 2030: framework for action. Geneva: World Health Organization; 2019. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at http://apps.who.int/iris.

Printed in Switzerland.

Contents

Foreword

Childbirth should be one of the most transformative and rewarding events of a woman's life. It should also be safe and remembered with great joy and love. We all want newborns to be born healthy, live long and fruitful lives, and contribute positively to the future of their societies.

Yet despite significant gains in the era of the Millennium Development Goals, 830 women and 7000 newborns still die every day due to complications in pregnancy and childbirth. In the Sustainable Development Goals, we have committed to a rapid and dramatic reduction in these appalling statistics. However, 50% of maternal deaths and over 60% of neonatal deaths arise from poor quality care. This is unconscionable in the 21st century.

We have a solution, a key part of the puzzle. Recent evidence indicates that when midwives are educated to international standards, and midwifery includes the provision of family planning, it could avert more than 80% of all maternal deaths, stillbirths and neonatal deaths. Achieving this impact also requires that midwives are licensed, regulated, fully integrated into health systems and working in interprofessional teams.

Beyond preventing maternal and newborn deaths, quality midwifery care improves over 50 other health-related outcomes, including in sexual and reproductive health, immunization, breastfeeding, tobacco cessation in pregnancy, malaria, TB, HIV and obesity in pregnancy, early childhood development and postpartum depression.

Midwives educated to international standards not only improve overall health, but because they work across the entire continuum of care, from communities to hospitals, they are uniquely able to provide essential services to women and newborns in even the most difficult humanitarian, fragile and conflict-affected settings.This means that midwives will make a significant contribution to delivering on the commitments made in the Astana Declaration on Primary Health Care and the Global Action Plan on Healthy Lives and Well-Being. Yet there is a startling lack of investment in quality midwifery education. We must turn this around.

This Framework for Action identifies three strategic priorities for harnessing the power of midwives: "rethinking" the education and certification of midwives to international standards, with the title "midwife" given only when this is achieved; strengthening midwifery leadership; and stronger alignment of partners to improve quality midwifery education. A seven-step action plan to strengthen quality midwifery education has been developed, and partners have committed to action.

Led by educated and empowered women for centuries, midwifery has not been given its rightful place in health care, but has been diminished by institutionalized medical hierarchies. This year, we have a unique opportunity to empower and dignify midwives and ensure that women and newborns receive the quality care they deserve.

The demand from women for quality midwifery care is increasing, and so is the demand from midwives for better education. Our hope is that this report will spur the international community to commit to investing in quality midwifery education to improve quality of care and ensure better outcomes for all women, newborns and families, everywhere.

Tedros Adhanom Ghebreyesus
Director-General
World Health Organization

Henrietta H. Fore
Executive Director
UNICEF

Natalia Kanem
Executive Director
UNFPA

Franka Cadée
President
International Confederation of Midwives

Executive summary

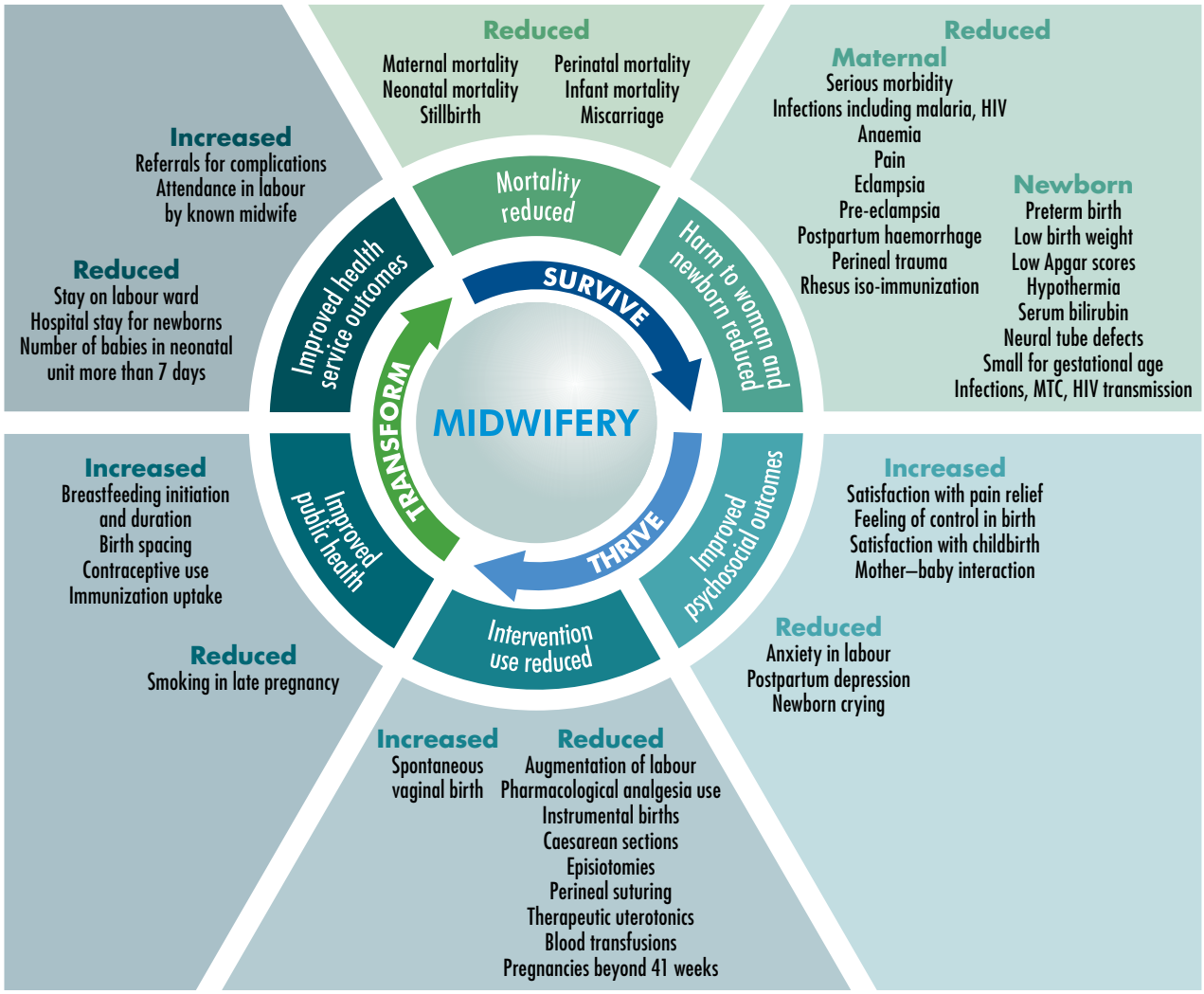
Photo 1: Quality midwifery education in Viet Nam ensures positive communication between midwife and mother with her baby.

The impact of midwifery education: why we need to act now

The evidence is clear. Strengthening midwifery education to international standards is a key step to improving quality of care and reducing maternal and newborn mortality and morbidity.

Midwifery, where care includes proven interventions for maternal and newborn health as well as for family planning, "could avert over 80% of all maternal deaths, stillbirths, and neonatal deaths" (1).

Over 50 outcomes improved by quality midwifery education and care



HIV: human immunodeficiency virus; MTC: mother-to-child.

Derived from: Renfrew et al. *Lancet Series on Midwifery* (2).

Midwives, when educated to international standards of midwifery, are able to provide the full scope of interventions needed when they are licensed, regulated, fully integrated into a well-functioning health system and an interprofessional team with referral services when required for emergencies (2).

Although the reasons behind the impact of midwifery care on mortality reduction are complex and in process of further research, improvements in the quality of care provided, including the satisfaction of women with the care they receive, are likely to play a major role. The majority of these interventions are first provided by midwives through primary health care (PHC), and this is critical to the achievement of universal health coverage (UHC). The major causes of maternal deaths averted include those from haemorrhage, eclampsia and sepsis;

and in newborns, deaths from preterm birth, asphyxia and sepsis. Reaching beyond mortality reduction, ***good-quality midwifery care improves over 50 other outcomes*** (2).

Early gains in maternal and newborn mortality reduction in low- and middle-income countries (LMICs) can largely be attributed to primary prevention measures, for example access to family planning, iron supplementation and insecticide-treated nets (described as Stage 2 in the obstetric transition) (3). Recent evidence indicates that over half of deaths of newborns and half of maternal diseases now result from poor quality of care (4). Future gains will rely on improving quality of care through more complex interventions, including midwifery.

"*Poor quality of care is now a bigger barrier to reducing mortality than insufficient access to care,*" according to the Lancet Global Health Commission (4).

To scale up this potential impact, midwives need to be available in sufficient numbers to ensure equity of access as well as quality of care (5). Investment is cost-effective, reducing the need for costly interventions, including caesarean section and episiotomy (6, 7) and positively enhancing women's experience of care (8).

Recent investments in midwifery education are making a difference in LMICs such as Bangladesh, Burkina Faso, Cambodia and Morocco (9) as well as in high-income countries such as Canada (10) and New Zealand (11). This indicates that neither economic status nor the level of health system development should delay efforts to introduce and/or strengthen quality midwifery education.

Childbearing women and newborns are among the most vulnerable in ***humanitarian and fragile settings***. Midwives living close to affected communities are able to provide most of the care that women and newborns need in these circumstances (12), increasing access to UHC (13).

Photo 2: Every woman and newborn should be cared for by a midwife educated to international standards.

Why more needs to be done

There is a startling under-investment in midwifery education and training. In many countries, predominantly LMICs, educators lack skills, supplies and equipment and many are unable to access clinical sites for practical teaching (*14*).[1] The crisis in water, sanitation and hygiene (WASH) in facilities extends to educational institutions in these countries, constraining efforts to teach the importance of clean and safe births (*15*). As a result the quality of education is variable. A lack of consistency in the use of the term "midwife" means it is often not clear which health workers are educated and trained to international midwifery standards (*16*).

In a mainly female workforce, midwives themselves experience ***sociocultural, economic and professional barriers*** (*17*), specifically in accessing quality midwifery education. This is both disempowering and diminishes opportunity for leadership. Acknowledging and transforming the gender-based inequality that underlies these barriers will be critical to making progress.

Global voices for change: the future of quality midwifery education

This report combines the evidence with the findings from a series of global multi-stakeholder consultations, and a final online survey. The consultations addressed five key questions including: what are the three strategic priorities; what is new, radical thinking; what will the impact be at country level; how will this be achieved, and how is this relevant to humanitarian emergencies?

Through these consultations consensus has been reached on three strategic priorities for strengthening midwifery education:

- **Every woman and newborn to be cared for by a midwife, educated and trained to international standards** and enabled to legally practise the full scope of midwifery. The title "midwife" should only be used for providers who are educated to international standards.
- **Midwifery leadership** to be positioned in high-level national policy, planning and budgeting processes to improve decision-making about investments for midwifery education to help achieve UHC.
- **Coordination and alignment between midwifery stakeholders** at global, regional and country levels to align education and training processes, knowledge, research, evidence-based materials, indicators and investment.

1. The *WHO Midwifery educator survey* has been completed and is in the process of publication. The survey was sent to midwifery educators in educational institutions in five of the WHO regions (not Europe). Responses were received from 134 midwifery educators in 35 countries, highlighting the variable pathways to becoming a midwife, assessing their own skills using the *WHO Midwifery educator core competencies* tool, setting out constraints to providing care for small and sick newborns and giving feedback on the WHO midwifery education materials. The final report will be available on the WHO website.

Action plan to strengthen quality midwifery education

A seven-step **action plan to strengthen quality midwifery education** is introduced, with each step informed by the evidence and global consultations. The action plan can be used to develop and/or strengthen a national midwifery education plan, embedded within the national human resources for health plan.

This action plan recognizes the wide variation in midwifery education provided across many countries and acknowledges that whereas some countries can rapidly move to a high-quality cadre of midwives, other countries will have more investment to make before this strategic priority can be reached.

The seven steps act as a guide to help build high-quality, sustainable, pre-service and in-service midwifery education and training systematically. Rather than focusing primarily on curricula, the action plan encompasses all the activities needed and presents them in sequence.

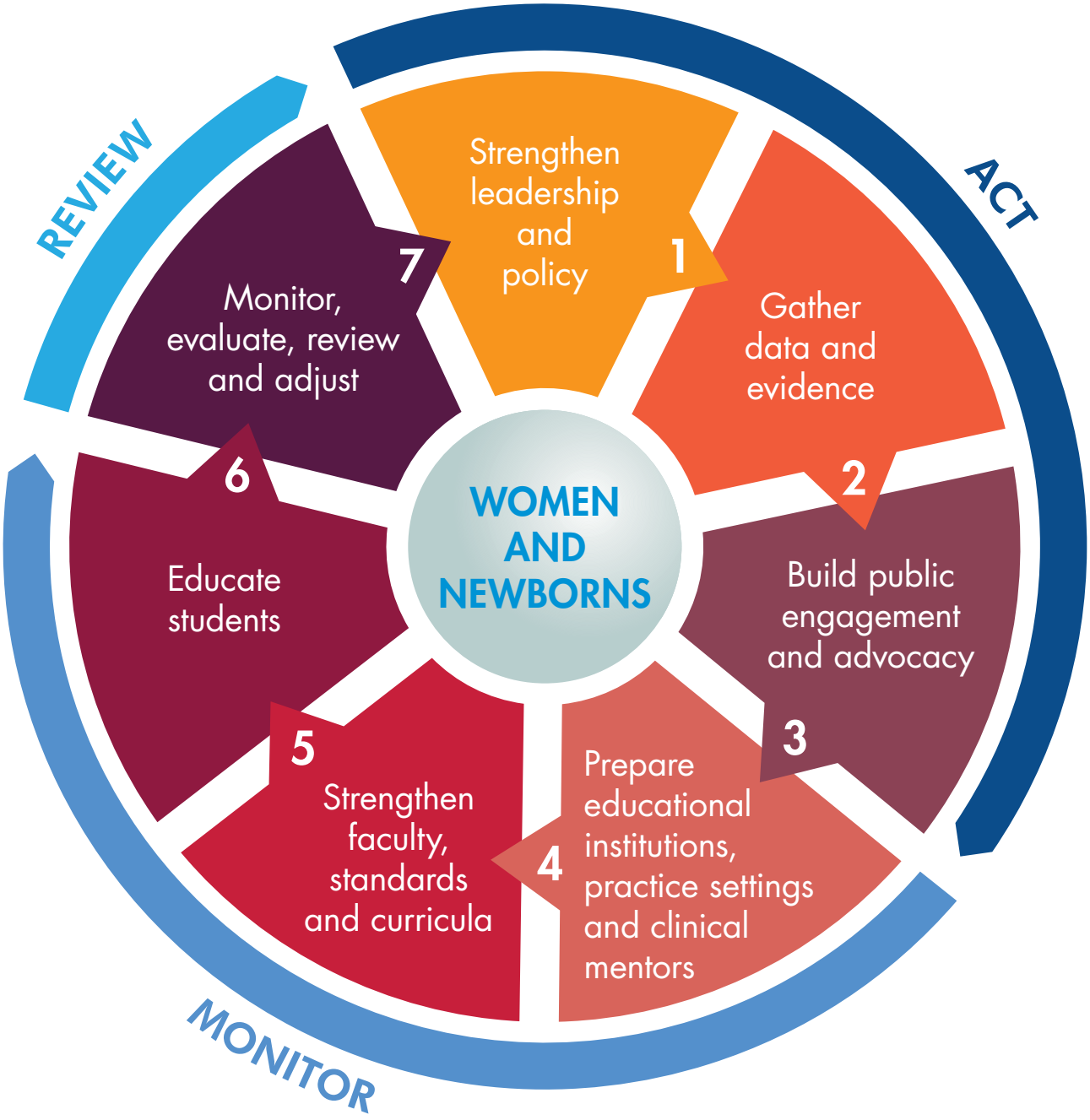
The action plan supports implementation of the *Global Strategy for Women's, Children's and Adolescents' Health 2016–2030* (GSWCAH) (*18*), moving through an accountability cycle of act–monitor–review (*18*). This midwifery education cycle is continuously updated to review progress, identify barriers and make the changes needed. At each step, monitoring and evaluation of change takes place. In the seventh step, typically taking place annually, a regular time-bound evaluation is made of all progress, allowing for adjustments before continuing with implementation and monitoring.

Making it happen: committing to action

The GSWCAH focuses on actions to prevent maternal, newborn, child and adolescent deaths and improve the quality of lives for all in specific support of sustainable development goal (SDG) 3 "good health and well-being". In October 2018, world leaders recommitted their support to primary health care (PHC) by endorsing the Astana Declaration that commits to care and services which promote, maintain and improve maternal, newborn, child and adolescent health; and mental health and sexual and reproductive health (*19*). UHC is necessary for the above. Investing in midwifery education is a critical strategy to achieve these global commitments.

Partners have come together to indicate how they can best contribute to implementing the action plan to strengthen quality midwifery education. It is now time to act upon all the evidence, learn from the global consultations and listen to the voices of women and midwives to improve quality of care for all. It is time to make a significant contribution to achieving the rights of women, newborns and their families through a focus on strengthening quality midwifery education for UHC 2030.

Seven-step action plan to strengthen quality midwifery education



1. Introduction

Photo 3: Quality midwifery education and care enables a contented mother with her newborn in Nepal.

Quality midwifery education is urgently needed to improve quality of care, end preventable maternal and newborn mortality and stillbirths and deliver the agenda of UHC. The evidence presented in this report indicates that midwifery, where care includes proven interventions for maternal and newborn health as well as for family planning, ***"could avert over 80% of all maternal deaths, stillbirths, and neonatal deaths"*** (1). Midwives, when educated to international standards of midwifery, are able to provide the full scope of interventions needed when they are licensed, regulated, fully integrated into a well-functioning health system and an interprofessional team with referral services when required for complications and emergencies (2). Although the reasons behind the impact of midwifery care on mortality reduction are complex and in process of further research, improvements in the quality of care provided, including the satisfaction of women with the care they receive, are likely to play a major role.

Over 50 additional outcomes are improved by midwifery care, including a reduction in the major causes of maternal deaths (haemorrhage, hypertension and sepsis) (2). Similarly, midwife-led continuity of care (MLCC) prevents preterm births by 24% and reduces neonatal sepsis (8).

The *Global Strategy for Women's, Children's and Adolescents' Health 2016–2030* (GSWCAH) focuses on actions to prevent maternal, newborn, child and adolescent deaths and improve the quality of lives for all (18). Progress in mortality reduction continues, but more is needed (4).

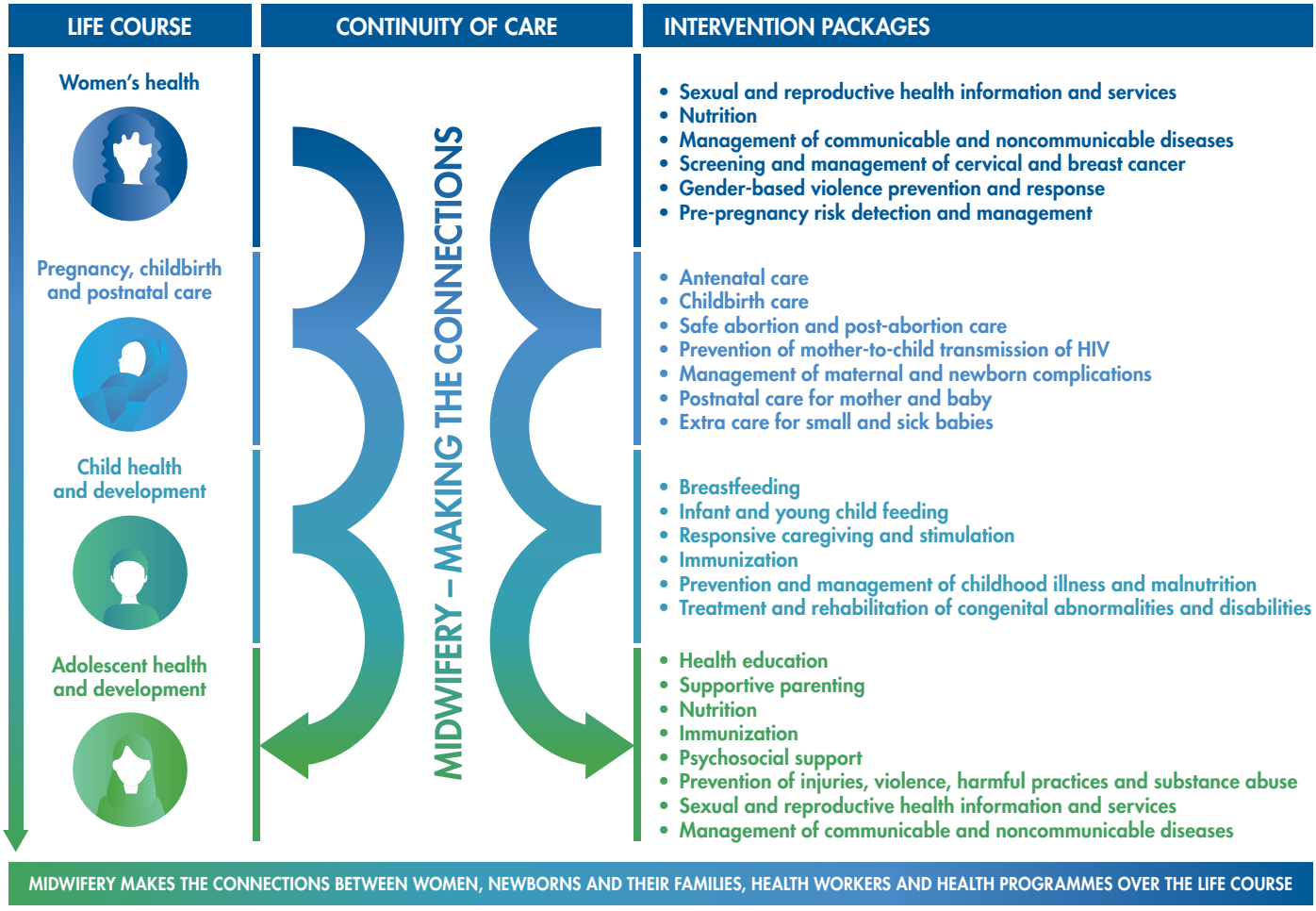
In October 2018, world leaders recommitted their support to primary health care (PHC) by endorsing the Astana Declaration, which commits to care and services that promote, maintain and improve maternal, newborn, child and adolescent health; and mental health and sexual and reproductive health (19).

In 2018 the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), the World Health Organization (WHO) and eight other global partners developed the SDG 3 *Global Action Plan for Healthy Lives and Well-being for All (2018–30)*, in which they commit "to **align** our joined-up efforts with country priorities and needs, to **accelerate** progress by leveraging new ways of working together and unlocking innovative approaches, and **account** for our contribution to progress in a more transparent and engaging way" (20).

Alongside the above, the *Global Strategy on Human Resources for Health: Workforce 2030* focuses on the need to invest in capacity-building of educational institutions and to deliver competency-based learning through transformative education (21).

Midwifery makes the connections over time (from birth to adulthood), and place (from home to community to facility), and can deliver many of the intervention packages described in the GSWCAH targets (Fig. 1).

Fig. 1. Midwifery makes the critical connections to deliver proven interventions



Adapted from the Global Strategy for Women's, Children's and Adolescents' Health 2016-2030.

1.1 The evidence of impact

This report sets out the **evidence** on the impact of quality midwifery education on outcomes for women, newborns, children and adolescents. It highlights that the best midwifery education is based on what women and newborns need, that interprofessional learning and teamwork is effective, and that the best outcomes come from a model of midwife-led continuity of care. Examples show that improvements in midwifery education are making a difference in low-, middle- and high-income countries, as well as in humanitarian and fragile settings.

Midwifery education contributes to the transformation and expansion of the health workforce and increases the potential to accelerate inclusive economic growth and progress towards health equity (22). Educating midwives empowers a predominantly female profession with knowledge, skills and the capacity for leadership.

Yet the evidence also indicates a startling lack of investment in midwifery skills education and training in low- and middle-income countries (LMICs) (14) with few educating providers to international standards, even where health workers are being given the professional title "midwife" . This is despite the outcomes that can be improved and the cost savings that can be made when midwives are educated to international standards (6, 7).

The report notes that to improve quality midwifery education we need to take action on significant system-wide constraints, including inconsistency in education and training standards, poor quality of education and care, as well as a water and sanitation crisis in educational institutions and health facilities. To make progress we must also acknowledge and address the sociocultural, economic and professional barriers encountered by midwives globally (17).

Importantly, the report highlights that universal provision of quality midwifery education and care upholds the rights of women, newborns and their families, no matter their circumstances.

> *"The human right to health is meaningless without good quality care because health systems cannot improve health without it."*
>
> Kruk et al. *Lancet Global Health Commission (4).*

1.2 Global consultations to guide change

To help chart a way forward, a series of **global multi-stakeholder consultations** were convened and a consensus reached on three strategic priorities for strengthening midwifery education in all countries:

- **Every woman and newborn to be cared for by a midwife, educated and trained to international standards** and enabled to legally practise the full scope of midwifery. The title "midwife" should only be used for providers who are educated to international standards.
- **Midwifery leadership** to be positioned in high-level national policy, planning and budgeting processes to improve decision-making about investments for midwifery education to help achieve UHC.
- **Coordination and alignment between midwifery stakeholders** at global, regional and country levels to align education and training processes, knowledge, research, evidence-based materials, indicators and investment.

Combining global evidence and findings from the consultations, a seven-step **action plan** to strengthen quality midwifery education is presented here giving guidance to governments and implementing partners to help transform midwifery education.

This recognizes the wide variation in standards of education and care provision across many countries. It acknowledges that whereas some countries can move rapidly to a high-quality cadre of midwives, other countries will need more time and have more investment to make.

Investing in midwifery education cannot take place in a vacuum. Strengthened regulation, deployment and better working conditions and remuneration will also be needed, along with support for stronger midwifery associations.

1.3 Making it happen

The final section of the report builds on commitments to the GSWCAH and sets out how partnerships could implement the seven-step action plan for midwifery education.

Radical reform in midwifery education will require a coordinated and comprehensive effort from health, education, finance, labour and foreign affairs sectors of government, together with civil society, the public and private sectors, trade unions and associations, institutions and academia (22).

1.4 Who is this report for?

The audience includes all those determined to improve the lives of women and newborns everywhere. Midwifery is a complex intervention involving women, newborns and their families, taking place at home, as well as in primary, secondary and tertiary facilities (23). The report is therefore for people in government, and outside government, involved in health services, health financing, education, water and sanitation, transport and communications, as well as for those working on gender and rights-based issues and advocacy.

Stakeholders include the current and future midwifery workforce, leaders who work in or with governments, nongovernmental organizations (NGOs), civil society, UN agencies, professional associations, academics and researchers. It is for our partners in the private sector, foundations and bilateral donors, the media and human rights advocates. It is for people working in conflict zones and other humanitarian disasters.

The report aims to inspire those passionate about the education and empowerment of midwives and other health workers to improve the quality of care, and is for those who are deeply engaged, every day, in educating midwifery care providers.

Ultimately, this report is for the women and newborns who need our help, and for the midwives and others who provide their care.

1.5 Why now?

It is time to take heed of the evidence. It is time we listened to the experts who contributed to the global consultations, listened to the voices of women and midwives, and aligned our efforts, accelerated and accounted for our actions, and strengthened quality midwifery education.

Last, but not least, women and midwives themselves are demanding better quality midwifery education.

"Midwives want better education, including access to higher education and development, to be empowered to take leadership, to know their skills are valued by medical doctors and to provide better quality of care for women and their newborns."

Midwives Voices, Midwives Realities (24).

2. The impact of midwifery education

Photo 4: At the Faizabad Midwifery Training School (Afghanistan), trainer Farzana Darkhani uses an obstetric mannequin to show students how to stop postpartum haemorrhage by hand.

"Midwifery education... is the bedrock for equipping midwives with appropriate competencies to provide high standards of safe, evidence-based care."

Bharj et al. *Midwifery* (25).

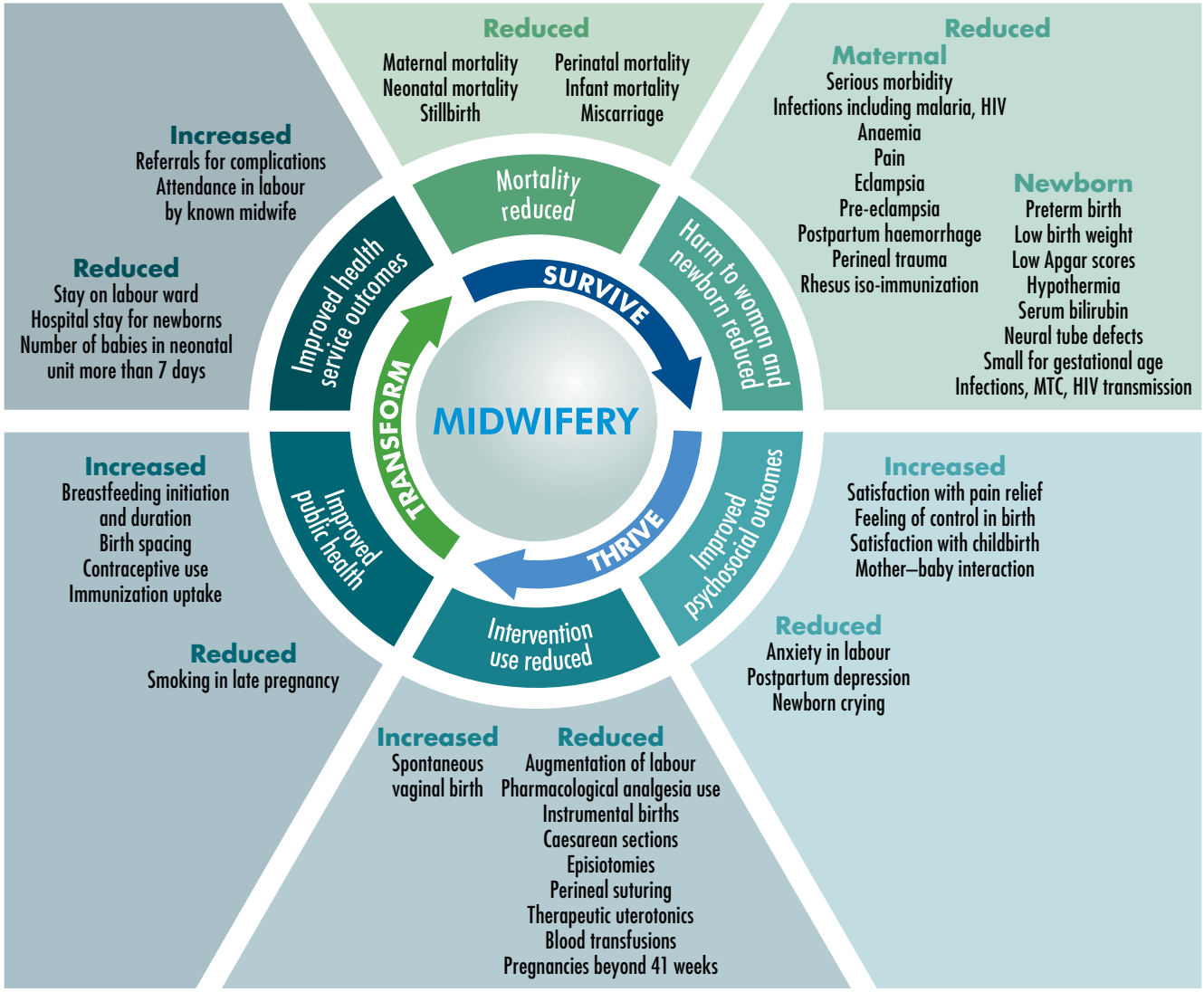
2.1 Evidence shows improved outcomes

Over the past two decades, scientific findings from a range of disciplines have converged. The evidence is clear. Midwifery, where care includes proven interventions for maternal and newborn health as well as for family planning, ***"could avert over 80% of all maternal deaths, stillbirths, and neonatal deaths"*** (1).

Midwives, when educated to international standards of midwifery, are able to provide the full scope of interventions needed when they are licensed, regulated, fully integrated into a well-functioning health system and an interprofessional team with referral services when required for emergencies (1, 2). Quality midwifery care reduces harm, enhances survival and the short- and long-term health and well-being of women and children (2).

Good-quality midwifery care improves over 50 other outcomes (Fig. 2) (2). Midwifery goes far beyond a set of clinical skills for pregnancy, childbirth and caring for the mother and her baby in the six-week postnatal period (Fig. 3).

Fig. 2. Over 50 outcomes improved by quality midwifery education and care



HIV: human immunodeficiency virus; MTC: mother-to-child.

Derived from: Renfrew et al. Lancet Series on Midwifery (2).

Box 1. Midwifery

Midwifery is defined as "skilled, knowledgeable and compassionate care for childbearing women, newborn infants and families across the continuum from pre-pregnancy, pregnancy, birth, postpartum and the early weeks of life.

Core characteristics include optimizing normal ... processes of reproduction and early life, timely prevention and management of complications, consultation with and referral to other services, respecting women's individual circumstances and views, and working in partnership with women to strengthen women's own capabilities to care for themselves and their families".

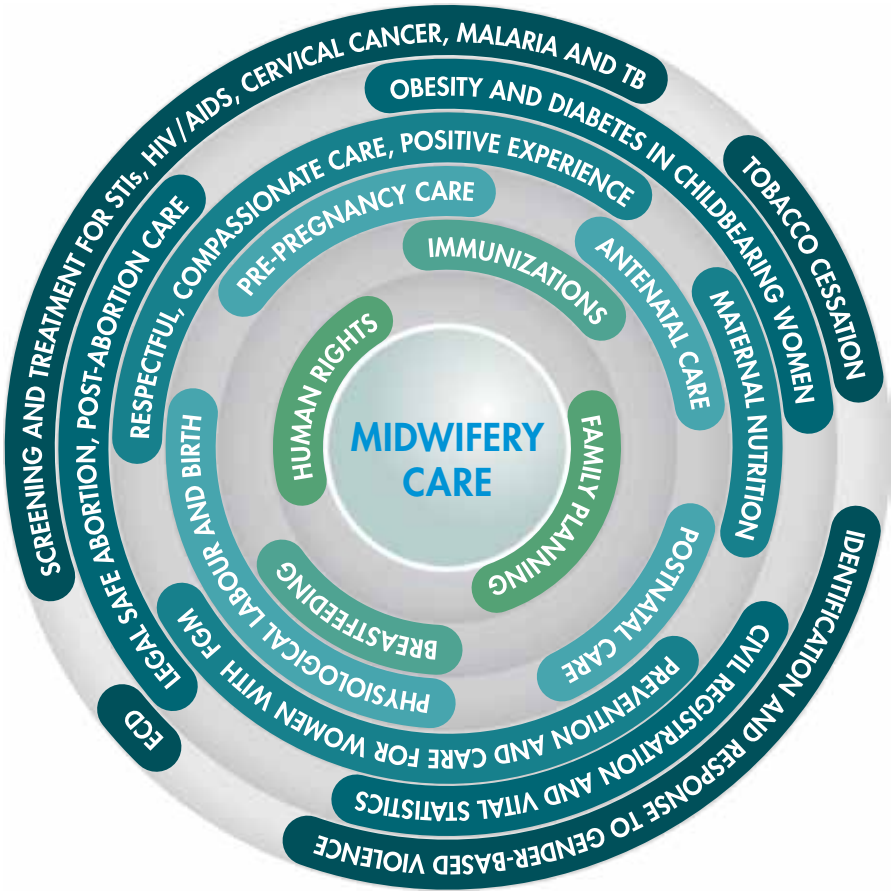
Source: Renfrew et al. *Lancet Series on Midwifery* (2)

From a health systems perspective, midwifery results in more efficient provision of interventions and more efficient use of health service resources (2, 26). The term "midwifery" is defined in Box 1.

The geographical and social proximity of midwives to the communities they serve is a key strength in the provision of UHC, maximizing integrated people-centred care, and ensuring local knowledge and flexibility in responding to changing circumstances including in humanitarian and fragile settings such as conflict, natural disasters and forced displacement (12).

International standards and resources for education have been developed by the International Confederation of Midwives (ICM), which has also collaborated with WHO and other implementing partners to develop the WHO *Midwifery educator core competencies* (27). ICM has also developed a clear definition of the midwife (Box 2) and the Essential Competencies for Midwifery Practice (28).

Fig. 3. The full scope of midwifery education and care



AIDS: acquired immunodeficiency syndrome;
ECD: early childhood development;
FGM: female genital mutilation;
HIV: human immunodeficiency virus;
STIs: sexually transmitted infections;
TB: tuberculosis.

Box 2. ICM definition of the midwife

"A midwife is a person who has successfully completed a midwifery education programme that is based on the *ICM Essential competencies for basic midwifery practice* and the framework of the *ICM Global standards for midwifery education* and is recognized in the country where it is located; who has acquired the requisite qualifications to be registered and/or legally licensed to practice midwifery and use the title 'midwife'; and who demonstrates competency in the practice of midwifery."

Source: ICM (28).

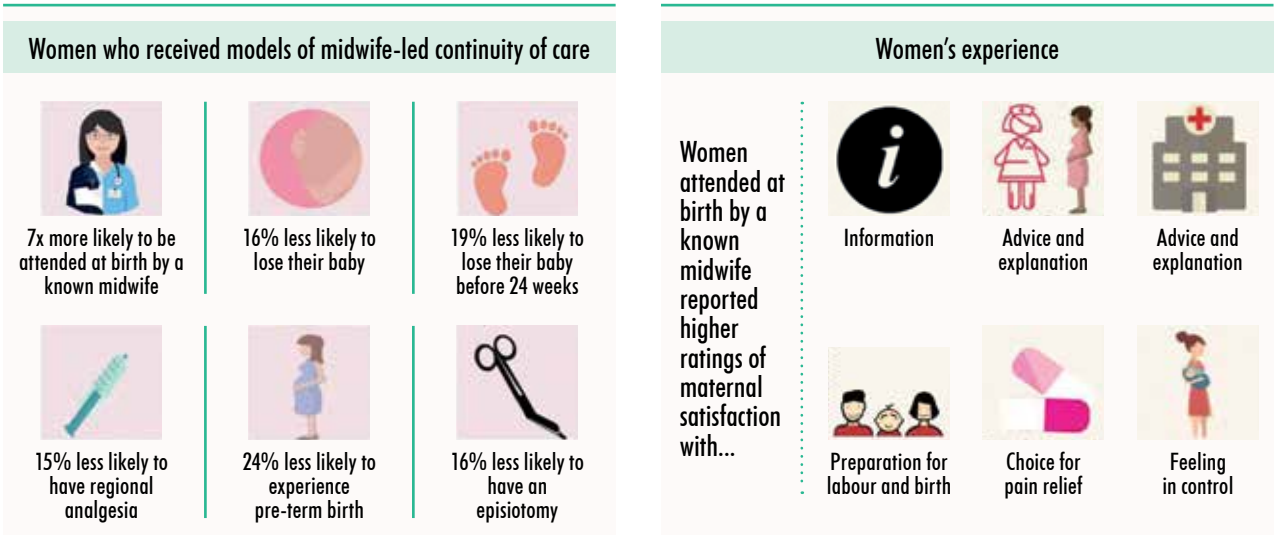
2.2 Midwife-led continuity of care has the greatest impact

Outcomes for women and newborns are improved even further where a midwife educated to international standards, or a small team of midwives, is enabled to lead on all care needed by women and newborns from pregnancy to the end of the six-week postnatal period, supported by a well-functioning midwifery programme should complications arise (Fig. 4) (23, 29). This complex intervention is known as midwife-led continuity of care (MLCC) (23).

"Care led by midwives – educated, licensed, regulated, integrated in the health system and working in interdisciplinary teams – had a positive effect on maternal and perinatal health… even when compared with care led by other health professionals in combination with midwives" (2).

Renfrew et al. *Lancet Series on Midwifery* (2).

Fig. 4. Outcomes improved with midwife-led continuity of care



Source: Reproduced from Sandall et al. *Cochrane Database of Systematic Reviews* (8).

Infographic created by the Technology and Information team at the Health Innovation Network, the Academic Health Science Network (AHSN) for south London on behalf of HIHR CLAHRC South London.

With this model of MLCC, the *Cochrane Database of Systematic Reviews* (2016) found that women are 16% less likely to lose their baby, 24% less likely to experience a preterm birth, and 16% less likely to have an episiotomy (Fig. 4). The experience of women is also enhanced (Box 3) (*8*). The Cochrane Review found most of the evidence came from high-income countries where there are well-established midwifery programmes with education to international standards.

2.3 Midwifery education based on what women and newborns need

The *Lancet Series on Midwifery* analysed more than 470 systematic reviews including thousands of individual studies to identify what midwives must know and be skilled in to meet the needs of women and newborn infants (*2*). This is summarized in the Framework for Quality Maternal and Newborn Care (QMNC) (Fig. 5). More details are given in Annex 2.

ICM's essential competencies for midwifery practice have been mapped to the different components that make up the QMNC Framework (*16*). This demonstrates that midwives meeting the ICM competencies practise the full scope of midwifery as defined by the framework (*2*). The full scope of midwifery is shown in Fig. 5 within the blue line.

Whereas midwives educated to international standards can provide the full scope of midwifery care, when identifying and responding to complications it is essential that this is done in collaboration with the interprofessional team involving the medical, obstetric and neonatal services shown in the top right-hand component. The midwife's role is to stay with the woman and newborn throughout and continue to provide midwifery care; this includes providing care during complications and emergencies, for example before, during and after a caesarean section.

Box 3. The impact of midwife-led continuity of care in New Zealand

New Zealand has a publicly-funded MLCC model following legislative changes in 1990 resulting from women's demands to shift away from a medical-led system. Women now receive community-based care in a fully integrated health system where they can choose between an obstetrician, general practitioner or midwife. The trust that women have in the ability of highly educated midwives to provide the best quality of care has resulted in 93% choosing a midwife.

Midwives practise autonomously to provide continuity of care from early pregnancy through labour and birth and up to six weeks postpartum, with robust processes for consultation, referral and transfer to additional levels of care if needed for the woman or the baby. Midwives are also the predominant workforce within maternity hospitals.

The impact of midwife-led continuity of care over the past 10 years has been a static caesarean section rate, a decrease in all other interventions, a reduction in stillbirths and maternal mortality and high levels of satisfaction for women and their families.

Midwifery is recognized as a distinct profession with a direct-entry baccalaureate midwifery programme and regulation by the Midwifery Council of New Zealand. Pre-service education uses blended delivery models geared to students in rural and provincial areas, thus ensuring a sustainable midwife workforce in hard-to-reach parts of the country.

Source: New Zealand College of Midwives.

To achieve good-quality care, the evidence is clear that midwives must be educated and trained to work as autonomous professionals and provide knowledgeable, skilled, respectful and compassionate care for all. They must know how to **practise** across all stages from pre-pregnancy, pregnancy, labour and birth, postpartum and the early weeks of life. They must be skilled in providing the **preventive and supportive care** that keeps women healthy as well as **identifying and responding to complications,** ideally before they become emergencies.

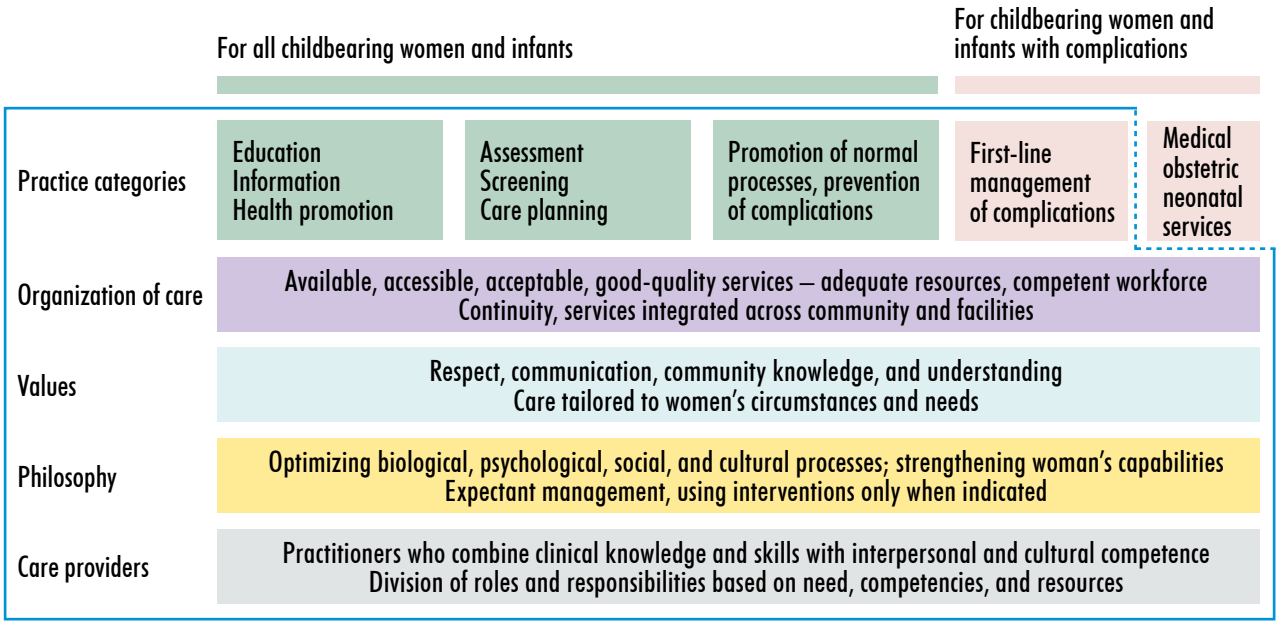
This requires much more than education limited to a focus on specific tasks and emergency obstetric and newborn care. It includes knowledge, understanding and skills in **organizing care** and providing continuity across community and facilities; ensuring **values** such as good communication, and tailoring care to individual needs.

"Midwifery education must incorporate a philosophy of optimizing normal physiological processes, and ensuring women's own capabilities are strengthened."

Renfrew et al. *Lancet Series on Midwifery* (2).

Other important aspects include **care providers'** ability to combine clinical knowledge and skills with interpersonal and cultural competence, as well as knowing how to work in partnership with the interprofessional team as needed.

Fig. 5. Framework for Quality Maternal and Newborn Care



Midwives meeting the ICM competencies practise the full scope of midwifery as defined by the framework and shown within the blue line: they are international-standard midwives.

Source: Adapted from Renfrew et al. *Lancet Series on Midwifery* (2).

2.4 Interprofessional learning and teamwork is critical

Interprofessional team working is critical to preventing fragmentation of care for a woman, identification and referral of women and newborns who experience complications, and has a positive impact on reducing unnecessary interventions, including caesarean section (30). Findings from countries in economic transition show that care led mainly by obstetricians, without the balance midwives bring to the health system, might reduce mortality and morbidity but might also reduce quality and increase cost (2).

Interprofessional learning and collaboration maximizes the skills of all (31, 32). Depending on the context, this may include nurses and nurse-midwives (who may or may not be educated to international standards), family physicians, obstetricians, paediatricians as well as midwives.

Teamwork with specialist neonatal nurses is essential to ensure the best care for small, preterm and sick babies. In some contexts, it will be important to include community health workers (CHWs) and traditional birth attendants (TBAs) in the team, whether they are trained or not (33). They can all make an important contribution to meeting the needs of women and newborns, including the provision of nurturing care for newborns and children (34).

Whatever the specific workforce configuration, interprofessional learning and respectful collaboration is essential to promote effective and efficient teamwork to ensure the best quality of care (31). Respectful collaboration is essential to overcoming institutionalized hierarchies of power that can prevent constructive communication (17).

As noted in the *Lancet Series on Optimising caesarean section use* "Crucially, the balance of power between doctors, midwives, nurses, other maternity care providers, and childbearing women strongly influenced the willingness of each party to engage or not in the improvement of the organisational ethos" (30).

2.5 Improvements in midwifery education are making a difference

Countries are strengthening midwifery education

High-, middle- and low-income countries that have implemented good-quality midwifery education have transformed outcomes for women and newborn infants, and also women's experiences of care (9). Over 140 years ago, Sweden dramatically reduced maternal and newborn mortality rates with well-educated midwives playing a key role (Box 4). This was achieved in conditions similar to those experienced by very low-income countries today.

More recently, Burkina Faso, Cambodia, Indonesia and Morocco are examples of LMICs that have successfully strengthened midwifery education as part of a strategy to reduce maternal mortality (Box 5) (9).

High-income countries also need to make improvements. In the 1990s Canada introduced international-standard midwifery education into a system that had been solely led by obstetricians and supported by nurses. Chile, the Netherlands,

Box 4. Educated midwives play a key role in cutting Sweden's maternal mortality

In 1711, concern about high maternal mortality rates in Sweden led the authorities to introduce a regulation in the Stockholm area designed to make midwifery education compulsory and midwives more accountable. Under the new law, midwives had to be formally educated and to pass an exam. If successful, they were then required to take an oath to the city's magistrate to be allowed to practise and provide health care to women.

While it took time for the population to accept professional midwives, and for financial resources to be made available to pay for them in every rural county, midwives played a key role in the rapid decline in maternal mortality between 1861 and 1894. This was achieved before the

New Zealand, Sweden and the United Kingdom of Great Britain and Northern Ireland are all examples of countries that continue to take action to strengthen their well-established midwifery education in line with new evidence.

Importantly, the universal provision of quality midwifery care **by midwives educated to international standards** upholds the rights of women, newborns and their families no matter the circumstances.

The evidence, and the country examples presented, indicate that there are significant benefits for countries to strengthen quality midwifery education, no matter their economic status or how developed their health system. Investing in midwifery education, however, cannot take place in a vacuum. The case studies below show that strengthened regulation, deployment and better working conditions and remuneration are needed to ensure quality education standards are implemented and maintained (35). The role of national midwifery, and other professional associations is also critical to education, as highlighted in the *State of the world's midwifery report 2014*.

Box 5. Long-term commitment to midwifery education brings sustained results in four LMICs

Burkina Faso, Cambodia, Indonesia and Morocco have all developed pre-service education for midwives. This is part of a core strategy to improve maternal and newborn mortality and health, resulting in sustained and substantial improvements in all four countries.

An analysis of these four LMICs by the *Lancet Series on Midwifery* shows what drove success:

- high-level political commitment and the support of civil society;
- data and evidence to identify priorities and steer budget allocations for quality midwifery education, including professional regulation and investment in educational infrastructure;
- sustaining quality education and supporting midwives including appropriate remuneration;
- removing barriers to access for women, including financial barriers; establishing close-to-women facilities and promoting equity;
- focusing on quality as well as coverage to ensure respectful, women and newborn-centred care, and resources for midwives to practise effectively.

Source: Van Lerberghe et al. *Lancet Series on Midwifery* (9).

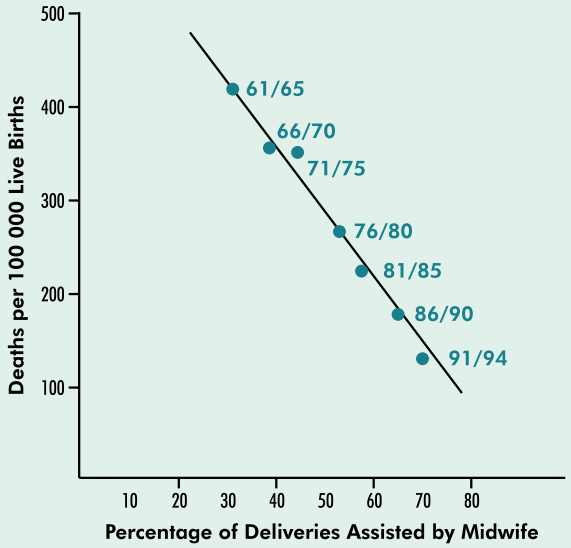
discovery of antibiotics, electric light, modern systems of transport and communication, and represents what can be achieved by investing in midwives even in the most challenging circumstances.

Ulf Högberg, an obstetrician stated in his dissertation in 1985 that "the midwife service in rural areas, and antiseptic techniques, were the single important preventive intervention in reducing maternal mortality during the 19th century in Sweden" (36). This figure from his research shows the decline in mortality.

Today, all women of reproductive age in the country have access to a midwife who can provide the full range of maternal, neonatal and reproductive health-care services. Sweden has one of the lowest maternal mortality ratios (MMR) and neonatal mortality rates in the world.

Source: The Swedish Association of Midwives and Högberg (36).

Maternal mortality in Sweden in relation to proportion of midwife-assisted home-birth (1861-99)



2.6 Midwifery education saves lives in humanitarian and fragile settings

Childbearing women and newborns are among the most vulnerable in emergency situations including epidemics (such as Ebola virus disease), during a natural disaster (such as floods, cyclones and earthquakes) or when caught up in military conflict. Midwives, and nurses, living close to affected communities are the first point of contact especially in hard-to-reach areas and thereby are key to supporting the goals of UHC.

Midwives educated to international standards will be able to provide most of the care that women and newborns need in these circumstances (12). Important midwifery competencies include being able to accompany women through pregnancy, childbirth and the postnatal period, no matter what the circumstances. In Liberia, midwives supported women who had no choice but to give birth in the open bush, even when under cross-fire (37).

Life-saving action for newborns includes immediate skin-to-skin care with the mother at the time of birth to keep the baby warm, dry and safe; continuous kangaroo mother care for low birth weight babies, preterm births and babies who are small for gestational age (38); and supporting the mother to breastfeed (39), all within the scope of midwifery. Midwives must be educated in upholding the International Code on the Marketing of Breast-Milk Substitutes in emergency settings, to prevent the harmful use of baby-milk powder as breastfeeding substitutes especially when clean water is scarce (40).

In humanitarian and fragile settings there is often an urgent need for women to access family planning, or continue with existing family planning methods, and have access to treatment for sexually transmitted infections. Special attention is required for women who have experienced gender-based violence or who need safe post-abortion care, as well as for those who seek advice on managing menstrual hygiene in stressful circumstances.

Photo 5: Well educated midwives are able to insert an intravenous infusion while caring for a woman in the maternity ward of Banadir Hospital in Mogadishu, Somalia.

Box 6. Midwives and nurses are key in Fiji's national cyclone response

Working closely with the national disaster team at both hospital and primary health-care level, midwives have helped with planning to ensure that essential care is available for pregnant women and the wider community in the event of an emergency. "Babies still need to be delivered and patients still need emergency care", says the Government of Fiji's Chief Nursing and Midwifery Officer.

When the country goes into cyclone preparedness mode, midwives and nurses are ready to be called up and their shifts immediately switch from eight to 12-hour stretches in all 22 hospitals. In remote health centres and nursing stations, pregnant women who are due to give birth will be taken to the nearest hospital. In case the power goes down, vaccines are moved to more secure facilities and staff are ready to work with lanterns.

At evacuation centres set up close to flood-prone areas, midwives and nurses run shift clinics providing medical assessment, care and support to the community. In more remote areas, because they live nearby, they are often the first to arrive and provide vital information to their supervisors.

Source: GCNMO, Fiji.

There are good examples of leadership, research and action for midwifery education in health emergencies. In Fiji, the leadership of the government chief nursing and midwifery officer (GCNMO) ensures that all midwives and nurses are trained and prepared to take action in cyclones (Box 6). In Sudan, midwives are receiving additional training on the care of newborns in humanitarian settings (Dr Naeema Al Naseer, WHO Country Representative Sudan, personal communication). In Somalia, despite the protracted conflict and fragile health systems in the country, significant progress has been made in strengthening midwifery education (Box 7).

Box 7. Education makes a difference in Somalia despite conflict and destruction of health systems

Despite the protracted conflict and fragile health systems in the country, Somalia has made significant progress in developing midwifery education by building partnerships with professional bodies and other agencies. This is paying off in this war-torn country which historically has had one of the highest MMRs and very low-skilled birth attendance.

In 2012, the federal government worked in partnership with the relatively-new Somali Midwifery Association to launch a community education programme for licensing, oversight and training of Somali midwives so they can meet the needs of a marginalized and highly conservative society.

The programme has ensured the quality of midwifery services at grass-roots level meets the required standards and that integrated maternal and reproductive health care services, including basic family planning, are offered to all including those who are most vulnerable.

There have been significant changes since the programme began: the skilled birth attendance rate has risen to 37% at current estimates, compared with 22% in 2010; a four -to six-fold increase in availability of quality midwives at the grass-roots level; and a substantial drop in the MMR from above 820 per 100 000 live births in 2010 to the current estimate of 732 per 100 000 live births.

Political will and a socially-inclusive programme have helped Somalia to make progress despite the physical destruction of its health systems.

Source: WHO Country Representative, Somalia.

There is great potential for midwives to make an immediate difference in humanitarian crises, where their local knowledge and links with communities can enable access, trust and an appropriate response. There is an urgent need to examine and develop the role of midwives in these settings (12).

Box 8. Midwife-led care in Australia improves outcomes and reduces costs

Research in Australia found that the costs of care for healthy, low-risk pregnant women when led by obstetricians in a public health system, are 45% higher than when a woman receives care from a small group of known midwives throughout her pregnancy, childbirth and postnatal care experience.

These costs were increased by a further 9% to 54% when the care was led by obstetricians working in a private sector hospital.

The higher costs are associated with complex pathways of care: in this research largely associated with an increased number of interventions, including caesarean section and episiotomy.

Low costs were achieved through midwife-led care as a result of higher rates of spontaneous vaginal birth, less postpartum haemorrhage, fewer admissions to neonatal units, and increased breastfeeding rates.

Reduced costs from decreased use of unnecessary interventions are applicable globally to all settings including LMICs.

Source: Tracy et al. Lancet (6).

2.7 Midwives educated to international standards save resources

The midwifery model of care has a significant impact on cost reductions arising from higher rates of spontaneous vaginal birth, less postpartum haemorrhage, fewer admissions to neonatal units, and increased breastfeeding rates (Box 8) (6–8, 41). This has been shown using a range of research designs including randomized controlled trial, cross-sectional study, modelling and observational study for women of all risk profiles.

Because of the lifelong impact of healthy pregnancy and birth, family planning, breastfeeding, good mental health, uptake of vaccinations and other interventions, the long-term economic gains resulting from midwives educated to international standards are even greater than the specific savings from improved short-term clinical outcomes and reduced costs of interventions (2).

The escalating rates of caesarean sections and other unnecessary interventions globally (26, 42), often driven by commercial forces that result in health service resources being spent on facilities and equipment rather than on the personnel who can prevent complications, can be counter-balanced by midwifery (39, 43).

The International Federation of Gynaecology and Obstetrics (FIGO) position paper: *How to stop the caesarean section epidemic* (2018) highlights that to overcome perverse incentives to increase unnecessary interventions, the fees for physicians for undertaking caesarean section and attending vaginal birth should be the same, using a mean fee (44). This should also happen in private practice settings.

The FIGO position paper also notes: “Money that will become available from lowering CS [caesarean section] costs should be invested in resources, better preparation for labour and delivery and better care, adequate pain relief, practical skills training for doctors and midwives, and reintroduction of vaginal instrumental deliveries to reduce the need for CS in the second stage of labour” (44).

2.8 Why more needs to be done

2.8.1 "Poor quality of care is now a bigger barrier to reducing mortality than insufficient access to care."

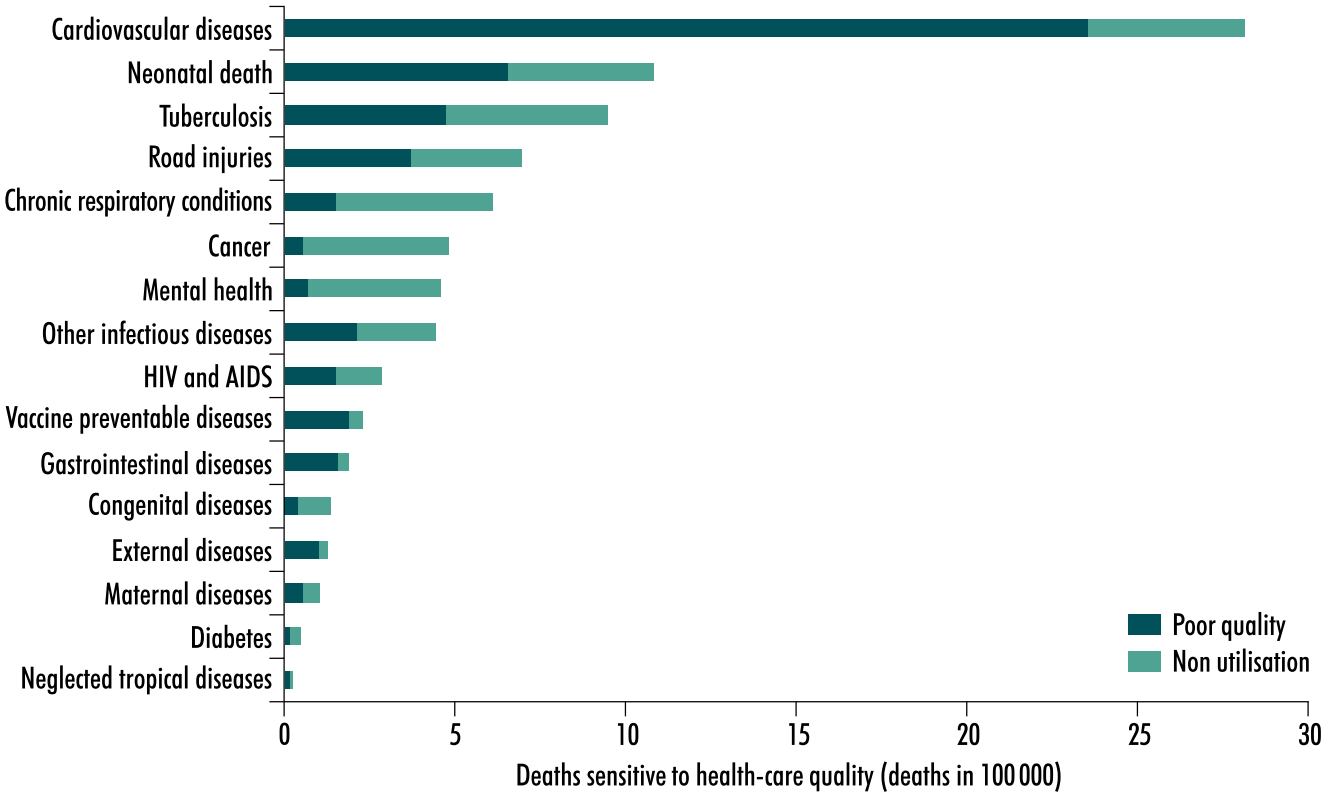
Kruk et al. *Lancet Global Health Commission* (4).

Steady progress was made in reducing maternal deaths during the millennium development goal period, with a global reduction in the MMR from 385/100 000 live births in 1990 (534 000 maternal deaths per year) to an MMR of 216/100 000 live births (303 000 maternal deaths) in 2015 (45).

There was a rapid decline in the under-five mortality rate which dropped from 92 deaths per 1000 live births in 1990 to 41 deaths per 1000 live births in 2016, but proportionately a slower rate of decline in newborn deaths. Almost 50% of deaths in the under-fives now occur among newborns (45). The global newborn mortality rate declined by 41% between 2000 and 2018, from 31 deaths per 1000 live births to 18 deaths per 1000 live births (2.5 million deaths per year) in 2018 (46).

These early gains in maternal and newborn mortality reduction in LMICs can largely be attributed to primary prevention measures, for example access to family planning, iron supplementation and insecticide-treated nets (described as Stage 2 in the obstetric transition) (3). However, the major causes of maternal deaths continue to be haemorrhage, eclampsia and sepsis; and in newborns, deaths from preterm birth, asphyxia and sepsis. Preventing these deaths will require more complex measures, including quality midwifery education and care. Poor quality of care is now the most significant barrier to further reductions in mortality and morbidity, contributing to 61% of neonatal deaths and half of deaths from maternal diseases according to the Lancet Global Health Commission (Fig. 6) (47).

Fig. 6. Mortality due to accessing poor quality care and non-utilization of health services



AIDS: acquired immunodeficiency syndrome; HIV: human immunodeficiency virus.

Source: Reproduced from Kruk et al. Lancet (47).

Many women and newborns continue to be without any access to care or experience **too little care too late** while other women and newborns are experiencing **too much intervention too soon** (48)**. This over-medicalization** of pregnancy and childbirth often results in unnecessary interventions including episiotomy and caesarean section. These interventions are life-saving when needed, but risky and costly when not (26, 49); women and newborns may be harmed by having an unnecessary caesarean section or episiotomy (48).

Access to a facility does not in itself improve outcomes where the workforce lacks the competencies needed. Facilities can be a source of injury and pain. Neglect and abuse occur in low-, middle- and high-income countries (50–52). Cash incentives have helped more women to reach facilities to give birth, but this has not always measurably reduced maternal and newborn mortality (53).

The lack of quality care has a negative impact on access by women, and can delay or prevent women seeking help (4, 54). The lack of well-educated midwives at facilities is contributing to poor quality care.

"Although the degree and type of risk related to pregnancy, birth, postpartum, and the early weeks of life differ between countries and settings, the need to implement effective, sustainable, and affordable improvements in the quality of care is common to all."

Renfrew et al. *Lancet Series on Midwifery* (2).

"High-quality health systems could prevent … 1 million newborn deaths … and half of all maternal deaths each year."

Kruk et al. *Lancet Global Health Commission* (4).

A shortage of appropriately educated health workers is a key factor. *The State of the world's midwifery report 2014* notes that of the 73 countries from which data were gathered, only four countries have the workforce capacity to provide the care needed by women in their reproductive years and newborns (5).

There is increasing evidence to indicate that it is not only the shortage of health workers, but lack of education and skills among existing midwives, nurses and doctors, that remains a consistent barrier to improving maternal and newborn health. In a systematic mapping of barriers to the provision of quality care by midwifery personnel, the issue of poor midwifery education – often reduced to a matter of weeks – without qualified faculty and lacking in practical application, was identified as a major constraint (17).

Additionally, many of the education programmes lacked crucial components of basic training, such as infection prevention and respectful care, leading to possibilities of links between poor education, poor clinical care, sepsis and mistreatment of women in facilities (17).

It is clear that improved quality of care, as well as primary prevention, is needed to further accelerate improvement in maternal and newborn health. The education of midwives to international standards, with proven benefits to the outcomes for women and newborns, provides a vital solution.

2.8.2 Variable quality in education and training standards

Published literature on midwifery skills education describes a range of health workers, both professional and non-professional, who are providing some midwifery skills (14, 55). Among the various health workers described, there is a lack of consistency in education programmes (56) and in the use of the term "midwife" (56). This means it is not clear which of the health workers are educated and trained to international-standard midwifery (16). Nursing and midwifery education is often combined, rendering midwifery skills education and training invisible in policy, as well as in practice (57).

Since 2004 there has been a focus on measuring skilled birth attendants (SBAs) in LMICs (58). However, the SBA indicator does not reflect quality of childbirth care, and may give the false impression that progress in access to quality care is being made (4). The definition of the SBA has recently been updated and since 2018 describes "skilled health personnel (competent health care professionals) providing care during childbirth" (58). While contributing to the overall decrease in mortality, the training, regulation and deployment of SBAs with a specific focus on childbirth has varied widely across countries, with uneven levels of proficiency and regulatory support (2, 59, 60).

Not all SBAs provide all areas of maternal and newborn care or are trained to deal with unexpected complications (60, 61). In a recent scoping review, only 15% of those working as SBAs were reported to identify themselves as "midwives", and it is not clear whether those who described themselves as such were educated to international standards (62).

> *"In a scoping review of the health personnel considered SBAs in 36 LMICs, a total of 102 unique cadres names were identified. Of the cadres included, 16% represented doctors, 16% were nurses, and 15% were midwives. There was substantial heterogeneity between and within countries on the reported definition of an SBA and the education, training, skills and competencies that they were able to perform."*
>
> Hobbs et al. *PLoS ONE* (62)

2.8.3 Educators lack skills, access to clinical sites and training materials

Early results from a WHO survey of midwifery educators in five WHO regions provide a stark picture of the realities of constrained teaching and learning environments . Educators are more confident with theoretical classroom teaching than clinical teaching. Many are unable to access clinical settings, or simulation tools, to support competency-based education with women and babies.

Large gaps in educator skills are evident, including basic postnatal care of women and newborns, and the provision of family planning. Few educators reported having the education materials needed. The survey further highlighted inconsistencies in the content and duration of education courses, variations in the competencies required, as well as the plethora of pathways to becoming a "midwife", indicating a wide variation in the standard of education and training, and thereby variations in the quality of care provided.

2.8.4 A crisis in water and sanitation in educational institutions and health facilities

Infection prevention and control (IPC) is a core midwifery and nursing responsibility, essential to the prevention of maternal and newborn sepsis, especially in the current time of antimicrobial resistance. Yet one in four health care facilities globally lack basic water services, and one in five have no sanitation service (15).

There are twice as many maternal deaths from infection (sepsis) in LMICs as in higher-income countries (HICs), and twice as many health care facilities in LMICs have no water service than in HICs. More than one million deaths each year are associated with unclean births, and infections account for 26% of neonatal deaths and 11% of maternal mortality (15).

Without a reliable supply of water and access to sanitation for education and training, IPC is unlikely to become the everyday habit it needs to be. Early findings from the *WHO Midwifery educator survey* highlight the poor state of many educational institutions that lack basic infrastructure, including water and toilets for staff, students and women being cared for in the teaching facility (Box 9).

Photo 6: Health workers demonstrate their new-found water, sanitation and hygiene (WASH) knowledge after attending a five day training run by MCSP in clinics. Democratic Republic of the Congo.

Box 9. Lack of water and sanitation in educational institutions affects quality of care

Access to clean water, soap and hand rub

A significant number of respondents to the *WHO Midwifery educator survey* experienced a lack of access to clean water for teaching. Except for respondents from the WHO Region of the Americas, all other educators had trouble accessing clean water and functioning toilets in their educational institutions.

This includes lack of clean water for teaching IPC, cleaning the environment and sterilizing equipment, as well as lack of soap or hand rub for basic hand hygiene. In Africa, over 50% of respondents in English-speaking countries and 75% in French-speaking countries sometimes lacked access to clean water.

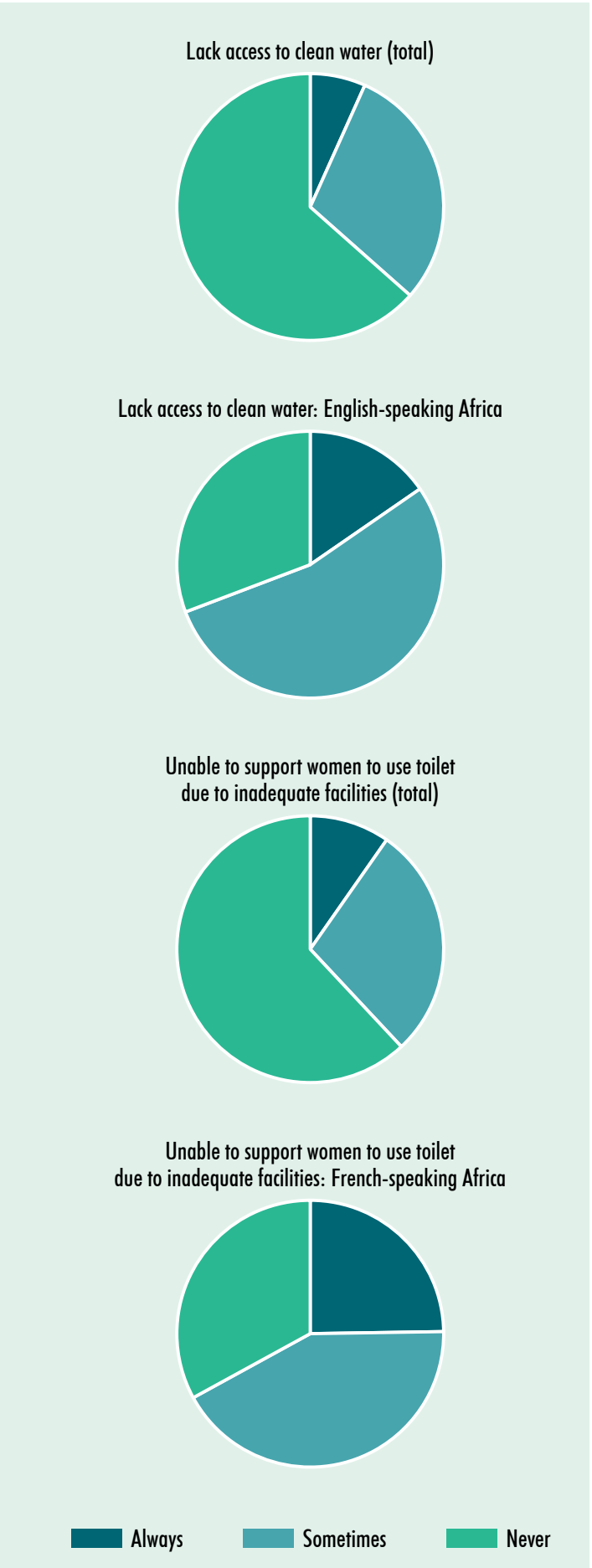
Toilet facilities

Respondents from both the WHO African and South-East Asia Regions reported lack of regular access to a functioning toilet. This was most significant in African English-speaking and French-speaking regions where 50% of educators surveyed reported they do not always have a functioning toilet in the institution where they teach. This badly affected the care they were able to offer women during labour or postnatally, with two thirds of respondents from French-speaking African countries raising concerns.

Maintaining personal hygiene

A significant number of respondents reported they were unable to help women maintain their personal hygiene. Those who reported always being able to provide this care were: 25% of respondents from French-speaking African countries, less than 40% of those from English-speaking African countries, and just over half from the WHO South-East Asia Region.

Source: Early findings from the *WHO Midwifery educator survey*

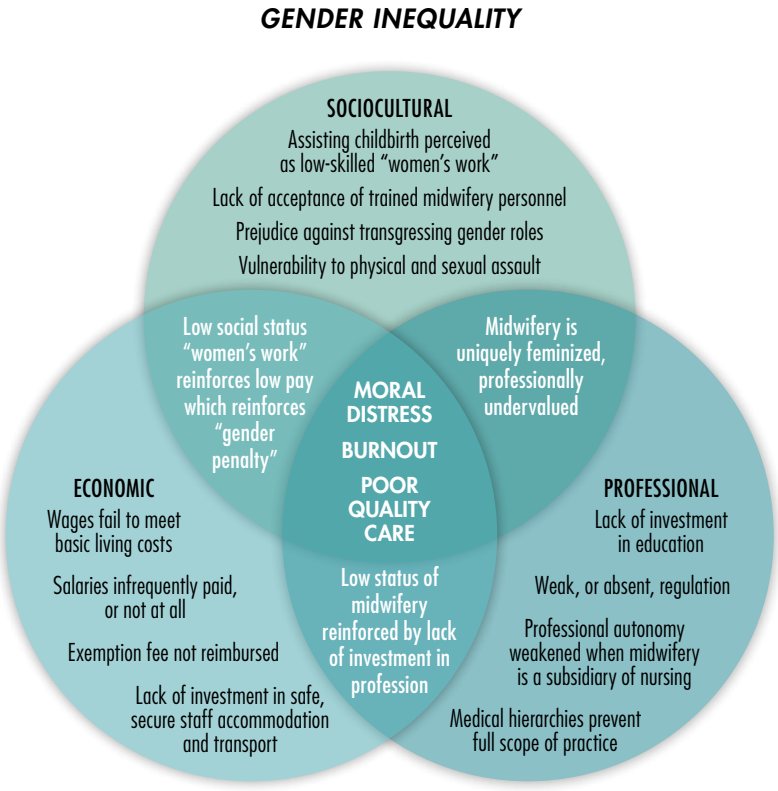


2.8.5 Barriers to education experienced by midwifery personnel

A systematic mapping of barriers to quality midwifery care found significant sociocultural, economic and professional barriers experienced by midwifery care providers (Fig. 7) (17). These barriers must be acknowledged and addressed to transform the quality of education and provision of quality care (17). The barriers mitigate against women's rights, education and employment.

In a predominantly female profession, deeply held sociocultural views around the role of women in the workplace, combined with beliefs that childbirth is low-skilled "women's work" can lead to a lack of acceptance of midwifery as a profession, and of women being educated and trained as midwives (17).

Fig. 7. Analytical framework: barriers to the provision of quality of care by midwifery personnel



Source: Reproduced from Filby et al. *PLoS ONE* (17).

Wages are often lower than for other professionals with a similar level of responsibility (the "gender penalty") and salary payments are all too often delayed and insufficient to meet even basic living costs (17).

The most significant finding was that the low sociocultural and economic status attributed to midwifery care resulted in lack of investment in education (17). Lack of education is disempowering, reducing opportunities for career progression and leadership. This is combined with limited professional autonomy (although when alone on night duty, or working in remote areas, midwives will have full responsibility for all care).

Additionally, institutional hierarchies of power inhibit midwives from being able to practise to their full ability, or from accessing further education to increase their knowledge and leadership skills. All these factors overlap and reinforce each other, leading to burn-out among staff, and poor quality of care for women and newborns.

These barriers were all found to be based on gender inequality, requiring those who are strengthening midwifery education to take gender transformative action. These barriers are not limited to low-resource countries, or even to countries without professional midwifery. These findings were confirmed, and expanded upon, by 2470 midwifery personnel in a global survey published in the report *Midwives Voices, Midwives Realities* (24).

2.8.6 The evidence gap

Underlying all the above issues is an evidence gap on the best ways to provide quality midwifery education (14), which reflects important research gaps on quality midwifery care more broadly, especially in LMICs (63). To give one example: whereas 109 trials were identified in a review on the impact of CHWs on maternal, newborn, child and adolescent health in LMICs, not one was identified on the impact of midwives educated to international standards. This contrasts with 15 trials on midwife-led care identified in high-income settings (8).

Measuring the costs of providing maternal and newborn care, including the costs underpinning education, is challenging and complex. Evidence on costs to date is predominantly from studies in high-income countries, and there is an urgent need to examine the economics of maternal and newborn care in LMICs.

Education, opportunities and resources must be available for midwives themselves to become involved and to lead research studies, to ensure that the right research questions are addressed, and that findings are implemented (63).

Much of the research that has informed maternal and newborn health and education has been conducted by interdisciplinary teams. It is notable that many of the recent studies that have transformed the knowledge base on maternal and newborn health in general, and in midwifery and midwifery education in particular, have been led by midwives with a range of research expertise, or have involved midwives as key members of the interdisciplinary team (1, 2, 7, 8, 12, 56, 64).

The *Lancet Series on Optimising caesarean section use* raises the need for more research. "Approaches such as labour companionship and midwife-led care have been associated with higher proportions of physiological births, safer outcomes, and lower health care costs relative to control groups without these interventions, and with positive maternal experiences, in high-income countries. Such approaches need to be assessed in middle- and low-income countries" (30). Urgent action is needed to address this (Box 10) (65).

2.9 Why investment in midwifery education is needed now

2.9.1 A startling lack of investment

Although the evidence is clear on the impact of midwifery education and care on reducing maternal and newborn mortality and morbidity, there is a "startling lack of investment" in midwifery education according to recent research (14, 57). This finding acknowledges the efforts to improve quality education that have been made by many partners under the leadership of ICM, as well as by FIGO and the International Pediatric Association (IPA), and through UN agencies, donors, foundations and major international and national NGOs. Much of the work to date has focused specifically on curriculum development, in-service training and, more recently, the potential for mHealth and e-learning opportunities.

Only 20 of 73 LMICs surveyed in 2017 were found to have an online policy on midwifery skills education, and this was often limited to a curriculum outline (57). All online policies were focused on pre-service training with an absence of any focus on in-service skills. Key stakeholder interviews with development partners revealed significant variations in the models of education being implemented, indicating a global lack of strategic alignment on best practice (57).

There is also little evidence of programme level monitoring and evaluation of midwifery education. There are only a small number of studies in LMICs of pre- and in-service education, almost all of low quality (14). This indicates a longstanding lack of investment in midwifery education internationally and a lack of capacity in monitoring and evaluation including measuring the costs and outcomes of midwifery education.

The 2016 High-Level Commission on Health Employment and Economic Growth final report to WHO, developed in partnership with the International Labour Organization and the Organisation for Economic Co-operation and Development, recommends that radical reforms are needed in the way the health workforce is allowed to acquire the right skills (22).

Box 10. The need for new research: asking different questions to inform quality care and education

An analysis conducted as part of the *Lancet Series on Midwifery* identified important evidence gaps, especially in relation to the preventive and supportive care that international-standard midwives can provide (63). A global consultation involving over 250 stakeholders identified important new research priorities (63). It showed that different questions need to be asked and new research is needed to shift the current emphasis from a focus on treatment of pathology to informing the provision of skilled care for all (2).

An alliance of global stakeholders has been formed as a result. Known as the QMNC Research Alliance it includes academics, researchers, clinicians, policy-makers and advocates. The purpose is to improve and expand the knowledge base to support the "survive, thrive and transform" agenda and other agendas that address the quality, equity and dignity of maternal and newborn health care.

The alliance has a mission to promote sustainable, context-specific, high-quality care and research to promote and support optimal physical, psychological and social well-being, survival and health for women, newborn infants, and families, in both the short and longer-term. This includes striving for equitable quality health outcomes and the empowerment of midwives to fulfil this mission.

Source: QMNC Research Alliance.

This report also found that effective investments in the health workforce could generate enormous improvements in health, well-being and human security, as well as decent jobs and inclusive economic growth (22).

The evidence presented does not support a business-as-usual approach but notes the opportunities to be realized depend upon "radical reform". This includes putting gender equality and women's empowerment at the centre; transforming the education of health professionals; investing in rural training to reach the underserved; reappraising the contribution to be made by nurses, midwives, community-based health workers and other underutilized groups within the health and non-health workforce.

The report also recommends paying greater attention to young people and their education needs to prepare them for decent jobs in the health sector; and considering more deeply the part to be played by technical and vocational education and training. Radical reform will also require a coordinated and comprehensive effort from health, education, finance, labour and foreign affairs sectors of government, together with civil society, the public and private sectors, trade unions and associations, institutions and academia.

Midwives and women are demanding better midwifery education and better quality of care. Multiple stakeholders have gathered over the past two years to share and discuss the evidence and their experience. The next section of this report highlights the findings from these consultations and leads us to an action plan for the radical reforms needed.

3. Global voices for change: consultations on the future of quality midwifery education

Photo 7: Rethink midwifery education to keep the woman and her family at the centre of care.

As well as the evidence provided in section 2, this report builds on a series of joint global consultations held between 2016 and 2018 and convened by ICM, UNFPA and WHO (Box 11). The aim was to have a better understanding of what action needs to be taken to strengthen midwifery education and improve quality of care (Box 12). This section sets out the consensus reached, including innovative examples from the participants of progressive change already taking place (Boxes 13–23).

Participants in the seven consultations included: representatives from: government, UN agencies (ILO, UNFPA and UNICEF), NGOs, private sector foundations and organizations, academics and

researchers, WHO Collaborating Centres in Nursing and Midwifery, ICM and other professional associations including FIGO, IPA and the Council of International Neonatal Nurses (COINN), bilateral donors, regional and country colleagues from ICM, UNFPA and WHO, and last but not least, women's organizations, midwifery educators and practitioners.

The consultations were all structured around the following five guiding questions about midwifery education.

1. **What are the three hard-hitting strategic priorities?**
2. **What is different, what is radical thinking?**
3. **What will the impact be at country level, how will this be measured?**
4. **How will this be achieved?**
5. **How is this relevant to humanitarian emergencies, in conflict and natural disasters?**

The consultations used a range of interactive methodologies including presentations on the latest evidence, group work, panel discussions and focus group discussions.

Photo 8: Respectful care provided by midwife in Bangladesh, while the woman's companion of choice provides emotional support.

Box 11. Timeline: series of joint ICM-UNFPA-WHO consultations

- **Strengthening Quality Midwifery Education**
  University of Dundee, Scotland | July 2016
- **Strengthening Quality Midwifery Education for UHC 2030**
  WHO, Geneva, Switzerland | January 2018
- **Strengthening Quality Midwifery Education for UHC 2030**
  Green Templeton College, University of Oxford, England | April 2018
- **Strengthening Quality Midwifery Education for UHC 2030**
  James Cook University, University of Cairns, Australia | July 2018
- **ICM regional conference**
  Dubai, the United Arab Emirates | September 2018
- **ICM regional conference**
  Asuncion, Paraguay | October 2018
- **"Midwives voices, women's choices" consultation**
  New Delhi, India | December 2018

Box 12. Findings from global consultations on strengthening quality midwifery education

1. Three strategic priorities for strengthening quality midwifery education.

- **Every woman and newborn to be cared for by a midwife**, educated and trained to international standards and enabled to legally practise the full scope of midwifery. The title "midwife" should only be used for providers who are educated to international standards.
- **Midwifery leadership** to be positioned in high-level national policy, planning and budgeting processes to improve decision-making about investments for midwifery education to help achieve UHC.
- **Coordination and alignment between midwifery stakeholders** at global, regional and country levels to align education and training processes, knowledge, research, evidence-based materials, indicators and investment.

2. Innovations and radical thinking for strengthening quality midwifery education.

- **"Rethink" evidence-informed midwifery education and training** to focus on both clinical and theoretical competency, including a philosophy of respect and dignity for women and newborns, the prevention of unnecessary interventions and the strengthening of women's own abilities.
- **Engage women and communities in the development of midwifery education**, to prepare midwives to provide with cultural competence what women want and need to survive, thrive and transform.
- **Focus on faculty** to ensure that teaching achieves international standards, while ensuring educators also remain practitioners and can fully support midwives to provide their full scope of practice.

3. What will the impact be in countries and how will we measure it?

Midwives educated and trained to international standards will:

- **Lead on averting over 80% of all maternal deaths, stillbirths and neonatal deaths.**
- **Ensure universal access to quality of care** for all women and newborns with better quality provision by midwives and enhanced experience of care by women, including in conflict and humanitarian settings.
- **Develop a new programmatic tool with indicators used to measure, monitor and demonstrate progress** in health outcomes, rational use of resources and the economic value of midwifery.

4. How will we strengthen quality midwifery education?

- **Establishing national midwifery task forces** to bring a multi-stakeholder focus to midwifery education.
- **Review the current system of education and training** and base future education on research and evidence: what really works best for women and newborns, in which contexts?
- **Address sociocultural, economic and professional barriers** to quality midwifery education acknowledging the need to address social and institutional gender-based hierarchies of power.

5. How is this relevant to conflict and humanitarian settings?

- **Embed "emergency preparedness and response" within the curriculum.**
- **Position midwifery leadership in the national emergency cluster,** or wherever most appropriate.
- **Promote research into midwifery education** led by researchers who are midwives.

3.1 Three strategic priorities for strengthening quality midwifery education

Strategic priority (a): *Every woman and newborn to be cared for by a midwife, educated and trained to international standards and enabled legally to practise the full scope of midwifery. The professional title "midwife" should only be used for providers who are educated and regulated to international standards.*

The consultations demonstrated a striking global consensus on this strategic priority. While acknowledging this as aspirational in some contexts, because of limited or no midwifery capacity at present, the case studies in Box 14 below demonstrate it is possible, even in difficult conditions.

Participants based this priority on the evidence, and on examples showing how the introduction of educated, professional midwives has made a radical improvement in outcomes for women and their newborns.

Box 13. Bangladesh introduces a cadre of professional midwives educated to international standards

A new cadre of professional midwives is successfully meeting the needs of mothers, newborns and families in health facilities across Bangladesh.

Since 2010, UNFPA's Maternal Health Thematic Fund (MHTF) has supported the government in its pledge to train an additional 3000 midwives and double the share of births attended by a skilled health professional. In January 2013 Bangladesh

Concern was raised that some providers are being referred to as midwives, although they are neither educated nor regulated to international standards. This lack of clarity on the provider's title was seen to cause confusion among women and families seeking quality care, as well as among health professionals working in an interdisciplinary team.

Box 14. Sierra Leone keeps midwifery education on track

Despite experiencing the devastation of civil war and the Ebola outbreak, Sierra Leone continues to focus on educating midwives to international standards:

- the number of midwifery educational institutions has increased from two to three, and the number of midwives has doubled to over 600 in 2018;
- the National Nursing and Midwifery Strategic Plan 2019–2023 includes establishment of the first direct-entry midwifery programme; this means midwives no longer need to train first as nurses before becoming a midwife;
- the midwifery schools have established a National Midwifery Education Institutions Committee aiming to pursue continuous improvement in midwifery education;
- the Nurses and Midwives Board has assessed all midwifery schools against international and national standards: temporary accreditation has been granted.

Source: WHO Sierra Leone.

launched a three-year, direct-entry diploma midwifery education programme. In October 2018, 1150 new professional midwives were deployed at local level.

UNFPA has resourced over 38 midwifery educational institutions across Bangladesh with teaching and learning aids; helped to develop a national curriculum and supported faculty training; this included further study via an onsite and Internet-based Masters programme with technical support from Dalarna University, Sweden. To strengthen clinical skills, UNFPA has sponsored over 1777 midwifery graduates on internships at 110 subdistrict hospitals.

The MHTF has assisted with the development of midwifery policies and regulations, including licensing exam and registration guidelines, a code of ethics and standard operating procedures for midwifery services. The Bangladesh Nursing and Midwifery Act was approved by Parliament and launched in 2016.

Bangladesh regularly experiences humanitarian crises including devastating cyclones, flooding and a major refugee influx in 2017. Midwives play a key role in the response working with NGOs in and around refugee camps and remote coastal areas helping the most vulnerable women and children.

Source: UNFPA.

Strategic priority (b): *Midwifery leadership to be positioned in high-level national policy, planning and budgeting processes to improve decision-making about investments for midwifery education to help achieve UHC.*

This strategic priority reflects the consensus of participants, and the evidence, that a major barrier to improving quality of care is the absence of midwifery leadership in global, national, regional and local level decision-making, on investing in sexual, reproductive, maternal and newborn health, as well as in research.

Box 15. Reforms in the State of Odisha, India

In the Indian State of Odisha the government took a holistic approach to reform, addressing policy, management structure, staff shortages and low pay. A state-level nursing directorate has been created (India has nurse-midwives) and a director of nursing appointed. As a result, nurse-midwives are represented for the first time at senior management level and their perspectives are contributing to further development of pre-service and in-service education and training.

Source: Options Consultancy Limited.

Box 16. England and Kyrgyzstan announce first government chief midwifery officers (GCMOs)

In 2017, by order of the ministry of health, the first chief midwife of Kyrgyzstan was appointed.

Source: ICM

In 2019 the National Health Service for England (NHS England) appointed its first chief midwifery officer; up to this point one single post covered both nursing and midwifery.

This is 117 years after the Central Midwives Board (CMB) for England and Wales was established and legal regulation for midwives introduced. This meant that a woman could not call herself a midwife, or practise as a midwife, unless she was certified by the CMB.

Source: NHS England.

Strategic priority (c): *Coordination and alignment between midwifery stakeholders at global, regional and country levels to align education and training processes, knowledge, research, evidence-based materials, indicators and investment.*

Participants highlighted the urgent need for partners to align education and training processes, knowledge, research, evidence-based education and training materials, indicators and investment. These partners include:

- government departments, including ministries of health, education and finance;
- international and national health care professional associations (HCPAs), especially between COINN, FIGO, ICM, IPA and national regulatory bodies;
- UN implementing partners, including ILO, UNFPA, UNICEF and WHO, UN Women and The World Bank to provide a "one-UN" approach to supporting governments and other stakeholders;
- international NGOs and their partners;
- public and private sectors;
- educational institutions for midwifery, nursing, medicine and allied health professions.

Box 17. Governance mechanisms align multiple stakeholders

In 2018 India established the country's first government-led national midwifery task force. This brought together key stakeholders and enabled midwives, in collaboration with others, to play a key role in developing national policy on the introduction of a cadre of midwives educated to international standards. The task force provided critical inputs to the Government of India's first *Guidelines on Midwifery Services in India 2018*. This was launched in December 2018. Subgroups have been established to address specific topics such as revising the curriculum to international standards.

Source: GCNMO, India.

Photo 9: Mother and baby together, with baby kept warm, dry and safe with mother.

Box 18. Council of International Neonatal Nurses (COINN) established

COINN works collaboratively alongside midwives, nurses and other health workers to improve the quality of care for small and sick newborns. The focus is on education and training for the stabilization and care of specialized neonatal conditions, and the promotion of breastfeeding and kangaroo mother care, where the baby is kept skin-to-skin with the mother to provide warmth and protection.

Source: COINN.

3.2 Innovations and radical thinking

Participants questioned how midwifery education is currently provided and proposed that the evidence presented on the "startling lack of investment" reported in presentations, requires us to take an innovative, radically new look at how to educate and train midwives. Suggestions included:

(a) "Rethink" evidence-informed midwifery education and training.

- **Reorganize midwifery education based on the needs of women and their newborns,** in the places where they most need it including community and facility-based care. This includes adapting education to meet specific health needs: for instance, high levels of female genital mutilation (FGM); communicable diseases such as HIV/AIDS, tuberculosis (TB) and malaria; or noncommunicable diseases including diabetes and obesity in pregnancy.
- **Train in teams and work in teams:** education and learning in interprofessional teams helps to enable respectful care as well as respect and good working practice between providers. It also prevents unnecessary interventions.

Box 19. Examples of innovation and radical thinking in midwifery education

The Women for Health programme in Northern Nigeria focuses on empowering young women from rural areas to become health workers.

- In six states and 25 educational institutions, young women from rural areas are accessing tertiary education to become nurses and midwives through a foundation year course. On successful completion of the foundation year, students can apply to the educational institutions for further study.
- Community dialogue supports social change needed to empower young women to access tertiary education and work outside the home.
- Communities nominate and support young women who have completed secondary education.
- Gender-related barriers are addressed in educational institutions with secure, family-friendly accommodation, crèches for babies and a voice for the students.
- The Nursing and Midwifery Council of Nigeria accredits educational institutions, increasing the number of student places, and has strengthened the curriculum.
- State governments are now investing in education and employing midwives back in their own communities.
- A programme extension in Borno State in 2018 includes the humanitarian setting working with displaced communities and addressing trauma among health-worker trainees and community members.

Source: Women for Health (W4H), DAI Global Health.

AMREF (east Africa) is using technology to bridge the gap in access to midwifery education.

- AMREF e-learning midwifery courses are used throughout east Africa allowing staff to stay and learn in their facility.
- A work–study programme has the same benefits for students who can stay in their communities; it motivates new learners and enables lifelong learning for others.
- In Sudan, AMREF has developed family-centres to encourage women to learn while caring for their children.
- These flexible courses are also available for private sector facilities.

Source: AMREF.

- **Harmonize minimum standards of care** for midwives, but also for all those providing midwifery care.
- **Create flexible pathways for midwifery education and training** to international standards, including work-based learning and apprenticeships (bridging courses) to empower young women, and men, to become health workers.
- **Enable remote and community-based education** offering bridging courses, close to service-delivery points so that midwives can learn while remaining safe, respected and with their families in their own communities.
- **Make e-learning more available** to increase access to information.
- **Listen to students:** introduce 360 evaluation through feedback on educators' performance by students to support continuous improvement.

(b) Engage women and communities in the development of midwifery education.

- **Engage with women and communities** to help develop midwifery education so that it is based on their rights and their needs, and to make sure their voices can be heard so that education programmes are designed to be relevant and appropriate.
- **Engage with existing community-level providers of care, including traditional birth attendants (TBAs)** to ensure mutual respect, strengthened collaboration at community levels and increased positive choices made by women in care seeking.

Box 20. Traditional birth attendants in Hidalgo State, Mexico

- The TBA in rural Mexico plays a critical role as the connection between home and health facility. A register of TBAs is kept by national and federal governments to encourage and monitor the full participation of TBAs in the care of women and their newborns.
- Newly-graduated midwives are assigned to health units where they develop links with the TBA, helping them to get to know each other, to develop trust, and enabling the TBA to become more comfortable with referral of women and newborns to the midwives at the facilities.
- Traditionally, the mother-in-law and husband decide whether, and how, the woman will reach a facility, so the TBAs have refined their roles to work with families and help them make positive choices.

Source: Ministry of Health, Mexico.

Photo 10: Newly trained skilled birth attendants are committed to staying in their remote communities in Mexico to work at birthing centres.

- **Advocate with and for women and communities** to promote culturally-appropriate, respectful care and empower women to avoid the over-medicalization of birth.
- **Establish midwifery education-specific improvement committees,** involving educators, students, women and communities.
- **Incentivize respectful care;** disincentivize unnecessary interventions from day one of midwifery education.

Photo 11: Educating midwives at the School of Midwifery in Makeni, Sierra Leone, is enabling women to access quality midwifery care in rural health centres.

Box 21. Engaging women in advocacy for midwifery education

Advocacy by women and midwives in a public district hospital in Telangana State, India, resulted in an end to elective caesarean sections for first-time mothers (caesarean section rates were around 65–70%).

Source: Fernandez Hospital, Telangana.

Women and midwives mapped out together what kind of care they wanted at the "Midwives voices, women's choices" event that preceded the Global Partners Forum in New Delhi in 2018. Women wanted respectful care close to their homes, to prevent having to travel long distances to large institutions where they described their chances of costly unnecessary interventions as high.

Midwives wanted better education and support to provide respectful care close to where women live, and to prevent unnecessary travel and intervention costs. Midwives also demanded a supportive, enabling environment including legal protection based on an agreed scope of work to enable autonomous practice.

Source: Society of Midwives, India (SOMI).

(c) Strengthen education faculty to international standards.

Participants highlighted an urgent need to focus on the capacity of the teaching faculty. They reported experiences that showed that because of a lack of investment, many educators struggle to maintain their own skills to teach evidence-informed midwifery or to teach others. The following was proposed:

- **Assess the skills of educators by adapting the WHO Midwifery educator core competencies tool (27).**
- **Ensure educators maintain clinical practice and clinical teaching alongside teaching theory,** through a practise-teach-practise cycle that will also help educators to remain as active practitioners.
- **Combine theory, simulation and clinical practice,** moving away from a separation of theoretical and clinical teaching.
- **Include mentoring in pre-service and in-service education** to deliver education that provides the midwife with confidence to provide the full scope of midwifery care.

3.3 What will the impact be in countries and how will we measure it?

The consultations identified a notable lack of evidence around monitoring and evaluation of midwifery education at programme, subnational or national levels.

Participants described existing tools to measure competencies, such as the objective structured clinical examinations (OSCEs), as well as common programme indicators such as the number of midwives trained. However, these output measures are not always explicitly linked to changes in processes of care or health impact.

This gap in monitoring and evaluation was recognized by participants. There was interest in convening experts with relevant expertise in midwifery, monitoring and evaluation, quality of care and cost–effectiveness, to guide development of a standardized monitoring and evaluation framework. This standard framework would allow common measures to track progress, improve programmes and provide data for advocacy.

3.4 How will we strengthen midwifery education and training?

Participants in all consultations shared wide-ranging examples of how midwifery education could be strengthened, based on evidence and experiences. All agreed that the starting point depends on what progress has already been made.

The following is a brief summary of suggestions:

- Strengthen leadership, especially considering the GCNMO.
- Establish governance mechanisms that align stakeholders to develop consensus on a national plan, embedded within the national workforce/human resources strategy.
- Carry out research to develop the evidence and a situation analysis on midwifery education.
- Review what policies exist, find out if they are geared to international standards of education and practice. If not, develop flexible education programmes that are appropriate to country context.

Box 22. How Canada transformed its midwifery education and practice

The practice of midwifery in Canada was unregulated until the 1990s when enabling legislation led to direct-entry university-based midwifery education.

- The driver for change was public demand for greater choice and access to midwives and home birth; all changes seen as increasing the quality of care. Women were strategic advocates; champions within government in both health and education moved the debate forward.
- Autonomous community-based midwifery practice followed.
- The Provincial Government of Ontario was the first to act; over a period of 25 years all but one province has followed.
- Midwifery in Canada now has a common philosophy of practice and common approach to teaching and learning with an emphasis on evidence-informed decision-making, cultural competence and social justice, including provision of culturally-safe midwifery care for indigenous families.
- Seven university programmes have highly-qualified midwifery faculty with respected researchers who are contributing to the evidence about the effectiveness of midwifery care, including reduced rates of interventions and safe outcomes of home birth.

Source: Presentation at University of Oxford consultation, England.

- Gather the data. What skills do educators and providers already have; and assess the state of existing educational institutions.
- Acknowledge and address sociocultural, economic, professional and gender-related barriers to midwifery education.
- Engage women and communities in the development of midwifery education so that care is provided to meet their needs, including in times of health emergencies.
- Strengthen faculty, upgrade educational institutions, update the curriculum and use innovative teaching methods.
- Improve monitoring and evaluation.
- Include preparation and response to humanitarian emergencies at every stage.

3.5 How is this relevant to conflict and humanitarian settings?

The consultations, which included participants from countries experiencing conflict and health emergencies, highlighted a lack of education for midwives about disaster preparedness, response and rehabilitation. There was a consensus that these issues should be included in all curricula (pre- and in-service), including how to identify and prioritize care for the most vulnerable women and newborns. Participants suggested that students should be taught care for women and newborns in humanitarian settings through simulation of such situations.

There is a dearth of evidence on the outcomes of midwifery education and care in these uniquely difficult circumstances, and consensus was reached on the urgent need for research in this area.

Photo 12: Simulation to teach emergency newborn skills in resuscitation in Afghanistan

Participants lacked experience, and there is little evidence (12), of the engagement of midwifery leadership in national emergency/humanitarian response plans, or of midwives being embedded in emergency medical teams. Participants recommended a review of existing policy and strategies to see if midwifery is part of emergency response, and that midwifery leadership should be positioned in the national emergency response team, or wherever is most appropriate.

The participants suggested that refugees and migrants who have midwifery skills should be identified and, where possible, given the additional training needed to be licensed to practise in the country where they are settling.

The important work carried out in the seven global consultations has provided a wealth of evidence and knowledge from a wide range of stakeholders with first-hand experience of the many aspects of midwifery education. The consensus reached has been invaluable in formulating the seven-step action plan to guide the transformation of midwifery education.

Box 23. The Operational Refugee and Migrant Maternal Approach (ORAMMA), Europe

ORAMMA is a European cross-border project set up to help pregnant refugees and migrant women, which aims to improve maternal and newborn outcomes. ORAMMA developed an operational and strategic approach to woman-centred, community-oriented, gender-sensitive, interdisciplinary and compassionate care.

The project feasibility study had three phases: evidence synthesis and needs' assessment, tool and training material development, and community enablement through locally-recruited women known as maternal peer supporters (MPSs).

The ORAMMA project team provided care to women who were victims of trafficking, rape and who were suffering from acute or chronic medical conditions. The experiences of midwives and other professionals helped to inform recommendations on communication and cultural awareness. MPSs played a critical role in supporting women and their families, providing public health messages and advocating for rights to equitable quality care.

Training tools are available online (66)

Source: ORAMMA Project Consortium.

Photo 13: Midwives in Sierra Leone send a positive message in a country recovering from the impact of civil war and Ebola.

4. Action plan to strengthen quality midwifery education

Photo 14: The United Republic of Tanzania is taking action, including by training hospital cleaners to improve hygiene in health care facilities.

4.1 Introduction

This section sets out a seven-step **action plan to strengthen quality midwifery education**. Each step has been informed by the evidence and global consultations presented in this report. The action plan can be used to develop and/or strengthen a national midwifery education plan, embedded within the national human resources for health plan. Women and newborns are at the centre of all actions.

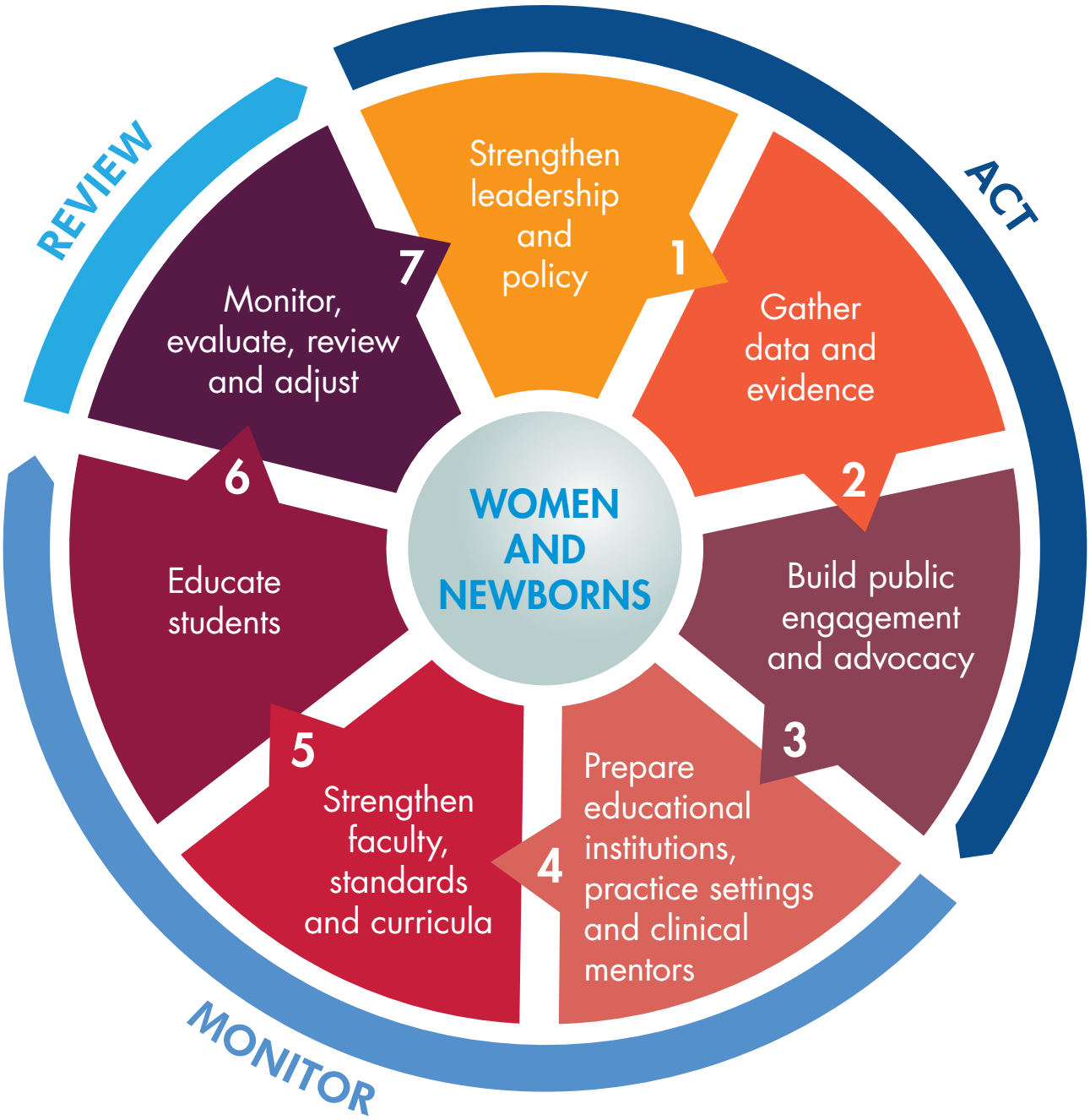
The global consultations highlighted that educating and training midwives to international standards is the priority to improve outcomes for women and newborns. This action plan recognizes the wide variation in midwifery education provided across many countries and acknowledges that whereas some countries can rapidly move to a high-quality cadre of midwives, other countries will have more investment to make before this strategic priority can be reached.

The seven steps act as a guide to help build high-quality, sustainable, pre-service and in-service midwifery education and training systematically. Rather than focusing primarily on the curriculum, the action plan encompasses all the activities needed and presents them in sequence.

The action plan supports implementation of the *Global Strategy*'s Accountability Framework, moving through a cycle of act–monitor–review.

This works as a quality improvement cycle that is continuously updated to review progress, identify barriers, make changes and improve quality of care (Fig. 8). At each step, monitoring and evaluation of change takes place. In the seventh step, typically taking place annually, a regular time-bound evaluation is made of all progress, allowing for adjustments before continuing with implementation and monitoring.

Fig. 8. Seven-step action plan to strengthen quality midwifery education



Countries, supported through alignment of partnerships with key stakeholders, can use and adapt this seven-step action plan to guide the development of their own costed and budgeted national plans for strengthening quality midwifery education. As such, the action plan is a "live" document, ready for further consultation, as well as implementation, monitoring and updating as needed.

The action plan does not stand alone. It must be linked to progress on regulation and deployment, as well as building capacity of the national midwifery association, to make a difference to the quality of care provided.

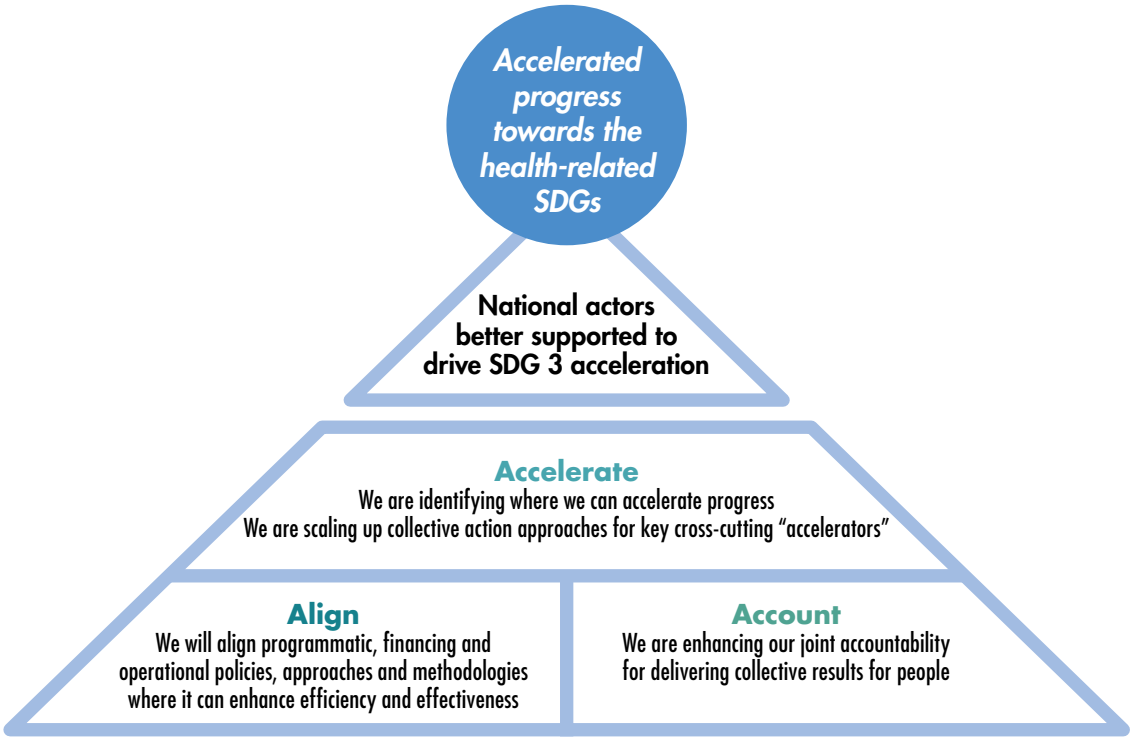
The *Global Action Plan* for healthy lives and well being for all (2018-30) commits leading stakeholders to align, accelerate and account for our actions together to speed up progress (Fig. 9). As midwifery education is critical to achieving further reductions in mortality and morbidity, and the health-related SDGs, the seven-step action plan is organized to support this agenda (Fig. 10).

The evidence and consultations indicated that globally there is an urgent need to develop capacity to monitor and evaluate the impact of midwifery education. A programmatic tool to guide design, implementation, monitoring and evaluation of the seven-step action plan is provided in this report. Further support is planned to help build more capacity to use this tool at local level.

4.2 Aligning for action

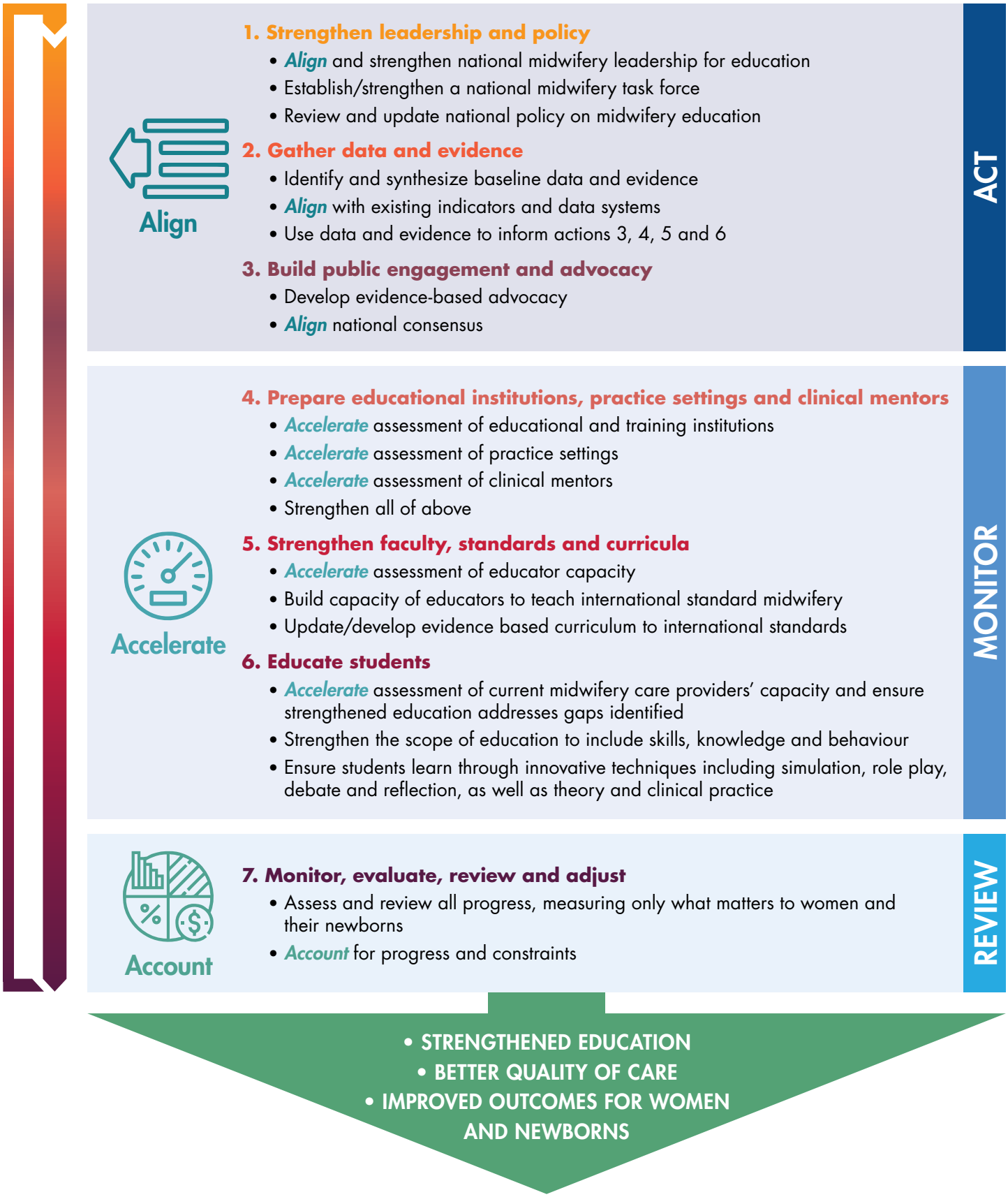
Steps 1–3 aim to align national action and create a positive environment that will help make better midwifery education and training successful. These first three steps create the important foundations of leadership and policy, data and evidence, all supported by consensus building and advocacy for good-quality care.

Fig. 9. Global Action Plan for healthy lives and well-being for all: align, accelerate, account



Source: *Towards a global action plan for healthy lives and well-being for all (2018–30)* (20).

Fig. 10. Seven-step action plan supports the global agenda



STEP 1. Strengthen leadership and policy

1.1 Align and strengthen national leadership on midwifery education

In many countries the official responsible will be the government chief nursing and midwifery officer (GCNMO), or a separate chief midwifery officer (GCMO).

1.2 Establish or strengthen a national midwifery task force

- Develop a national midwifery education sub-task group, led by the GCNMO, to bring key stakeholders together to ensure ownership and that experiences are maximized. See Box 24 for key members of the task force. Subnational equivalents should be established and aligned with the national agenda.
- Ensure midwifery leaders have an effective voice at the table to aid decision-making in policy, planning, budgeting and evidence-informed advocacy for investment.
- Develop pathways for career progression to enable all midwives to have choices in career progression in management, research and clinical practice.

1.3 Review and update national policy on midwifery education

- Enable midwives to practise legally, effectively and safely to international standards adapted to the national context.
- Review or establish effective professional regulation that sets and monitors national standards, or adapts international standards to be used in the national context, enabling midwives to practise legally and to take action on substandard practice.
- Review or establish national standards for pre-service midwifery education, informed by the latest evidence (Action 2. Align), which will in turn support development (or updating) of context-specific curricula.
- Review and develop budgets within national health, workforce and education plans for implementing and monitoring the seven-step action plan.
- Identify entry points for the GCNMO's engagement in national coordination mechanisms for humanitarian and fragile settings.

The GCNMO can ensure that:

- national emergency/humanitarian response plans include educating midwives;
- competencies for midwifery should be included in the UNFPA *Minimum Initial Service Package* for humanitarian and fragile settings (67);
- national midwifery standards and curriculum include disaster preparedness, relief and post disaster rehabilitation;
- midwives are embedded in emergency medical teams;
- midwives, and other health professionals, are kept safe and protected from harm when working in humanitarian and fragile settings.

Box 24. Key members of the national midwifery task force

Key members should include representatives from:

- the government: the GCNMO/GCMO;
- the national midwifery association and the national nursing association;
- related professional organizations such as those for nurses, obstetricians and paediatricians, and others;
- the professional regulator;
- UNFPA, UNICEF, WHO and other United Nations agencies, as appropriate;
- national and international NGOs.

A sub-task group for midwifery education should include members who are experts in teaching as well as planning, financing, monitoring and evaluation.

Subnational task forces should be established and aligned with the national agenda.

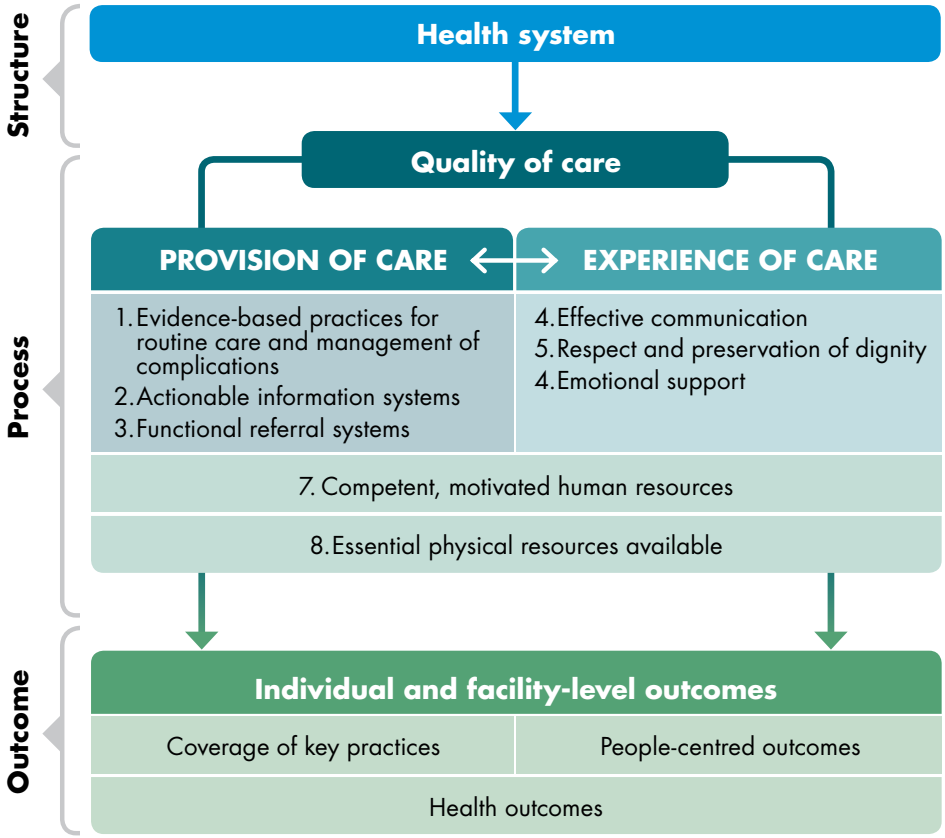
Source: WHO Strengthening midwifery toolkit (68).

STEP 2. Gather data and evidence

The national midwifery education plan must be embedded within the national health plan (within the human resources or education plan) and based on an assessment of the current data and evidence. It is important to know what is already in place, what is working, what women, newborns and families need, and what existing legislation allows.

The data and evidence collected as part of this action step should be updated and used on a continuous basis to inform actions in the following steps 3–7. The *WHO Standards for improving quality of maternal and newborn care in health facilities* can be used to guide and monitor this process (Fig. 11). The eight standards address both the provision of care and women's experience of care.

Fig. 11. WHO Conceptual framework for quality of care in maternal, newborn and child-health services



Source: WHO Standards for improving quality of maternal and newborn care in health facilities (69).

STEP 2. Gather data and evidence

The key issues are summarized below, with further details in Annex 3 (Conducting a situational analysis of midwifery education). The questions suggested should be adapted to the national context.

2.1 Identify and synthesize baseline data and evidence

- Do standards of care exist, and are they based on the latest evidence?
- Do standards include ensuring a positive experience of care for the woman and newborn?
- Do standards include care for women and families bereaved through stillbirth or neonatal death?
- Who provides education, and do they meet the standards of WHO's *Midwifery educator core competencies*?
- Are midwifery educators able to provide a broad range of adult learning methodologies, including simulation, e-learning, reflection, role play and discussion?
- Is there appropriate regulation, accreditation and policy to support midwifery education and practice?
- Do midwifery educators and students have the materials they need to teach, learn and work effectively?
- Are there close links between educational institutions and practice settings?
- What are the gendered sociocultural, economic and professional barriers to quality midwifery education and care, and are they being addressed?
- Are the professional associations proactively collaborating to support midwifery education?
- Are essential physical infrastructure and resources in place for safe learning, and is the environment suitable for midwifery educators and students to teach, learn and work effectively?
- Are there adequate water, sanitation and hygiene (WASH) facilities in educational institutions and clinical settings for midwifery educators, students, women, newborns and families (see Fig. 12).

2.2 Align with existing indicators and data systems

- Existing country indicators for maternal and newborn health and well-being should be reviewed, analysed for progress and challenges, and priorities for action identified.
- Conduct an economic analysis of the current model of midwifery education, to include consideration of short-, medium- and long-term costs and the impact on outcomes for women and newborns.
- Gather data and evidence on midwifery education to improve the humanitarian response in emergencies. This helps to clarify whether the national midwifery standards and curriculum need to be updated.

2.3 Use data and evidence to inform actions 3, 4, 5 and 6.

Fig. 12. WASH in health care facilities: global indicators

1. A basic drinking water service
   Water is available from an improved source located on premises.

2. A basic sanitation service
   Improved sanitation facilities are usable with at least one toilet dedicated for staff, at least one sex-separated toilet with menstrual hygiene facilities, and at least one toilet accessible for people with limited mobility.

3. Basic hand hygiene
   Functional hand hygiene facilities (with water and soap and/or alcohol-based hand rub) are available at points of care, and within 5 metres of toilets.

4. Basic health care waste management
   Waste is safely segregated into at least three bins and sharps and infectious waste are treated and disposed of safely.

5. Basic environmental cleaning
   Basic protocols for cleaning available, and staff with cleaning responsibilities have all received training.

WASH: water, sanitation and hygiene.

Source: Reproduced from *Core questions and indicators for monitoring WASH in health care facilities in the Sustainable Development Goals*. UNICEF and WHO (70).

Photo 15: Support and advice being given to a mother on how to care for her new baby.

STEP 3. Build public engagement and advocacy

Developing public understanding of the importance of midwifery education is essential to harness support. Engaging communities, women's groups and other concerned stakeholders through existing and new channels of communication, will help to build awareness, identify champions for midwifery education and a consensus on what needs to be done. It will also mean that women are more likely to have confidence and trust in the midwifery services provided.

STEP 3. Build public engagement and advocacy

3.1 Develop evidence-based advocacy

Participation of women, families and communities

The views and experiences of women, families and communities are essential. They should be involved right at the start of any advocacy initiative to ensure that plans for midwifery education will meet their needs. Ways to do this include:

- conducting national and local surveys of women's views and experiences;
- ensuring facilities conduct a regular audit of women's views and experiences;
- ensuring those planning midwifery education include women's voices in planning and monitoring.

Engaging parliamentarians and the media

Ensure that decision-makers and influencers are well informed about why midwifery education is important. This will help to build public support, including for new laws if required.

Evidence-based advocacy

Accurate, up-to-date data and evidence should be compiled and made widely available to the public, key advocates and the media.

3.2 *Align* advocacy messages, reach national consensus

Bring government and other partners in the national midwifery task force together with representatives of women, their families, parliamentarians and the media, to align messages, reach national consensus and have the greatest impact.

Photo 16: International Day of the Midwife in Malawi, WRA Malawi displaying their advocacy for respectful care to the Principal Secretary for Health and Director of Nursing and Midwifery Services.

4.3 Accelerating action

The next steps, 4–6, are intended to **accelerate** action. They are all about the learning and teaching environment and are closely linked. The steps have been separated out to ensure planning and action includes consideration of the three essential components – the institutions, the staff/faculty, and the students themselves. These steps should interrelate effectively so that staff and students are well supported both in educational and practice settings.

STEP 4. Prepare educational institutions, practice settings and clinical mentors

Educational institutions should be fit for purpose to enable effective learning and to have close links with practice settings. Combining theory and practice is essential so that students have a strong theoretical basis together with the skills and experience that prepares them well for the context in which they will be working.

STEP 4. Prepare educational institutions, practice settings and clinical mentors

Check that all components of the QMNC Framework (Annex 2) are included in all activities to improve educational institutions, practice settings and clinical mentors.

The QMNC Framework components should be evident in all curricula and understood and implemented in practice settings where students learn.

4.1. Accelerate assessment of education and training institutions

- Senior managers of educational institutions and practice settings should be fully informed and engaged in assessing and strengthening quality midwifery education.
- They should establish mechanisms to ensure that educational institutions and practice settings where students are learning meet the national standards set by the regulator (Action 1. Align).

4.2 Accelerate assessment of practice settings

4.3 Accelerate assessment of clinical mentors

4.4 Strengthen all the above

- This includes addressing gaps in research, data and evidence as highlighted in Action 2.
- Use the midwifery education situational analysis' (Annex 3) findings to review and update how educational institutions and practice settings are performing; do this on a regular basis.

STEP 5. Strengthen faculty, standards and curricula

Experienced, educated and well-supported midwifery educators, in both institutional and practice settings, should ensure their teaching is evidence-based and context-specific.

All curricula should be based on national standards, which will in turn be adapted from international standards (Action 1. Align).

STEP 5. Strengthen faculty, standards and curricula

5.1 Accelerate assessment of educator capacity

- Use the WHO *Midwifery educator core competencies assessment tool* (27).
- Assess midwifery educators in both institutional and practice settings.

5.2 Strengthen the capacity of educators

- Upskill existing midwifery educators and recruit new ones ensuring that all have the eight domains and 19 competencies set out in the *WHO Midwifery educator core competencies* tool.
- Educators should include midwifery faculty who teach in educational institutions, as well as clinical midwifery mentors who support students in practice settings. Ideally educators should work in both settings. All educators will need ongoing support and updating.

5.3 Review and update curricula to international standards

- Engage educators in both institutional and practice settings to develop the curriculum, ensuring that it meets national standards and reflects the local context in which students will learn, so that the needs of local women and newborns are met.

Photo 17: Simulation is an important methodology for training student midwives in the HoHoe Midwifery Training School, Ghana.

STEP 6. Educate students

The evidence, and the global consultations, indicated the need to "rethink" midwifery education to make it more responsive to the needs of women, newborns and families and more innovative and effective for students and educators. Educating students, including both pre-service and continuing professional development, should be informed by all the previous steps. This should in turn be monitored and evaluated. Education needs to include pre-service and in-service continuous professional development, with opportunities for ongoing academic study or increasing skills-based learning.

STEP 6. Educate students

"Rethinking" pre- and in-service education to ensure it is responsive to the needs of women, newborns and their families, as well as being innovative and effective for students, requires the following:

6.1 Accelerate assessment of provider capacity

- Using the national standards, assess those currently providing midwifery care to find out if the education provided has enabled this standard to be reached.

6.2 Strengthen skills and knowledge and behaviour

- Ensure that education and training is more than skills: that students have access to all the latest evidence to ensure their knowledge is up to date and enables evidence-informed decision-making. Also that their behaviour reflects respectful, dignified and rights-based approaches to care.
- Train in teams, work in teams: initiate collaborative teamwork by identifying parts of the curriculum (theory and practice) where student midwives, nurses and doctors will benefit from learning and practising together as a team.
- Create flexible pathways for education by creating opportunities for work-based learning, apprenticeships and bridging courses to empower young women and men from remote and rural areas, and from differing educational backgrounds, to reach international midwifery standards.
- Offer community-based education in remote areas, close to service-delivery points, enabling student midwives to be safe, respected and able to remain with their families.
- Ensure continuous professional development is built-in from the start for existing midwives and others in the interprofessional team; include students so that once qualified they can maintain international standards of care.

6.3 Use innovative technology

- Integrate theory and clinical practice to ensure that education and training include the full range of classroom-based theory, as well as supervised clinical placements in well-prepared practice settings, to gain all the clinical competencies required to achieve international standard level.
- Develop e-learning packages to increase access to education, especially for midwives in remote areas and fragile settings.
- Use other innovative technologies including film, mobile phone apps and simulation, especially for life-threatening events that happen less often but require an immediate response (for example, resuscitation or an eclamptic fit).

4.4 Accounting for action

STEP 7. Monitor, evaluate, review and adjust

Assess and review all plans and progress

Monitoring and evaluation is critical to assess progress and to adapt interventions and programmes as needed. Although monitoring will occur during all steps 1–6, this final step is where all the data and evidence come together, are reviewed together and adjustments made for future activities. This should take place regularly, typically each year, to provide an overview of annual progress, success factors and barriers encountered, and to account for the resources used.

It is essential to develop the monitoring plan at the same time as the programme plan, so that relevant information is collected throughout the process. The monitoring plan should include indicators but also information about how the data will be collected, by whom, how often and in what format.

Table 1 is a programmatic tool to facilitate implementation and monitoring of the seven-step action plan for midwifery education. This table includes illustrative measures for each of the seven steps; however, more work is needed to develop, test and implement a global results' framework.

Photo 18: Maternal and child health at the Wellbody Clinic, Sierra Leone.

Table 1. Programmatic tool to guide implementation of the seven-step action plan for midwifery education

Step	Objective	Activity (example)	Indicators of achievement (example)	Factors that may influence success (example)	Budget/cost
1	**Strengthen leadership and policy**	Establish a national midwifery task force	National midwifery task force established and active; policy revised; curriculum updated	Concerns from other health care professionals; constraints to leadership by the GCNMO	Estimate and track costs of this activity
2	**Gather data and evidence**	Situation analysis	Baseline data on educator skills available; review of standards of care completed	Difficult to access remote educational institutions	Estimate and track costs of this activity
3	**Build public engagement and advocacy**	Women's network for midwifery established; regular audits of women's experience carried out	Women and community voices included when midwifery education plan is being developed	Wide gender gap, very low status of women	Estimate and track costs of this activity
4	**Prepare educational institutions, practice settings and clinical mentors**	Review of infrastructure of main educational institutions; update education materials	WHO-UNICEF indicators for WASH in health care facilities achieved; updated education materials available	Improving WASH may be outside remit of ministry of health	Estimate and track costs of this activity
5	**Strengthen faculty, standards and curricula**	Continuing professional development (CPD) course provided for educators, based on needs identified in assessment of educators' knowledge, skills and behaviour; updating curricula to international standards	QMNC Framework components included in CPD of educators Curricula updated to international standards	Difficulties in identifying educators of international standard to upgrade national educators Resistance to change from some professions	Estimate and track costs of this activity
6	**Educate students (both pre- and in-service)**	Teaching skills, knowledge and behaviour in classroom and practice settings	Improved scores from baseline assessment, improved experience of care by women	Resistance to supervised clinical practice in some educational institutions	Estimate and track costs of this activity
7	**Monitor, evaluate, review and adjust**	Data collected and assessed against baseline	Improvement in X, Y, Z from baseline	Lack of monitoring and evaluation capacity	Estimate and track costs of this activity

GCNMO: government chief nursing and midwifery officer; QMNC: Quality Maternal and Newborn Care; UNICEF: United Nations Children's Fund; WASH: water, sanitation and hygiene; WHO: World Health Organization.

5. Making it happen: committing to action

Photo 19: Quality midwifery education and care in Indonesia engages parents in the care of their newborn.

Governments and multiple stakeholders are committed to action that will achieve the objectives of the *Global Strategy for Women's, Children's and Adolescents' Health 2016–2030 (GSWCAH)*. The global consultations that fed into this report have highlighted the demand for midwives to be educated to international standards, and the evidence is clear that this provides the best outcomes for women and their newborns.

Harnessing the power of partnership to implement the seven-step action plan for midwifery education will go a long way to aligning, accelerating and accounting for our collective action. Building on the recommendations in the GSWCAH, the following sets out the commitments required for positive change and gives examples of how this has already made a difference (Boxes 25–33).

Governments, parliamentarians, decision-makers and policy-makers at all levels will improve the quality of care provided to all women, newborns and their families everywhere by:

- Making quality midwifery education a political priority, including educating midwives to international standards, strengthening midwifery leadership and aligning partners, including in humanitarian and fragile settings.
- Funding and implementing quality midwifery education as a priority within national health and education plans.
- Embedding midwifery within the health system as part of the SDG 2030 pledge to "leave no one behind".
- Protecting women, adolescent girls, newborns and their families from the impact of catastrophic out-of-pocket expenditure arising from sexual, reproductive and newborn health needs; particularly costs associated with necessary life-saving interventions, and expensive – but unnecessary – interventions.
- Establishing national midwifery task forces, with leadership by the GCNMO or the GCMO where these exist, to ensure the meaningful participation of all stakeholders including: midwifery educators and practitioners; ICM; other health care professionals including nurses, obstetricians and paediatricians; professional associations (including for midwives, nurses, obstetricians and paediatricians); private sector educational institutions and facilities; academics and researchers; and others appropriate to local context.
- Supporting and listening to civil society, citizen's voice organizations and communities most affected by lack of access to quality midwifery care (in cities and rural areas) and responding to their demands, including in humanitarian and fragile settings.

Box 25. How PMNCH will support the seven-step action plan for midwifery education

The Partnership for Maternal, Newborn and Child Health (PMNCH) will:

- Disseminate and advocate for the action plan, particularly for parliamentarians and interregional organizations, academic, research and training institutes, and professional health care associations.
- Work with partners to ensure meaningful engagement of relevant professional health-care associations (including midwives) in national planning platforms and processes, to promote inclusion of the action plan including in humanitarian and fragile settings.
- Advocate for the involvement and protection of midwives and health workers in humanitarian and fragile settings.

Source: PMNCH.

- Creating the mechanisms for monitoring and evaluating results of investments into midwifery education and making them accessible; this should include accountability for resources and for rights to quality midwifery care.
- Updating and/or introducing legislation and policies, in line with human rights principles, that enable midwives to safely and legally provide the midwifery care that women and newborns need, including in humanitarian and fragile settings.
- Updating and/or introducing legislation and policies that ensure women, midwives and other female health workers do not experience gender-based or other discrimination in seeking, accessing or providing midwifery care.

The United Nations and other multilateral organizations at all levels and global health initiatives will:

- Increase efforts to mobilize resources at global, regional and country level to invest in midwifery education as a global good, including through innovative financing mechanisms.
- Provide technical assistance to countries, where requested, to support the development and costing of midwifery education plans within the national health plan, and support countries to implement such plans by working with a full range of stakeholders in a spirit of trust, accountability and integrity.
- Support and participate in systems that track progress on midwifery education and identify gaps, including in research, to strengthen action and accountability.

Box 26. How UNFPA, UNICEF and WHO can jointly support the seven-step action plan for midwifery education

The Network for Improving Quality of Care for Maternal, Newborn and Child Health (QoC Network) is a broad partnership of governments, partners and funding agencies working to ensure that every pregnant woman, newborn and child receives good-quality care with equity and dignity.

Guided by national quality strategies, activities include building the capabilities of the health workforce. Strengthening midwifery services is core to the network's vision and this is supported by UN partners.

- UNICEF is investing in three pillars of curriculum development to include newborn components; strengthening the capacity of midwifery associations; and strengthening regulatory bodies in Asia and sub-Saharan Africa. In Afghanistan UNICEF supported a community midwifery programme while in Ethiopia, Malawi, Mozambique and Somalia midwives are provided with clinical mentoring.
- UNFPA actively facilitates midwifery education including through support for policy changes, regulations and midwifery leadership. UNFPA has been strengthening the quality of pre- and in-service midwifery education through multi-media interactive e-learning on key obstetric emergencies in 25 countries. In Ethiopia, Rwanda and the United Republic of Tanzania, UNFPA has also piloted a mobile learning system using a projector and solar charger to build midwife capacities in remote rural areas.
- WHO continues to provide global evidence-based guidelines, standards and implementation tools for improving quality of care, and is leading a process with partners to develop a midwifery education toolkit for UHC. In India, for example, WHO is supporting the government in its work on evidence-informed policy and planning for the introduction of a new cadre of midwives educated and regulated to international standards.

UNFPA, UNICEF and WHO will continue to work in close partnership to ensure implementation of the seven-step action plan for strengthening midwifery education.

Source: UNFPA, UNICEF and WHO.

Bilateral development partners and philanthropic institutions will work with others to:

- Mobilize resources for midwifery education, including through innovative financing to complement domestic resources, and align these resources within the national health/ human resources plan.
- Deliver effective technical support for midwifery education where requested by governments and partners, enhancing local capacities to develop, finance, implement and monitor the seven-step action plan for midwifery education.
- Invest in innovation and research for midwifery education, including implementation research at global, national and local levels.
- Enhance cross-sector collaboration for midwifery education, recognizing midwifery as a complex intervention that requires integration across many sectors.

Communities will:

- Establish and/or encourage members to join local groups to demand quality midwifery care, through improved education.
- Advocate for better education to ensure women receive respectful, quality midwifery care.
- Advocate for issues they want midwives to address in their communities, so that these are included in the education and training curriculum. Examples include prevention of FGM and care during childbirth for women experiencing this and other forms of gender-based violence; increased access to family planning; support to mothers and women experiencing mental health disorders related to pregnancy, childbirth or abortion; as well as engaging men throughout pregnancy and childbirth, and nurturing care for newborns.
- Actively support positive changes to improve midwifery education, especially around cultural and social norms relating to professional women at work.
- Hold duty bearers and governments to account on the quality of midwifery education.

Box 27. How Sweden's development agency supports midwifery education

The Swedish government's international development cooperation agency, Sida, has a long history of supporting education and employment for midwives in LMICs, particularly in rural areas. This is in line with the agency's priorities to lower maternal and child mortality and strengthen sexual and reproductive health and rights.

As a result midwives in many countries have benefited from education and in-service training including those in Angola, Bangladesh, Ethiopia, Nicaragua, Somalia, South Sudan and Zambia.

Sweden has also helped to build a more complete academic environment that assures midwives´ progression at all levels, for example in Somalia, and Sida has also supported research and research capacity around sexual and reproductive health that is of great importance for LMICs.

Since 2005, 12 Swedish midwives have been seconded through the UN's Junior Professional Officer Programme to strengthen technical knowledge and capacity in low-income countries and UN agencies.

Source: Swedish International Development Cooperation Agency (Sida).

Box 28. The White Ribbon Alliance (WRA) "What women want" campaign

A campaign led by WRA India has resulted in over 150 000 women nationally demanding better quality of care; this included calls to educate midwifery providers about respectful maternity care.

Globally, this campaign has resulted in more than one million women demanding better quality of care for themselves and their newborns.

Source: White Ribbon Alliance (WRA).

Health care professional associations (HCPAs), midwifery associations, midwifery educators and practitioners, together with managers of educational institutions will:

- Advocate to strengthen and regulate midwifery education and training to international standards, as well as ensuring the deployment of midwives is culturally appropriate and family friendly. This will be done most effectively through a strong partnership between the HCPAs, especially between FIGO, ICM, the International Council of Nurses (ICN), IPA and their respective national associations.
- Advocate for strong interprofessional collaboration and teamwork, starting with the learning and teaching process and continuing throughout practice.
- Track and audit progress in midwifery education, using the seven-step action plan and monitoring and evaluation indicators suggested, and support the joint development of improved indicators to track progress and impact on outcomes for women and newborns.
- Assist national associations to disseminate and use WHO norms and standards, based on the latest evidence, to develop, regulate and monitor national standards of education and care.
- Support national associations to help women and their families to find ways to hold facilities to account for poor quality of care. This can be through local and culturally appropriate mechanisms, as in the example of Malawi (Box 31).

Box 29. International HCPAs to support action plan implementation

International HCPAs will work with their respective members to help build respectful and collegial relationships between midwives, obstetricians, paediatricans and nurses. Through better understanding of each other's scope of practice and where these intersect, health care professionals can ensure that women, newborns and their families can access and receive appropriate care across the childbirth continuum.

FIGO and ICM have taken the lead in this work through joint sessions at the FIGO conference (2018) and the Women Deliver conference (2019), where representatives debate and discuss how to ensure positive collegial relationships between midwives and obstetricians that support quality care for women and their newborns. Together FIGO and ICM are building a model for their in-country associations to encourage a focus on better understanding and respectful professional relationships.

As part of this collaborative working FIGO and ICM will work together with partners to take forward the action plan for strengthening quality midwifery education.

Source: FIGO and ICM.

Box 30. The Midwifery Society of Nepal is committed to strengthening quality midwifery education

The Government of Nepal has been committed to the improvement of maternal and newborn care since 1987, starting with the multi-partner multisectoral safe motherhood project.

Nepal initiated professional midwifery education in 2016, building the capacity of registered nurses at three universities. The first cadre of professional midwives educated to international standards will be ready to start work in 2020.

Civil society at all levels will:

- Demand that midwives are educated to international standards.
- Align to strengthen community capabilities to have knowledge of and implement the most appropriate and affordable care to be included in midwifery education.
- Ensure all communities have an equal voice in shaping high-quality midwifery education so that services meet all needs, including in health emergencies.
- Track progress in the quality of care women and newborns receive; and hold civil society and all other stakeholders accountable for commitments made.
- Support efforts to ensure there are data available to communities about the standards of midwifery education provided to those who care for them, including in marginalized areas and in humanitarian and fragile settings.
- Lobby governments to exempt essential drugs and health commodities needed by those providing midwifery education and care from taxation.

The Royal College of Midwives of the United Kingdom "twinned" with the Midwifery Society of Nepal from 2012–2015, building leadership capacity to advocate for midwifery education to international standards.

The Midwifery Society of Nepal is committed to improving quality midwifery education and strengthening regulation, as well as supporting all midwives in the country with the latest evidence.

Source: Midwifery Society of Nepal.

Box 31. Midwives and communities promoting respectful and dignified care in Malawi

The Association of Malawian Midwives is embarking on an initiative to promote dialogue between midwives and community leaders to improve both the demand and supply side of respectful and dignified maternity care.

Through this initiative midwives are reoriented to a human rights-based approach to maternity care, while community leaders, women and their families are familiarized with the concept of respectful care and reproductive health rights.

This approach is coupled with citizens' hearings where midwives and communities are given opportunities to express views on care received and what they expect in the future. Midwives and other health providers are also given the chance to talk about delivering respectful care and the challenges this can bring.

Promoting dialogue has helped to strengthen partnerships between the midwives and their clients, working together to protect the dignity of mothers while at the same time ensuring an enabling environment for the midwives to practise their skills.

Source: Association of Malawian Midwives.

Photo 20: The Ward Councillor of the area delivering his speech during the Community respectful care citizens' hearing at Malembo Health Centre, in Lilongwe, Malawi.

Academic and research institutions will:

- Advocate for targeted global and in-country research into midwifery education that is led by and/or includes midwives; and call for increased research and innovation budgets.
- Build the capacity of midwifery research globally and in countries by ensuring all midwifery education includes research as a core educator competency (in line with the *WHO Midwifery educator core competencies*) and where possible ensuring midwifery education at university level and building a foundation for postgraduate education.
- Generate, translate and disseminate evidence and best practice to shape effective and equity-oriented education policies and programmes.
- Strengthen networks of academics and researchers to promote knowledge exchange.

The business community at all levels will:

- Support government policies aimed at UHC that include strengthening midwifery education, including through improving WASH in educational institutions.
- Create an enabling environment for midwifery education by investing in educational institutions and universities that teach midwives to international standards, and support leadership opportunities for women health workers including midwives.
- Invest in corporate policies that give adequate and equal paid maternity and paternity leave for midwifery educators, students and providers.
- Develop educational products that specifically improve the skills of midwifery educators and providers, and develop business options to make these accessible in LMICs.

Box 32. Global midwifery research alliance identifies future priorities

The QMNC Research Alliance is taking forward three key topics based on global research priorities it has identified (*71*), to better inform the future direction of maternal and newborn care:

- examination and implementation of models of care that enhance both well-being and safety;
- investigating and optimizing physiological, psychological and social processes in pregnancy, childbirth and the postnatal period;
- development and validation of outcome measures that capture short- and longer-term well-being.

This work will make an important contribution towards informing the future development of midwifery education.

Box 33. Making a difference with private sector partnership

Laerdal Global Health was established in 2010 as a not-for-profit company to help reduce maternal and newborn mortality in low-resource settings. Laerdal is a founding member of the Helping Babies Breathe and the Survive and Thrive Global Development Alliances, and has helped train over 500 000 birth attendants in the specific skills needed to become more effective life-savers.

Laerdal Global Health has developed over 20 innovative products that are offered at a not-for-profit price to countries with the highest maternal and neonatal mortalities. The company's education birthing simulators, MamaNatalie and MamaBirthie, are part of a "Buy One Gift One" initiative; when one is purchased for use in high-income countries, a second is donated to a low-resource setting.

To date more than 4000 simulators and other educational materials have been distributed to implementing partners to train a variety of health workers in the Helping Mothers Survive programme set up in partnership with the international NGO Jhpiego. Laerdal Global Health has also invested in midwifery education to support implementation of the *Global Strategy for Women's, Children's and Adolescents' Health*.

Source: Laerdal Global Health.

The media will:

- Position strengthening midwifery education as a core component of improving the health of women, children and adolescents and delivering UHC, as a priority item on the news agenda.
- Give women, children, adolescents and their families a voice by developing social media and digital platforms to advocate for midwifery education.
- Publish more evidence-based stories about the benefits of women and newborns being cared for by midwives educated to international standards; and ask why that is not happening in their country (if this is the case).
- Communicate responsibly and accurately on midwifery education and care, particularly in emergencies, using information received from academia and the government in a careful and considered way.

New, ambitious and concrete commitments will be required by all stakeholders, embodying the energy and action needed to strengthen quality midwifery education to international standards so the best outcomes can be achieved for women and their newborns.

References

1. Homer CSE, Friberg IK, Dias MAB, ten Hoope-Bender P, Sandall J, Speciale AM, et al. The projected effect of scaling up midwifery. Lancet Series on Midwifery. Paper 2. 2014 Sep 20;384(9948):1146-57. https://doi.org/10.1016/S0140-6736(14)60790-X.
2. Renfrew MJ, McFadden A, Bastos MH, Campbell J, Channon AA, Cheung NF, et al. Midwifery and quality care: findings from a new evidence-informed framework for maternal and newborn care. Lancet Series on Midwifery, Paper 1. 2014 Sep 20;384(9948):1129-45. https://doi.org/10.1016/S0140-6736(14)60789-3.
3. Souza JP, Tunçalp Ö, Vogel JP, Bohren M, Widmer M, Oladapo OT, et al. Obstetric transition: the pathway towards ending preventable maternal deaths. BJOG. 2014;121:1-4. doi: 10.1111/471-0528.12735.
4. Kruk ME, Gage AD, Arsenault C, Jordan K, Leslie HH, Roder-DeWan S, et al. High-quality health systems in the Sustainable Development Goals era: time for a revolution. Lancet Glob Health. 2018;6(11):e1196-e252. doi: 10.016/S2214-109X(18)30386-3.
5. State of the world's midwifery 2014. New York: United Nations Population Fund (UNFPA); 2014 (https://www.unfpa.org/sowmy, accessed 27 March 2019).
6. Tracy SK, Hartz DL, Tracy MB, Allen J, Forti A, Hall B, et al. Caseload midwifery care versus standard maternity care for women of any risk: M@NGO, a randomised controlled trial. Lancet. 2013 Nov 23;382(9906):1723-32. doi: 10.1016/S0140-6736(13)61406-3.
7. Tracy SK, Welsh A, Hall B, Hartz D, Lainchbury A, Bisits A, et al. Caseload midwifery compared to standard or private obstetric care for first time mothers in a public teaching hospital in Australia: a cross sectional study of cost and birth outcomes. BMC Pregnancy Childbirth. 2014 Jan 24;14:46. doi: 10.1186/1471-2393-14-46.
8. Sandall J, Soltani H, Gates S, Shennan A, Devane D. Midwife-led continuity models versus other models of care for childbearing women. Cochrane Database Syst Rev. 2016;4:CD004667. doi: 10.1002/14651858.CD004667.pub5.
9. Van Lerberghe W, Matthews Z, Achadi E, Ancona C, Campbell J, Channon A, et al. Country experience with strengthening of health systems and deployment of midwives in countries with high maternal mortality. Lancet. 2014 Sep 27;384(9949):1215-25. doi: 10.1016/S0140-6736(14)60919-3.
10. Hutton EK, Reitsma AH, Kaufman K. Outcomes associated with planned home and planned hospital births in low-risk women attended by midwives in Ontario, Canada, 2003–2006: A retrospective cohort study. Birth. 2009;36(3):180-9. doi: 10.1111/j.523-536X.2009.00322.x.
11. Gilkison A, Pairman S, McAra-Couper J, Kensington M, James L. Midwifery education in New Zealand: Education, practice and autonomy. Midwifery. 2016 Feb; 33:31-3. doi. 10.1016/j.midw.2015.12.001.
12. Beek K, McFadden A, Dawson A. The role and scope of practice of midwives in humanitarian settings: a systematic review and content analysis. Hum Resour Health. 2019, 17(1):5. doi. 10.1186/s12960-018-0341-5.
13. Universal Health Coverage [website]. Geneva: World Health Organization; 2019 (https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-(uhc), accessed 16 April 2019).
14. Gavine A, MacGillivray S, McConville F, Gandhi M, Renfrew MJ. Pre-service and in-service education and training for maternal and newborn care providers in low- and middle-income countries: An evidence review and gap analysis. Midwifery. Forthcoming 2019.
15. WHO/UNICEF. Water, sanitation and hygiene in health care facilities. Geneva: World Health Organization; 2018 (http://www.unwater.org/publications/water-sanitation-and-hygiene-in-health-care-facilities-practical-steps-to-achieve-universal-access-for-quality-care/, accessed 16 April 2019).
16. Essential competencies for midwifery practice 2018 Update. The Hague: International Confederation of Midwives; 2019 (https://www.internationalmidwives.org/assets/files/general-files/2019/03/icm-competencies-en-screens.pdf, accessed 26 March 2019).
17. Filby A, McConville F, Portela A. What prevents quality midwifery care? A systematic mapping of barriers in low and middle income countries from the provider perspective. PLoS ONE 2016 May 2;11(5): e0153391. https://doi.org/10.1371/journal.pone.0153391.
18. The Global Strategy for Women's, Children's and Adolescents' Health (2016-2030). New York: Every Women Every Child; 2015 (http://www.everywomaneverychild.org/global-strategy/, accessed 26 March 2019).

19. Declaration of Astana. Global Conference on Primary Health Care, Astana, Kazakhstan 25-26 October 2018. Co-hosted by the Government of Kazakhstan, UNICEF and WHO (https://www.who.int/docs/default-source/primary-health/declaration/gcphc-declaration.pdf, accessed on 26 March 2019).

20. Towards a Global Action Plan for healthy lives and well-being for all. Geneva: World Health Organization; 2018 (https://www.who.int/docs/default-source/global-action-plan/global-action-plan-phase-1-final.pdf, accessed 25 April 2019).

21. Global strategy on human resources for health: Workforce 2030. Geneva: World Health Organization; 2016 (https://www.who.int/hrh/resources/pub_globstrathrh-2030/en/, accessed 26 March 2019).

22. Final report of the Expert Group to the High-Level Commission on Health Employment and Economic Growth. Geneva: World Health Organization; 2016 (https://www.who.int/hrh/com-heeg/reports/report-expert-group/en/, accessed 26 March 2019).

23. WHO recommendations on antenatal care for a positive pregnancy experience. Geneva: World Health Organization; 2016 (https://www.who.int/reproductivehealth/publications/maternal_perinatal_health/anc-positive-pregnancy-experience/en/, accessed 26 March 2019)

24. Midwives Voices, Midwives Realities: findings from a global consultation on providing quality midwifery care. Joint report by ICM, WHO, White Ribbon Alliance. Geneva: World Health Organization; 2016 https://apps.who.int/iris/bitstream/handle/10665/250376/9789241510547-eng.pdf;jsessionid=6EA693B9297B1C39E044B538F25694FC?sequence=1, accessed 7 May 2019).

25. Bharj KK, Luyben A, Avery MD, Johnson PG, O'Connell R, Barger MK, et al. An agenda for midwifery education: Advancing the state of the world's midwifery. Midwifery. 2016;33:3-6. doi: 10.1016/j.midw.2016.01.004.

26. Boerma T, Ronsmans C, Melesse DY, Barros AJD, Barros FC, Juan L, et al. Global epidemiology of use of and disparities in caesarean sections. Lancet. 2018 Oct 13;392(10155):1341-1348. doi: 10.1016/S0140-6736(18)31928-7.

27. Midwifery educator core competencies. Geneva: World Health Organization; 2014 (https://www.who.int/hrh/nursing_midwifery/educator_competencies/en/, accessed 29 April 2019).

28. International Confederation of Midwives. 2019. Essential Competencies for Midwifery Practice, 2018 Update. https://www.internationalmidwives.org/assets/files/general-files/2019/03/icm-competencies-en-screens.pdf, accessed 8th May 2019).

29. WHO recommendations: intrapartum care for a positive childbirth experience. Geneva: World Health Organization; 2018 (https://www.who.int/reproductivehealth/publications/intrapartum-care-guidelines/en/, accessed 27 March 2019).

30. Betrán AP, Temmerman M, Kingdon C, Mohiddin A, Opiyo N, Torloni MR, et al. Interventions to reduce unnecessary caesarean sections in healthy women and babies. Lancet. 2018 Oct 13;392:1358-1368. doi: https://doi.org/10.1016/S0140-6736(18)31927-5.

31. Framework for Action on Interprofessional Education & Collaborative Practice. Geneva: World Health Organization; 2010 (https://www.who.int/hrh/resources/framework_action/en/, accessed 26 March 2019).

32. Harris SJ, Janssen PA, Saxell L, Carty EA, MacRae GS, Petersen KL. Effect of a collaborative interdisciplinary maternity care program on perinatal outcomes. CMAJ. 2012 Nov 20;184(17):1885-92. doi: 10.1503/cmaj.111753. Epub 2012 Sep 10. https://www.ncbi.nlm.nih.gov/pubmed/22966055.

33. WHO recommendations on health promotion interventions for maternal and newborn health 2015. Geneva: World Health Organization; 2015 (https://www.who.int/maternal_child_adolescent/documents/health-promotion-interventions/en/, accessed 16 April 2019).

34. WHO, United Nations Children's Fund, World Bank Group. Nurturing care for early childhood development: a framework for helping children survive and thrive to transform health and human potential. Geneva: World Health Organization; 2018.

35. Castro Lopes S, Nove A, ten Hoope-Bender P, de Bernis L, Bokosi M, Moyo NT, et al. A descriptive analysis of midwifery education, regulation and association in 73 countries: the baseline for a post-2015 pathway. Hum Resour Health. 2016 Jun 8;14(1):37. doi: 10.1186/s12960-016-0134-7.

36. Högberg U. Högberg U. Maternal mortality in Sweden [dissertation]. Umeå, Sweden: University of Umeå; 1985 (http://umu.diva-portal.org/smash/get/diva2:142254/FULLTEXT01.pdf, accessed 9 April 2019).

37. Investing in trained midwives across Liberia [website]. Geneva: World Health Organization; 2016 (https://www.who.int/en/news-room/feature-stories/detail/investing-in-trained-midwives-across-liberia, accessed 26 March 2017).

38. WHO recommendations on interventions to improve preterm birth outcomes. Geneva: World Health Organization; 2015 (https://apps.who.int/iris/bitstream/handle/10665/183037/9789241508988_eng.pdf?sequence=1, accessed 16 April 2019).

39. Rollins NG, Bhandari N, Hajeebhoy N, Horton S, Lutter CK, Martines JC, et al. Why invest, and what it will take to improve breastfeeding practices? Lancet. 2016 Jan 30;387(10017):491-504. doi: 10.1016/S0140-6736(15)01044-2.

40. International Code of Marketing of Breast-Milk Substitutes. Geneva: World Health Organization; 1981 (https://www.who.int/nutrition/publications/infantfeeding/9241541601/en/, accessed 26 March 2019).

41. Petrou S, Glazener C. The economic costs of alternative modes of delivery during the first two months postpartum: results from a Scottish observational study. BJOG. 2002;109(2):214-217. PMID:11888105.

42. Gibbons L, Belizán JM, Lauer JA, Betrán AP, Merialdi M, Althabe F. The global numbers and costs of additionally needed and unnecessary caesarean sections performed per year: overuse as a barrier to universal coverage. World health report (2010). Background Paper 30. Geneva: World Health Organization; 2010 (https://www.who.int/healthsystems/topics/financing/healthreport/30C-sectioncosts.pdf, accessed 26 March 2019).

43. Kickbusch I, Allen L, Franz C. The commercial determinants of health. Lancet Glob Health. 2016 Dec;4(12):e895-e896. doi: 10.1016/S2214-109X(16)30217-0.

44. Visser GHA, Ayres-de-Campos D, Barnea ER, de Bernis L, Di Renzo GC, Vidarte MFE, et al. FIGO position paper: how to stop the caesarean section epidemic. Lancet 2018;392(10155):1286-1287. doi: 10.1016/S0140-6736(18)32113-5.

45. Levels and trends in child mortality 2018. UNICEF, WHO, World Bank Group and United Nations. New York: United Nations Children's Fund; 2015 (https://data.unicef.org/wp-content/uploads/2018/09/UN-IGME-Child-Mortality-Report-2018.pdf, accessed on 16 April 2019).

46. UN IGME. The United Nations Inter-agency Group for Child Mortality Estimation [website]. London: Save the Children (https://resourcecentre.savethechildren.net/publishers/un-igme-united-nations-inter-agency-group-child-mortality-estimation, accessed 29 April 2019).

47. Kruk ME, Gage AD, Joseph NT, Danaei G, Garcia-Saiso S, Salomon JA. Mortality due to low-quality health systems in the universal health coverage era: a systematic analysis of amendable deaths in 137 countries. Lancet. 2018 Nov 17;392(10160):2203-2212.

48. Miller S, Abalos E, Chamillard M, Ciapponi A, Colaci D, Comandé D, et al. Beyond too little, too late and too much, too soon: a pathway towards evidence-based, respectful maternity care worldwide. Lancet. 2016 Oct 29;388(10056):2176-2192. doi: 10.1016/S0140-6736(16)31472-6.

49. Jiang H, Qian X, Carroli G, Garner P. Selective versus routine use of episiotomy for vaginal birth. Cochrane Database of Syst Rev 2017 Feb 8: 2. CD000081. pub3. (https://www.cochrane.org/CD000081/PREG_selective- versus-routine-use-episiotomy-vaginal-birth, accessed 27 March 2019).

50. Alzyoud F, Khoshnood K, Alnatour A, Oweis A. Exposure to verbal abuse and neglect during childbirth among Jordanian women. Midwifery. 2018 Mar;58:71-76. doi: 10.1016/j.midw.2017.12.008.

51. Orpin J, Puthussery S, Davidson R, Burden B. Women's experiences of disrespect and abuse in maternity care facilities in Benue State, Nigeria. BMC Pregnancy Childbirth. 2018 Jun 7, 18(1):213. doi: 10.1186/s12884-018-1847-5.

52. Solnes Miltenburg A, van Pelt S, Meguid T, Sundby J. Disrespect and abuse in maternity care: individual consequences of structural violence. Reprod Health Matters. 2018;26(53):88-106. doi: 10.1080/09688080.2018.1502023.

53. Ng M, Misra A, Diwan V, Agnani M, Levin-Rector A, De Costa A. An assessment of the impact of the JSY cash transfer program on maternal mortality reduction in Madhya Pradesh, India. Glob Health Action. 2014 Dec 3;7:24939. doi: 10.3402/gha.v7.24939.

54. Finlayson K, Downe S. Why do women not use antenatal services in low- and middle-income countries? A meta-synthesis of qualitative studies. PloS Med. 2013;10(1):e1001373. doi: 10.1371/journal.pmed.1001373.

55. Sharma B, Hildingsson I, Johansson E, Prakasamma M, Ramani KV, Christensson K. Do the pre-service education programmes for midwives in India prepare confident 'registered midwives'? A survey from India. Glob Health Action. 2015 Jan;8(1):29553. doi: 10.3402/gha.v8.29553.

56. Fullerton JT, Johnson PG, Thompson JB, Vivio D. Quality considerations in midwifery pre-service education: Exemplars from Africa. Midwifery. 2011 Jun;27(3):308-15. doi: 10.1016/j.midw.2010.10.011.

57. What are the most efficient and effective ways for low- and middle-income countries to conduct pre-service and in-service midwifery skills training, both in the short and long term? Findings from a policy research report. Geneva: World Health Organization (Forthcoming 2019).

58. Definition of skilled health personnel providing care during childbirth: the 2018 joint statement by WHO, UNFPA, UNICEF, ICM, ICN, FIGO and IPA. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/bitstream/handle/10665/272818/WHO-RHR-18.14-eng.pdf?ua=1, accessed 26 March 2019).

59. The world health report 2005: make every mother and child count. Geneva: World Health Organization; 2005 (https://www.who.int/whr/2005/en/, accessed 26 March 2019).

60. Adegoke A, Utz B, Msuya SE, van den Broek N. Skilled birth attendants: who is who? A descriptive study of definitions and roles from nine Sub Saharan African countries. PLoS One. 2012:7(7) e40220. doi: 10.1371/journal.pone.004022

61. Harvery SA, Blandon YC, McCaw-Binns A, Sandino I, Urbina L, Rodriguez C, et al. Are skilled birth attendants really skilled? A measurement method, some disturbing results and a potential way forward. Bull World Health Organ. 2007 Oct;85(10):783-90.

62. Hobbs AJ, Moller AB, Kachikis A, Carvajal-Aguirre L, Say L, Chou D. Scoping review to identify and map the health personnel considered skilled birth attendants in low-and-middle-income countries from 2000–2015. PLoS One. 2019 Feb 1;14(2):e0211576. doi: 10.1371/journal.pone.021157.

63. Kennedy HP, Yoshida S, Costello A, Declercq E, Dias MAB, Duff E, et al. Asking different questions: research priorities to improve the quality of care for every woman, every child. Lancet Glob Health. 2016 Nov;4(II):e777-e779.

64. Vedam S, Stoll K, MacDorman M, Declercq E, Cramer R, Cheyney M, et al. Mapping integration of midwives across the United States: Impact on access, equity, and outcomes. PloS One. 2018;13(2):e0192523. doi: 10.1371/journal.pone.

65. Kennedy HP, Cheyney M, Dahlen HG, Downe S, Foureur MJ, Homer CSE, et al. Asking different questions: A call to action for research to improve the quality of care for every woman, every child. Women Birth. 2018 Aug;31(4):242-243.

66. Oramma e-learning course [website]. Oramma; (https://oramma.eu/e-course/, accessed 29 April 2019).

67. UNFPA Minimum Initial Service Package (Internet). New York: UNFPA; (https://www.unfpa.org/resources/what-minimum-initial-service-package, accessed 15 April 2019).

68. Strengthening midwifery toolkit. Geneva: World Health Organization; 2011 (https://apps.who.int/iris/bitstream/handle/10665/44645/9789241501965_module1_eng.pdf?sequence=1, accessed 27 March 2019).

69. Standards for improving quality of maternal and newborn care in health facilities. Geneva: World Health Organization; 2016 (https://apps.who.int/iris/bitstream/handle/10665/249155/9789241511216-eng.pdf?sequence=1, accessed 27 March 2019).

70. WHO/UNICEF. Core questions and indicators for monitoring WASH in health care facilities in the Sustainable Development Goals. Geneva: World Health Organization; 2018 (https://www.who.int/water_sanitation_health/publications/core-questions-and-indicators-for-monitoring-wash/en/, accessed 15 April 2019).

71. Holly Powell Kennedy [website]. New Haven: Yale University; 2019 (https://nursing.yale.edu/faculty-research/faculty-directory/holly-powell-kennedy-phd-cnm-facnm-faan), accessed 29 April 2019).

Glossary

Accreditation
A process of review and approval by which an institution, programme or specific service is granted time-limited recognition of having met certain established standards (*1*).

Assessment
A systematic process for collecting qualitative and quantitative data to measure, evaluate or appraise performance against specified outcomes or competencies.

Assessment of student learning
The processes used to evaluate student performance and progress in achieving learning outcomes and demonstrating required competencies (*1*).

Autonomous
Self-governing, self-regulating: taking responsibility for one's decisions and actions (*1*).

Caesarean section
A surgical method used to deliver a baby through the uterus and maternal abdomen. This method may be used when a vaginal birth may place the mother or newborn at risk, or when obstructed labour does not allow the mother to deliver vaginally.

Clinical mentor
The mentor is an important key to a successful trainee experience. The clinical mentor must be an experienced midwife engaged in the practice of midwifery who is competent and willing to teach students in the clinical setting. They must work closely with the student midwife to provide guidance, training, support, assessment, evaluation and constructive feedback, and serve as a role model for the student midwife during their practical/clinical learning.

Competence
The combination of knowledge, psychomotor, communication and decision-making skills that enable an individual to perform a specific task to a defined level of proficiency (*1*).

Competency-based education
Teaching, learning and assessment activities that are sufficient to enable students to acquire and demonstrate a predetermined set of competencies as the outcome of learning (*1*).

Curriculum
A systematic process that defines the theoretical and practical content of an education programme and its teaching and evaluation methods (*1*).

Educational institutions
An institution dedicated to higher education. May include school, college or university created to grant degrees as an entry point to a profession.

Education standard
A norm/uniform reference point that describes the required level of achievement (performance) for quality midwifery education (*1*).

Educator
A person who is educating midwifery students in theory and clinically. Educators should include midwifery faculty who teach in educational institutions as well as clinical midwifery mentors who support students in practice settings. Ideally educators should work in both settings. All educators will need ongoing support and updating.

Faculty
Group of individuals who teach students in an educational institution.

Health professional
An individual who is educated in a health discipline, licensed and regulated to practise that discipline; e.g., midwives, nurses, medically-qualified doctors and clinical officers (1).

Midwifery competency
A combination of knowledge, professional behaviour and specific education and/or practice (1).

Midwifery philosophy
A statement of beliefs about the nature of midwifery practice or midwifery education (1).

Midwifery programme
An organized, systematic, defined course of study that includes didactic and practical learning needed to prepare competent midwives (1).

Midwifery student
An individual who has met the criteria for selection and enrolment in a midwifery programme (1).

Midwife teacher
A qualified, competent midwife who has successfully completed a programme of study and/or demonstrated competency in teaching that includes the art and science of curriculum development, methods of theoretical and practical teaching of adult learners, and methods of measurement and evaluation of student learning (1).

Neonatal and newborn
Both words refer to the first 28 days of a child's life. A child's risk of dying is highest in the first 28 days of life, during the neonatal period. In 2017, 47% of all deaths among children under five were among newborn infants – up from 40% in 1990.

Children who die within the first 28 days of birth suffer from conditions and diseases associated with lack of quality care at birth or skilled care and treatment immediately after birth and in the first days of life.

Preterm birth, intrapartum-related complications (birth asphyxia or lack of breathing at birth), infections and birth defects cause most neonatal deaths.

Women who receive midwife-led continuity of care (MLCC) provided by professional midwives, educated and regulated to international standards, are 16% less likely to lose their baby and 24% less likely to experience preterm birth.

Primary health care
Health care that is provided for people seeking care from a medical practitioner or clinic for advice or treatment, including preventive (e.g., family planning and vaccinations) to management of chronic health conditions and palliative care (2).

QMNC Framework
The Framework for Quality Maternal and Newborn Care focuses on the needs of women and their newborn infants across the continuum from pre-pregnancy to birth, postpartum, and the early weeks of life. It includes the range of knowledge, skills, attitudes and behaviours needed for quality care for all women and newborns (3).

Quality of care

WHO defines quality of care as "the extent to which health care services provided to individuals and patient populations improve desired health outcomes. In order to achieve this, health care must be safe, effective, timely, efficient, equitable and people-centred" (4).

Sustainable development goals

The SDGs are a blueprint to achieving a better and more sustainable future for all. They address global challenges including health, poverty, gender inequality, climate, environmental degradation, prosperity, peace and justice (5).

Universal health coverage

Universal health coverage is a health care system that provides access to a full range of health care services to all people, including the poor and vulnerable, regardless of their ability to pay, and incurs no financial hardship.

WASH

Affordable and sustainable access to water, sanitation and hygiene is a key public health issue within international development and is the focus of sustainable development goal 6 (5).

References

1. Glossary of terms Used in ICM *Global Standards for Midwifery Education* 2010. Edited in keeping with generic ICM glossary 2011. The Hague, Netherlands: International Confederation of Midwives; 2011 (https://www.internationalmidwives.org/assets/files/general-files/2018/04/glossary-of-terms-used-in-icm-global-standards-for-midwifery-education.pdf, accessed April 18, 2019).
2. Astana Declaration on Primary Health Care 2018 [website]. Geneva: World Health Organization; 2019 (https://www.who.int/primary-health/conference-phc/declaration, accessed 24 April 2019).
3. Renfrew MJ, McFadden A, Bastos MH, Campbell J, Channon AA, Cheung NF, et al. Midwifery and quality care: findings from a new evidence-informed framework for maternal and newborn care. Lancet Series on Midwifery, Paper 1. 2014 Sep 20;384(9948):1129-1145. https://doi.org/10.1016/S0140-6736(14)60789-3
4. What is Quality of Care and why is it important? [website]. Geneva: World Health Organization; 2019 (https://www.who.int/maternal_child_adolescent/topics/quality-of-care/definition/en/, accessed 24 April 2019).
5. United Nations Sustainable Development Goals [website]. New York: United Nations (https://www.un.org/sustainabledevelopment/sustainable-development-goals/, accessed 24 April 2019).

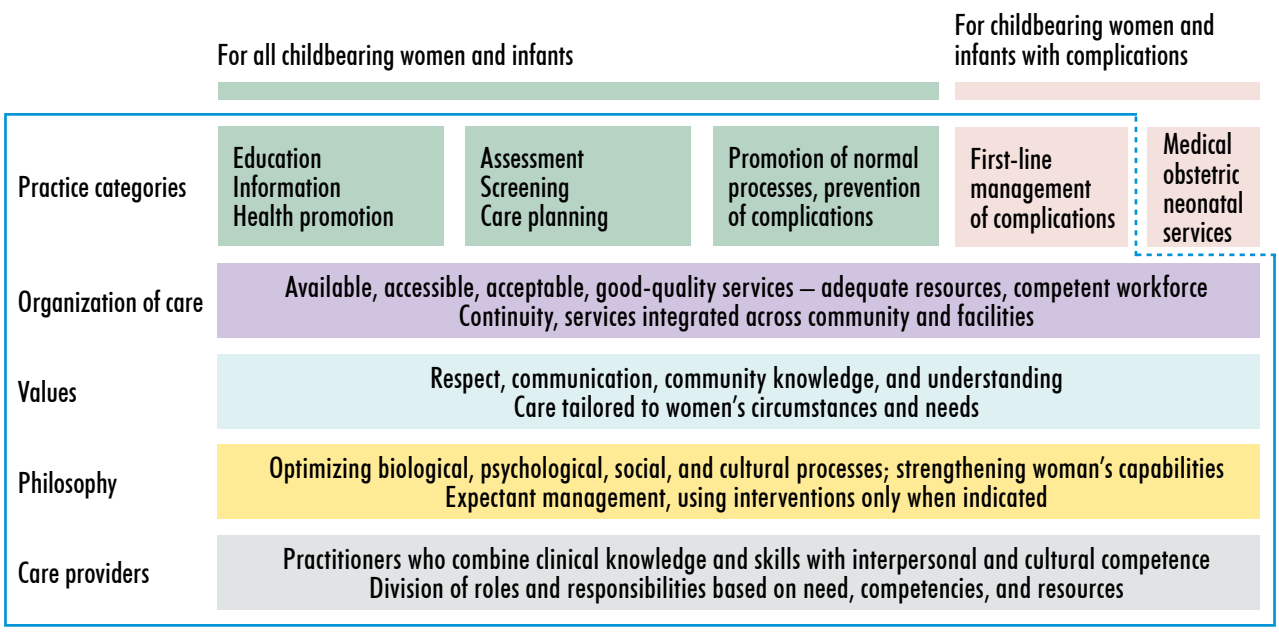
Annex 1. QMNC Framework

The Quality Maternal and Newborn Care (QMNC) Framework: Lancet Series on Midwifery 2014

Good-quality education is essential to prepare international-standard midwives with the knowledge and skills to provide the full scope of care that women and newborn infants need (*1*). A review of hundreds of studies has identified the key components of care that all midwives need to know and to be skilled in. These are summarized in the figure below (*2*).

The QMNC Framework from the Lancet Series on Midwifery (2), is adapted to show the scope of midwifery within the blue line: it is dotted at the point where there is overlap with other health professionals. This scope maps exactly to the ICM competencies of the midwife (1).

Framework for Quality Maternal and Newborn Care



Midwives meeting the ICM competencies practise the full scope of midwifery as defined by the framework and shown within the blue line: they are international-standard midwives.

Component 1: The practices that all childbearing women and newborn infants need

To stay well and healthy all women need the information and care that a midwife offers. Education should ensure that midwives have the knowledge and skills to provide the range of evidence-informed practices needed across the continuum of care, from pre-pregnancy, pregnancy, labour and birth, postpartum and the early weeks of life. This should include:

- **Education, information and health promotion for all women:** for example, ensuring that women have information and support about avoiding infection, stopping smoking, optimizing maternal nutrition, promoting breastfeeding, resources for family planning, preparation for birth, parenting and relationship building.
- **Assessment, screening, and care planning for all women and newborn infants:** this will include the ability to assess the woman and the newborn infant for physical, psychological and social complications, to conduct screening tests and to work with the woman to plan the care that she and her infant need. If complications are identified that need the involvement of the interprofessional team, it will also include the ability to consult and refer as needed, and to plan care jointly.
- **Promotion of normal processes, prevention of complications for all women and newborn infants:** this will include practices that promote health and well-being and the abilities of women's own bodies, and which avoid complications developing; for example, encouraging mobility in labour and an upright position at birth, ensuring hydration, avoiding routine procedures such as episiotomy, practising delayed cord clamping, keeping the newborn infant warm and encouraging skin-to-skin care, supporting the initiation of breastfeeding and avoiding infection. Even women who do develop complications need this care, to prevent additional complications developing; for example, a woman who has a caesarean section can still have skin-to-skin care and can breastfeed.

Component 2: Additional practices needed by childbearing women and newborn infants with complications

Women and newborn infants who develop complications need extra care, and they need it promptly. The midwife is often in the best position to identify and respond to complications, and to consult with and refer to the interprofessional team if necessary. It is essential that education prepares the midwife to:

- **Identify complications and provide first-line management:** this will include circumstances where the midwife is able to resolve the complication, such as perineal suturing and help with breastfeeding problems, as well as complications where timely consultation and referral to the interprofessional team is needed. Whatever the complication, the ability of the midwife to identify it and to respond appropriately is critical.
- **Work with the interprofessional team, including medical, obstetric, neonatal and other services:** the midwife should be educated to work with the interprofessional team so that all women and newborn infants receive the care that they need. They must know and understand other services and the abilities and roles of interprofessional colleagues; and know how to work as a team. They must know how to continue with the midwifery care that women need when other professionals are involved, such as providing continuous care for a woman before, during and after a caesarean section. They must know how to care for and support women and their families who are experiencing bereavement when the mother, newborn or both have died.

Component 3: The organization of care and services

Midwives need education to ensure that their care, and the services they work within, are organized appropriately. This will include:

- **Available, accessible, acceptable, good-quality services with adequate resources and a competent workforce:** midwives need the education to ensure that their work is founded on a human rights perspective, reaching out to all women and newborn infants regardless of their circumstances, and taking pro-active steps to ensure that their services are available, accessible and acceptable to all, with a consistent level of quality. If resources are lacking, or they or their colleagues are not adequately educated for the circumstances in which they are working, they need to know how to take action and to advocate for improvement.
- **Continuity, services integrated across community and facilities:** a key characteristic of midwifery is that it is practised in all the settings where women and newborn infants are – the home, community, health centre and hospital. Midwives need to have the education and experience to practise safely in each of these settings, to avoid women receiving fragmented care, and ensure that the care that women receive is seamless. The most important element of this is midwifery continuity of care, where the same midwife cares for a woman throughout her childbearing journey. This has been shown to reduce mortality and preterm birth, and improve a wide range of outcomes (3).

Component 4: Values

Just as important as providing the right practices and interventions is providing them in the right way *(1, 4)*. Education must prepare midwives who demonstrate core values that include:

- **Respect:** respectful care is the foundation of quality care, and it should be a core part of the education that all midwives receive. If care providers do not treat women and families with respect, or do not take women's views into consideration, women may not ask for help or access the care that they need. Respectful care includes giving information that women need to make decisions, asking for consent for treatment and interventions, and providing a safe environment for the woman and her newborn infant.
- **Community knowledge and understanding:** knowing the local community enables the midwife to access resources quickly and effectively, and to encourage women to access support and services they need. Knowing how to work with local communities and services is an important component of midwifery education.
- **Tailoring care to women's circumstances, views and needs:** the clinical, social, economic, family and psychological circumstances of each woman matter. They will influence her health and well-being and her ability to care for herself and her infant. Midwives must learn to treat every woman as an individual, and to assess and respond to her specific needs and preferences.

Component 5: Philosophy

The philosophy of care affects the way in which care providers interact with women and families, and with each other. The great majority of childbearing women are not ill, and to treat them as patients who need treatment risks the use of unnecessary and expensive resources, as well as causing harm. Education must prepare midwives who understand that their role is to support and promote women's own abilities, intervening when – and only when – needed.

- **Optimizing normal processes, strengthening women's own capabilities:** women's bodies have a powerful ability to be pregnant, give birth, breastfeed and care for their newborn infant. These abilities can be interrupted or blocked, by fear, for example. A fundamental component of quality midwifery that all midwives must learn is the ability to work with women to promote women's own capabilities, helping them to feel healthy and confident, and enabling them to seek help when they need it.
- **Using interventions only when indicated:** interventions in pregnancy and childbirth can be necessary, appropriate and life-saving for the women and newborn infants who need them. But they can also be misused and applied routinely, as is seen with induction of labour, caesarean section and with the use of breast-milk substitutes, for example (5, 6). This can cause harm, exposing women and infants to unnecessary procedures, increasing over-medicalization and wasting resources. An important skill in midwifery is learning when to intervene and when to avoid using interventions.

Component 6: Interpersonal and cultural competence, working with others

Care providers must learn not only to work directly with individual women and infants, but to work within a community and a health system. They must practise appropriately for their context, and they must work with colleagues to ensure all women and infants receive the care they need in a timely way. Quality education should enable midwives to learn about:

- **Combining clinical knowledge and skills with interpersonal and cultural competence:** knowing the right practices and skills is essential, but it must be combined with the ability to communicate, build relationships and understand and respect cultural differences and context.
- **Division of roles and responsibilities based on need, competencies and resources:** knowing and understanding their own competencies and skills, and the abilities and roles of colleagues, enables midwives to work as part of an interprofessional team to meet the needs of women and infants in a timely way. This is especially important if there are complications, when midwives will need to consult and refer. Timely discussion with interprofessional colleagues will help in organizing team working, which is essential in avoiding delays in referral when women and infants need treatment.

References

1. Essential competencies for midwifery practice 2018 Update. The Hague: International Confederation of Midwives; 2019 (https://www.internationalmidwives.org/assets/files/general-files/2019/03/icm-competencies-en-screens.pdf, accessed 26 March 2019).
2. Renfrew MJ, McFadden A, Bastos MH, Campbell J, Channon AA, Cheung NF et al. Midwifery and quality care: findings from a new evidence-informed framework for maternal and newborn care. Lancet Series on Midwifery, Paper 1. 2014 Sep 20;384(9948):1129-45. doi.org/10.1016/S0140-6736(14)60789-3
3. Sandall J, Soltani H, Gates S, Shennan A, Devane D. Midwife-led continuity models versus other models of care for childbearing women. Cochrane Database Syst Rev. 2016;4: CD004667. doi: 10.1002/14651858.CD004667.pub5.
4. Kruk ME, Gage AD, Arsenault C, Jordan K, Leslie HH, Roder-DeWan S, et al. High-quality health systems in the Sustainable Development Goals era: time for a revolution. Lancet Glob Health. 2018;6(11):e1196-e252. doi: 10.016/S2214-109X(18)30386-3.
5. Boerma T, Ronsmans C, Melesse DY, Barros AJD, Barros FC, Juan L, et al. Global epidemiology of use of and disparities in caesarean sections. Lancet. 2018 Oct 13;392(10155):1341-48. doi: 10.1016/S0140-6736(18)31928-7
6. Rollins NC, Bhandari N, Hajeebhoy N, Horton S, Lutter CK, Martines JC, et al. Why invest, and what it will take to improve breastfeeding practices? Lancet. 2016 Jan 30;387(10017):491-504. doi: 10.1016/S0140-6736(15)01044-2.

Annex 2. Conducting a situational analysis of midwifery education

To gather the data and evidence for the continuing cycle of act–monitor–review, the following questions are suggested. These should be adapted to national context with the support of the national midwifery task force.

1. Do standards on midwifery care exist, and are they based on the latest evidence?

- Do national standards on midwifery education exist? Do they need updating to ensure the latest evidence is included? You can use the *WHO Guidelines for antenatal, intrapartum and postnatal care* (1 –3), as well as for family planning, safe abortion and other appropriate issues.
- Are midwives, or other providers, educated to international standards? Providers can carry out a self-assessment and have practice observed, based on the International Confederation of Midwives (ICM) competencies.
- Is interprofessional learning and team working a core element of education, with systems for consultation and referral?

2. Who provides education and what competencies do they have?

- Are experienced midwives and educators providing midwifery education, or is much of the teaching by other professionals? Are midwifery faculty based in educational institutions responsible for providing most of the teaching, and midwifery educators in other settings providing both theory and practice?
- Has an analysis been carried out on faculty in educational institutions and educators in other settings using the WHO *Midwifery educator core competencies* (4)? Do they achieve the *WHO Midwifery educator core competencies*?
- What provision exists for educating and upskilling midwifery faculty and educators?
- Are clinical midwifery mentors (experienced, practising midwives with skills in supervising and educating students in practice), available to support students in clinical settings?
- Are universities or colleges involved in midwifery education?

3. Regulation, accreditation and policy

- Is there professional regulation of midwifery education and midwifery practice? If so, how are the standards set, checked and monitored?
- Are national standards supported by policy and legislation?
- Do accreditation processes consider the educational institution and practice settings together?

4. An environment suitable for midwifery educators and students to teach, learn and work effectively

- Are teaching and learning environments safe and clean for work and study; is there sufficient lighting and heating?
- Are there adequate resources for good-quality education and care as well as properly equipped facilities with access to learning and teaching materials and the Internet?
- Is there safe transport for students and midwives when training in the community?

5. Close links between educational institutions and practice settings

- Are practice settings easily accessible from the teaching institution to ensure students gain experience in more than one setting?
- What arrangements exist to ensure staff and students can access and work in both settings?
- Are there shared protocols and procedures to ensure international-standard education and practice are aligned?
- Is there access to interprofessional learning opportunities in both educational institutions and practice settings?

6. Are sociocultural, economic and professional barriers being addressed?

- Are educated midwives socially and culturally accepted?
- Is there professional and public recognition of midwives' role and status?
- Is there appropriate remuneration for midwifery faculty and educators, midwives, clinical midwifery mentors and students?
- Is there sufficient investment in educating women at secondary school, as well as investment in women as nurses and midwives?
- Is midwifery leadership thriving and visible?
- Is collaborative teamwork reducing institutionalized hierarchies of power and improving communications between midwives and other professionals?

7. What is the role of professional associations?

- Is there a national midwifery association that supports strengthening education?
- Is the national midwifery association empowered to provide information, support and networking, and is it accountable for midwifery education and regulation?
- Is the national midwifery association a member of, and supported by, ICM?
- Are the interprofessional relations between the midwifery, nursing, obstetric and paediatric associations collaborative? Do they need strengthening to support improved education and care?

8. Are essential physical infrastructure and resources in place for safe learning?

- Are there adequate water, sanitation and hygiene (WASH) facilities in educational institutions and clinical settings for midwifery educators, students, women, newborns and families? See the *WHO Standards for improving quality of maternal and newborn care in health facilities, Standard 8.*
- Is the education institute secure, with lockable doors and windows, separate changing spaces for women and men, and security staff?

Key indicators and global evidence

- **Country indicators for maternal and newborn health and well-being** should be examined, analysed for progress and challenges, and priorities for action identified.
  - Indicators should include: mortality, morbidity, rates of intervention use, female genital mutilation, gender-based violence, breastfeeding, equity in access to and use of interventions, women's views of the care they and their newborn infants receive, reports of disrespect and abuse.
  - Is there a system for maternal and perinatal death surveillance and review? Do midwives have a role in advising on and reviewing this system?
  - Are midwives engaged in birth registration as part of the national civil registration and vital statistics (CRVS) system?
  - Workforce data on number of midwives educated to international standards; women's access to midwives; deployment, regulation and remuneration of midwives.
- **An economic analysis of the current model of midwifery education** should be conducted, to include consideration of short-, medium- and long-term costs and the impact on outcomes for women and children. This should include:
  - the costs and outcomes of current education programmes for midwives, nurses, obstetricians, gynaecologists and paediatricians;
  - analysis of how these would change if midwifery education is strengthened.

Humanitarian situations: gathering evidence and data for planning

It is important to gather evidence and data on midwifery education to improve the humanitarian response in emergencies. This helps to clarify whether national midwifery education standards and the curriculum need to be updated to include this issue; and can address barriers to midwives and students working and learning effectively in health emergencies.

- Is disaster preparedness and response for pregnant women and newborns incorporated in the midwifery education standards and the midwifery education curriculum?
- Are midwifery educators teaching about the various emergency response mechanisms and national coordination systems, and how midwives can engage?

References

1. WHO recommendations on antenatal care for a positive pregnancy experience. Geneva: World Health Organization; 2016 (https://www.who.int/reproductivehealth/publications/maternal_perinatal_health/anc-positive-pregnancy-experience/en/, accessed 26 March 2019).
2. WHO recommendations: intrapartum care for a positive childbirth experience. Geneva: World Health Organization; 2018 (https://www.who.int/reproductivehealth/publications/intrapartum-care-guidelines/en/, accessed 27 March 2019)
3. WHO recommendations on postnatal care of the mother and newborn. Geneva: World Health Organization; 2013 (https://www.who.int/maternal_child_adolescent/documents/postnatal-care-recommendations/en/, accessed 29 April 2019).
4. Midwifery educator core competencies. Geneva: World Health Organization; 2014 (https://www.who.int/hrh/nursing_midwifery/educator_competencies/en/, accessed 29 April 2019).

Acknowledgements

The Framework for Action for Strengthening Quality Midwifery Education for UHC 2030 reflects the participation of multiple partners. WHO, UNICEF, UNFPA and ICM are grateful to all those who contributed to bringing experience and wisdom to this document.

WHO Secretariat

Elizabeth Iro, Anshu Banerjee, Bernadette Daelmans and Fran McConville.

Management team

Elizabeth Iro, Anshu Banerjee, Bernadette Daelmans and Fran McConville, WHO; Sally Pairman and Franka Cadée, ICM; Willibald Zeck and Tedbabe Hailegebriel, UNICEF; Anneka Knutsson, Petra ten Hoope-Bender and Anna von Hörsten, UNFPA; Helga Fogstad, PMNCH and Betsy McCallon, WRA.

Advisory Committee

Howard Caton, ICN; Eugene Declercq, Boston University; Lesley Dixon, New Zealand College of Midwives; Pia Engstrand, Sida; Lynn Freedman, Columbia University; Carlos Fuchtner, FIGO; Meena Gandhi, DFID; Atf Gherissi, University of Tunis; Mechthild Gross, University of Hanover; Bashi Hazard, HRIC; Caroline Homer, Burnett Institute; Peter Johnson, Jhpiego; William Keenan, IPA; Carole Kenner, COINN; Margaret Kruk, Harvard University; Address Malata, University of Malawi; Tina Miller, Brookes University, Oxford; Felarmine Muiruri, AMREF; Christina Rawdon, WRA; Jane Sandall, University College London; Bharati Sharma, IIPHG; Theresa Shaver, USAID; Mrunal Shetye, BMGF; Barbara Stillwell, Nursing Now and Saraswathi Vedam, University of British Colombia.

Advocacy and Communications Working Group

Sagal Ali, ICM; Guy Taylor and Meg French, UNICEF; Jeffrey Bates, UNFPA; Veronic Verlyck, PMNCH; Olive Cocoman, John Watson, Benedict Walter and Susan Jacoby, WHO consultants.

The leading members of the WHO Nursing and Midwifery Collaborating Centres Task Force on Nursing and Midwifery: Billie Hunter and Grace Thomas, University of Cardiff and Lorena Binfa, University of Chile.

Preparation of case studies

New Zealand College of Midwives; Swedish Association of Midwives; Margaret Leong, GNMO Fiji; Mamunur Malik, WR Somalia; Sally Tracy, University of Sydney; Patricia Titulaer, WHO Sierra Leone; Alison Dembo-Rath, Options Consultancy, England; Sally Pairman, ICM; Jacqui Dunkley-Bent, GCMO England; Rathi Balachandran, GCNMO India; Karen Walker, COINN; Adetoro Adegoke, DAI Global Health; Felarmine Muiriri, AMREF; Eliette Valladares, WHO Mexico; Mitali Adhikari, Society of Midwives, India; Karen Kaufman, Canada; Elena Petelos, ORAMMA project consortium; Abir Shady, PMNCH; Willibald Zeck, UNICEF; Geeta Lal, UNFPA; Zainab Naimy, WHO; Pia Engstrand, Sida; Elena Ateva, WRA; Kiran Bajracharya, Midwifery Society of Nepal; Ann Phoya, Association of Malawi Midwives and Karoline Myklebust Linde, Laerdal Global Health.

Seven global consultations

Thanks and appreciation is due to all those who contributed through their active participation in the seven global consultations. Special thanks go to the partners who hosted and convened these consultations:

University of Dundee, July 2016; Mary Renfrew and Alison McFadden

WHO Geneva, January 2018; Fran McConville, Georgia Taylor and Sheena Crawford

Sheila Kitzinger Programme at Green Templeton College, University of Oxford, April 2018; Mary Renfrew, Ethel Burns, Billie Hunter and Fran McConville

James Cook University, Cairns, July, 2018; Caryn West, Adetoro Adegoke and Fran McConville

ICM regional conference, Dubai, September 2018; Sally Pairman

ICM regional conference Asuncion, Paraguay, October 2018; Sally Pairman

The Society of Midwives India and WHO, New Delhi, December 2018; Kaveri Mayra, Mitali Adhikari, Mallavarapu Prakasamma and Fran McConville

Global online consultation

We are grateful to all the stakeholders who provided contributions to the online consultation on the preliminary report. These contributions were invaluable in shaping the final Framework for Action. Thanks are also due to Olive Cocoman and Susan Jacoby, WHO, for their analysis of the response data.

Coordinating writers: Fran McConville and Mary Renfrew

Copy editor: Amanda Milligan

Proofreader: Susan Kaplan

References: Anna Gavine

Graphic design: Annovi Design

Special thanks are due to the Department of International Development (DFID) of the United Kingdom of Great Britain and Northern Ireland for resources and particularly to Meena Gandhi for her encouragement and support during the development of the report.

Photo credits

Cover page: from “Midwives voices, midwives realities. Findings from a global consultation on providing quality midwifery care”, WHO 2016

Photo 1: Flickr Creative Commons License/Asian Development Bank

Photo 2: H4+/Sven Torfinn

Photo 3: Flickr Creative Commons License/Possible

Photo 4: WHO/Christopher Black

Photo 5: UN Photo/Tobin Jones

Photo 6: The Maternal and Child Survival Program (MCSP)/ Kate Holt

Photo 7: Flickr Creative Commons License/Anna Carolina Vieira Santos

Photo 8: UNFPA Bangladesh

Photo 9: UNFPA Bangladesh

Photo 10: Flickr Creative Commons License/Direct Relief/Lisa Field-Elliot

Photo 11: Flickr Creative Commons License/Direct Relief

Photo 12: Flickr Creative Commons License/Canada in Afghanistan/Sandra Calligaro

Photo 13: Flickr Creative Commons License/Direct Relief

Photo 14: Soapbox, Emma Morrison

Photo 15: World Vision, Chris Huber

Photo 16: Flickr Creative Commons License/The White Ribbon Alliance

Photo 17: Flickr Creative Commons License/USAID US/ MCHIP/Karen Kasmauski

Photo 18: Flickr Creative Commons License/Direct Relief

Photo 19: © 2013 Jhpiego Indonesia, Courtesy of Photoshare

Photo 20: Flickr Creative Commons License/The White Ribbon Alliance

Back page: Elverina Johnson

Participants from over 20 countries contributed to the artwork, each charged to add a representation of where they come from, their home, their place. Over two days the art work came alive, as nurses and midwives connected and shared their stories. From this the artist began to weave the story of the participants capturing the unique connections of a global nursing and midwifery workforce. The central embryo with its rivers of green represent the rivers of life.

Artist: Elverina Johnson / 12th Biennial Conference of the Global Network of WHO Collaborating Centres for Nursing and Midwifery (GNWHOCCNM), Cairns, Queensland, Australia, 18–19 July 2018. "Sustainable Development Goals are everyone's business".

Department of Maternal, Newborn, Child and Adolescent Health
World Health Organization
20 avenue Appia
1211 Geneva 27, Switzerland

E-mail: mncah@who.int
www.who.int/maternal_child_adolescent/en/

ISBN 978-92-4-151584-9