World Health Organization
European Region

UNFPA

THE STATE OF THE

Midwifery Workforce

in Eastern Europe and Central Asia

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Contents

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** Throughout this report, references to Kosovo shall be understood in the context of United Nations Security Council resolution 1244 (1999). [1]*

Abbreviations and acronyms

ANC	Antenatal care
BEmONC	Basic emergency obstetric and newborn care
CHW	Community health worker
CPD	Continuing professional development
DSE	Dedicated SRMNAH equivalent
EECA	Eastern Europe and Central Asia
EU	European Union
HIV	Human immunodeficiency virus
ICM	International Confederation of Midwives
ICPD	International Conference on Population and Development
IPV	Intimate partner violence
IUD	Intrauterine device
mCPR	Modern contraceptive prevalence rate
MMR	Maternal mortality ratio
NMR	Neonatal mortality rate
PMN	Potential met need
PNC	Postnatal care
PPE	Personal protective equipment
SBA	Skilled birth attendance
ShMAKS	Kosovo midwives' association
SoWMy	The State of the World's Midwifery
SRMNAH	Sexual, reproductive, maternal, newborn and adolescent health
TFPA	Tajik Family Planning Association
UHC	Universal health coverage
UN	United Nations
UNECE	United Nations Economic Commission for Europe
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Foreword

The COVID-19 pandemic has highlighted the importance of strong health systems that can handle crises. It has also highlighted the dedication, commitment and courage of health workers throughout the world who have worked hard to maintain access to health care services. In times of crises, midwives are crucial in ensuring that sexual and reproductive health needs are met, even more so with the challenges of responding to COVID-19 and overburdened health systems. The World Health Organization (WHO) has stated: "The midwife appears to be the most appropriate and cost-effective type of health-care provider to be assigned to the care of normal pregnancy and normal birth, including risk assessment and the recognition of complications".[1]

When provided by educated, trained, regulated and licensed midwives, midwifery is associated with improved quality of care and rapid and sustained reduction in maternal and newborn mortality. The work of midwives goes beyond ensuring safe childbirth. Midwives provide antenatal and postnatal care, counselling on family planning, diagnosis and treatment of sexually transmitted infections (STIs) and delivery of sexual and reproductive health services for adolescents. Midwives have an important role in responding to gender-based violence and often serve as powerful agents of community health and drivers of gender equality. It is crucial to optimize their contributions to implementing the United Nations Sustainable Development Goals, as part of the effort to ensure universal health coverage (UHC).

The findings of this regional report demonstrate the many benefits of investing in midwifery – social, economic and for society at large. Investments in midwives not only help to ensure there are enough midwives working in the health system, but also enable them to provide the highest quality care and be remunerated accordingly. When midwives are properly educated, regulated and integrated within a multidisciplinary team and a functioning referral system, they can meet approximately 90 per

1 World Health Organization. Care in Normal Birth: a practical guide; 1996. World Health Organization. Care in Normal Birth: a practical guide. 1996.

cent of the need for essential sexual, reproductive, maternal, newborn and adolescent health (SRMNAH) interventions across the life course.

Since 2008, the United Nations Population Fund (UNFPA) has worked with partners, governments and policymakers to build a competent, well-trained and well-supported midwifery workforce in low-resource settings. UNFPA focuses on four key areas: strengthening competency-based midwifery training; developing strong regulatory mechanisms to ensure quality services; raising the voices of midwives by establishing and strengthening midwifery associations; and advocating for increased investments in midwifery services.

The World Health Organization's European Programme of Work, adopted by Member States, highlights primary care contributing to UHC and the importance of the health workforce in this context. In parallel, the work of UNFPA is guided by three transformative results: ending preventable maternal deaths, ending unmet need for family planning and ending gender-based violence and harmful practices by 2030. Midwives are vital to this work.

Policymakers can use this report as guidance for investing in midwives and ensuring better socioeconomic outcomes. The evidence is clear: investments in midwives and in midwife-led care contribute to healthier families, productive communities and a health system that can deliver comprehensive services for all. UNFPA, the World Health Organization and partners throughout the United Nations family will support Member States in this endeavour.

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Executive summary

Sexual, reproductive, maternal, newborn and adolescent health (SRMNAH) is an essential component of the 2030 Agenda for Sustainable Development and the International Conference on Population and Development (ICPD) Programme of Action. Improving SRMNAH requires increased commitment to, and investment in, the health workforce. This report focuses primarily on midwives because a strong midwifery workforce is essential to the success of United Nations Population Fund (UNFPA) strategies for improving SRMNAH and delivering its mandate.

This report provides up-to-date evidence on the current state of the midwifery workforce and projects forward to 2030. It includes data from 17 countries and territories in the UNFPA Eastern Europe and Central Asia (EECA) region: Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kyrgyzstan, North Macedonia, Republic of Moldova, Serbia, Tajikistan, Türkiye, Turkmenistan, Ukraine and Uzbekistan, as well as Kosovo. It is intended primarily to support policy dialogue at national and regional levels, to assist countries in the region to meet the challenges of the health-related Sustainable Development Goals and the universal health coverage (UHC) and ICPD agendas. Understanding the current state of the midwifery workforce is necessary to allow EECA countries to identify the specific challenges, gaps and bottlenecks that need to be addressed, and to consider suitable strategies for overcoming them.

The development of this report was led by UNFPA Eastern Europe and Central Asia Regional Office (EECARO). The report builds on the approach used for the global report, *The State of the World's Midwifery 2021* (SoWMy 2021), led by UNFPA, the World Health Organization (WHO) and the International Confederation of Midwives (ICM).

CONTEXT

Over the past two decades, the EECA countries and territories have made significant progress in improving SRMNAH outcomes. In most countries, maternal and neonatal mortality and stillbirth rates are already below the global targets for 2030 specified in the Sustainable Development Goals, but the rates in most EECA countries remain higher than in most European Union (EU) countries. Furthermore, progress has been somewhat uneven, with inequities both between and within countries.

Most EECA countries have a modern contraceptive prevalence rate (mCPR) below the global average, and in some countries the rate is comparable to that of low-income countries. Several countries have an unmet need for family planning that is higher than the global average. Access to antenatal and postnatal care is high in most EECA countries. Nearly all births are attended by a skilled birth attendant, who is usually a doctor rather than a midwife.

AVAILABILITY OF MIDWIVES AND OTHER SRMNAH WORKERS

The region has a total of 1.7 million SRMNAH workers. Three quarters are nurses without formal midwifery training, 13 per cent are "SRMNAH doctors" (general physicians, obstetricians and gynaecologists and paediatricians) and eight per cent are midwives or nurse-midwives. Most (80 per cent) of the region's midwives are classed as "professional" and the remainder as "associate professional".

The 137,000 midwives in the region translates to 5.5 midwives per 10,000 people, which is higher than the global average of 4.4 and the EU average of 4.1. However, this figure masks significant variation between countries. Midwife density ranges from 16.2 per 10,000 people in Belarus to 1.4 in Georgia. Half of EECA countries have a midwife density below the global average.

Most EECA countries have sufficient midwives to meet all or nearly all population needs for the essential SRMNAH interventions that midwives are competent to provide. The main exceptions are Armenia, Kazakhstan, Republic of Moldova and Ukraine. However, there are indications that the composition of the SRMNAH workforce and the available models of care are suboptimal in many countries. For example, there is often heavy reliance on doctors to provide care that could be provided to a high standard by midwives educated and regulated according to global standards and, in some cases, there are regulatory barriers to midwives providing their full scope of practice. This devalues the midwifery profession and deprives many women and newborns of the proven benefits of midwife-led care.

Projections to 2030 indicate that most EECA countries will produce more midwives, nurses and SRMNAH doctors than they can afford to employ and, therefore, risk high levels of SRMNAH worker unemployment. The exceptions are Türkiye and Turkmenistan, which will need to slightly increase production of SRMNAH workers to fill all the predicted SRMNAH worker jobs in 2030. Lack of data means that the projections in this report do not take into account international migration of SRMNAH workers, which other data sources indicate is a significant issue affecting some EECA countries.

IMPACT OF COVID-19 ON SRMNAH AND THE WORKFORCE

The impact of COVID-19 on SRMNAH and the workforce is still to be fully evaluated, but there is evidence that the pandemic has caused considerable disruption to SRMNAH services and has presented significant personal and professional challenges to the health workforce. Like other health workers, in the early stages of the pandemic, midwives often had insufficient personal protective equipment (PPE), which meant they had to make or buy their own supplies, go without or be absent from work. In May 2021, the World Health Organization estimated that, globally, more than 115,000 health workers had died of the disease, more than 40 per cent of whom were from the European region. Psychosocial support is needed for health workers affected by the pandemic, including SRMNAH workers.

MIDWIFE EDUCATION AND TRAINING

Availability of midwives is important, but so is the quality of the care they provide. High-quality education and training for midwives is an essential ingredient of quality of care. Strong midwifery departments in universities encourage midwives to take the lead in SRMNAH education and research.

Most EECA countries offer direct-entry midwifery education, and a few offer post-nursing or integrated nursing and midwifery qualifications. Just over half of responding EECA countries offer a midwifery qualification at the Bachelor's degree level or equivalent, whereas all EU countries do so. Five EECA countries only offer a qualification below degree level. Only three EECA countries offer postgraduate qualifications in midwifery, whereas nearly all EU countries do so.

Just four EECA countries have a national policy/guideline on the education of midwifery care providers that is based on ICM competencies. Only half of EECA countries offer a pre-service education programme of the duration recommended by ICM. Few EECA countries were able to provide an estimate of the percentage of those teaching midwifery who are themselves qualified midwives. Among those that did, nearly all countries reported that less than half of their midwifery teachers were midwives. By contrast, in EU countries, nearly all midwife teachers are qualified midwives.

Just five countries in the region require their midwives to provide evidence of continuing professional development as part of a periodic relicensing process.

THE POLICY AND REGULATION ENVIRONMENT

A positive policy and regulatory environment facilitates the provision of high-quality midwifery care. Only about half of EECA countries have legislation recognizing midwifery as distinct from nursing, which is the norm in the EU and very common in the rest of the world. Even countries with such legislation often conflate the two professions. For example, only three of the countries with legislation distinguishing the two professions have separate regulatory systems for midwives and nurses.

Similarly, although ten EECA countries report having a national policy or guideline that recommends midwife-led care, this study indicates that midwife-led care is not commonly available

in the region. Most EECA countries restrict midwives' scope of practice to the extent that midwife-led care is difficult to implement. Such restrictions are much more common in the EECA countries and territories than in the EU and globally.

Globally, half of countries have midwives in leadership roles at a national level.

In the EECA countries and territories, Tajikistan is the only country with a midwife leader at a national level.

Professional associations specifically for midwives are relatively common in Southeastern Europe, but less common in other parts of the region.

MIDWIVES: A VITAL INVESTMENT

In addition to their clinical roles, midwives can play a broader role in activities such as advancing primary health care and UHC, and providing care to women and girls in marginalized communities. They can be powerful agents of change in promoting women's empowerment and addressing harmful social and gender norms and practices.

Investment in the midwifery workforce has been shown to yield significant returns in terms of improved health and social outcomes. For example, a recent study concluded that universal coverage of midwife-delivered interventions would reduce maternal and neonatal mortality and stillbirth rates by two thirds. In the EECA countries and territories, this translates to 20,000 lives saved per year by 2035, mostly in Central Asian countries.

Midwives can also contribute to reducing the number of unnecessary caesarean sections, which are common in many EECA countries. To achieve this, the World Health Organization recommends models of care that involve collaboration between midwives and obstetricians. This cannot be achieved if midwives are marginalized within the health workforce.

RECOMMENDATIONS FOR ADVANCING MIDWIFERY IN THE REGION

SoWMy 2021 calls for investment in four areas: (i) health workforce planning, management and regulation, and in the work environment; (ii) high-quality education and training of midwives; (iii) midwife-led improvements to SRMNAH service delivery; and (iv) midwifery leadership and governance. This report can help stakeholders in the EECA countries and territories identify which areas of investment are most needed in their country context. It also provides high-quality evidence and data that can be used to support advocacy for these investments.

Recommendations for advancing midwifery include:

Ensuring that midwives are educated and regulated according to global standards, and enabled to provide high-quality care.

Making a clear professional distinction between nursing and midwifery.

Reconsidering the available models of care and considering whether these can be adjusted or optimized for greater efficiency and higher quality of care through task sharing and task shifting.

Encouraging collaborative staffing models and platforms for interdisciplinary collaboration, both in pre-service education and in the workplace.

Reviewing the available pre-service education pathways to address acknowledged limitations, such as: low-level qualifications, lack of competency-based curricula, insufficient emphasis on gaining both practical experience and theoretical knowledge and lack of midwives qualified to teach.

Strengthening midwifery departments in universities, including investment in postgraduate study and research opportunities.

Addressing the regulatory barriers to midwife-led care, including unnecessary restrictions on the midwife's scope of practice.

Demand-generation activities to raise awareness of the benefits of midwifery and ensure that midwives are valued health professionals. This may need to include addressing public and professional misconceptions about the profession.

Appointing midwives to strategic leadership positions within organizations responsible for SRMNAH care systems.

Ensuring decent working conditions and adequate measures to protect and support midwives during COVID-19 and future health crises.

Supporting professional midwives' associations to take the lead on implementing some of the above recommendations, for example, via international networking within and beyond the EECA countries and territories.

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Introduction

The world has made good progress in improving the health and well-being of mothers, newborns and adolescents over the past two decades. Nevertheless, about 295,000 women died during and following pregnancy and childbirth in 2017 [2] and 2.4 million children died globally in the first month of life in 2019. [3] The 17 Eastern Europe and Central Asia (EECA) countries and territories featured in this report (Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kyrgyzstan, North Macedonia, Republic of Moldova, Serbia, Tajikistan, Türkiye, Turkmenistan, Ukraine and Uzbekistan, as well as Kosovo) have collectively made significant progress in reducing maternal and neonatal mortality and stillbirths, and improving the health and well-being of mothers, newborns and adolescents. However, progress has not been uniform and there is still considerable diversity. The COVID-19 pandemic is believed to have exacerbated this variability, according to growing evidence. [4]

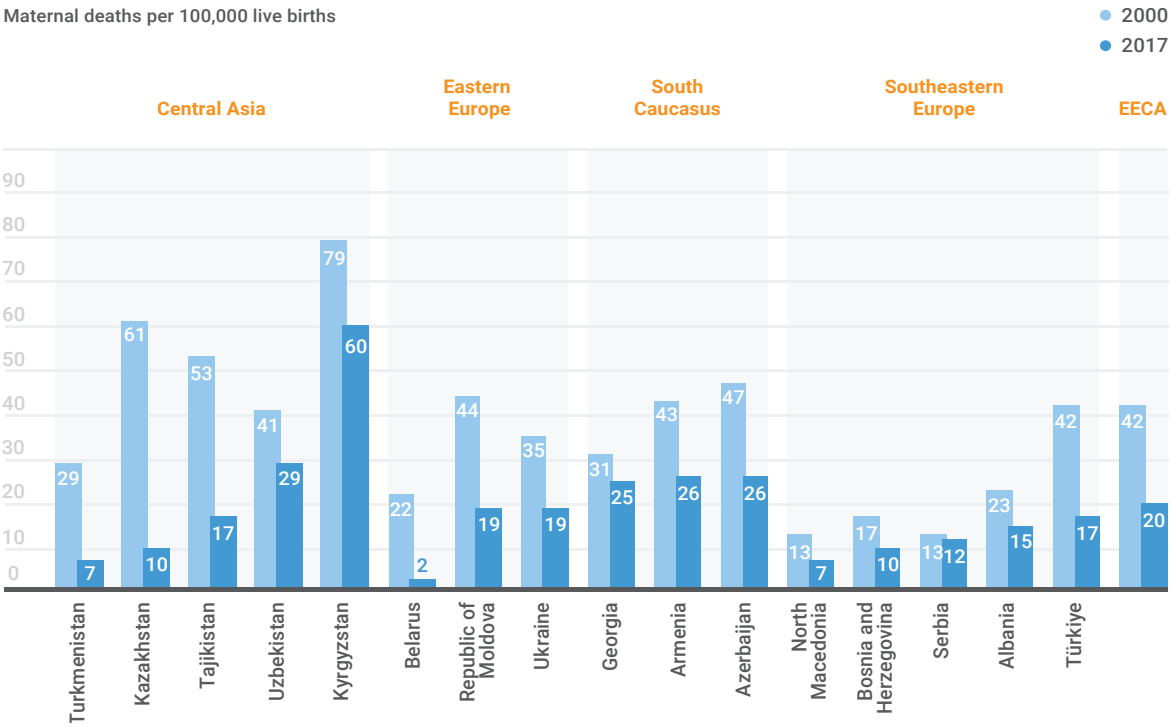
The numbers presented in this introduction are taken from United Nations publications, and many of them are modelled estimates. It is recognized that national data sources show different estimates for some countries. However, because the estimates for different countries and territories are presented side by side, it is important to ensure that comparable methods have been used to calculate them. For this reason, United Nations data sources have been used rather than national ones.

Sustainable Development Goal 3: **"Ensure healthy lives and promote well-being for all at all ages"** calls for reducing the global maternal mortality ratio (MMR) to fewer than **70** maternal deaths per **100,000** live births by **2030**, with no nation having an MMR higher than twice the global average. [5]

In 2017, the overall MMR in the countries featured in this report (excluding Kosovo) was 20, much lower than the global average of 211. However, this masks a large variation from two in Belarus to 60 in Kyrgyzstan (Figure 1.1). It is also much higher than the EU average of six maternal deaths per 100,000 live births. [6]

Between 2000 and 2017, there was a 38 per cent reduction in the global MMR. Over the same period, the countries featured in this report achieved a 52 per cent reduction (the MMR declined from 42 maternal deaths per 100,000 live births in 2000 to 20 in 2017). [2] Nearly all these countries made good progress in reducing their MMR between 2000 and 2017. The biggest percentage reductions occurred in countries in Central Asia and Eastern Europe: Belarus (91 per cent reduction), Kazakhstan (84 per cent), Turkmenistan (76 per cent) and Tajikistan (68 per cent).

Figure 1.1: Maternal mortality ratio, 2000 and 2017

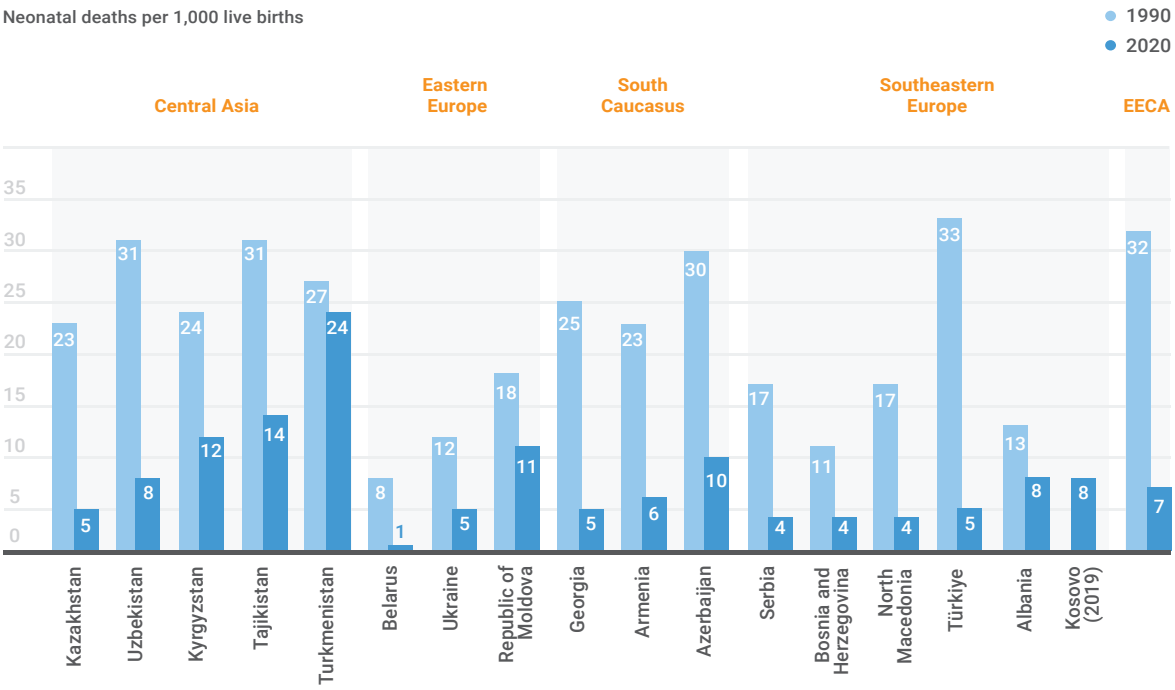


Source: World Health Organization et al., 2019. [2] Note: no data available for Kosovo.

In the same vein, Sustainable Development Goal 3 includes a target to reduce the global neonatal mortality rate (NMR) to no more than 12 neonatal deaths per 1,000 live births. [7] Figure 1.2 shows that two Central Asian countries had an NMR above this level in 2020: Tajikistan (14) and Turkmenistan (24). In 2020, the average NMR for the countries and territories in this report was seven. Again, this is much higher than the 2019 EU average of two deaths per 1,000 live births. [8]

Between 1990 and 2020, the global NMR declined by 54 per cent. Collectively, the countries featured in this report (excluding Kosovo) achieved a 78 per cent reduction, from 32 neonatal deaths per 1,000 live births to seven. Figure 1.2 shows that all countries made progress over this period, most notably: Belarus (88 per cent reduction), Türkiye (85 per cent), Georgia (80 per cent), Serbia (80 per cent), Kazakhstan (79 per cent) and North Macedonia (78 per cent).

Figure 1.2: Neonatal mortality rate, 1990 and 2020

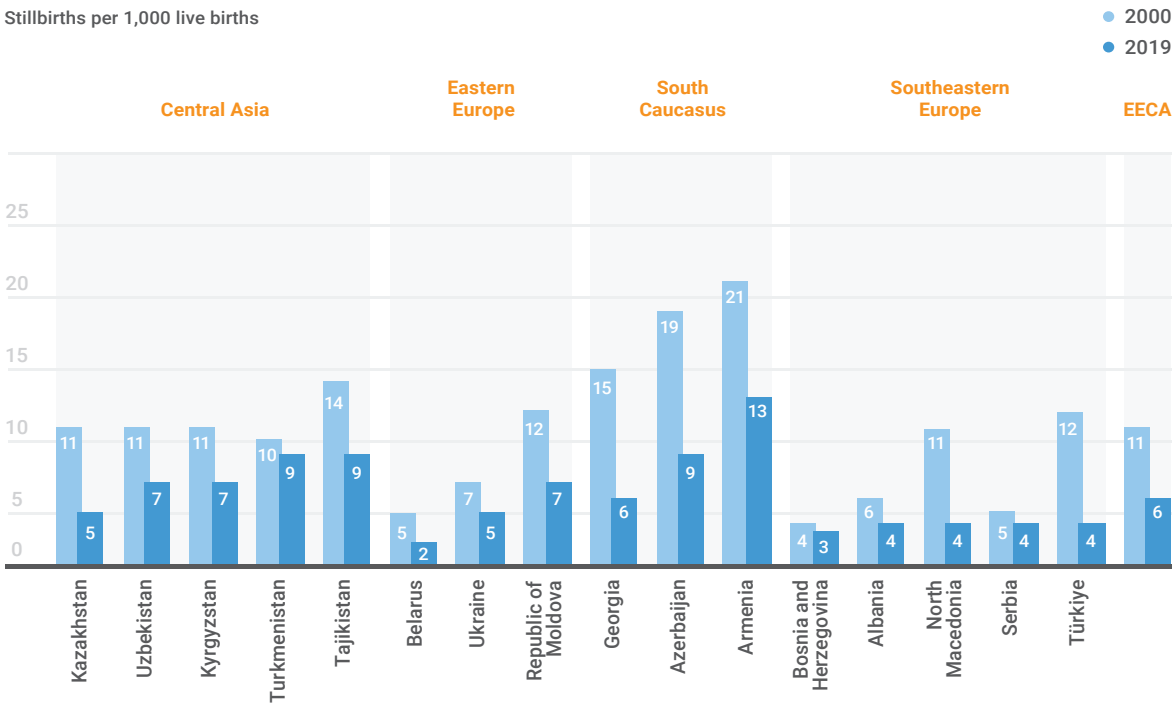


Source: United Nations Inter-agency Group for Child Mortality Estimation (UN IGME), 2021 [9], except for Kosovo: Eurostat, 2021 [10]. This data source did not include an estimate for the EECA countries and territories as a whole. The 'total' figure was calculated for this report based on UN IGME estimates of neonatal deaths and United Nations estimates of live births for the listed countries and territories, excluding Kosovo.

Figure 1.3 shows that, in the countries featured in this report (excluding Kosovo), the overall number of stillbirths per 1,000 total births in 2019 was six. This is much lower than the global average of 14, and all EECA countries had a stillbirth rate below this global average. Armenia had the highest estimated rate in the region (13) and Belarus the lowest (2). Countries in Southeastern Europe tended to have lower stillbirth rates than countries in other parts of the region.

Between 2000 and 2019, the global stillbirth rate declined by 35 per cent. Across the countries included in Figure 1.3, the overall reduction was 45 per cent. All EECA countries made progress, especially Türkiye (63 per cent reduction), Georgia (62 per cent) and North Macedonia (62 per cent).

Figure 1.3: Stillbirth rate, 2000 and 2019



Source for country estimates: UN IGME, 2020. [9] This data source does not include an estimate for the UNFPA EECA countries and territories. The 'total' figure was calculated for this report based on UN IGME estimates of stillbirths and United Nations estimates of live births for the listed countries. Note: no data available for Kosovo.

Figures 1.1 to 1.3 show that, as a whole, EECA countries made faster progress on neonatal mortality than on maternal mortality and stillbirths in recent decades. However, this pattern was not evident in every country. Five countries (Belarus, Kazakhstan, Republic of Moldova, Tajikistan and Turkmenistan) made faster progress on maternal mortality than on neonatal mortality and stillbirths.

In Table 1.1, green shading indicates the five countries with the largest percentage reductions for each measure of mortality, and orange shading indicates the five countries with the smallest reductions. Two countries (Belarus and Türkiye) made relatively good progress on all three measures, but all other countries made better progress on some measures than others. For example, Georgia made very little progress on maternal mortality but good progress on neonatal mortality and stillbirths. Serbia made very little progress on maternal mortality and stillbirths, but very good progress on neonatal mortality. Turkmenistan made very little progress on neonatal mortality and stillbirth, but good progress on maternal mortality.

Table 1.1: Reductions in maternal and neonatal mortality rates and ratios (%)

		REDUCTION IN		
		MATERNAL MORTALITY RATIO (MMR)	NEONATAL MORTALITY RATE (%)	STILLBIRTH RATE
		2000–2017	1990–2020	2000–2019
Central Asia	Kazakhstan	84%	79%	52%
	Kyrgyzstan	24%	52%	37%
	Tajikistan	68%	55%	35%
	Turkmenistan	76%	12%	15%
	Uzbekistan	29%	75%	41%
Eastern Europe	Belarus	91%	88%	60%
	Republic of Moldova	57%	43%	41%
	Ukraine	46%	59%	33%
South Caucasus	Armenia	40%	75%	38%
	Azerbaijan	45%	68%	53%
	Georgia	19%	80%	62%
Southeastern Europe	Albania	35%	38%	36%
	Bosnia and Herzegovina	41%	64%	30%
	Serbia	8%	80%	16%
	North Macedonia	46%	78%	62%
	Türkiye	60%	85%	63%
	EECA	**52%**	**78%**	**45%**

Sources: see Figures 1.1 to 1.3. Note: no data available for Kosovo.

A recent study identified significant increases in maternal death and stillbirth during the COVID-19 pandemic compared with before the pandemic, especially in low- and middle-income countries (LMICs). [4] It is therefore possible that the progress highlighted earlier will have slowed or stalled in some or all EECA countries.

The "survive, thrive and transform" objectives of the *Global Strategy for Women's, Children's and Adolescents' Health* aim not only to reduce preventable deaths, but also to transform societies so that women, children and adolescents everywhere can realize their rights to the highest attainable standards of health and well-being. [11] Sexual, reproductive, maternal, newborn and adolescent health (SRMNAH) is an essential component of the Sustainable Development Goals, particularly Goal 3 on good health and well-being and Goal 5 to "Achieve gender equality and empower all women and girls". [7]

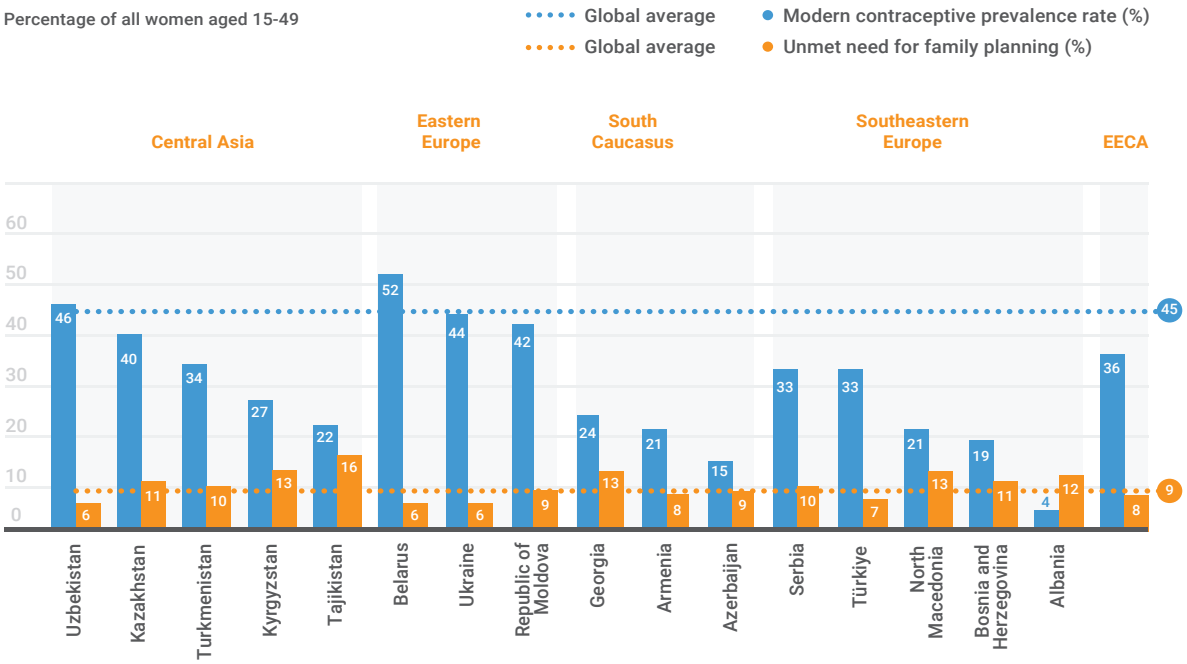
Health and well-being depend on access to health services across the life course.

In the case of SRMNAH, the continuum of care includes adolescent sexual and reproductive health, pre-pregnancy, antenatal, childbirth and post-partum.

Figure 1.4 shows the modern contraceptive prevalence rate (mCPR) and unmet need for family planning for the countries featured in this report (excluding Kosovo). The global mCPR is 45 per cent (represented by the blue dotted line), but in the EECA countries and territories it is 36 per cent (49 per cent among married or "in union" women). Within the region, there is considerable diversity: the mCPR is above the global average in both Belarus (52 per cent) and Uzbekistan (46 per cent), and the lowest rate is in Albania (4 per cent).

Unmet need for family planning has less variation, ranging from 16 per cent in Tajikistan to 6 per cent in Belarus, Ukraine and Uzbekistan. Global unmet need is 9 per cent (represented by the orange dotted line in Figure 1.4) and for the EECA countries and territories it is 8 per cent. However, nine EECA countries exceed the global average. Eastern European countries tend to have the highest mCPR and lowest levels of unmet need.

Figure 1.4: Modern contraceptive prevalence rate (mCPR) and unmet need for family planning, most recent available year



Source: UNFPA, 2021. [12] Note: no data available for Kosovo

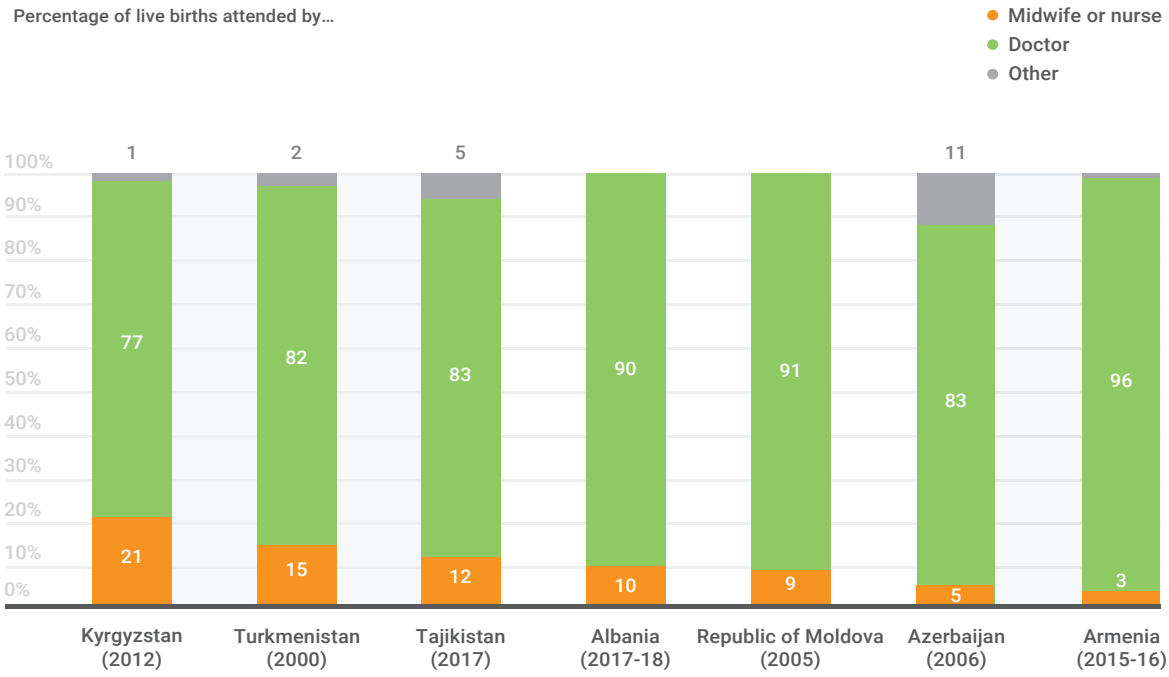
In the EECA countries and territories the overall total fertility rate (average number of children per woman) is 2.1, which is below the global average of 2.4. [12] All five EECA countries in Central Asia have a rate equal to or above the global average: Tajikistan (3.5), Kyrgyzstan (2.9), Kazakhstan (2.7), Turkmenistan (2.7) and Uzbekistan (2.4). The region's lowest fertility countries

are Bosnia and Herzegovina (1.2) and Republic of Moldova (1.3).

Adolescent birth rates in the region average 27 births per 1,000 girls aged 15–19, [12] which is much higher than the EU average of nine. [13] Within the EECA countries and territories, the adolescent birth rate varies from 11 in Bosnia and Herzegovina to 54 in Tajikistan. [12] Two EECA countries have rates above the global average of 41: Azerbaijan (45) and Tajikistan (54).

Another critical aspect of preserving adequate SRMNAH is access to antenatal, childbirth and postnatal care for pregnant women and newborns. All the countries and territories featured in this report have very high skilled birth attendance (SBA) rates: the lowest rate is in Tajikistan at 95 per cent. [14] Figure 1.5 shows that a large majority of births in the countries shown are attended by doctors – 90 per cent and above in Albania, Armenia and the Republic of Moldova. Midwife- or nurse-attended births constitute a much smaller proportion, ranging from 3 per cent in Armenia to 21 per cent in Kyrgyzstan.

Figure 1.5: Type of skilled birth attendant, most recent available year

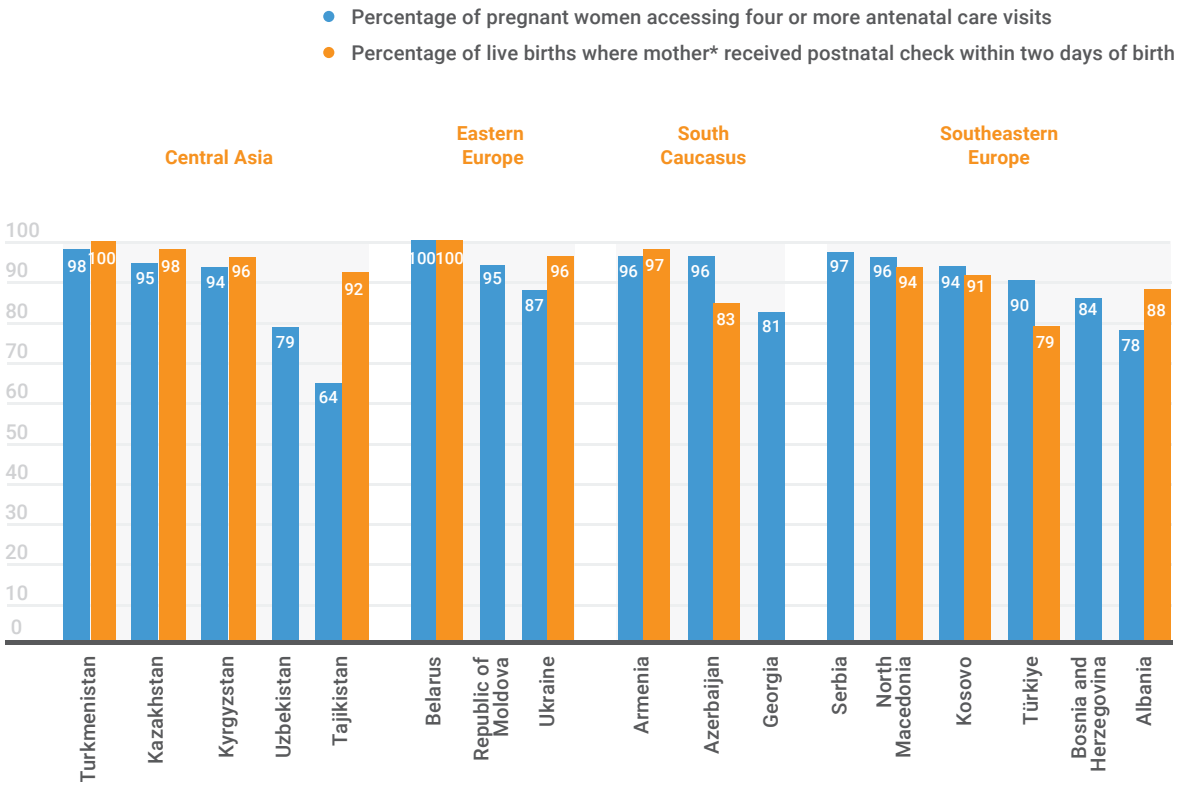


Source: ICF, 2022. [15]

Figure 1.6 shows that most women in the EECA countries and territories access four or more antenatal care (ANC) visits. All countries and territories in the region reported rates well above the global average of 55 per cent. The lowest rates in the region were evident in Albania (78 per cent), Tajikistan (64 per cent) and Uzbekistan (79 per cent). Rates of postnatal care (PNC) for mothers are similarly high. The percentage of women with live births who received a postnatal check within

two days ranged from 99.8 per cent in Turkmenistan to 79 per cent in Türkiye, all much higher than the global average of 63 per cent. However, PNC data were unavailable for several EECA countries: Bosnia and Herzegovina, Georgia, North Macedonia, Republic of Moldova, Serbia and Uzbekistan.

Figure 1.6: Accessing antenatal and postnatal care in Eastern Europe and Central Asia, most recent available year



Source: UNICEF 2021. [14] *PNC rates for newborns are not shown but are similar to those for mothers, except in Türkiye (68 per cent).

The 1994 International Conference on Population and Development (ICPD) in Cairo shone a light on the importance of sexual and reproductive health as a fundamental human right. It marked a fundamental shift in global thinking on population and development issues by moving away from a focus on reaching specific demographic targets towards a focus on the needs, aspirations and rights of individual women and men. It asserted that the true measure of progress should be the extent to which inequalities are addressed. [16]

Ahead of the twenty-fifth Anniversary of the ICPD in 2019, United Nations Member States from across Europe, North America and Central Asia met at a regional review conference in Geneva in 2018, organized by the United Nations Population Fund (UNFPA) and the

United Nations Economic Commission for Europe (UNECE). Participants reconfirmed their commitment to implementing the Programme of Action adopted at the ICPD and reaffirmed its centrality in achieving the 2030 Agenda for Sustainable Development. UNFPA committed to accelerate progress by mobilizing political and financial momentum to complete the unfinished business of the ICPD Programme of Action, [17] collaborating with key partners as appropriate. [18] Partners have identified some key challenges to be addressed, including: inequity within and between countries, increasing use of modern contraceptive methods, high rates of adolescent pregnancy in some countries and increasing incidence of human immunodeficiency virus (HIV). [19, 20]

In 2019, Kenya hosted a global summit to take stock of progress over the 25 years since the first ICPD. The Nairobi Statement on ICPD25 made 12 global commitments to complete the ICPD agenda, including: (i) zero unmet need for family planning information and services, (ii) zero preventable maternal deaths, and (iii) access for all adolescents and youth to comprehensive and age-responsive sexual and reproductive health information and services. [21]

None of these commitments can be achieved without investment in the SRMNAH workforce. Sustainable health systems based on primary health care are essential to the health and well-being of every woman, newborn and adolescent. The *Global Strategy on Human Resources for Health* [22] emphasizes that without an effective health workforce, no health system is viable and universal health coverage (UHC) cannot be achieved. High-quality SRMNAH care requires a competent, educated, motivated and supported workforce.

The UNFPA Strategic Plan, 2022–2025, includes three transformative results: ending the unmet need for family planning; ending preventable maternal deaths; and ending gender-based violence and harmful practices. [23] The 2022–2025 regional programme for the EECA countries and territories includes

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strengthening institutional capacities of the sexual and reproductive health workforce as well as strengthening professional and academic networking between regional and global institutions and societies, including midwives. [24]

UNFPA led the development of *The State of the World's Midwifery 2021* report (SoWMy 2021), which highlighted the many and varied returns of investment in midwives. It called for "bold investments" in four areas: (i) health workforce planning, management, regulation and the work environment, (ii) high-quality education and training for midwives, (iii) midwife-led improvements to SRMNAH service delivery and (iv) midwifery leadership and governance. [25]

In the context of the global and regional policies and strategies mentioned here, the UNFPA Eastern Europe and Central Asia Regional Office commissioned this report, with the following objectives:

- Provide a situation analysis in the context of the EECA countries and territories;
- Provide an EECA countries and territories and country-specific status report on the midwifery workforce, including additional data beyond that featured in SoWMy 2021, tailored for the EECA countries and territories;
- Highlight any disparities within the region and between countries;
- Assess the extent to which the workforce is currently able to meet the need for SRMNAH services and project forward to 2030; and
- Provide recommendations for advancing midwifery throughout the EECA countries and territories.

This report covers 17 countries and territories in the UNFPA EECA region. Data from the global SoWMy 2021 report provide a basis for this report. [25] UNFPA offices in the region were invited to review these data and consult with relevant national stakeholders to provide updates or fill gaps. Updates

Photo credit: © UNFPA Ukraine / Andrii Krepkyh

Sustainable health systems based on primary health care are essential to the health and well-being of every woman, newborn and adolescent.

and/or additional data were provided by all countries and territories except Albania, Armenia and Kazakhstan. For these three countries, the data shown in Chapters 2 and 3 are those submitted as part of the SoWMy 2021 data collection process. The SoWMy 2021 data were validated by competent national authorities and are shown in bold type in the country profiles. New data provided during the preparation of this regional report appear in regular font in the country profiles.

The data collection and analysis methods are described in SoWMy 2021 web appendices 2 and 3. [26] Where the methods employed in this report differ from those used in SoWMy 2021, mention is made in the Technical Annex of this report.

Locating and validating health workforce data can be difficult, and has become even more difficult as the world continues to fight the COVID-19 pandemic. We appreciate the tremendous efforts of national stakeholders to provide data despite competing priorities, but health workforce data systems were clearly a serious restriction in many countries even before the pandemic. Limitations include: lack of data on the private sector, inability to disaggregate data into subnational administrative areas and, in some cases, outdated data that do not adequately reflect the current situation.

In addition, several countries and territories in the EECA region are affected by humanitarian emergencies caused by conflict or natural disasters. In some countries the crises are protracted, and in others there is political instability. All of these situations may have a negative impact on the capacity of the SRMNAH workforce to meet the needs of populations, and they make it more difficult to predict future supply, need and demand for the SRMNAH workforce. The analyses presented in this report should be interpreted with this limitation in mind.

02

Photo credit: © EU4GenderEquality Republic of Moldova

Midwifery workforce availability, 2020–2030

This chapter describes and analyses workforce data from the EECA countries and territories to provide a situation analysis and future projections to 2030. Many analyses have been disaggregated by geographical cluster (Central Asia, Eastern Europe, South Caucasus, Southeastern Europe), to highlight geographical variations. All six countries and territories in the Southeastern Europe cluster are currently candidates or potential candidates for EU membership. Additional disaggregation dimensions were explored, but since they were not found to help explain variations between countries, they are not shown in this report.

Where possible, data from the EECA countries and territories are compared with equivalent data for the EU and the world. The EU and global comparisons were calculated from the data provided by countries participating in SoWMy 2021. The number of responding countries in EECA, the EU and the world is shown for each indicator.

Defining midwives and other SRMNAH workers

This report focuses primarily on midwives because, if available in sufficient numbers and if fully educated, regulated and integrated within an interdisciplinary team, midwives could meet about 90 per cent of the need for essential SRMNAH interventions. [25] To understand their pivotal role it is necessary to define and consider their place within the SRMNAH workforce. This report uses international definitions of health occupations to enable comparison between countries and the International Standard Classification of Occupations (ISCO) system [27] to classify the SRMNAH workforce into occupation groups based on their roles and responsibilities (see SoWMy 2021 web appendix 1 [26]). Not all these occupations exist in every country, but where they do and where data are available, they are included in the analysis.

The occupations considered to be part of the SRMNAH workforce in this report are: professional and associate professional midwives and nurses, "SRMNAH doctors" (general medical practitioners (including family health doctors), obstetricians/gynaecologists and paediatricians), paramedical practitioners and community health workers (CHWs).

Some countries have SRMNAH workers who are qualified to practise both midwifery and nursing. In this report, they are referred to as "nurse-midwives". In the analyses presented in this chapter, nurse-midwives are counted as midwives. They are therefore not included within the counts of nurses, even though some of them may be practising as nurses at least some of the time.

The need for midwives and other SRMNAH workers

In this report, the need for midwives and other SRMNAH workers is defined as the amount of SRMNAH worker time that would be required to achieve universal, high-quality coverage of the essential SRMNAH interventions listed in the *Global Strategy for Women's, Children's and Adolescents' Health*. [11]

Across the 17 countries and territories included in this report, 187 million SRMNAH worker hours would have been required to meet all the need in 2020. Half (51 per cent) of this time is for maternal and newborn health interventions (antenatal, childbirth and postnatal care), 41 per cent is for other sexual and reproductive health interventions (such as counselling, contraceptive services, comprehensive abortion care and detection and management of sexually transmitted infections) and 7 per cent is for adolescent sexual and reproductive health interventions.

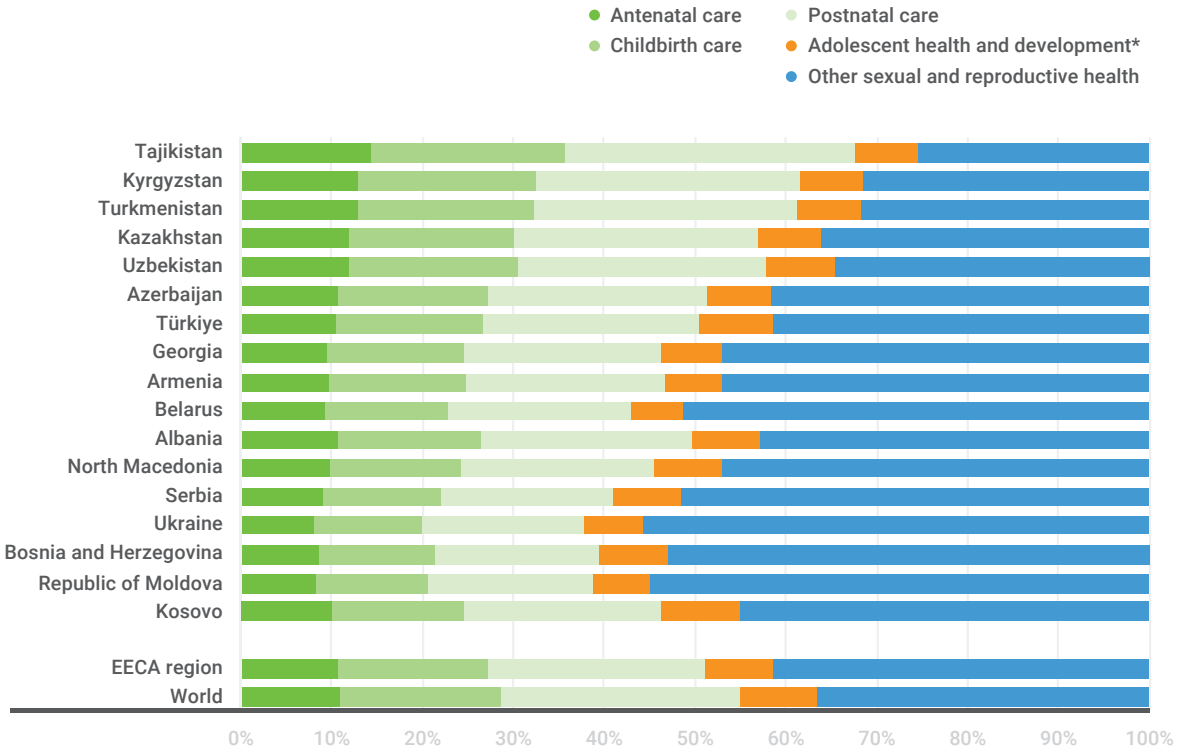
The two main drivers of need for SRMNAH workers are population size and fertility rate. Variations in fertility rates (along with epidemiological factors such as HIV prevalence) also influence the skill mix needed within the workforce.

In **higher fertility** settings the workforce should contain a **higher percentage of SRMNAH workers** competent to provide maternal and newborn health care. [28]

Figure 2.1 shows the proportions of SRMNAH worker time needed at different stages of the continuum of care for each country and territory, arranged in order of the total fertility rate, from highest to lowest. In the higher fertility countries in Central Asia, approximately 60 per cent of the need for SRMNAH worker time is for maternal and newborn health interventions, represented by the green segments in the chart. By contrast, in the region's lowest fertility country (Republic of Moldova), less than 40 per cent of the need is for maternal and newborn health interventions.

Photo credit: © UNFPA Uzbekistan / Nazokatkhon Fayzullaeva

Figure 2.1: Percentage of SRMNAH worker time needed at each stage in the continuum of care, 2020



* The needs of adolescent girls aged 15–19 were included within those of women of reproductive age, so the estimate for adolescent health and development covers the sexual and reproductive health needs of girls aged 10–14 and boys aged 10–19.

Availability and composition of the current workforce

Number of SRMNAH workers in the region

Across the 17 participating EECA countries and territories, there are 1.7 million SRMNAH workers. Table 2.1 shows that three quarters (77 per cent) are nurses without formal training in midwifery and 13 per cent are SRMNAH doctors (general practitioners, obstetricians and gynaecologists and paediatricians). Fewer than one in 10 (8 per cent) are professional or associate professional midwives or nurse-midwives.

Table 2.1: Number of SRMNAH workers, 2020

OCCUPATION	NUMBER OF REPORTING COUNTRIES/TERRITORIES	NUMBER OF WORKERS REPORTED	% OF TOTAL SRMNAH WORKFORCE
Midwifery professionals	10	96,995	5.7
Midwifery associate professionals	6	15,108	0.9
Nurse-midwife professionals	3	12,103	0.7
Nurse-midwife associate professionals	1	12,342	0.7
Nursing professionals*	12	757,162	44.2
Nursing associate professionals*	8	569,599	33.3
Community health workers	2	1,115	0.1
Paramedical practitioners	2	19,105	1.1
Medical assistants	1	1,582	0.1
General medical practitioners	17	154,590	9.0
Obstetricians and gynaecologists	17	38,559	2.3
Paediatricians	17	33,777	2.0
TOTAL		**1,712,037**	**100.0**

* Including only nurses without formal midwifery training: nurses with formal midwifery training are counted as nurse-midwives.

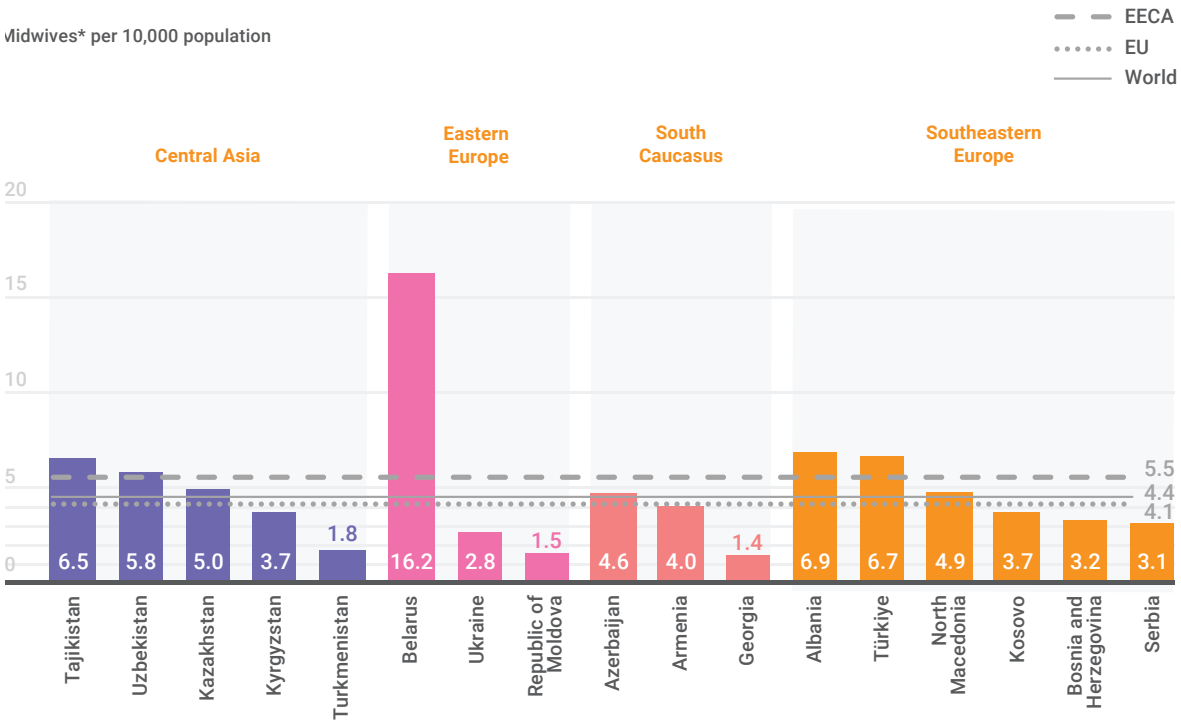
The focus of the remainder of the analysis in this chapter is on midwives/nurse-midwives (the blue rows in Table 2.1), nurses (the orange rows in Table 2.1) and SRMNAH doctors (the green rows in Table 2.1). Few countries reported the number of paramedical practitioners, medical assistants and CHWs, but when they were provided they are shown in the individual country profiles and used in estimates of the potential of the SRMNAH workforce to meet the need.

Current availability of midwives, nurses and SRMNAH doctors

Across the 17 EECA countries and territories featured in this report, there are 137,000 midwives, giving a density of 5.5 midwives per 10,000 population. This is more than the global figure of 4.4 midwives per 10,000 population and the EU figure of 4.1.

Figure 2.2 shows there is massive variation in midwife density between countries in the region, ranging from 16.2 per 10,000 population in Belarus to 1.4 in Georgia. Although the overall midwife density for the EECA countries and territories is above the global average, half of EECA countries and territories have a density *below* the global average: Armenia, Bosnia and Herzegovina, Georgia, Kyrgyzstan, Republic of Moldova, Serbia, Turkmenistan, Ukraine and Kosovo.

Figure 2.2: Midwife density

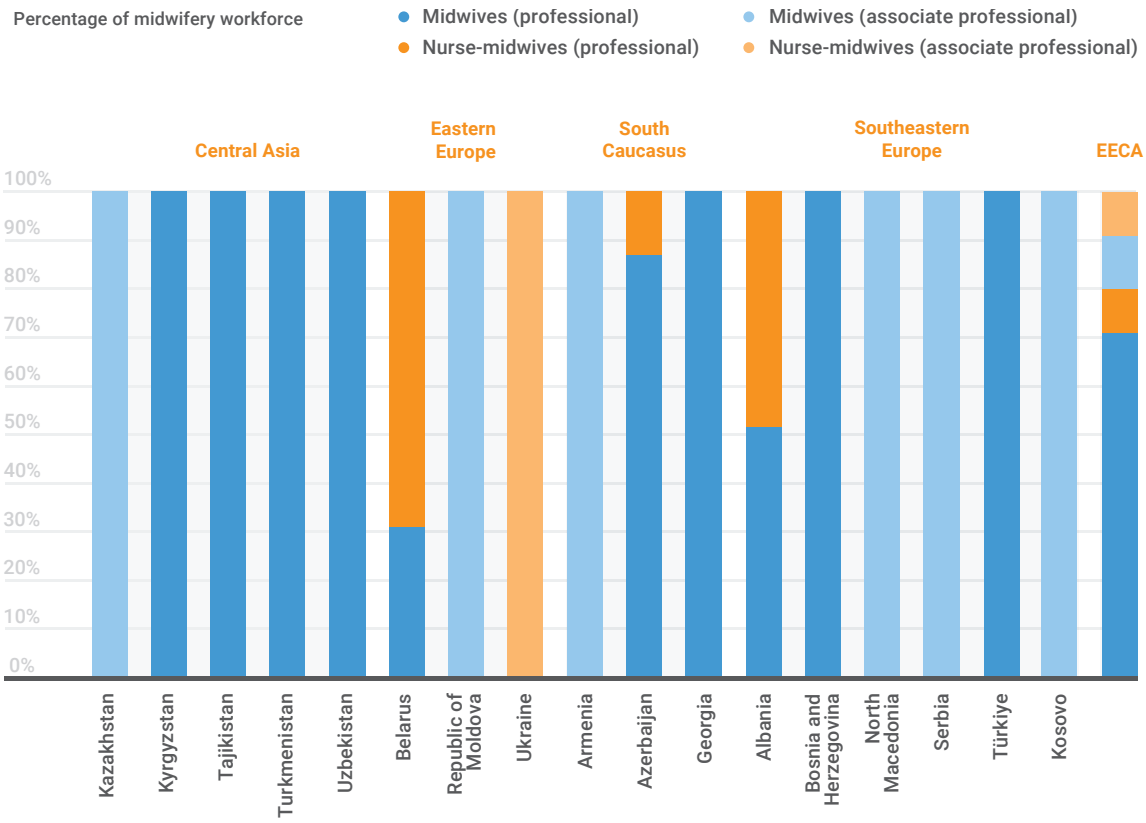


* Including professional and associate professional midwives and nurse-midwives.

Of the 137,000 midwives in the region, 71 per cent (97,000) are categorized as midwifery professionals. Of the remainder, 15,000 (11 per cent) are classified as midwife associate professionals, 12,000 (9 per cent) as nurse-midwife professionals and 12,000 (9 per cent) as nurse-midwife associate professionals. However, these aggregate figures mask the fact that most countries in the region have just one type of midwife in the workforce. Figure 2.3 shows that only four countries have nurse-midwives, none of which are in Central Asia.

Seven countries and territories have no professional midwives or nurse-midwives: Armenia, Kazakhstan, North Macedonia, Republic of Moldova, Serbia, Ukraine and Kosovo. In all other countries in the region, all the midwives/nurse-midwives are categorized as professionals. No country has both professional and associate professional midwives.

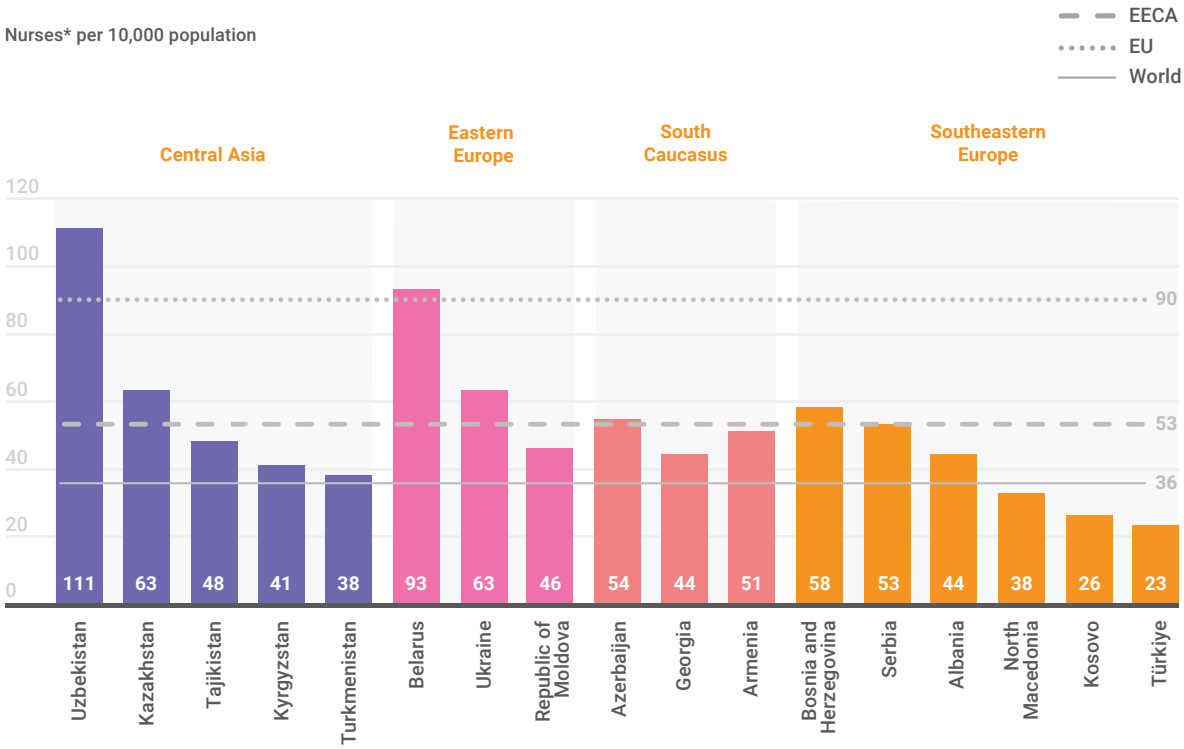
Figure 2.3: Composition of the midwifery workforce



Like all health professionals, the SRMNAH workforce is most effective when it operates within a fully enabled health system/work environment, with each person working to their full scope of practice so that, collectively, the team possesses all the competencies required to provide high-quality, respectful SRMNAH care. [29] Availability of midwives must therefore be considered in the context of availability of other key SRMNAH workers, especially nurses and doctors.

The EECA countries and territories, as a whole, have 53 nurses per 10,000 population (excluding nurse-midwives), well above the global average of 36 per 10,000 but well below the EU average of 90 per 10,000. Figure 2.4 also shows considerable diversity within the region. The overall EECA figure is somewhat skewed by two countries with a very high nurse density (Belarus and Uzbekistan). Most EECA countries and territories have a nurse density below 53 while two (Türkiye and Kosovo) have a nurse density well below the global average.

Figure 2.4: Nurse density



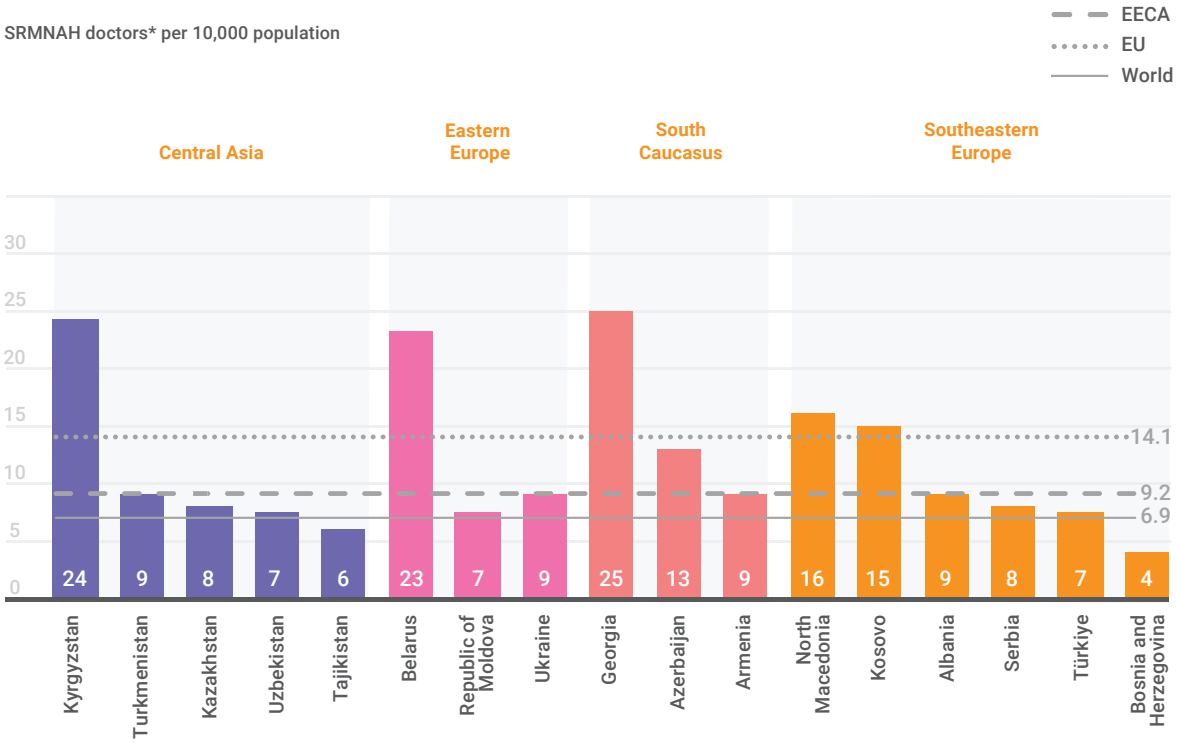
* Including professional and associate professional nurses and excluding nurse-midwives.

The EECA countries and territories have nine SRMNAH doctors (general practitioners, obstetricians and gynaecologists and paediatricians) per 10,000 population, slightly above the global average of seven per 10,000 but below the EU average of 14 per 10,000.

Again, there is considerable variation between countries and territories, as illustrated in Figure 2.5. Belarus, Georgia and Kyrgyzstan have very high SRMNAH doctor density, whereas Bosnia and Herzegovina and Tajikistan have a density below the global average.

Photo credit: © UNFPA Albania / Besfort Kryeziu

Figure 2.5: SRMNAH doctor density

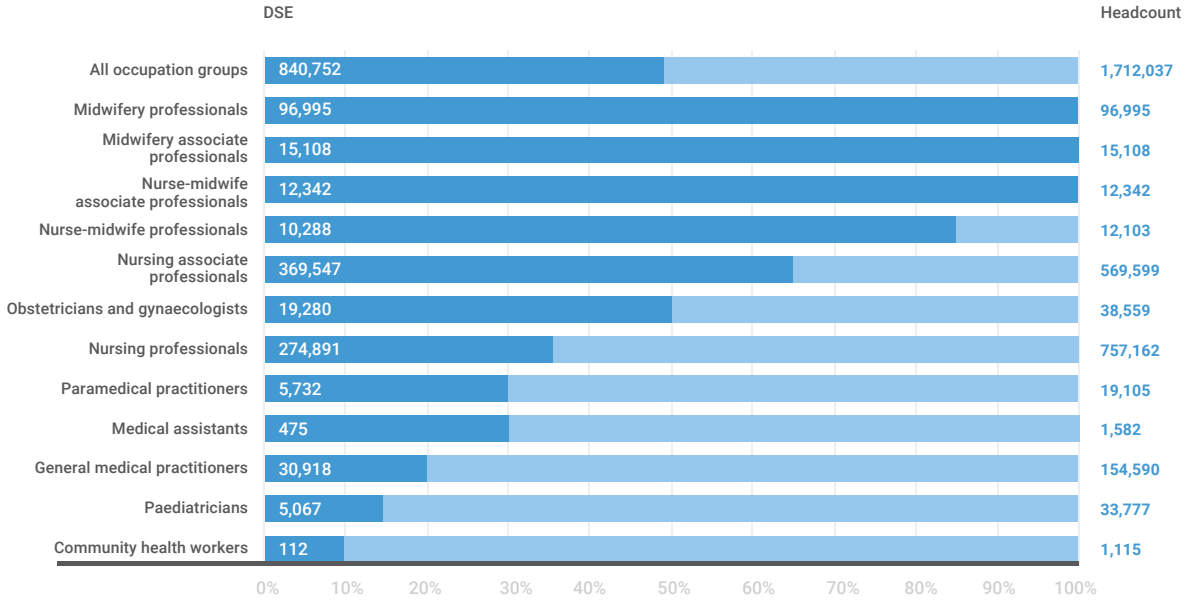


* General medical practitioners, obstetricians and gynaecologists and paediatricians.

In addition to the headcounts, it is also important to consider how much of each occupation group's clinical time is available to spend on SRMNAH care. It would be inaccurate to assume that they can all spend all their time on SRMNAH. To address this issue, this report uses the concept of a "dedicated SRMNAH equivalent", or DSE, worker.

DSE has been calculated by estimating the average percentage of clinical contact time each occupation spends on SRMNAH (see SoWMy 2021 web appendix 3. [26]). The impact of the DSE adjustment is illustrated in Figure 2.6: the DSE workforce is just over 840,000, or 49 per cent of the 1.7 million SMRNAH workers in the region.

Figure 2.6: SRMNAH workforce: headcount versus dedicated SRMNAH equivalent (DSE)

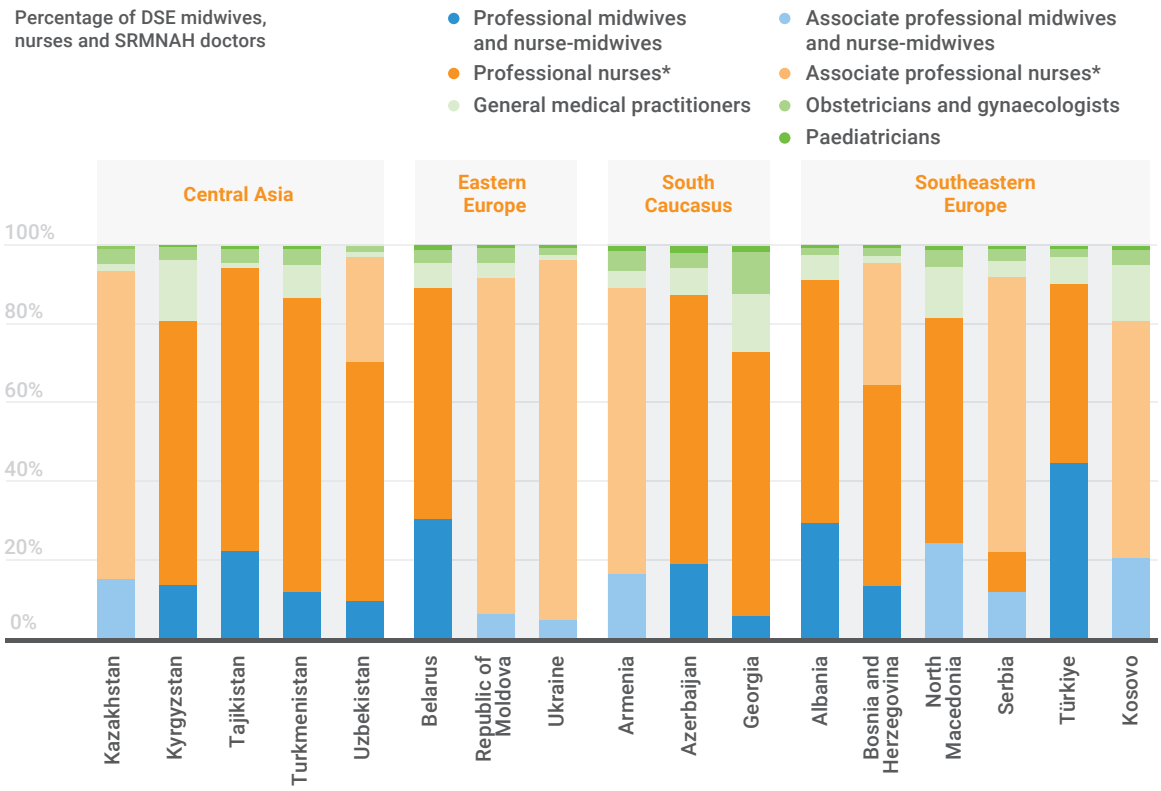


Note: the figures for nursing professionals and nursing associate professionals exclude nurse-midwives.

Figure 2.7 shows the composition of the main occupation groups within the DSE workforce: midwives/nurse-midwives (blue segments), nurses (orange segments) and SRMNAH doctors (green segments). Across the region as a whole, 16 per cent of the DSE workforce in these three groups are midwives/nurse-midwives, 77 per cent are nurses and 7 per cent are doctors.

Globally, midwives account for 19 per cent of the DSE workforce. Based on this measure, EECA is broadly in line with the global average. Again, however, there is variation between countries and territories. For example, in Türkiye almost half of the DSE workforce are midwives, and midwives account for about one third of the DSE workforce in Albania and Belarus. By contrast, in Georgia, Republic of Moldova and Ukraine, midwives account for less than 10 per cent of the DSE workforce. Several countries and territories rely relatively heavily on doctors to form the DSE workforce, mostly notably Georgia, Kyrgyzstan and Kosovo.

Figure 2.7: Composition of DSE midwifery, nursing and SRMNAH doctor workforce



* The figures for nurses exclude nurse-midwives. DSE = dedicated SRMNAH equivalent.

Potential of the workforce to meet the need for essential interventions

The analysis conducted for this report includes a modelled estimate of each country's potential met need (PMN), defined as the extent to which the SRMNAH workforce is large enough and has the appropriate composition to meet population need. The PMN estimates are based on assumptions of the clinical time needed to achieve universal coverage of the essential SRMNAH interventions (see SoWMy 2021 web appendix 5 [26]).

Based on each country's demography and epidemiology, PMN estimates the maximum percentage of the need for essential SRMNAH interventions that could possibly be met by the current workforce if it was well-educated, equitably distributed and working within an enabling environment (and thus able to deliver high-quality care). An enabling environment means that SRMNAH workers can practise to their full scope, are accountable for independent decisions within the required standard operating procedure, work within a functional health infrastructure with adequate human resources, equipment and supplies, have access to timely and

respectful consultation, collaboration and referral, be safe from physical and emotional harm and have equitable compensation, including salary and working conditions. Where constraints prevent the workforce from operating to its full potential (e.g. poor infrastructure, unnecessary restrictions to scope of practice, ineffective supply chains, poor quality education, inequitable geographical distribution) the actual level of need being met will be lower than is indicated by the PMN estimate.

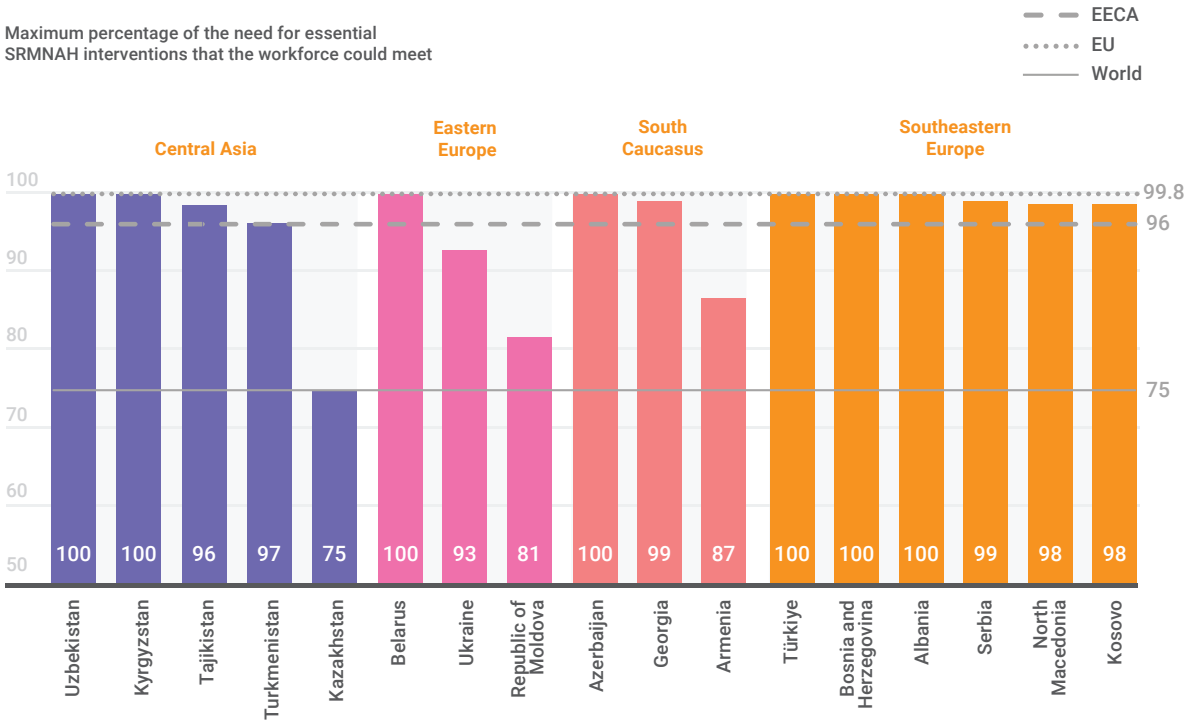
Figure 2.8 shows that the overall PMN for the region is 96 per cent, well above the global average of 75 per cent, but slightly below the EU average of 100 per cent. Seven EECA countries have 100 per cent PMN and four have estimates below 95 per cent: Armenia (87 per cent), Kazakhstan (75 per cent), Republic of Moldova (81 per cent) and Ukraine (93 per cent).

A low PMN estimate indicates that the SRMNAH workforce is too small and/or does not have the correct composition to meet the need. In the case of Armenia, Kazakhstan, Republic of Moldova and Ukraine, the issue is the composition of the workforce rather than the size. These countries' midwives and nurses are all classified as associate professionals, who have a narrower range of competencies compared to professional midwives and nurses. In the case of Republic of Moldova, if about 10 per cent of associate professional midwives were upskilled to the level of a professional midwife, the country's PMN estimate would be close to 100 per cent.

It should be noted that Armenia and Kazakhstan did not participate in the data collection for this regional report, so for these countries we relied on data from the SoWMy 2021 report. For that report, both countries provided a midwife headcount but did not specify whether their midwives were professionals or associate professionals. Similarly, data from Ukraine does not specify whether midwives are professionals or associate professionals. In the absence of this information, it was assumed that they were associate professionals. If this assumption is incorrect and midwives are in fact professionals, then their PMN estimate would be close to 100 per cent. If this assumption is correct and midwives in Armenia, Kazakhstan and Ukraine are associate professionals, these three countries would need to upskill about a third of their midwives to achieve 100 per cent PMN.

Based on each country's demography and epidemiology, PMN estimates the maximum percentage of the need for essential SRMNAH interventions that the current workforce could meet.

Figure 2.8: PMN estimates in EECA countries and territories, 2020



A high PMN estimate indicates that a workforce is large enough to meet the need, but does not necessarily have the optimal composition. For example, a country with many midwives would achieve the same PMN as a country with many doctors, because the time required to deliver interventions is allocated to available competent workers. Thus, if there are too few midwives in a workforce, the time required for interventions that could be delivered by a midwife is allocated to the available doctors and nurses. For example, North Macedonia and Kosovo have no professional midwives, but because they have relatively large numbers of doctors, their PMN is very high. However, it could be argued that it is expensive and inefficient to routinely allocate tasks to doctors that could be performed by midwives. Furthermore, without the option to consult a midwife, women, newborns and adolescents are deprived of the unique philosophy of care that midwives provide, which has been shown to have numerous benefits. [30]

To further understand the issue of suboptimal workforce composition, we also estimated the number of midwives that would be required to meet all the need for interventions for which a midwife is the preferred provider. The preferred provider was selected on the basis of the competencies they should have if educated and regulated according to international standards (see SoWMy 2021 web appendix 6 [26]). Under this approach, tasks are allocated to doctors last, based on the premise that they are relatively expensive to educate and employ and needed only if medical intervention is indicated. Doctors should only be the

preferred provider if no other occupation is competent to perform the task. On this basis, four EECA countries were found to have a midwife shortage even though they have a very high PMN estimate: Georgia (short about 500 DSE midwives), Kyrgyzstan (short about 500), Republic of Moldova (short about 250) and Turkmenistan (short about 1,500). The remaining countries and territories were found to have sufficient numbers of midwives, but the analysis in Chapter 3 of this report calls into question whether they are all educated and regulated to international standards and enabled to provide the interventions for which midwives should be the preferred provider.

Future projections of need, supply and demand

Effective workforce planning and management requires understanding why people join and leave the workforce and how this will affect future workforce availability. Future availability is influenced by several factors, including domestic production of new graduates, health worker migration flows and the age profile of the workforce. Very few countries were able to provide data on these factors, which makes it difficult to produce accurate projections of future availability. Where country data were provided, they are shown in the country profile and used to make workforce supply projections to the year 2030. Otherwise, standard assumptions were applied to make projections (see SoWMy 2021 web appendix 3 [26]).

These projections indicate that all EECA countries and territories will have a PMN of more than 95 per cent by 2030. Nevertheless, three countries are still predicted to have a midwife shortage in 2030, albeit less severe than it is currently: Georgia (short about 100 DSE midwives), Republic of Moldova (short about 10) and Turkmenistan (short about 1,000).

Photo credit: © UNFPA Ukraine / Serhii Tymofieiev

PMN projections are based on population needs and are especially important for countries with insufficient SRMNAH workers to meet the most basic SRMNAH needs. This is rarely the case in the EECA countries and territories. However, even countries with 100 per cent PMN can have acknowledged shortages of midwives and/or other SRMNAH workers because demand for SRMNAH workers and capacity to employ them may exceed the thresholds used to model PMN. Projecting future unmet demand, as well as need, for the SRMNAH workforce can therefore be helpful for formulating workforce policy to prevent future mismatches between supply and demand.

This report adopts an established labour-market approach to project future demand for SRMNAH workers, using an economic model based on projected economic growth, demographics and health spending by both governments and individuals. [31] Demand reflects the willingness of governments and other purchasers to pay for health care, which in turn drives demand for employing health workers.

The model starts with the assumption that all countries currently employ the number of SRMNAH workers that they can afford.[2] Then, by comparing the demand predicted in 2030 with the projected supply in that same year, projections of demand/supply mismatches are made for 2030 (see SoWMy 2021 web appendix 3 [26] for full details). Each country and territory appears in one of four categories to describe the projected situation in 2030:

- Severe demand-based shortage (supply of SRMNAH workers will be less than 50 per cent of demand)
- Moderate demand-based shortage (supply will be between 50 per cent and 95 per cent of demand)
- Demand satisfied (supply will be between 95 per cent and 105 per cent of demand)
- Oversupply (supply will be more than 105 per cent of demand)

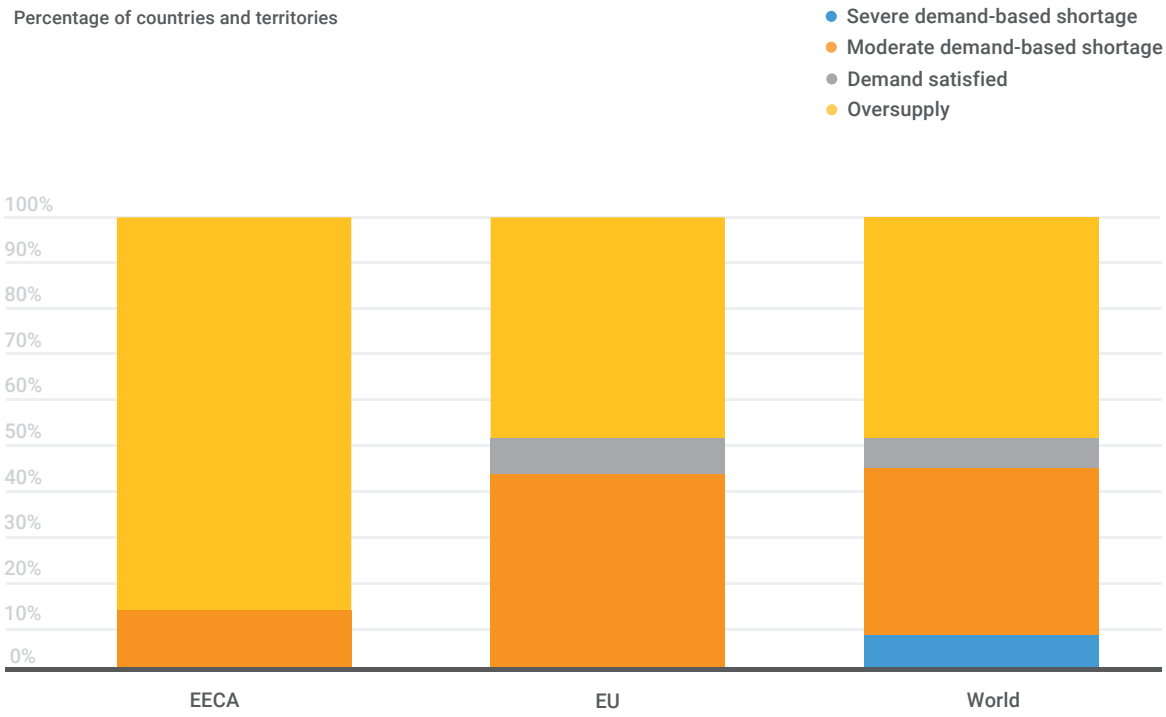
No EECA country or territory is projected to be in the "demand satisfied" category, indicating a need for improved policies and processes to match supply and demand. Neither are any EECA countries and territories projected to have severe demand-based shortages. Rather, nearly all are projected to have an oversupply of midwives, nurses and SRMNAH doctors by 2030. In other words, they will produce more SRMNAH workers than they can afford to employ, which is a waste of resources and could lead to high levels of SRMNAH worker unemployment. The two exceptions are Türkiye and Turkmenistan, which are projected to have a moderate demand-based shortage. This implies that these two countries will need to accelerate the pace of SRMNAH worker production by a moderate amount to ensure they produce enough to fill the available jobs.

Figure 2.9 shows that the situation in EECA is projected to be quite different from the EU and the rest of the world by 2030. EECA countries and territories are much more likely to have an oversupply of SRMNAH workers.

About **half of EU countries** are projected to have an **oversupply**, compared with **nearly all EECA countries and territories**.

2 This is unlikely to be true for all countries and territories, but currently there is no established, standard method of estimating the number of unfilled posts.

Figure 2.9: Estimates of supply versus demand for EECA compared with EU and the world, 2030



Lack of data on the international migration of SRMNAH workers is a major limitation of the projections in this report. In 2010, the World Health Assembly adopted the *WHO Global Code of Practice on the International Recruitment of Health Personnel,* which aimed to improve the ethical management of international recruitment of health workers. [32] A recent study indicated that countries in Europe generally adhere to the code, and thus have reduced the unethical international recruitment from LMICs. [33] However, a 2014 report concluded that health worker migration to EU countries was predominantly from countries in Southern and Eastern Europe, creating imbalances within the European region. [34] This report also showed a moderate amount of health worker migration from Eastern Europe to Australia, coupled with relatively poor integration of Eastern European health workers into the Australian health workforce.

Health worker migration occurs for several reasons, include both "push" and "pull" factors. "Push" factors may include high unemployment rates and/or poor working conditions in source countries, and "pull" factors may include higher salaries, better work environments and more opportunities for professional development in destination countries. [35] The complexity of this issue requires multi-sectoral and regional approaches to managing health workforce mobility. [36]

Impact of COVID-19 on SRMNAH service provision and the workforce

Efforts to contain disease outbreaks can divert resources away from routine SRMNAH care. [37] Published in June 2020, the UNFPA COVID-19 Global Response Plan [38] identified three strategic priorities, one of which was *"continuity of sexual and reproductive health services and interventions, including protection of the health workforce"*. UNFPA recommended investing time and resources in advocacy, particularly for SRMNAH services to be integrated with other relevant services to ensure SRMNAH is not overlooked in the pandemic response. Resilience to COVID-19 and future pandemics will depend on such measures being in place.

The World Health Organization has tracked service disruption due to COVID-19 in several areas of health care. It collected data in two rounds: June–August 2020 and January–March 2021 (Table 2.2, which shows data from the second round relating to SRMNAH services). Most EECA countries and territories did not provide data on SRMNAH service disruption. Missing data was a particular issue for intimate partner violence (IPV) prevention and response. This is of concern because there is evidence that the need for such services increases during times of crisis. [39] Among those countries providing data, most reported relatively low levels of service disruption (less than 5 per cent). Albania, Georgia and Ukraine reported higher levels, especially for family planning and/or safe abortion services.

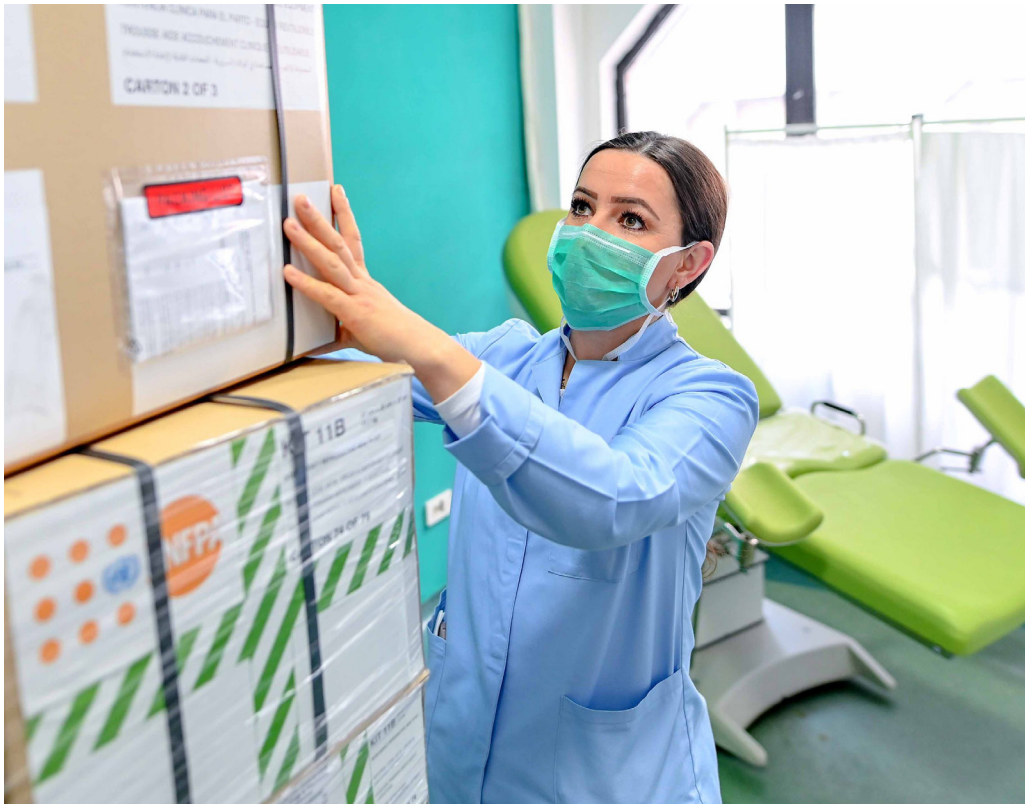


Photo credit: © UNFPA North Macedonia

Table 2.2: Estimated percentage of SRMNAH services disrupted by COVID-19 (January–March 2021) and COVID-19 deaths reported per 100,000 population (February 2022)

	FAMILY PLANNING AND CONTRA-CEPTION	ANTE-NATAL CARE	POST-NATAL CARE	IPV PREVENTION AND RESPONSE	SAFE ABORTION AND POST-ABORTION CARE	FACILITY-BASED BIRTHS	COVID-19 DEATHS PER 100,000 POPULATION
Central Asia							
Kazakhstan	<5%	<5%	<5%	na	<5%	<5%	98
Kyrgyzstan	nr	nr	nr	nr	nr	nr	44
Tajikistan	nr	nr	nr	nr	nr	nr	1
Turkmenistan	dk	dk	dk	dk	dk	dk	nr
Uzbekistan	nr	nr	nr	nr	nr	nr	5
Eastern Europe							
Belarus	nr	nr	nr	nr	nr	nr	65
Republic of Moldova	<5%	<5%	<5%	<5%	<5%	<5%	268
Ukraine	5–25%	5–25%	5–25%	na	5–25%	<5%	234
South Caucasus							
Armenia	dk	<5%	<5%	5–25%	<5%	<5%	273
Azerbaijan	nr	nr	nr	nr	nr	nr	87
Georgia	>50%	<5%	5–25%	<5%	26–50%	<5%	384
Southeastern Europe							
Albania	26–50%	5–25%	5–25%	na	5–25%	<5%	118
Bosnia and Herzegovina	nr	nr	nr	nr	nr	nr	454
North Macedonia	nr	nr	nr	nr	nr	nr	413
Serbia	nr	nr	nr	nr	nr	nr	202
Türkiye	nr	nr	nr	nr	nr	nr	105
Kosovo	nr	nr	nr	nr	nr	nr	175

IPV = intimate partner violence. dk = don't know. na = not applicable. nr = not reported. Source: service disruption data from World Health Organization 2021. [40] COVID-19 death data from WHO 2022. [41]

The World Health Organization estimates that health workers experienced more than triple the risk of COVID-19 infection compared with the general population. [42] To minimize this risk they require priority access to vaccines and personal protective equipment (PPE). However, access to vaccines is only one part of the process: vaccine hesitancy among health workers has been reported in some EECA countries. [43, 44] The International Confederation of Midwives (ICM) has called on all midwives to be vaccinated both to protect themselves and to fulfil their professional obligation to those in their care. [45] A global survey of midwives' associations at the end of

2020 found that, in most countries, midwives had insufficient PPE with the result that they had to make or purchase their own supplies and/or take risks such as reusing single-use PPE or working without PPE. [25] PPE shortages were reported in many EECA countries. [46, 47]

Data on the number of health workers who have died of COVID-19 are scarce. In May 2021, the World Health Organization estimated that, globally, more than 115,000 health workers had died of the disease, more than 40 per cent of whom (about 50,000) were from the WHO European Region. [42]

In addition to the infection risk, health workers are likely to experience increased pressure at work during a pandemic, isolation from family support networks and increased fear for their own safety, which put them at higher risk of mental health problems such as depression, anxiety and burnout. [48, 49] Studies from Türkiye have shown that this applies to SRMNAH workers (including students on clinical placement) as well as to other health occupations. [50–54] Additional psychological support for SRMNAH workers may be needed as part of pandemic management and post-pandemic recovery plans, but there is a lack of high-quality evidence on preferred types of support and the effectiveness of different types of intervention. [55, 56]

The midwifery workforce consists mainly of women, and the suspension of many education, childcare and transport services made it more difficult for working parents, especially women, to work their contracted hours. [57] This will have added to the psychological burden carried by midwives and other health workers. The International Labour Organization (ILO) reported a major decline in average hours worked in 2020, and only a partial recovery in 2021, with recovery even slower in low- and lower-middle-income countries. [58]

Photo credit: © UNFPA North Macedonia

Since the onset of the pandemic, UNFPA has supported midwives in various ways, including: providing PPE and training in its use, supporting government to provide continuity of service delivery including telephone-based care, disseminating evidence-based guidance and supporting educational institutions to provide virtual learning. Such support has been provided to several countries in the EECA region. [59, 60]

Box 2.1 showcases the commitment of midwives to continue to provide essential care during the pandemic. Their bravery and commitment should be celebrated, but health systems should not be totally reliant on it. Midwives and their colleagues also need and deserve to be protected and supported.

Box 2.1: Midwives' commitment to provide care throughout the COVID-19 pandemic: examples from Türkiye and Uzbekistan

Türkiye

In helping ease new life into the world, midwives continue to work with devotion and sacrifice, sometimes putting their own health at risk. During the COVID-19 pandemic, they have continued to work in the community, going the extra mile – sometimes literally – to reach the hard to reach, making house calls or running mobile clinics to alleviate the strain on local health systems.

Umut means "hope" in Turkish. For nearly 30 years, midwife Umut has been working to give hope to mothers and newborns. She explains her love for her job: *"I was born in a village, into the hands of a midwife. Her place is still very special to me. My goal is to have the same effect on every mother and child I contact. It is an indescribable feeling to witness the birth of a living thing. When they are born, they touch us before their mothers. That first contact is so special that words are not enough to explain … I have only one child of my own, but I feel like the mother of dozens of children."*

Umut says that during COVID-19, her work has been very difficult, especially in the first months of the pandemic. She sheds tears as she remembers her colleagues who lost their lives to COVID-19: *"It was like a war zone. Nobody knew what was going on. There were times when I felt very anxious, desperate and helpless. I was worried about myself, my family, my colleagues, mothers and newborns. Now the system is settled, we are much more organized, we do not have equipment shortages …We also have a duty to protect lives from the COVID-19 pandemic: our efforts for mother-child health are even more important now."*

She reports that many pregnant women are still very worried about COVID-19, and midwives have difficulty in persuading pregnant women to seek care. She describes an especially painful event: *"A 9-month pregnant woman had delayed all of her examinations in the past months because she did not want to go to the*

hospital due to the pandemic. It was too late when we reached her. Unfortunately, she lost her baby."

Umut has encountered many pregnant women who tested positive for COVID-19 – she and her colleagues have called and followed all of them one by one for 10 days after a positive test. They have also made changes to the systems within health facilities: *"If the mother is COVID-19 positive, the baby can also be born positive. We take all necessary precautions for this. Positive pregnant women, mothers and newborns are isolated; services are provided to them in different operating maternity and examination rooms and neonatal services."*

Photo credit: © UNFPA Türkiye / Yasin Güngör

Uzbekistan

"When a woman gives birth without tears, without bad consequences, the baby cries, and the paediatrician gives a good assessment of the baby's health, the mother is happy and grateful for our work, this is the happiest moment in our work," says Chalova Aisultan Dzhumaniyazovna, senior midwife of the Republican Specialized Scientific and Practical Center for Obstetrics and Gynecology.

There is no doubt that the work of a midwife is one of the most difficult and most responsible. The life of not one, but two people depends on their actions.

The COVID-19 pandemic has brought additional complications. At the Center, additional oxygen concentrators were purchased, special attention was paid to the use of PPE and an isolation ward for women with suspected COVID-19 was organized and equipped with the necessary supplies.

The clinic was well prepared to combat the spread of the virus. There was no infection of children and the institution was never quarantined during the pandemic. *"I had no fear of contracting COVID-19. Because we have chosen this profession, with hope, confidence and a desire to help others, we are responsible for our patients,"* says Aisultan Dzhumaniyazovna. These words demonstrate a commitment to the profession and a sense of duty to patients, despite the conditions and risks to which midwives may be exposed.

Photo credit: © UNFPA Uzbekistan / Nazokatkhon Fayzullaeva

03

Photo credit: © UNFPA Uzbekistan

Issues affecting midwives in Eastern Europe and Central Asia

Midwife education

It is important for health systems to have sufficient availability of midwives, but it is equally important that the available midwives provide high-quality care. High-quality midwifery education is an essential ingredient of quality of care. [61] Inadequate education and training jeopardize the professional identity, competence and confidence of midwives. [62] In partnership with the ICM, UNICEF and the World Health Organization, UNFPA has published a framework for strengthening quality midwifery education. [63] This identified three strategic priorities: (i) all midwives to be educated and trained to international standards; (ii) the appointment of midwife leaders who can influence key decisions about investment in midwifery education and (iii) better coordination and alignment between stakeholders.

Of the 17 EECA countries and territories featured in this report, 12 provided data about their midwife education programmes. In line with the EU countries that provided data, the most common type of programme in the region is direct-entry midwifery. However, five countries offer post-nursing or integrated nursing and midwifery programmes. The only EECA country to offer more than one type of programme is Tajikistan, which has both a direct-entry and a post-nursing pathway.

Photo credit: © UNFPA Uzbekistan

Table 3.1: Type of midwife education programme available

	COUNTRY/TERRITORY	DIRECT-ENTRY	POST-NURSING	INTEGRATED
Central Asia	Kyrgyzstan	√		
	Tajikistan	√	√	
	Turkmenistan			√
	Uzbekistan	√		
Eastern Europe	Belarus			√
	Republic of Moldova	√		
	Ukraine			√
South Caucasus	Georgia	√		
Southeastern Europe	Bosnia and Herzegovina	√		
	Serbia		√	
	Türkiye	√		
	Kosovo	√		
	EECA total	8/12 (67%)	2/12 (17%)	3/12 (25%)
	EU comparison	13/19 (69%)	6/19 (32%)	1/19 (5%)

Note: Albania, Armenia, Azerbaijan, Kazakhstan and North Macedonia are not shown because they did not provide data on their education programmes.

The opportunity to obtain high-level academic qualifications in midwifery helps to assure professional respect for midwives and midwifery. Table 3.2 shows that seven of the 12 responding EECA countries and territories offer the equivalent of a Bachelor's degree or higher, whereas the other five (Belarus, Kyrgyzstan, Republic of Moldova, Turkmenistan and Ukraine) only offer midwifery qualifications below this level. This compares poorly with the EU, where all countries offer the equivalent of a Bachelor's degree or higher. Although a degree-level qualification is not the only way to prepare professional midwives, it is one indication that the qualification is academically rigorous.

Tajikistan and Kosovo reported that they have both a Bachelor's-level qualification and a lower-level qualification in midwifery, which implies there are different cadres of midwife. However, all midwives in Kosovo are classified as associate professionals and all in Tajikistan as professionals (see Figure 2.3).

Strong midwifery departments in universities encourage further study and research on midwifery and encourage midwives to take the lead in education and research, which is greatly needed. However, just three EECA countries and territories offer postgraduate qualifications in midwifery: Türkiye, Uzbekistan and Kosovo. This contrasts with the responding EU countries, nearly all of which offer a degree-level qualification and postgraduate qualifications in midwifery.

Table 3.2: Available qualifications in midwifery

	COUNTRY/TERRITORY	PHD	MASTER'S	BACHELOR'S	BELOW BACHELOR'S
Central Asia	Kyrgyzstan				√
	Tajikistan			√	√
	Turkmenistan				√
	Uzbekistan	√	√	√	
Eastern Europe	Belarus				√
	Republic of Moldova				√
	Ukraine				√
South Caucasus	Georgia			√	
Southeastern Europe	Bosnia and Herzegovina			√	
	Serbia			√	
	Türkiye	√	√	√	
	Kosovo		√	√	√
	EECA total	2/12 (17%)	3/12 (25%)	7/12 (59%)	7/12 (59%)
	EU comparison	9/18 (50%)	16/18 (89%)	18/18 (100%)	0/18 (0%)

Note: Albania, Armenia, Azerbaijan, Kazakhstan and North Macedonia are not shown because they did not provide all the requested data on their education programmes. However, Azerbaijan confirmed that there are no Master's or PhD level qualifications in midwifery available in the country.

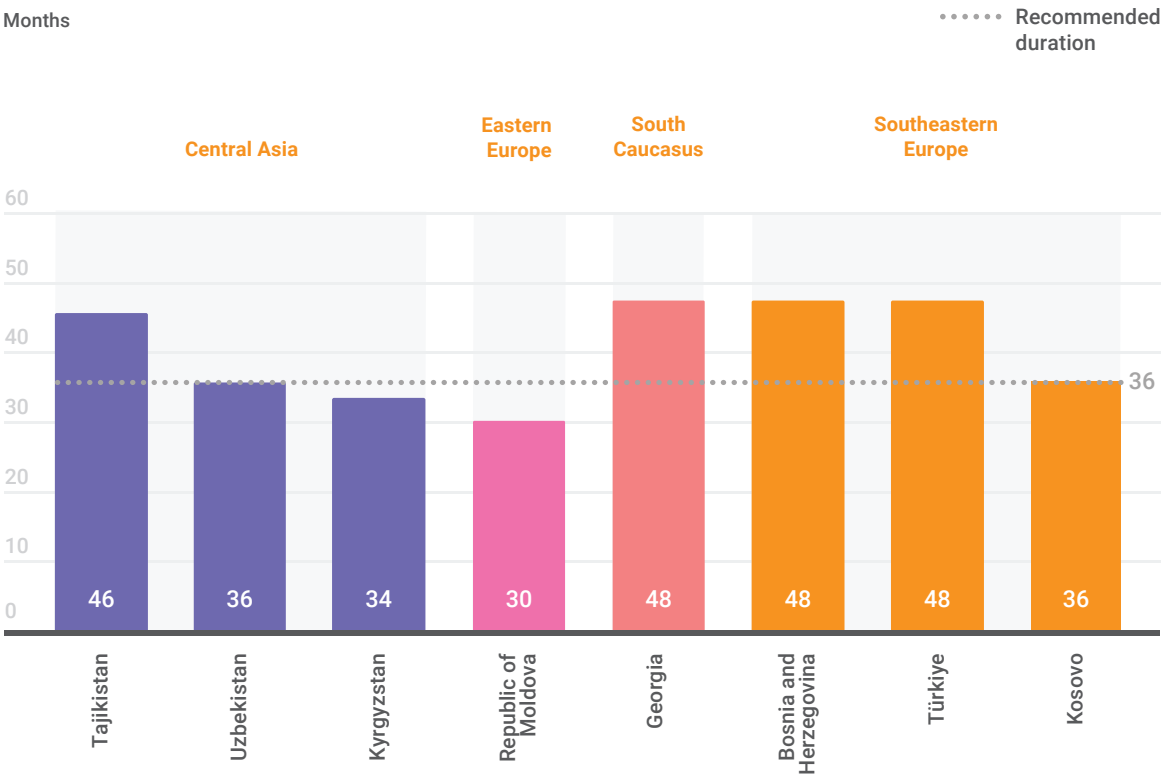
The ICM recommends that midwife education programmes should be competency-based. [64] Of the 13 EECA countries that responded to a 2018/19 World Health Organization survey, [65] just four had a national policy/guideline on the education of midwifery care providers based on ICM competencies: Albania, Armenia, Türkiye and Uzbekistan.

ICM also recommends that direct-entry programmes should be at least three years in duration and that post-nursing programmes should be at least 18 months in duration. [64] Of the eight EECA countries and territories with a direct-entry midwifery education programme, six meet or exceed this recommendation. On the other hand, the programmes in Kyrgyzstan and Republic of Moldova are slightly shorter than the recommended 36 months (Figure 3.1).

Of the two countries with a post-nursing education programme, one (Serbia) meets the recommendation of minimum 18 months duration, whereas the other (Tajikistan) does not. The ICM does not have a policy on the duration of integrated nursing and midwifery education programmes. However, given that the recommended duration of a direct-entry programme is 36 months, it would be reasonable to expect an integrated programme to require longer than 36 months to adequately cover the requirements of both midwifery and nursing. However, the three countries with integrated programmes all report that these programmes last for fewer than 36 months (Belarus: 34 months,

Turkmenistan: 30 months, Ukraine: 29 months). This may explain why Figure 2.3 shows that all of Ukraine's nurse-midwives are classified as associate professionals. However, all midwives and nurse-midwives in Belarus and Turkmenistan are classified as professionals despite their relatively short pre-service education programmes.

Figure 3.1: Duration of direct-entry midwifery education programmes



ICM global standards for education recommend that midwifery education programmes should be led by midwives and that the faculty should consist primarily of midwives with a professional midwifery qualification and formal preparation for teaching. [64] Only seven EECA countries and territories provided an estimate of the percentage of midwife educators who are themselves qualified midwives.

Figure 3.2 shows that, on average, only 28 per cent of midwife educators are midwives, ranging from 4 per cent in Kosovo to 60 per cent in Türkiye. This compares very poorly with the global average of 65 per cent and the EU average of 88 per cent. The very low estimate for Kosovo echoes the findings of previous research that found that Kosovo had insufficient midwives who are qualified to teach. [66]

Figure 3.2: Percentage of midwife educators who are midwives

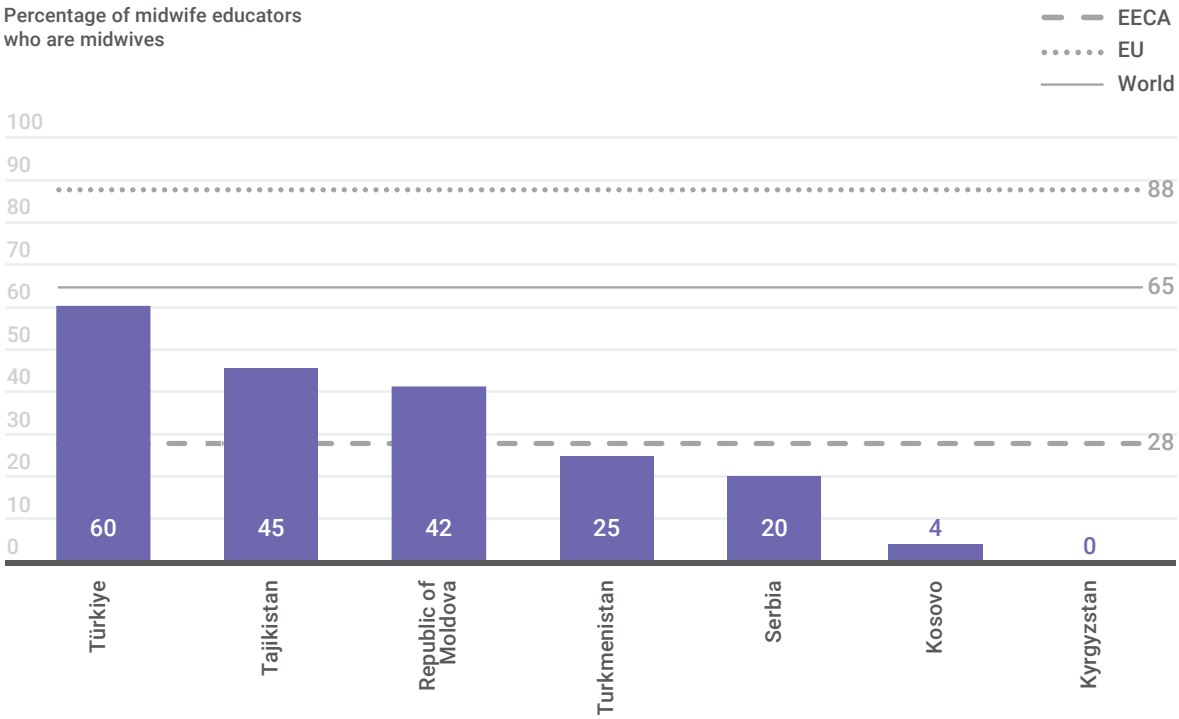


Photo credit: © UNFPA Uzbekistan

A programme of the recommended duration and a large proportion of midwives on the teaching staff are important indicators of education quality, but are not sufficient to ensure quality. Other studies involving countries and territories in the EECA countries and territories have identified several additional challenges to the provision of high-quality midwifery education, including:

- Lack of teaching materials, especially outside capital cities [67–69]
- Inappropriate balance between theory and practice, and a lack of opportunities to gain practical experience before graduation, [66–68, 70] exacerbated by the COVID-19 pandemic [71]
- Lack of harmonization with global and regional standards for midwife education, [72, 73] including a focus on a medical model of childbirth in education programmes rather than a physiological one [73, 74]
- Lack of clear education standards [68]
- Lack of accreditation processes for education programmes [73]

Photo credit: © UNFPA Tajikistan

Photo credit: © UNFPA Tajikistan / Nozim Kalandarov

Box 3.1 describes an initiative in Tajikistan that aimed to improve the quality of midwifery care in rural areas through curriculum review (including a focus on practical experience) and targeted initiatives for rural midwives.

Box 3.1: Building the capacity of rural midwives in Tajikistan

In Tajikistan, like many other countries, it is challenging to find quality midwifery services in rural areas. Despite the existence of a national professional midwives' association, the midwifery network was not well developed and midwives from rural areas sometimes found it difficult to access the benefits of association membership due to lack of resources.

UNFPA, working through the Tajik Family Planning Association (TFPA), has made remarkable progress in enhancing the potential of rural midwives through capacity building of primary health care providers, and providing technical assistance to improve education and training curricula for medical colleges throughout the country.

To introduce the midwives' association, TFPA organized two workshops for midwives in 2021. The aims were: to improve the network and connection of midwives with each other and with the Ministry of Health and Social Protection, to increase midwives' influence and support and to raise awareness of developments, including an understanding of the SoWMy report 2021.

One workshop participant commented: "After graduation from college I went back to work in my village. It was hard for me to know about the new up-to-date midwifery standards and services due to lack of access to resources. This workshop helped me to get to know about the association and meet other midwives to share our experience and knowledge."

Moreover, participants included teachers from the country's medical colleges. They discussed the revision of the new curriculum and the introduction of a specialized midwifery education programme in the medical colleges of Tajikistan. Participants improved their knowledge of educational programmes to the level of international standards. Special attention was given to the practical aspects of the training.

Maternal mortality rates in Tajikistan have fallen rapidly (see Table 1.1), which is a huge success for the country, and midwives are making an important contribution.

The policy and regulation environment

Each country's regulation governs the education, practice and licensure of its midwives. National laws and regulations establish who is qualified to use the title "midwife", as well as the midwife's scope of practice.

Midwives' associations are established to support members of the profession and to provide leadership to strengthen and advance the role and impact of midwives. Of the 13 EECA countries and territories that responded, eight have a professional association specifically for midwives. It is notable that half of these are in Southeastern Europe: midwives' associations are less common in other parts of the region. Again, this compares poorly with the global average and with EU countries (Table 3.3).

Table 3.3: Existence of a professional association specifically for midwives

YES	NO
Bosnia and Herzegovina, Georgia, Kyrgyzstan, Republic of Moldova, Serbia, Tajikistan, Türkiye, Kosovo	Azerbaijan, Belarus, Turkmenistan, Ukraine, Uzbekistan
EECA total: 8/13 (62%)	EECA total: 5/13 (38%)
EU total: 17/19 (90%)	EU total: 2/19 (10%)
Global total: 89/115 (77%)	Global total: 26/115 (23%)

Note: Albania, Armenia, Kazakhstan and North Macedonia are not shown because they did not provide data.

Box 3.2 describes how the midwives' association in Kosovo has acted to raise awareness of the importance of a strong midwifery profession and to advocate at the highest level for improved SRMNAH services in rural areas. It illustrates how associations can achieve positive results for their members and for women and newborns.

Photo credit: © UNFPA Turkmenistan

Box 3.2: Kosovo Midwives Association advocates to strengthen the role of midwives

The Kosovo Midwives Association (ShMAKS) is a member of the ICM. It has been working with the Kosovo Women's Network to strengthen the role of midwives through awareness-raising and political advocacy: "Promoting maternal and child health by strengthening the role of midwives".

In Kosovo, especially in rural settlements far from major population centres, women and girls may encounter difficulties in accessing SRMNAH services, even though access to these services is guaranteed by the Constitution and laws of Kosovo. The absence of services has also led to midwives providing services beyond their scope of practice, and women being forced to travel long distances to receive services or to use private clinics.

ShMAKS raised two concerns: (i) the violation of the law for not providing services close to the community, which endangered the health of women, girls and newborns; and (ii) midwives not being authorized to practise the profession for which they have been educated.

Magbule Elezi, the President of ShMAKS, has been able to garner support from donors, which has enabled the association to raise awareness and advocate. This has been done through: (i) meetings with parliamentary committees in various legislatures, (ii) television debates on several channels, (iii) debates with active MPs, the group of women MPs in the Kosovo Parliament and municipal assembly members and (iv) public debates.

In 2021, ShMAKS met with the President of the Republic of Kosovo and informed her of current issues with women's reproductive health in rural areas. It was agreed that, through the Office of the Presidency, ShMAKS will organize various awareness-raising campaigns for women and girls for SRMNAH services, as well as improved coordination and referral systems between hospitals and clinics where midwives practise.

Globally, three quarters of countries have legislation recognizing midwifery as distinct from nursing. In the EECA countries and territories, only seven out of 13 reporting countries and territories have such legislation. Again, this compares poorly with the responding EU countries, nearly all of which make a legal distinction between the two professions (Table 3.4).

Table 3.4: Legislation recognizing midwifery as distinct from nursing

YES	NO
Bosnia and Herzegovina, Georgia, Kyrgyzstan, Republic of Moldova, Tajikistan, Türkiye, Turkmenistan	Azerbaijan, Belarus, Serbia, Ukraine, Uzbekistan, Kosovo
EECA total: 7/13 (54%)	EECA total: 6/13 (46%)
EU total: 18/19 (95%)	EU total: 1/19 (5%)
Global total: 61/79 (77%)	Global total: 18/79 (23%)

Note: Albania, Armenia, Kazakhstan and North Macedonia are not shown because they did not provide data.

Globally, half of countries have midwives in leadership roles[3] at the national level, and similar proportions have midwife leaders at the subnational level and in the regulatory authority. Out of 13 responding EECA countries and territories, however, just one (Tajikistan) reported any midwife leaders at all: one in the national Ministry of Health (MoH) and one in a subnational MoH office. Four EECA countries and territories reported no midwife leaders at any of these levels (Georgia, Republic of Moldova, Turkmenistan, Kosovo). The remaining eight countries were not able to provide an answer. Again, this compares poorly with EU countries (which, in turn, compare poorly with the global average): three of 19 participating EU countries have midwife leaders at the national level, four have midwife leaders at the subnational level and 12 have midwife leaders within the regulatory authority.

Table 3.5 summarizes elements of the policy environment for midwifery in the region. In line with the EU average, three quarters of the responding EECA countries (including all the Central Asian countries) have a national policy or guideline recommending midwife-led care for pregnancy and childbirth. The exceptions are Georgia, Serbia and possibly North Macedonia. Similarly, most responding countries have a national policy/guideline recommending midwife-led care for the postnatal period and one setting forth a competency framework for maternal and/or newborn care. However, only four countries have a national policy/guideline on midwifery regulation that is based on ICM competencies. EU countries are much more likely than EECA countries to have such a policy/guideline.

Only four EECA countries have all five of these elements of policies/guidelines in place at the national level: Albania, Armenia, Türkiye and Uzbekistan. Georgia is the only country to report having none of the five.

3 "Leadership role" was defined as referring to several management, supervisory and executive titles, including: chief midwife, midwife advisor, midwife director, maternity advisor, midwife-in-charge, president, chief executive, executive director and chair.

Table 3.5: Policy environment for midwifery

		NATIONAL POLICY/GUIDELINE…				
		… RECOMMENDS MIDWIFE-LED CARE FOR PREGNANCY	…RECOMMENDS MIDWIFE-LED CARE FOR CHILDBIRTH	… RECOMMENDS MIDWIFE-LED CARE FOR POSTNATAL PERIOD	… SETS FORTH COMPETENCY FRAMEWORK FOR MATERNAL AND/OR NEWBORN CARE	… ON REGULATION OF MIDWIFERY CARE PROVIDERS BASED ON ICM COMPETENCIES
Central Asia	Kazakhstan	√	√	√	√	dk
	Kyrgyzstan	√	√	√	x	x
	Tajikistan	√	√	√	√	dk
	Turkmenistan	√	√	√	√	x
	Uzbekistan	√	√	√	√	√
Eastern Europe	Republic of Moldova	√	√	x	√	x
South Caucasus	Armenia	√	√	√	√	√
	Azerbaijan	√	√	√	x	x
	Georgia	x	x	x	x	x
South-eastern Europe	Albania	√	√	√	√	√
	North Macedonia	dk	dk	dk	dk	dk
	Serbia	x	x	x	√	x
	Türkiye	√	√	v	√	√
	EECA total	10/13 (77%)	10/13 (77%)	9/13 (70%)	9/13 (70%)	4/13 (31%)
	EU comparison	16/21 (77%)	16/21 (77%)	16/21 (77%)	18/21 (86%)	14/21 (67%)

Note: Bosnia and Herzegovina, Belarus, Ukraine and Kosovo are not shown because they did not provide data. ICM = International Confederation of Midwives. dk = don't know. Source: WHO, 2020 [65].

These results indicate political support in most EECA countries for midwife-led care. However, having a policy is only the first step: implementation of the policy can be challenging. There is little evidence that midwife-led care is widespread in the region despite most countries reporting that there is a national policy that recommends it.

Another ingredient of high-quality health care is the existence of effective health worker regulation and licensing systems. Table 3.6 shows that about half of the responding EECA countries and territories (six out of 13) have a regulation system that is specific to midwives, but none has a separate regulatory body for midwives. In most of the remaining countries/territories, the regulator makes no distinction between midwifery and other health professions such as nursing, and two (Georgia and Kosovo) have no midwifery regulation system at all. Globally and within the EU, about three quarters of countries have a regulation system that is specific to midwives (either a separate regulatory body or distinct policies and processes for midwives).

On midwife licensing, the EECA countries and territories is broadly in line with the global and EU average. Just five out of 13 responding countries and territories (38 per cent) have a compulsory licensing system under which midwives are required to provide periodic evidence of continuing professional development (CPD) to keep their licence to practise, which is similar to the global estimate of 33 per cent and the EU estimate of 37 per cent. Four EECA countries have a licensing system without requiring CPD. Four countries (three of which are in Central Asia) do not require midwives to have a licence to practise.

Table 3.6: Midwife regulation and licensing systems

Midwife regulation system	Countries and territories with this system
Regulatory body specifically for midwives	-
No separate regulatory body for midwives, but the regulator has distinct policies and processes for midwifery	Azerbaijan, Kyrgyzstan, Republic of Moldova, Serbia, Tajikistan, Uzbekistan
No separate regulatory body for midwives and no distinct policies and processes	Belarus, Bosnia and Herzegovina, Türkiye, Turkmenistan, Ukraine
No formal regulation system for midwives	Georgia, Kosovo
Midwife licensing system	**Countries and territories with this system**
Compulsory licensing with periodic relicensing and CPD requirement	Republic of Moldova, Serbia, Tajikistan, Ukraine, Kosovo
Compulsory licensing but no CPD requirement	Belarus, Bosnia and Herzegovina, Georgia, Türkiye
Licensing not compulsory	Azerbaijan, Kyrgyzstan, Turkmenistan,[4] Uzbekistan

CPD = continuing professional development. Note: Albania, Armenia, Kazakhstan and North Macedonia are not shown because they did not provide data.

While essential for safe practice, licensing and regulatory systems are not sufficient to maximize midwives' contribution to improved sexual and reproductive health and reproductive rights. In many countries, midwives do not have the authority to perform tasks typically considered part of the midwife's scope of practice, such as basic emergency obstetric and newborn care (BEmONC) signal functions. Table 3.7 shows that no EECA country or territory permits its midwives to perform more than five of the seven BEmONC signal functions. Countries in Central Asia tend to have the broadest scope of practice for midwives, with the exception of Uzbekistan. Countries and territories in Southeastern Europe tend to be the most restrictive, with the exception of Bosnia and Herzegovina. Table 3.7 also shows that the region lags far behind global and EU averages on this indicator: the vast majority of countries in the world authorize their midwives to perform five of the seven signal functions, and about half of countries authorize midwives to perform the remaining two.

4 For midwives working in the public sector in Turkmenistan, their educational qualification gives them the legal right to practise, but in the private sector there is no equivalent legal basis, which is why Turkmenistan has been placed in the "not compulsory" category.

Table 3.7: Midwives' authorization to perform each BEmONC signal function

		PARENTERAL ANTIBIOTICS	ANTICONVULSANTS	OXYTOCICS	MANUAL REMOVAL OF PLACENTA	MANUAL VACUUM ASPIRATION	INSTRUMENTAL BIRTH BY VACUUM EXTRACTION	NEWBORN RESUSCITATION WITH BAG AND MASK
Central Asia	Kyrgyzstan	√	√	√	√	x	x	√
	Tajikistan	√	√	√	√	x	x	√
	Turkmenistan	√	x	x	√	√	√	√
	Uzbekistan	x	x	√	x	x	x	√
Eastern Europe	Belarus	x	x	x	x	x	√	√
	Republic of Moldova	√	√	√	x	x	x	x
	Ukraine	√	√	√	x	x	x	x
South Caucasus	Azerbaijan	√	x	x	x	x	x	x
	Georgia	√	√	√	x	x	x	x
South-eastern Europe	Bosnia & Herzegovina	√	√	√	√	x	√	x
	Serbia	x	x	x	x	x	x	x
	Türkiye	x	x	x	x	x	x	√
	Kosovo	x	x	x	x	x	√	x
	EECA total	8/13 (62%)	6/13 (47%)	7/13 (54%)	4/13 (31%)	1/13 (8%)	4/13 (31%)	6/13 (47%)
	EU comparison (19 countries)	74%	58%	85%	43%	6%	27%	90%
	Global comparison (79 countries)	92%	89%	95%	78%	51%	52%	97%

Note: Albania, Armenia, Kazakhstan and North Macedonia are not shown because they did not provide data.

Similarly, although the World Health Organization recommends that midwives can safely and effectively provide a wide range of contraceptive products, [75] some countries' regulatory systems restrict the range of products that midwives are authorized to provide. About half of the responding EECA countries and territories authorize midwives to provide contraceptive pills and injections, but only a few authorize midwives to provide intrauterine devices (IUDs) and emergency contraception, and none authorize midwives to provide implants. In contrast to BEmONC signal functions, EECA countries and territories are less likely than EU countries to restrict the midwife's scope of practice, but in comparison to the global average, EECA countries and territories are unusually restrictive.

Table 3.8 shows that, along with Republic of Moldova, countries in Central Asia tend to be the least restrictive, with the exception of Uzbekistan.

Table 3.8: Midwives' authorization to provide modern methods of contraception

		INJECTION	PILL	IUD	EMERGENCY CONTRACEPTION	IMPLANT
Central Asia	Kyrgyzstan	√	√	√	√	x
	Tajikistan[5]	√	√	x	√	x
	Turkmenistan	√	√	x	√	x
	Uzbekistan	x	x	x	x	x
Eastern Europe	Belarus	x	x	x	√	x
	Republic of Moldova	√	√	√	√	x
	Ukraine	x	x	x	x	x
South Caucasus	Azerbaijan	x	√	x	x	x
	Georgia	x	x	x	x	x
South-eastern Europe	Bosnia & Herzegovina	√	√	x	x	x
	Serbia	x	x	x	x	x
	Türkiye	√	x	√	x	x
	Kosovo	x	√	x	x	x
	EECA total	6/13 (47%)	7/13 (54%)	3/13 (24%)	5/13 (39%)	0/13 (0%)
	EU comparison (19 countries)	27%	32%	16%	27%	16%
	Global comparison (79 countries)	87%	88%	83%	83%	78%

Note: Albania, Armenia, Kazakhstan and North Macedonia are not shown because they did not provide data.

5 In Tajikistan, midwives are not routinely authorized to provide IUDs, but in rural areas with limited access to gynaecologists, midwives are authorized to provide this service upon completion of a one-month training course.

Other key issues and challenges for midwifery in the region

During the preparation of this regional report, several other issues and challenges for midwifery were identified, and some of the issues highlighted earlier were described in more detail. These included:

- *Highly medicalized SRMNAH care systems* under which obstetricians and gynaecologists are mostly in control, and can be unwilling to acknowledge the important role that midwives can play within a multidisciplinary team.
- *Restrictions to the midwife's scope of practice*. For example, in Belarus, there are strict requirements for doctors, rather than midwives, to be the lead professional in attending births. Similarly, policy environments were generally not seen as supportive of midwives. For example, in Tajikistan, a lack of legal frameworks for the role of midwives in primary health care facilities was noted.
- *Midwifery education being viewed as a subspecialty within nursing* rather than as a discipline in its own right, as it is in Ukraine. Even where midwifery education is making progress (e.g. in Bosnia and Herzegovina, the University of Sarajevo recently introduced a midwifery programme at undergraduate level), there can be a lack of commensurate career opportunities that lead midwives to often work in positions below their education level.
- *Concerns about the quality of midwifery care*, in some cases due to a lack of CPD opportunities to keep skills up-to-date.
- *Midwife shortages*. For example, it was reported that one in three 2019 graduates in Tajikistan did not start work as midwives due to reasons including marriage, migration and low salaries. The profession was perceived as unattractive in Georgia.

Photo credit: © UNFPA Kyrgyzstan

04

Photo credit: © UNFPA Republic of Moldova

Midwives: a vital investment

This chapter discusses the potential return on investment in midwives, and concludes with recommendations for advancing the profession in the region. Midwives provide many essential clinical SRMNAH interventions and can play a broader role in activities such as advancing primary health care and UHC, responding to violence against women and addressing sexual and reproductive rights. [76] Their closeness to the communities in which they work positions them well to be agents of change in promoting women's empowerment and behaviour change on family planning, as well as in addressing harmful social and gender norms and practices such as child and early forced marriage. [77] They can be a point of contact in the community for sexual and reproductive health services and can support and promote self-care interventions, such as self-monitoring of blood pressure during pregnancy.

With the appropriate training and support, midwives can also help to ensure that the SRMNAH needs of marginalized communities are met.

Box 4.1 describes the important contributions of Kyrgyz and North Macedonian midwives to community outreach activities.

Photo credit: © UNFPA Uzbekistan

Box 4.1: Midwives as vital members of community outreach teams in Kyrgyzstan and North Macedonia

Kyrgyzstan

Midwife Gulbubu is deployed within the UNFPA reproductive health mobile team. She has been working in a mobile clinic, serving 21,000 women who have been displaced due to conflict on the Kyrgyzstan-Tajikistan border. The mobile clinic provides sexual and reproductive health counselling, antenatal care, childbirth care and postnatal care.

One night, when Gulbubu was on duty, a young woman named Kiyal arrived at 3 a.m., in labour and showing signs of a life-threatening condition known as eclampsia. Gulbubu knew that time was of the essence, so she immediately gave Kiyal medication to lower her blood pressure and regularly monitored the progress of her labour. With Gulbubu's support, Kiyal gave birth to healthy twin boys. It is a Kyrgyz tradition to name children after the circumstances of the birth. Kiyal named her babies Joldoshbek (which means "friendship") and Bakyt (which means "happiness"). Kiyal prayed that Kyrgyzstan has peace and friendship with neighbouring countries.

Kiyal and her sons all recovered well, thanks to Gulbubu's efforts to keep Kiyal calm and lower her blood pressure. However, Gulbubu noted that midwives often lack the support they need to save lives, including essential medicines, communication and transportation networks and a health system able to provide emergency obstetric care. This is especially true in rural areas and locations affected by conflict.

North Macedonia

Midwife Danche Bonevska was excited and impatient that December morning when she travelled with a multidisciplinary team in a mobile clinic, from her workplace in Skopje to another city. Their mission was to help women whose access to cervical cancer screening services had been further hampered by the COVID-19 pandemic. *"I applied for humanitarian reasons,"* she says, *"because I know the importance of early screening for cervical cancer, and due to the pandemic, these services were limited."*

Ms. Bonevska had a responsible task. In addition to equipping the ambulance with all the necessary consumables, disinfecting the equipment and apparatus before leaving, she was also in charge of making first contact with the service users. She prepared the women for the examination. Some of them had

not had such an examination for over 20 years. She talked to them about regular preventive screenings and advised them as to why these screenings are important for women's health. Some of the women she talked to were from marginalized groups living in remote areas. *"It is important to do these examinations, especially in the mobile clinic, because not every woman from rural areas can travel to a city to be seen. The women are delighted. As a team, we managed to function with good organization and we examined 15 women each day,"* explains Ms. Bonevska, who was satisfied that she was able to offer help to so many women in one day.

Midwives have been on the front-line of the COVID-19 response since the beginning of the pandemic, striving to provide high-quality care. They did not hesitate to support and actively participate in the work of the mobile clinics, despite their heavy workload and sometimes adverse weather conditions. They are on-site every single day where they are most needed. Every morning, mobile clinics travel to areas where women do not have access to SRMNAH services and who might otherwise feel abandoned and forgotten. Improving the health of women and newborns benefits the whole of society, and midwives are making a major contribution.

Photo credit: © UNFPA North Macedonia

Overall, women's labour-force participation is high in the EECA countries and territories, but there are barriers to career progression that particularly affect women. [78] Despite expressed political will to promote gender equality, gender discrimination and patriarchal attitudes towards the roles of women and men persist in many spheres of life. [79] Challenges include decreased public investment in social care, which leads to increased dependence on women's unpaid labour, which in turn either keeps women away from the workplace altogether or hinders their career progression. [79] These

issues have been exacerbated by the COVID-19 pandemic, for example, the closure of schools and childcare facilities made it more difficult for women with children to do paid work. [80]

The heavy reliance on women to provide midwifery care makes it essential to enable and empower the midwifery workforce via gender-transformative policies and practices. SoWMy 2021 highlighted several issues to consider: leadership, decent work that is free from all forms of discrimination and harassment, gender pay gaps and occupational segregation within the health workforce. [25] The analyses in Chapter 3 of this report indicate that, in many EECA countries, midwives lack professional autonomy and their skills are unrecognized or undervalued by their colleagues and clients. Valuing and investing in the work of midwives will have a positive impact on midwives themselves and on gender equality more widely.

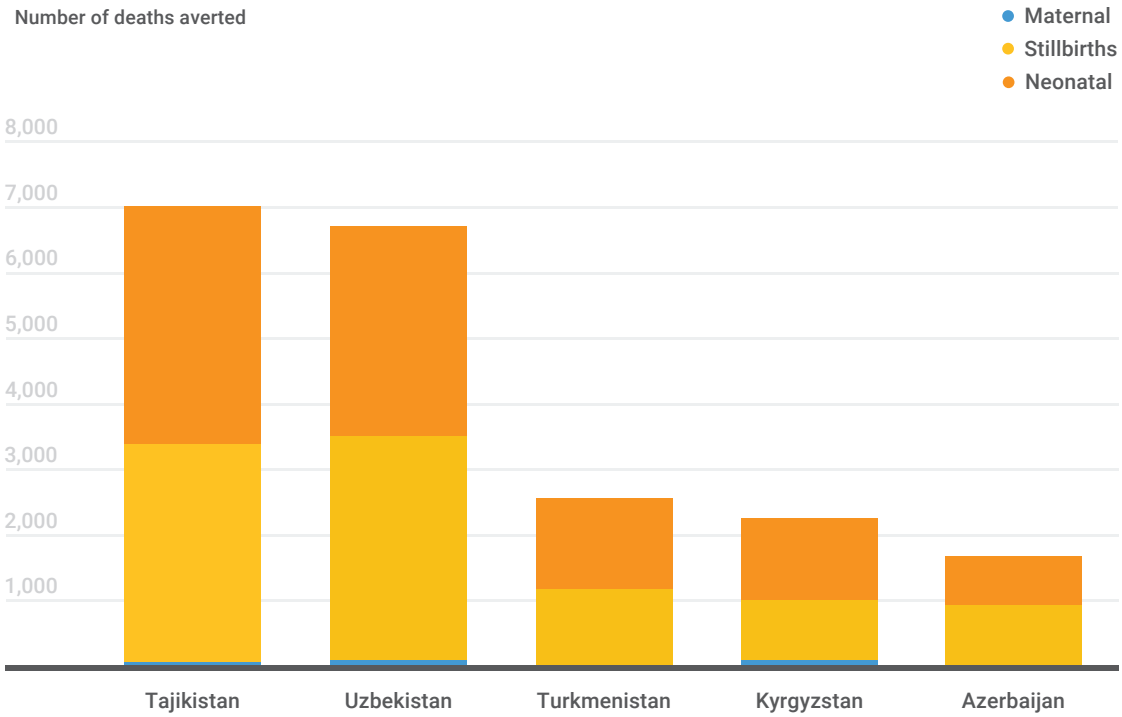
The positive impact that midwives can make

A recent study of 88 countries that account for the **vast majority of the world's maternal and neonatal deaths and stillbirths** concluded that **universal coverage of midwife-delivered interventions**[6] **could avert two thirds of these deaths** and **save 4.3 million lives per year by 2035**. [81]

A special analysis of these estimates was conducted for this report, estimating the number of lives that could be saved in the five EECA countries included in the study: Azerbaijan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. This analysis shows that universal coverage of midwife-delivered interventions in these countries could save over 20,000 lives per year by 2035 (c.200 maternal lives, c.10,000 newborn lives and c.10,000 stillbirths). Figure 4.1 shows that the largest numbers of lives saved would be in Central Asian countries, especially Tajikistan (7,000) and Uzbekistan (6,700).

6 A "midwife-delivered intervention" was defined as one which (i) can be delivered in its entirety by a professional midwife according to standards published by the ICM; (ii) is known to directly affect mortality or nutritional status and (iii) is listed as an essential intervention either by the ICM or the UN *Global Strategy for Women's, Children's and Adolescents' Health*.

Figure 4.1: Projected numbers of maternal and neonatal deaths and stillbirths averted in 2035 by universal coverage of midwife-delivered interventions in EECA countries



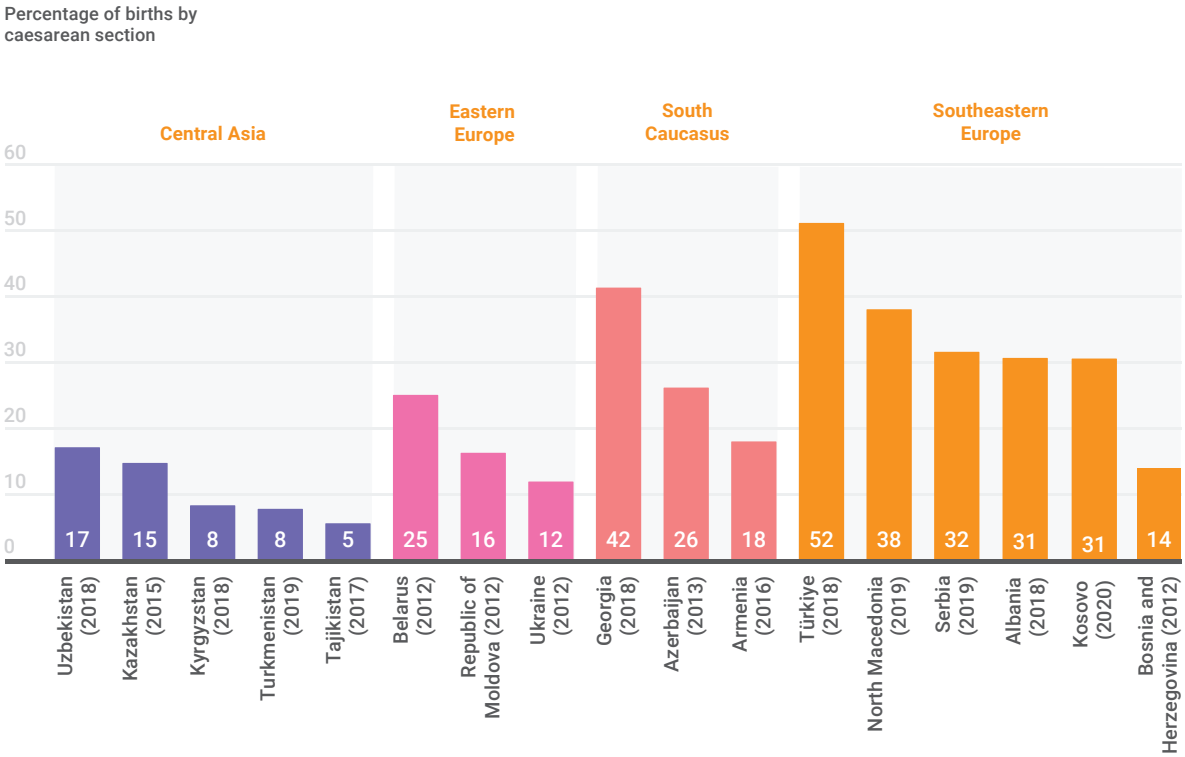
Source: special analysis of projections used for Nove et al 2021. [81]

The structure and organization of health care systems and the economic, social and cultural contexts in which they operate differ widely between countries and regions, in turn influencing the models of maternity care available to women. The way in which women and newborns receive care during pregnancy and childbirth makes a difference to their health outcomes. Midwife-led care that includes continuity of care produces benefits in addition to saving lives. [25] A systematic review of 15 studies involving almost 18,000 mothers and newborns from four high-income countries showed benefits in terms of outcomes, satisfaction and potential cost savings. [30] There is evidence that more than 50 short-, medium- and long-term outcomes can be improved by care within a midwife's scope of practice. These include: reduced mortality and morbidity, fewer preterm births, fewer unnecessary interventions and improved psychosocial and public health outcomes, such as reduced anxiety and increased uptake of contraception and immunization. [82]

The unique philosophy of midwifery promotes physiological birth where this is the safest option. When medically necessary, caesarean sections save lives. However, they are often performed when not medically necessary. The World Health Organization states that when caesarean section rates rise towards 10 per cent, the number of maternal and newborn deaths decreases, but that rates above 10 per cent are not associated with further reductions of maternal and newborn mortality. [83] Figure 4.2 illustrates

the wide variation in caesarean section rates between countries and territories in the region. Kyrgyzstan, Tajikistan and Turkmenistan have very low rates, perhaps indicating insufficient access to this important intervention, despite the analysis in Chapter 2 indicating that they have sufficient human resources (including doctors) to meet the need for essential interventions such as this. Conversely, some countries and territories have extremely high rates, which are indicative of over-medicalization of childbirth, most notably Georgia, North Macedonia and Türkiye.

Figure 4.2: Percentage of births by caesarean section, most recent available year



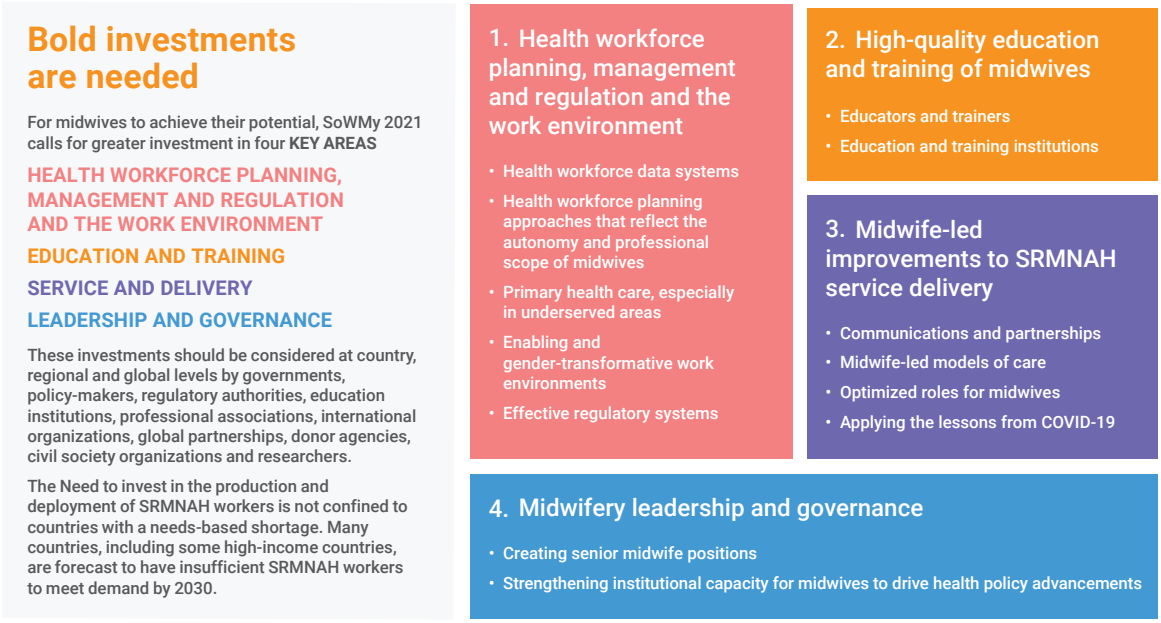
Source: UNICEF 2021. [14]

In 2018, the World Health Organization published five recommendations for reducing unnecessary caesarean sections, one of which is a *"collaborative midwifery-obstetrician model of care (i.e. a model of staffing based on care provided primarily by midwives, with 24-hour back-up from an obstetrician)"*. [84] Barriers to uptake of the recommendations included low provider confidence and knowledge about vaginal birth (especially in high- and middle-income countries) and *"dysfunctional teamwork … including the marginalization of midwives"*. Although midwives who are educated and regulated to international standards are experts in vaginal birth, the World Health Organization stopped short of recommending midwife-led continuity of care because the studies of this model of care did not have the objective of reducing unnecessary caesareans. However, several more recent studies conducted in high-income countries have reported that midwife-led care is associated with lower caesarean section rates. [85–87]

Recommendations for advancing midwifery in the region

SoWMy 2021 recommended that, for midwives to achieve their potential, there should be investment in four areas: (i) health workforce planning, management and regulation and the work environment; (ii) high-quality education and training of midwives; (iii) midwife-led improvements to SRMNAH service delivery and (iv) midwifery leadership and governance (Figure 4.3).

Figure 4.3: Types of investment needed for midwifery



This report and the global SoWMy 2021 report take stock of the strengths, gaps and challenges affecting the midwifery workforce in the EECA countries and territories. This information can be used to encourage further investment in midwives and midwifery to address the gaps and challenges specific to the region.

Most EECA countries and territories have enough midwives to meet the need for the basic, essential SRMNAH interventions that midwives are competent to provide. Four countries have a shortage of midwives: Georgia, Kyrgyzstan, Republic of Moldova and Turkmenistan. However, the number of midwives is not the only issue to consider. This report underlines the importance of going beyond the numbers. In addition, it considers the positive impact of ensuring that midwives are educated and enabled to provide high-quality care.

Although the evidence on the benefits of midwife-led care is strong and compelling, midwives can only fulfil their potential to maximize SRMNAH if they work within a multidisciplinary team and a functioning referral system. Further, within a multidisciplinary team, it is important to make a clear professional distinction between midwifery and nursing. This distinction is lacking in

many EECA countries and territories, which affects both government policy and professional and public attitudes towards midwives and midwifery.

Countries and territories in the region should consider the models of care available within their health systems and whether these can be adjusted or optimized for greater efficiency and higher quality of care. Collaborative staffing models and platforms for interdisciplinary collaboration and cooperation will support better teamwork and health outcomes. This process could begin at universities, where medical, midwifery and nursing students could be given opportunities to learn collaboratively and become accustomed to working in this way by the time they join the workforce.

In many countries and territories in the region, the data indicate shortcomings in the quality of midwifery education and training, such as low-level qualifications, lack of competency-based curricula, insufficient emphasis on gaining practical experience as well as theoretical knowledge, programmes that are shorter than the recommended duration, midwives being taught by faculty who are not qualified in midwifery and no requirement for CPD to maintain skills and competencies. Strong midwifery departments in universities will address these shortcomings, provide midwives with the best possible education and enable them to take the lead on research.

Most EECA countries are part of the Bologna Process, [88] which provides an opportunity for greater harmonization with the EU on higher education, including for midwives. In addition, it is important that the SRMNAH workforce has the necessary skills to meet the needs of marginalized groups such as people with disabilities, survivors of IPV and people living with HIV.

The policy environment for midwifery is relatively strong in many countries and territories in the region. There is now a need to focus on addressing the barriers to policy implementation, which in many countries and territories include the lack of a clear distinction between midwifery and nursing. Another important barrier in many countries and territories is restriction of the midwife's scope of practice, which occurs to a much greater extent in this region than in other parts of the world. Where the midwife's scope of practice is restricted, regulatory authorities should consider the potential benefits (for both health systems and service users) of expanding the scope. Any change to the scope of practice of midwives must, of course, consider the political and health system context, and demand-generation activities may be required to address public and professional misconceptions about midwives and midwifery. Raising awareness of the unique philosophy and benefits of midwifery will also help to protect against over-medicalization of childbirth,

which is an issue in many EECA countries and territories, as evidenced by very high caesarean section rates and unnecessarily restrictive rules about which professionals can be in charge of providing care.

The appointment of midwives to leadership positions within the departments responsible for SRMNAH care could be an important first step towards recognizing the importance of midwifery and investing appropriately in the profession. Midwives in leadership positions can provide an important perspective on SRMNAH decision-making, and can also serve as positive role models for student midwives and early-career midwives. Currently, only one EECA country (Tajikistan) reports having midwives in senior leadership positions within the health system.

Strong professional associations can contribute to and, in some cases, take the lead on implementing some of these recommendations. However, many countries in the region lack a professional association specifically for midwives, and some of the existing associations may require support to build their capacity to make such a contribution.

Although this report represents a major contribution to the evidence base on midwifery in the EECA countries and territories, it highlights several evidence gaps. The following regional research agenda is recommended:

- Studies on SRMNAH worker availability at a subnational level, to assess the extent to which the workforce is equitably distributed and if not, where are the major gaps.
- Factors contributing to midwives' and other health workers' motivations to live and work in underserved locations.
- Research on factors contributing to good interdisciplinary collaboration, and implementation research on methods to improve collaboration and cooperation between midwives and other SRMNAH professionals.
- Research on public attitudes to midwives and midwifery, to inform the design of demand-generation activities.
- Assessment of the extent to which the content of midwife education curricula aligns with global recommendations.
- Documentation of the impact of COVID-19 on various aspects of midwifery, including education, personal safety, midwives' family and community relationships and mental health.
- Evaluations of the effectiveness of different psychosocial support interventions for SRMNAH workers affected by COVID-19.
- Documentation of the impact of having midwives in leadership positions at different levels of the health system.

05

Photo credit: © UNFPA Kazakhstan

Country and territory profiles

Albania

SRMNAH WORKFORCE AVAILABILITY

Occupation	Year	Headcount (A)	Percentage of time on SRMNAH (B)	Dedicated SRMNAH Equivalent (DSE) (A*B)	Graduates		Density per 10,000 population
					Year	Number	
Midwifery professionals	**2019**	**1,025**	100%	1,025	**2019**	**273**	**3.6**
Midwifery associate professionals	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Nurse-midwives	**2019**	**958**	85%	814	**nr**	**nr**	**3.3**
Associate nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Nursing professionals	**2019**	**12,675**	30%	3 803	**2019**	**2,563**	**44.0**
Nursing associate professionals	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Community health workers	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Paramedical practitioners	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Medical assistants	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
General medical practitioners	**2019**	**2,016**	20%	403	**2019**	**397**	**7.0**
Obstetricians / gynaecologists	**2019**	**235**	50%	118	**2019**	**18**	**0.8**
Paediatricians	**2019**	**288**	15%	43	**2019**	**11**	**1.0**
TOTAL SRMNAH WORKFORCE		**17,197**		6 206			**59.8**

Source: **If in bold type: WHO National Health Workforce Accounts (NHWA) data platform, accessed Dec 2020, most recent year**
If not in bold type: communication with UNFPA Country Office Nov 2021 – Jan 2022

ENABLING ENVIRONMENT FOR MIDWIVES

Policy environment

		National MoH	Sub-national MoH	Regulatory authorities
●	Number of midwives in leadership roles in...	nr	nr	nr

●	Is there legislation in your country which recognises midwifery as a profession that is distinct from nursing?	nr

Education

			Direct entry	Post-nursing	Combined
●	Midwifery education programmes	exists	nr	nr	nr
		duration (months)	nr	nr	nr

●	% of midwifery educators who are midwives	nr
●	All midwives have Bachelor's degree or equivalent?	nr
●	Country offers postgraduate qualification in midwifery?	nr

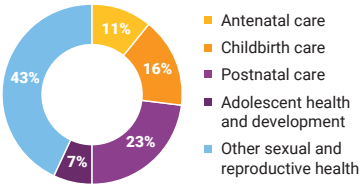
Regulation

●	No information was provided about the midwife regulation system	
●	No information was provided about the midwife licensing system	
●	Number of BEmONC signal functions midwives are authorised to provide	nr
●	Number of modern contraceptive methods midwives are authorised to provide	nr

Association

●	Is there a professional association specifically for midwives?	nr

% OF NEED AT EACH STAGE ON CONTINUUM OF CARE



SUPPLY FORECAST, 2030 PROJECTION

2030 supply will **exceed** economic capacity to employ

EXPLANATORY NOTES

Albania did not provide any data for this regional report. The data shown were submitted by Albania for the State of the World's Midwifery 2021 report.

Source: **If in bold type: validated data from 2020 ICM survey.**
If not in bold type: either communication with UNFPA Country Office Sept 2021 or unvalidated data from 2020 ICM survey

Key:
na = not applicable | nr = not reported | dk = don't know | MoH = Ministry of Health | CPD = continuing professional development | ICM = International Confederation of Midwives

Armenia

SRMNAH WORKFORCE AVAILABILITY

Occupation	Year	Headcount (A)	Percentage of time on SRMNAH (B)	Dedicated SRMNAH Equivalent (DSE) (A*B)	Graduates		Density per 10,000 population
					Year	Number	
Midwifery professionals	**nr**	**nr**	na	nr	nr	nr	**nr**
Midwifery associate professionals	2017	1,188	100%	1,188	2017	236	4.0
Nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Associate nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Nursing professionals	**nr**	**nr**	na	nr	nr	nr	**nr**
Nursing associate professionals	2018	12,894	40%	5,158	2018	1,289	43.5
Community health workers	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Paramedical practitioners	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Medical assistants	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
General medical practitioners	**2015**	**1,498**	20%	300	**nr**	**nr**	**5.1**
Obstetricians / gynaecologists	**2017**	**755**	50%	378	**nr**	**nr**	**2.5**
Paediatricians	2017	549	15%	82	**nr**	**nr**	1.9
TOTAL SRMNAH WORKFORCE		16,884		7,105			57.0

Source: **If in bold type: WHO National Health Workforce Accounts (NHWA) data platform, accessed Dec 2020, most recent year**
If not in bold type: communication with UNFPA Country Office Nov 2021 – Jan 2022

ENABLING ENVIRONMENT FOR MIDWIVES

Policy environment

		National MoH	Sub-national MoH	Regulatory authorities
●	Number of midwives in leadership roles in...	nr	nr	nr

●	Is there legislation in your country which recognises midwifery as a profession that is distinct from nursing?	nr

Education

			Direct entry	Post-nursing	Combined
●	Midwifery education programmes	exists	nr	nr	nr
		duration (months)	nr	nr	nr

●	% of midwifery educators who are midwives	nr
●	All midwives have Bachelor's degree or equivalent?	nr
●	Country offers postgraduate qualification in midwifery?	nr

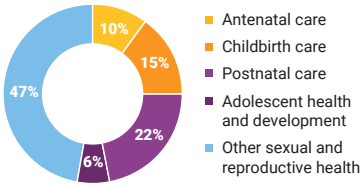
Regulation

●	No information was provided about the midwife regulation system	
●	No information was provided about the midwife licensing system	
●	Number of BEmONC signal functions midwives are authorised to provide	nr
●	Number of modern contraceptive methods midwives are authorised to provide	nr

Association

●	Is there a professional association specifically for midwives?	nr

% OF NEED AT EACH STAGE ON CONTINUUM OF CARE



SUPPLY FORECAST, 2030 PROJECTION

2030 supply will

exceed

economic capacity to employ

EXPLANATORY NOTES

Armenia did not provide any data for this regional report. The data shown were submitted by Armenia for the State of the World's Midwifery 2021 report.

Source: **If in bold type: validated data from 2020 ICM survey.**
If not in bold type: either communication with UNFPA Country Office Sept 2021 or unvalidated data from 2020 ICM survey

Key:
na = not applicable | nr = not reported | dk = don't know | MoH = Ministry of Health | CPD = continuing professional development | ICM = International Confederation of Midwives

Azerbaijan

SRMNAH WORKFORCE AVAILABILITY

Occupation	Year	Headcount (A)	Percentage of time on SRMNAH (B)	Dedicated SRMNAH Equivalent (DSE) (A*B)	Graduates		Density per 10,000 population
					Year	Number	
Midwifery professionals	2020	4,036	100%	4,036	nr	nr	4.0
Midwifery associate professionals	2020	0	na	0	2014	362	nr
Nurse-midwives	2020	600	85%	510	**nr**	**nr**	0.6
Associate nurse-midwives	2020	0	na	0	**nr**	**nr**	nr
Nursing professionals	2020	54,786	30%	16,436	**nr**	**nr**	54.0
Nursing associate professionals	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Community health workers	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Paramedical practitioners	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Medical assistants	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
General medical practitioners	**2014**	**8,307**	20%	1,661	**nr**	**nr**	**8.2**
Obstetricians / gynaecologists	2020	1,823	50%	912	**nr**	**nr**	1.8
Paediatricians	2020	3,347	15%	502	**nr**	**nr**	3.3
TOTAL SRMNAH WORKFORCE		72,899		24,057			71.9

Source: **If in bold type: WHO National Health Workforce Accounts (NHWA) data platform, accessed Dec 2020, most recent year**
If not in bold type: communication with UNFPA Country Office Nov 2021 – Jan 2022

ENABLING ENVIRONMENT FOR MIDWIVES

Policy environment

		National MoH	Sub-national MoH	Regulatory authorities
●	Number of midwives in leadership roles in...	dk	dk	dk
●	Is there legislation in your country which recognises midwifery as a profession that is distinct from nursing?	no		

Education

			Direct entry	Post-nursing	Combined
●	Midwifery education programmes	exists	nr	nr	nr
		duration (months)	nr	nr	nr
●	% of midwifery educators who are midwives		dk		
●	All midwives have Bachelor's degree or equivalent?		nr		
●	Country offers postgraduate qualification in midwifery?		no		

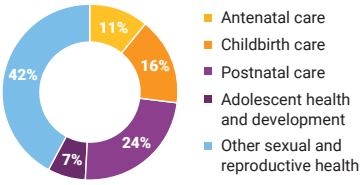
Regulation

●	No separate regulatory body for midwives, but the regulator has distinct policies and processes for midwifery.	
●	Licensing is not compulsory for midwives	
●	Number of BEmONC signal functions midwives are authorised to provide	1 of 7
●	Number of modern contraceptive methods midwives are authorised to provide	1 of 5

Association

●	Is there a professional association specifically for midwives?	no

% OF NEED AT EACH STAGE ON CONTINUUM OF CARE



SUPPLY FORECAST, 2030 PROJECTION

2030 supply will **exceed** economic capacity to employ

Source: **If in bold type: validated data from 2020 ICM survey.**
If not in bold type: either communication with UNFPA Country Office Sept 2021 or unvalidated data from 2020 ICM survey

Key:
na = not applicable | nr = not reported | dk = don't know | MoH = Ministry of Health | CPD = continuing professional development | ICM = International Confederation of Midwives

Belarus

SRMNAH WORKFORCE AVAILABILITY

Occupation	Year	Headcount (A)	Percentage of time on SRMNAH (B)	Dedicated SRMNAH Equivalent (DSE) (A*B)	Graduates		Density per 10,000 population
					Year	Number	
Midwifery professionals	2019	4,729	100%	4,729	**nr**	**nr**	5.0
Midwifery associate professionals	2019	0	na	0	**nr**	**nr**	nr
Nurse-midwives	2019	10,545	85%	8,963	**nr**	**nr**	11.2
Associate nurse-midwives	2019	0	na	0	**nr**	**nr**	nr
Nursing professionals	2019	87,634	30%	26,290	**nr**	**nr**	92.7
Nursing associate professionals	2019	0	na	0	**nr**	**nr**	nr
Community health workers	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Paramedical practitioners	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Medical assistants	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
General medical practitioners	2015	15,320	20%	3,064	**nr**	**nr**	16.2
Obstetricians / gynaecologists	2019	2,659	50%	1,330	**nr**	**nr**	2.8
Paediatricians	2019	3,515	15%	527	**nr**	**nr**	3.7
TOTAL SRMNAH WORKFORCE		124 402		44 903			131.7

Source: **If in bold type: WHO National Health Workforce Accounts (NHWA) data platform, accessed Dec 2020, most recent year**
If not in bold type: communication with UNFPA Country Office Nov 2021 – Jan 2022

ENABLING ENVIRONMENT FOR MIDWIVES

Policy environment

		National MoH	Sub-national MoH	Regulatory authorities
●	Number of midwives in leadership roles in...	dk	dk	dk
●	Is there legislation in your country which recognises midwifery as a profession that is distinct from nursing?	no		

Education

			Direct entry	Post-nursing	Combined
●	Midwifery education programmes	exists	no	no	yes
		duration (months)	na	na	34
●	% of midwifery educators who are midwives		dk		
●	All midwives have Bachelor's degree or equivalent?		no		
●	Country offers postgraduate qualification in midwifery?		no		

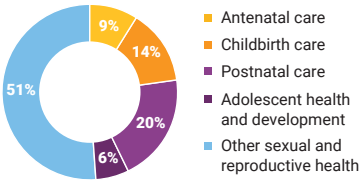
Regulation

●	No separate regulatory body for midwives, and no distinct policies and processes	
●	Compulsory licensing system: periodic relicensing but no CPD	
●	Number of BEmONC signal functions midwives are authorised to provide	2 of 7
●	Number of modern contraceptive methods midwives are authorised to provide	1 of 5

Association

●	Is there a professional association specifically for midwives?	no

% OF NEED AT EACH STAGE ON CONTINUUM OF CARE



SUPPLY FORECAST, 2030 PROJECTION

2030 supply will

exceed

economic capacity to employ

Source: **If in bold type: validated data from 2020 ICM survey.**
If not in bold type: either communication with UNFPA Country Office Sept 2021 or unvalidated data from 2020 ICM survey

Key:
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Bosnia and Herzegovina

SRMNAH WORKFORCE AVAILABILITY

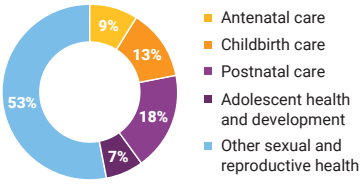
Occupation	Year	Headcount (A)	Percentage of time on SRMNAH (B)	Dedicated SRMNAH Equivalent (DSE) (A*B)	Graduates		Density per 10,000 population
					Year	Number	
Midwifery professionals	2019	1,062	100%	1,062	**nr**	**nr**	3.2
Midwifery associate professionals	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Associate nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Nursing professionals	2018	13,062	30%	3,919	**2018**	**432**	39.8
Nursing associate professionals	2018	5,995	40%	2,398	**nr**	**nr**	18.3
Community health workers	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Paramedical practitioners	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Medical assistants	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
General medical practitioners	2019	760	20%	152	**nr**	**nr**	2.3
Obstetricians / gynaecologists	2019	307	50%	154	**nr**	**nr**	0.9
Paediatricians	2019	359	15%	54	**nr**	**nr**	1.1
TOTAL SRMNAH WORKFORCE		21,545		7,738			65.7

Source: **If in bold type: WHO National Health Workforce Accounts (NHWA) data platform, accessed Dec 2020, most recent year**
If not in bold type: communication with UNFPA Country Office Nov 2021 – Jan 2022

ENABLING ENVIRONMENT FOR MIDWIVES

Policy environment				
Number of midwives in leadership roles in...		National MoH	Sub-national MoH	Regulatory authorities
		dk	dk	dk
Is there legislation in your country which recognises midwifery as a profession that is distinct from nursing?		yes		
Education				
Midwifery education programmes		Direct entry	Post-nursing	Combined
	exists	yes	no	no
	duration (months)	48	na	na
% of midwifery educators who are midwives		dk		
All midwives have Bachelor's degree or equivalent?		yes		
Country offers postgraduate qualification in midwifery?		no		
Regulation				
No separate regulatory body for midwives, and no distinct policies and processes				
Compulsory licensing system but no requirement for periodical renewal or CPD				
Number of BEmONC signal functions midwives are authorised to provide		5 of 7		
Number of modern contraceptive methods midwives are authorised to provide		2 of 5		
Association				
Is there a professional association specifically for midwives?		yes		

% OF NEED AT EACH STAGE ON CONTINUUM OF CARE



SUPPLY FORECAST, 2030 PROJECTION

2030 supply will **exceed** economic capacity to employ

Source: **If in bold type: validated data from 2020 ICM survey.**
If not in bold type: either communication with UNFPA Country Office Sept 2021 or unvalidated data from 2020 ICM survey

Key:
na = not applicable | nr = not reported | dk = don't know | MoH = Ministry of Health | CPD = continuing professional development | ICM = International Confederation of Midwives

Georgia

SRMNAH WORKFORCE AVAILABILITY

Occupation	Year	Headcount (A)	Percentage of time on SRMNAH (B)	Dedicated SRMNAH Equivalent (DSE) (A*B)	Graduates		Density per 10,000 population
					Year	Number	
Midwifery professionals	**2019**	**542**	100%	542	**nr**	**nr**	**1.4**
Midwifery associate professionals	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Associate nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Nursing professionals	**2019**	**20,306**	30%	6,092	**2015**	**9**	**50.9**
Nursing associate professionals	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Community health workers	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Paramedical practitioners	**2019**	**6,424**	30%	1,927	**nr**	**nr**	**16.1**
Medical assistants	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
General medical practitioners	**2019**	**6,772**	20%	1,354	**nr**	**nr**	**17.0**
Obstetricians / gynaecologists	**2019**	**1,925**	50%	963	**nr**	**nr**	**4.8**
Paediatricians	**2019**	**1,122**	15%	168	**nr**	**nr**	**2.8**
TOTAL SRMNAH WORKFORCE		**37,091**		11,046			**93.0**

Source: **If in bold type: WHO National Health Workforce Accounts (NHWA) data platform, accessed Dec 2020, most recent year**
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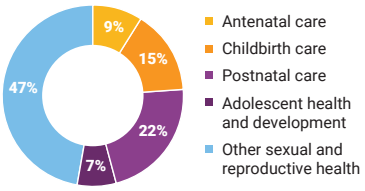
ENABLING ENVIRONMENT FOR MIDWIVES

Policy environment				
Number of midwives in leadership roles in...	National MoH: 0	Sub-national MoH: 0	Regulatory authorities: 0	
Is there legislation in your country which recognises midwifery as a profession that is distinct from nursing?	yes			
Education				
Midwifery education programmes		Direct entry	Post-nursing	Combined
	exists	yes	no	no
	duration (months)	48	na	na
% of midwifery educators who are midwives	dk			
All midwives have Bachelor's degree or equivalent?	yes			
Country offers postgraduate qualification in midwifery?	no			
Regulation				
There is no formal regulation system for midwives				
Compulsory licensing system but no requirement for periodical renewal or CPD				
Number of BEmONC signal functions midwives are authorised to provide	3 of 7			
Number of modern contraceptive methods midwives are authorised to provide	0 of 5			
Association				
Is there a professional association specifically for midwives?	**yes**			

% OF NEED AT EACH STAGE ON CONTINUUM OF CARE



SUPPLY FORECAST, 2030 PROJECTION

2030 supply will **exceed** economic capacity to employ

Source: **If in bold type: validated data from 2020 ICM survey.**
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Key:
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Kazakhstan

SRMNAH WORKFORCE AVAILABILITY

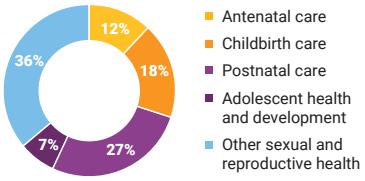
Occupation	Year	Headcount (A)	Percentage of time on SRMNAH (B)	Dedicated SRMNAH Equivalent (DSE) (A*B)	Graduates		Density per 10,000 population
					Year	Number	
Midwifery professionals	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Midwifery associate professionals	2015	9,471	100%	9,471	**nr**	**nr**	5.0
Nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Associate nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Nursing professionals	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Nursing associate professionals	2015	118,693	40%	47,477	**nr**	**nr**	63.2
Community health workers	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Paramedical practitioners	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Medical assistants	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
General medical practitioners	**2014**	**6,243**	20%	1,249	**nr**	**nr**	**3.3**
Obstetricians / gynaecologists	**2015**	**4,928**	50%	2,464	**nr**	**nr**	**2.6**
Paediatricians	2014	2,919	15%	438	**nr**	**nr**	1.6
TOTAL SRMNAH WORKFORCE		142,254		61,099			75.8

Source: **If in bold type: WHO National Health Workforce Accounts (NHWA) data platform, accessed Dec 2020, most recent year**
If not in bold type: communication with UNFPA Country Office Nov 2021 – Jan 2022

ENABLING ENVIRONMENT FOR MIDWIVES

Policy environment				
Number of midwives in leadership roles in...	National MoH	Sub-national MoH	Regulatory authorities	
	nr	nr	nr	
Is there legislation in your country which recognises midwifery as a profession that is distinct from nursing?	nr			
Education				
Midwifery education programmes		Direct entry	Post-nursing	Combined
	exists	nr	nr	nr
	duration (months)	nr	nr	nr
% of midwifery educators who are midwives	nr			
All midwives have Bachelor's degree or equivalent?	nr			
Country offers postgraduate qualification in midwifery?	nr			
Regulation				
No information was provided about the midwife regulation system				
No information was provided about the midwife licensing system				
Number of BEmONC signal functions midwives are authorised to provide	nr			
Number of modern contraceptive methods midwives are authorised to provide	nr			
Association				
Is there a professional association specifically for midwives?	nr			

% OF NEED AT EACH STAGE ON CONTINUUM OF CARE



SUPPLY FORECAST, 2030 PROJECTION

2030 supply will

exceed

economic capacity to employ

EXPLANATORY NOTES

Kazakhstan did not provide any data for this regional report. The data shown were submitted by Kazakhstan for the state of the World's Midwifery 2021 report.

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Kyrgyzstan

SRMNAH WORKFORCE AVAILABILITY

Occupation	Year	Headcount (A)	Percentage of time on SRMNAH (B)	Dedicated SRMNAH Equivalent (DSE) (A*B)	Graduates		Density per 10,000 population
					Year	Number	
Midwifery professionals	2020	2,428	100%	2,428	nr	nr	3.7
Midwifery associate professionals	2020	0	na	0	**2019**	**1,162**	nr
Nurse-midwives	2020	0	na	0	**nr**	**nr**	nr
Associate nurse-midwives	2020	0	na	0	**nr**	**nr**	nr
Nursing professionals	2020	26,456	44%	11,645	nr	nr	40.6
Nursing associate professionals	2020	0	na	0	**2019**	**1,753**	nr
Community health workers	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Paramedical practitioners	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Medical assistants	2020	1,582	30%	475	**2019**	**8**	2.4
General medical practitioners	**2019**	**13,709**	20%	2 742	**2019**	**169**	**21.0**
Obstetricians / gynaecologists	**2019**	**987**	50%	494	**2019**	**2,268**	**1.5**
Paediatricians	**2019**	**677**	15%	102	**2019**	**237**	**1.0**
TOTAL SRMNAH WORKFORCE		45,848		17,884			70.3

Source: **If in bold type: WHO National Health Workforce Accounts (NHWA) data platform, accessed Dec 2020, most recent year**
If not in bold type: communication with UNFPA Country Office Nov 2021 – Jan 2022

ENABLING ENVIRONMENT FOR MIDWIVES

Policy environment

		National MoH	Sub-national MoH	Regulatory authorities
●	Number of midwives in leadership roles in...	**dk**	**dk**	**dk**

●	Is there legislation in your country which recognises midwifery as a profession that is distinct from nursing?	**yes**

Education

			Direct entry	Post-nursing	Combined
●	Midwifery education programmes	exists	**yes**	**no**	nr
		duration (months)	**34**	**na**	nr
●	% of midwifery educators who are midwives		**0**		
●	All midwives have Bachelor's degree or equivalent?		no		
●	Country offers postgraduate qualification in midwifery?		**no**		

Regulation

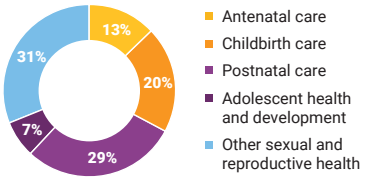
●	**No separate regulatory body for midwives, but the regulator has distinct policies and processes midwifery**
●	**Licensing is not compulsory for midwives**
●	Number of BEmONC signal functions midwives are authorised to provide: 5 of 7
●	Number of modern contraceptive methods midwives are authorised to provide: 4 of 5

Association

●	Is there a professional association specifically for midwives? **yes**

Source: **If in bold type: validated data from 2020 ICM survey.**
If not in bold type: either communication with UNFPA Country Office Sept 2021 or unvalidated data from 2020 ICM survey

% OF NEED AT EACH STAGE ON CONTINUUM OF CARE



SUPPLY FORECAST, 2030 PROJECTION

2030 supply will **exceed** economic capacity to employ

EXPLANATORY NOTES

Only those with higher medical education are permitted to teach, so no midwife educators are themselves qualified midwives.

Kyrgyzstan has an additional 6,471 nurses, paramedics and technicians who may indirectly help with SRMNAH issues.

Key:
na = not applicable | nr = not reported | dk = don't know | MoH = Ministry of Health | CPD = continuing professional development | ICM = International Confederation of Midwives

Republic of Moldova

SRMNAH WORKFORCE AVAILABILITY

Occupation	Year	Headcount (A)	Percentage of time on SRMNAH (B)	Dedicated SRMNAH Equivalent (DSE) (A*B)	Graduates		Density per 10,000 population
					Year	Number	
Midwifery professionals	**nr**	**nr**	na	nr	nr	nr	**nr**
Midwifery associate professionals	2019	593	100%	593	**2019**	**25**	1.5
Nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Associate nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Nursing professionals	**nr**	**nr**	na	nr	nr	nr	**nr**
Nursing associate professionals	2019	18,514	40%	7,406	**2019**	**785**	45.9
Community health workers	**2019**	**228**	10%	23	**nr**	**nr**	**0.6**
Paramedical practitioners	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Medical assistants	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
General medical practitioners	2019	1,687	20%	337	**2019**	**632**	4.2
Obstetricians / gynaecologists	2019	637	50%	319	**nr**	**nr**	1.6
Paediatricians	2019	471	15%	71	**nr**	**nr**	1.2
TOTAL SRMNAH WORKFORCE		22,130		8,748			54.9

Source: **If in bold type: WHO National Health Workforce Accounts (NHWA) data platform, accessed Dec 2020, most recent year**
If not in bold type: communication with UNFPA Country Office Nov 2021 – Jan 2022

ENABLING ENVIRONMENT FOR MIDWIVES

Policy environment

Number of midwives in leadership roles in...	National MoH	Sub-national MoH	Regulatory authorities
	0	0	0
Is there legislation in your country which recognises midwifery as a profession that is distinct from nursing?	yes		

Education

Midwifery education programmes	Direct entry	Post-nursing	Combined
exists	yes	no	no
duration (months)	30	na	na
% of midwifery educators who are midwives	42		
All midwives have Bachelor's degree or equivalent?	no		
Country offers postgraduate qualification in midwifery?	no		

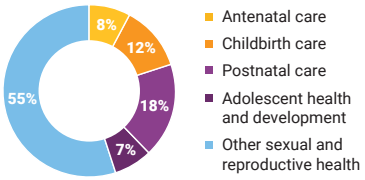
Regulation

No separate regulatory body for midwives, but the regulator has distinct policies and processes for midwifery	
Compulsory licensing system: periodic relicensing and CPD	
Number of BEmONC signal functions midwives are authorised to provide	3 of 7
Number of modern contraceptive methods midwives are authorised to provide	4 of 5

Association

Is there a professional association specifically for midwives?	yes

% OF NEED AT EACH STAGE ON CONTINUUM OF CARE



SUPPLY FORECAST, 2030 PROJECTION

2030 supply will **exceed** economic capacity to employ

Source: **If in bold type: validated data from 2020 ICM survey.**
If not in bold type: either communication with UNFPA Country Office Sept 2021 or unvalidated data from 2020 ICM survey

Key:
na = not applicable | nr = not reported | dk = don't know | MoH = Ministry of Health | CPD = continuing professional development | ICM = International Confederation of Midwives

North Macedonia

SRMNAH WORKFORCE AVAILABILITY

Occupation	Year	Headcount (A)	Percentage of time on SRMNAH (B)	Dedicated SRMNAH Equivalent (DSE) (A*B)	Graduates		Density per 10,000 population
					Year	Number	
Midwifery professionals	2016	0	na	0	**nr**	**nr**	nr
Midwifery associate professionals	2016	1,020	100%	1,020	**nr**	**nr**	4.9
Nurse-midwives	2016	0	na	0	**nr**	**nr**	nr
Associate nurse-midwives	2016	0	na	0	**nr**	**nr**	nr
Nursing professionals	2015	7,884	30%	2,365	**nr**	**nr**	37.8
Nursing associate professionals	2015	0	na	0	**nr**	**nr**	nr
Community health workers	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Paramedical practitioners	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Medical assistants	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
General medical practitioners	2018	2,691	20%	538	**nr**	**nr**	12.9
Obstetricians / gynaecologists	2018	342	**50%**	171	**nr**	**nr**	1.6
Paediatricians	2018	347	15%	52	**nr**	**nr**	1.7
TOTAL SRMNAH WORKFORCE		12,284		4,146			59.0

Source: **If in bold type: WHO National Health Workforce Accounts (NHWA) data platform, accessed Dec 2020, most recent year**
If not in bold type: communication with UNFPA Country Office Nov 2021 – Jan 2022

ENABLING ENVIRONMENT FOR MIDWIVES

Policy environment

		National MoH	Sub-national MoH	Regulatory authorities
●	Number of midwives in leadership roles in...	nr	nr	nr

●	Is there legislation in your country which recognises midwifery as a profession that is distinct from nursing?	nr

Education

			Direct entry	Post-nursing	Combined
●	Midwifery education programmes	exists	nr	nr	nr
		duration (months)	nr	nr	nr

●	% of midwifery educators who are midwives	nr
●	All midwives have Bachelor's degree or equivalent?	nr
●	Country offers postgraduate qualification in midwifery?	nr

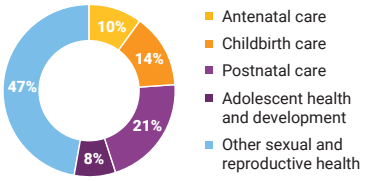
Regulation

●	No information was provided about the midwife regulation system	
●	No information was provided about the midwife licensing system	
●	Number of BEmONC signal functions midwives are authorised to provide	nr
●	Number of modern contraceptive methods midwives are authorised to provide	nr

Association

●	Is there a professional association specifically for midwives?	nr

% OF NEED AT EACH STAGE ON CONTINUUM OF CARE



SUPPLY FORECAST, 2030 PROJECTION

nr

EXPLANATORY NOTES

The headcount for general medical practitioners includes general practitioners (n=2,533) and specialists in family medicine (n=158)

Source: **If in bold type: validated data from 2020 ICM survey.**
If not in bold type: either communication with UNFPA Country Office Sept 2021 or unvalidated data from 2020 ICM survey

Key:
na = not applicable | nr = not reported | dk = don't know | MoH = Ministry of Health | CPD = continuing professional development | ICM = International Confederation of Midwives

Serbia

SRMNAH WORKFORCE AVAILABILITY

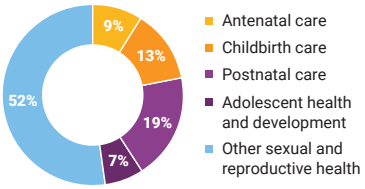
Occupation	Year	Headcount (A)	Percentage of time on SRMNAH (B)	Dedicated SRMNAH Equivalent (DSE) (A*B)	Graduates		Density per 10,000 population
					Year	Number	
Midwifery professionals	**nr**	**nr**	na	nr	**2015**	**255**	**nr**
Midwifery associate professionals	2019	2,185	100%	2,185	**nr**	**nr**	3.1
Nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Associate nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Nursing professionals	2019	5,818	30%	1,745	**2015**	**1,056**	8.4
Nursing associate professionals	2019	31,165	40%	12,466	**nr**	**nr**	44.8
Community health workers	**2016**	**887**	10%	89	**nr**	**nr**	**1.3**
Paramedical practitioners	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Medical assistants	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
General medical practitioners	2020	3,617	20%	723	**nr**	**nr**	5.2
Obstetricians / gynaecologists	2020	1,238	50%	619	**nr**	**nr**	1.8
Paediatricians	2020	927	15%	139	**nr**	**nr**	1.3
TOTAL SRMNAH WORKFORCE		45,837		17,967			65.8

Source: **If in bold type: WHO National Health Workforce Accounts (NHWA) data platform, accessed Dec 2020, most recent year**
If not in bold type: communication with UNFPA Country Office Nov 2021 – Jan 2022

ENABLING ENVIRONMENT FOR MIDWIVES

Policy environment				
Number of midwives in leadership roles in...	National MoH: 0	Sub-national MoH: dk	Regulatory authorities: dk	
Is there legislation in your country which recognises midwifery as a profession that is distinct from nursing?	no			
Education				
Midwifery education programmes		Direct entry	Post-nursing	Combined
	exists	no	yes	nr
	duration (months)	na	48	nr
% of midwifery educators who are midwives	20			
All midwives have Bachelor's degree or equivalent?	yes			
Country offers postgraduate qualification in midwifery?	no			
Regulation				
No separate regulatory body for midwives, but the regulator has distinct polices and processes for midwifery				
Compulsory licensing system: periodic relicensing and CPD				
Number of BEmONC signal functions midwives are authorised to provide	0 of 7			
Number of modern contraceptive methods midwives are authorised to provide	0 of 5			
Association				
Is there a professional association specifically for midwives?	**yes**			

% OF NEED AT EACH STAGE ON CONTINUUM OF CARE



SUPPLY FORECAST, 2030 PROJECTION

2030 supply will **exceed** economic capacity to employ

EXPLANATORY NOTES

It is possible that the headcounts and graduate numbers from the WHO NHWA platform include both Serbia and Kosovo, whereas the numbers provided by the UNFPA country office cover Serbia only, and not Kosovo.

The most recent health workforce headcounts were published in 2020, but did not distinguish between midwives and nurses, so for these occupation groups the 2019 headcounts are shown.

The headcounts provided by the UNFPA country office exclude private sector health workers, who represent a small but growing proportion of the total health workforce.

Source: **If in bold type: validated data from 2020 ICM survey.**
If not in bold type: either communication with UNFPA Country Office Sept 2021 or unvalidated data from 2020 ICM survey

Key:
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Tajikistan

SRMNAH WORKFORCE AVAILABILITY

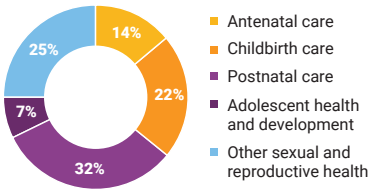
Occupation	Year	Headcount (A)	Percentage of time on SRMNAH (B)	Dedicated SRMNAH Equivalent (DSE) (A*B)	Graduates		Density per 10,000 population
					Year	Number	
Midwifery professionals	2020	6,166	100%	6,166	nr	nr	6.5
Midwifery associate professionals	2020	0	na	0	2014	422	nr
Nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Associate nurse-midwives	2020	0	na	0	**nr**	**nr**	nr
Nursing professionals	2020	45,820	44%	20,161	nr	nr	48.0
Nursing associate professionals	**nr**	**nr**	na	nr	2018	11,056	**nr**
Community health workers	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Paramedical practitioners	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Medical assistants	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
General medical practitioners	2020	2,272	20%	454	**nr**	**nr**	2.4
Obstetricians / gynaecologists	2020	1,961	50%	981	**nr**	**nr**	2.1
Paediatricians	2020	1,265	15%	190	**nr**	**nr**	1.3
TOTAL SRMNAH WORKFORCE		57,484		27,951			60.3

Source: **If in bold type: WHO National Health Workforce Accounts (NHWA) data platform, accessed Dec 2020, most recent year**
If not in bold type: communication with UNFPA Country Office Nov 2021 – Jan 2022

ENABLING ENVIRONMENT FOR MIDWIVES

Policy environment				
Number of midwives in leadership roles in...	National MoH **1**	Sub-national MoH **1**	Regulatory authorities **0**	
Is there legislation in your country which recognises midwifery as a profession that is distinct from nursing?	**yes**			
Education				
Midwifery education programmes		Direct entry	Post-nursing	Combined
	exists	**yes**	**yes**	**no**
	duration (months)	46	**10**	**na**
% of midwifery educators who are midwives	45			
All midwives have Bachelor's degree or equivalent?	no			
Country offers postgraduate qualification in midwifery?	**no**			
Regulation				
No separate regulatory body for midwives, but the regulator has distinct polices and processes for midwifery				
Compulsory licensing system: periodic relicensing and CPD				
Number of BEmONC signal functions midwives are authorised to provide	5 of 7			
Number of modern contraceptive methods midwives are authorised to provide	3 of 5			
Association				
Is there a professional association specifically for midwives?	**yes**			

% OF NEED AT EACH STAGE ON CONTINUUM OF CARE



SUPPLY FORECAST, 2030 PROJECTION

2030 supply will **exceed** economic capacity to employ

EXPLANATORY NOTES

Midwives are not routinely authorised to provide intrauterine devices (IUDs), but in rural areas they are authorised to provide this service on completion of a one-month training course. These midwives are authorised to provide 4 out of 5 modern contraceptive methods – all other midwives are authorised to provide 3 out of 5.

Source: **If in bold type: validated data from 2020 ICM survey.**
If not in bold type: either communication with UNFPA Country Office Sept 2021 or unvalidated data from 2020 ICM survey

Key:
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Türkiye

SRMNAH WORKFORCE AVAILABILITY

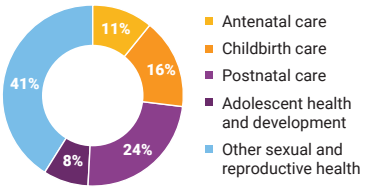
Occupation	Year	Headcount (A)	Percentage of time on SRMNAH (B)	Dedicated SRMNAH Equivalent (DSE) (A*B)	Graduates		Density per 10,000 population
					Year	Number	
Midwifery professionals	**2018**	**56,351**	100%	56,351	**2019**	**2,807**	**6.7**
Midwifery associate professionals	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Associate nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Nursing professionals	**2018**	**190,892**	30%	57,268	**2019**	**15,247**	**22.6**
Nursing associate professionals	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Community health workers	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Paramedical practitioners	**2018**	**12,681**	30%	3,804	**2019**	**10,302**	**1.5**
Medical assistants	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
General medical practitioners	**2018**	**44,311**	20%	8,862	**nr**	**nr**	**5.3**
Obstetricians / gynaecologists	**2018**	**5,727**	50%	2,864	**nr**	**nr**	**0.7**
Paediatricians	**2018**	**5,254**	15%	788	**nr**	**nr**	**0.6**
TOTAL SRMNAH WORKFORCE		**315,216**		129,937			**37.4**

Source: **If in bold type: WHO National Health Workforce Accounts (NHWA) data platform, accessed Dec 2020, most recent year**
If not in bold type: communication with UNFPA Country Office Nov 2021 – Jan 2022

ENABLING ENVIRONMENT FOR MIDWIVES

Policy environment				
Number of midwives in leadership roles in...	National MoH: 0	Sub-national MoH: dk	Regulatory authorities: 0	
Is there legislation in your country which recognises midwifery as a profession that is distinct from nursing?	yes			
Education				
Midwifery education programmes		Direct entry	Post-nursing	Combined
	exists	yes	no	nr
	duration (months)	48	na	nr
% of midwifery educators who are midwives	60			
All midwives have Bachelor's degree or equivalent?	yes			
Country offers postgraduate qualification in midwifery?	yes			
Regulation				
No separate regulatory body for midwives, and no distinct policies and processes				
Compulsory licensing system: periodic relicensing but no CPD				
Number of BEmONC signal functions midwives are authorised to provide	1 of 7			
Number of modern contraceptive methods midwives are authorised to provide	2 of 5			
Association				
Is there a professional association specifically for midwives?	**yes**			

% OF NEED AT EACH STAGE ON CONTINUUM OF CARE



SUPPLY FORECAST, 2030 PROJECTION

2030 supply will **be moderately below** economic capacity to employ

Source: **If in bold type: validated data from 2020 ICM survey.**
If not in bold type: either communication with UNFPA Country Office Sept 2021 or unvalidated data from 2020 ICM survey

Key:
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Turkmenistan

SRMNAH WORKFORCE AVAILABILITY

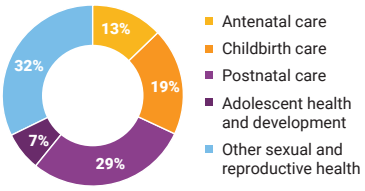
Occupation	Year	Headcount (A)	Percentage of time on SRMNAH (B)	Dedicated SRMNAH Equivalent (DSE) (A*B)	Graduates		Density per 10,000 population
					Year	Number	
Midwifery professionals	2014	1,111	100%	1,111	**2014**	**50**	1.8
Midwifery associate professionals	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Associate nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Nursing professionals	**2014**	**23,090**	30%	6,927	**2014**	**235**	**38.3**
Nursing associate professionals	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Community health workers	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Paramedical practitioners	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Medical assistants	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
General medical practitioners	**2014**	**4,207**	20%	841	**nr**	**nr**	**7.0**
Obstetricians / gynaecologists	**2014**	**756**	50%	378	**nr**	**nr**	**1.3**
Paediatricians	2014	515	15%	77	**nr**	**nr**	0.9
TOTAL SRMNAH WORKFORCE		29,679		9,335			49.2

Source: **If in bold type: WHO National Health Workforce Accounts (NHWA) data platform, accessed Dec 2020, most recent year**
If not in bold type: communication with UNFPA Country Office Nov 2021 – Jan 2022

ENABLING ENVIRONMENT FOR MIDWIVES

Policy environment				
Number of midwives in leadership roles in...		National MoH: 0	Sub-national MoH: 0	Regulatory authorities: 0
Is there legislation in your country which recognises midwifery as a profession that is distinct from nursing?		yes		
Education				
Midwifery education programmes		Direct entry	Post-nursing	Combined
	exists	no	no	yes
	duration (months)	na	na	30
% of midwifery educators who are midwives		25		
All midwives have Bachelor's degree or equivalent?		no		
Country offers postgraduate qualification in midwifery?		no		
Regulation				
No separate regulatory body for midwives, and no distinct policies and processes				
Licensing is not compulsory for midwives				
Number of BEmONC signal functions midwives are authorised to provide		5 of 7		
Number of modern contraceptive methods midwives are authorised to provide		3 of 5		
Association				
Is there a professional association specifically for midwives?		no		

% OF NEED AT EACH STAGE ON CONTINUUM OF CARE



SUPPLY FORECAST, 2030 PROJECTION

2030 supply will **be moderately below** economic capacity to employ

EXPLANATORY NOTES

For midwives working in the public sector in Turkmenistan, their educational qualification gives them the legal right to practise, but in the private sector there is no equivalent legal basis, which is why Turkmenistan is classed as not having compulsory licensing for all of its midwives.

Source: **If in bold type: validated data from 2020 ICM survey.**
If not in bold type: either communication with UNFPA Country Office Sept 2021 or unvalidated data from 2020 ICM survey

Key:
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Ukraine

SRMNAH WORKFORCE AVAILABILITY

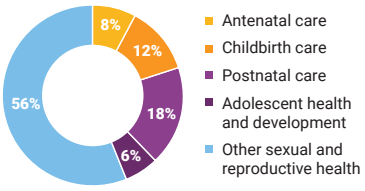
Occupation	Year	Headcount (A)	Percentage of time on SRMNAH (B)	Dedicated SRMNAH Equivalent (DSE) (A*B)	Graduates		Density per 10,000 population
					Year	Number	
Midwifery professionals	**nr**	**nr**	na	nr	nr	nr	**nr**
Midwifery associate professionals	**nr**	**nr**	na	nr	2014	1,515	**nr**
Nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Associate nurse-midwives	2020	12,342	100%	12,342	**nr**	**nr**	2.8
Nursing professionals	**nr**	**nr**	na	nr	nr	nr	**nr**
Nursing associate professionals	2020	273,526	88%	240,703	2014	14,526	62.5
Community health workers	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Paramedical practitioners	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Medical assistants	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
General medical practitioners	2020	23,980	20%	4,796	**nr**	**nr**	5.5
Obstetricians / gynaecologists	2020	9,112	50%	4,556	**nr**	**nr**	2.1
Paediatricians	2020	7,950	15%	1,193	**nr**	**nr**	1.8
TOTAL SRMNAH WORKFORCE		326,910		263,589			74.8

Source: **If in bold type: WHO National Health Workforce Accounts (NHWA) data platform, accessed Dec 2020, most recent year**
If not in bold type: communication with UNFPA Country Office Nov 2021 – Jan 2022

ENABLING ENVIRONMENT FOR MIDWIVES

Policy environment				
Number of midwives in leadership roles in...		National MoH	Sub-national MoH	Regulatory authorities
		dk	dk	dk
Is there legislation in your country which recognises midwifery as a profession that is distinct from nursing?		no		
Education				
Midwifery education programmes		Direct entry	Post-nursing	Combined
	exists	no	no	yes
	duration (months)	na	na	29
% of midwifery educators who are midwives		dk		
All midwives have Bachelor's degree or equivalent?		no		
Country offers postgraduate qualification in midwifery?		no		
Regulation				
No separate regulatory body for midwives, and no distinct policies and processes				
Compulsory licensing system: periodic relicensing and CPD				
Number of BEmONC signal functions midwives are authorised to provide		3 of 7		
Number of modern contraceptive methods midwives are authorised to provide		0 of 5		
Association				
Is there a professional association specifically for midwives?		no		

% OF NEED AT EACH STAGE ON CONTINUUM OF CARE



SUPPLY FORECAST, 2030 PROJECTION

2030 supply will **exceed** economic capacity to employ

Source: **If in bold type: validated data from 2020 ICM survey.**
If not in bold type: either communication with UNFPA Country Office Sept 2021 or unvalidated data from 2020 ICM survey

Key:
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Uzbekistan

SRMNAH WORKFORCE AVAILABILITY

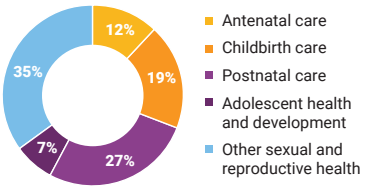
Occupation	Year	Headcount (A)	Percentage of time on SRMNAH (B)	Dedicated SRMNAH Equivalent (DSE) (A*B)	Graduates		Density per 10,000 population
					Year	Number	
Midwifery professionals	2020	19,545	100%	19,545	**nr**	**nr**	5.8
Midwifery associate professionals	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Associate nurse-midwives	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Nursing professionals	2020	268,730	44%	118,241	**nr**	**nr**	80.3
Nursing associate professionals	2020	104,151	50%	52,076	**nr**	**nr**	31.1
Community health workers	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Paramedical practitioners	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
Medical assistants	**nr**	**nr**	na	nr	**nr**	**nr**	**nr**
General medical practitioners	**2014**	**14,958**	20%	2,992	**nr**	**nr**	**4.5**
Obstetricians / gynaecologists	2020	4,910	50%	2,455	**nr**	**nr**	1.5
Paediatricians	2020	4,025	15%	604	**nr**	**nr**	1.2
TOTAL SRMNAH WORKFORCE		416,319		195,912			124.4

Source: **If in bold type: WHO National Health Workforce Accounts (NHWA) data platform, accessed Dec 2020, most recent year**
If not in bold type: communication with UNFPA Country Office Nov 2021 – Jan 2022

ENABLING ENVIRONMENT FOR MIDWIVES

Policy environment				
●	Number of midwives in leadership roles in...	National MoH: dk	Sub-national MoH: nr	Regulatory authorities: nr
●	Is there legislation in your country which recognises midwifery as a profession that is distinct from nursing?	no		
Education				
●	Midwifery education programmes	Direct entry	Post-nursing	Combined
	exists	yes	no	no
	duration (months)	36	na	na
●	% of midwifery educators who are midwives	nr		
●	All midwives have Bachelor's degree or equivalent?	yes		
●	Country offers postgraduate qualification in midwifery?	yes		
Regulation				
●	No separate regulatory body for midwives, but the regulator has distinct policies and processes for midwifery			
●	Licensing is not compulsory for midwives			
●	Number of BEmONC signal functions midwives are authorised to provide	2 of 7		
●	Number of modern contraceptive methods midwives are authorised to provide	0 of 5		
Association				
●	Is there a professional association specifically for midwives?	no		

% OF NEED AT EACH STAGE ON CONTINUUM OF CARE



SUPPLY FORECAST, 2030 PROJECTION

2030 supply will **exceed** economic capacity to employ

EXPLANATORY NOTES

It is possible that the total SRMNAH workforce headcount (416,319) is an overestimate because some nurses hold more than one position and, therefore, may have been counted twice.

Source: **If in bold type: validated data from 2020 ICM survey.**
If not in bold type: either communication with UNFPA Country Office Sept 2021 or unvalidated data from 2020 ICM survey

Key:
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Kosovo

SRMNAH WORKFORCE AVAILABILITY

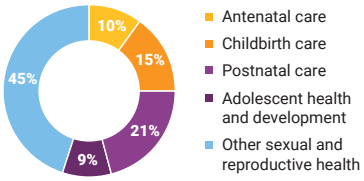
Occupation	Year	Headcount (A)	Percentage of time on SRMNAH (B)	Dedicated SRMNAH Equivalent (DSE) (A*B)	Graduates		Density per 10,000 population
					Year	Number	
Midwifery professionals	2021	0	na	0	nr	nr	nr
Midwifery associate professionals	2021	651	100%	651	nr	nr	3.7
Nurse-midwives	nr	nr	na	nr	nr	nr	nr
Associate nurse-midwives	nr	nr	na	nr	nr	nr	nr
Nursing professionals	2021	0	na	0	nr	nr	nr
Nursing associate professionals	2021	4,661	40%	1,864	nr	nr	26.3
Community health workers	nr	nr	na	nr	nr	nr	nr
Paramedical practitioners	nr	nr	na	nr	nr	nr	nr
Medical assistants	nr	nr	na	nr	nr	nr	nr
General medical practitioners	2021	2,242	20%	448	nr	nr	12.6
Obstetricians / gynaecologists	2021	257	50%	129	nr	nr	1.4
Paediatricians	2021	247	15%	37	nr	nr	1.4
TOTAL SRMNAH WORKFORCE		8,058		3,129			45.4

Source: **If in bold type: WHO National Health Workforce Accounts (NHWA) data platform, accessed Dec 2020, most recent year**
If not in bold type: communication with UNFPA Office Nov 2021 – Jan 2022

ENABLING ENVIRONMENT FOR MIDWIVES

Policy environment					
●	Number of midwives in leadership roles in...		National MoH: 0	Sub-national MoH: 0	Regulatory authorities: 0
●	Is there legislation in your country which recognises midwifery as a profession that is distinct from nursing?		no		
Education					
●	Midwifery education programmes		Direct entry	Post-nursing	Combined
		exists	yes	no	nr
		duration (months)	36	na	nr
●	% of midwifery educators who are midwives		4		
●	All midwives have Bachelor's degree or equivalent?		no		
●	Country offers postgraduate qualification in midwifery?		yes		
Regulation					
●	There is no formal regulation system for midwives				
●	Compulsory licensing system: periodic relicensing and CPD				
●	Number of BEmONC signal functions midwives are authorised to provide		1 of 7		
●	Number of modern contraceptive methods midwives are authorised to provide		1 of 5		
Association					
●	Is there a professional association specifically for midwives?		**yes**		

% OF NEED AT EACH STAGE ON CONTINUUM OF CARE



SUPPLY FORECAST, 2030 PROJECTION

nr

EXPLANATORY NOTES

Kosovo provided a total headcount for nurses and midwives working in primary health care facilities, but could not state how many were nurses and how many were midwives. We know that, at secondary and tertiary level, 88% are nurses and 12% are midwives, so it was assumed that the same proportions applied at primary level. These headcounts for midwives and nurses are estimates, based on this assumption.

The headcount for general medical practitioners includes both family medicine doctors (n=601) and general practitioners with no specialisation (n=1,641).

Source: **If in bold type: validated data from 2020 ICM survey.**
If not in bold type: either communication with UNFPA Country Office Sept 2021 or unvalidated data from 2020 ICM survey

Key:
na = not applicable | nr = not reported | dk = don't know | MoH = Ministry of Health | CPD = continuing professional development | ICM = International Confederation of Midwives

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Glossary

Adolescent	A person aged between 10 and 19 years (inclusive)
Adolescent birth rate	The number of births to women aged 15-19 years per 1,000 women in that age group[7]
Caesarean section rate	The percentage of pregnant women who give birth via caesarean section
Coverage for 4+ antenatal care visits	The percentage of women aged 15-49 years with a live birth in a given time who received antenatal care four or more times[8]
Dedicated SRMNAH equivalent (DSE)*	Headcount adjusted for % of clinical time spent on SRMNAH care, to estimate the amount of health worker clinical time available to deliver SRMNAH interventions
Demand for SRMNAH workers*	The number of SRMNAH workers that a country's health system can support in terms of funded positions or economic demand for SRMNAH services
Leadership role (in relation to midwives)*	"Leadership role" as defined in this report may refer to a number of management, supervisory and executive titles, including midwives: • in Ministry of Health positions (e.g. Chief Midwife, midwife advisor, national midwife director, maternity advisory positions) • leading regional or local maternity facilities (e.g. midwife director, midwife advisor to chief executive or senior team, midwives in charge of maternity units/wards) • leading professional midwives' associations (e.g. President, Chief Executive/Director) • leading midwifery regulatory authorities (e.g. Chair of Midwifery Council, Chief Executive/Director) • leading midwifery education programmes (e.g. Head of Midwifery School, Director of Midwifery, Head of Midwifery Programme)

7 Adolescent birth rate. New York: United Nations Department of Economic and Social Affairs; 2021 (https://www.un.org/en/development/desa/population/publications/dataset/fertility/adolescent-rate.asp#:~:text=The%20adolescent%20birth%20rate%20measures,women%20in%20that%20age%20group, accessed 29 July 2022).

8 Antenatal care coverage – at least four visits (%). Geneva: World Health Organization; 2021 (https://www.who.int/data/gho/indicator-metadata-registry/imr-details/80, accessed 29 July 2022).

Live birth	The complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which after such separation breathes or shows any evidence of life, such as a heartbeat, pulsation of the umbilical cord or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached[9]
Maternal mortality ratio	The number of maternal deaths during a given time period per 100,000 live births during the same period[10]
Midwife	A responsible and accountable professional who works in partnership with women to give the necessary support, care and advice during pregnancy, labour and the post-partum period, to conduct births on the midwife's own responsibility and to provide care for the newborn and the infant. This care includes preventative measures, the promotion of normal birth, the detection of complications in mother and child, the accessing of medical care or other appropriate assistance and the carrying out of emergency measures. The midwife has an important task in health counselling and education, not only for the woman, but also within the family and the community. This work should involve antenatal education and preparation for parenthood and may extend to women's health, sexual or reproductive health and childcare. A midwife may practise in any setting including the home, community, hospitals, clinics or health units[11]
Midwife-led care	The midwife is the lead health care professional, responsible for planning, organizing and delivering care[12]
Modern contraceptive prevalence rate	The percentage of women currently using, or whose sexual partner is currently using, at least one modern method of contraception. Modern methods include: oral contraceptive pills, implants, injectables, contraceptive patch and vaginal ring, intrauterine device, female and male condoms, female and male sterilization, vaginal barrier methods (including the diaphragm, cervical cap and spermicidal agents), lactational amenorrhoea method, emergency contraception pills, standard days method, basal body temperature method, TwoDay method and sympto-thermal method[13]

9 Natality. New York: United Nations Department of Economic and Social Affairs; 2017 (https://unstats.un.org/unsd/demographic/sconcerns/natality/natmethods.htm, accessed 29 July 2022).

10 Maternal mortality ratio (per 100,000 live births). Geneva: World Health Organization; 2021 (https://www.who.int/data/gho/indicator-metadata-registry/imr-details/26, accessed 29 July 2022).

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13 Contraceptive prevalence – use of modern methods (%). Geneva: World Health Organization; 2021 (https://www.who.int/data/gho/indicator-metadata-registry/imr-details/3334, accessed 29 July 2022).

Need for SRMNAH workers*	The amount of SRMNAH worker time needed to achieve universal coverage of the essential SRMNAH interventions listed in the *Global Strategy for Women's, Children's and Adolescents' Health*
Neonatal mortality rate	Number of deaths during the first 28 completed days of life per 1,000 live births in a given year or period[14]
Nurse	A person who has successfully completed a programme of basic, generalized nursing education and is authorized by the appropriate regulatory authority to practise nursing. Basic nursing education is a formally recognized programme of study providing a broad and sound foundation in the behavioural, life and nursing sciences for the general practice of nursing, for a leadership role and for post-basic education for specialty or advanced nursing practice. The nurse is prepared and authorized (i) to engage in the general scope of nursing practice, including the promotion of health, prevention of illness and care of physically ill, mentally ill and disabled people of all ages and in all health care and other community settings; (ii) to carry out health care teaching; (iii) to participate fully as a member of the health care team; (iv) to supervise and train nursing and health care auxiliaries; and (v) to be involved in research[15]
Nurse-midwife*	A nurse who has had "midwifery training", defined as having "successfully completed a midwifery education programme and acquired the requisite qualifications to be registered and/or legally licensed to practise as a midwife". It is recognized that not all countries use the term "nurse-midwife" and that those in the "nurse-midwives" category are not necessarily all engaged in providing midwifery care
Nursing workforce excluding those with midwifery training*	All persons with a nursing qualification (professional or associate professional) with the exception of nurse professionals or nurse associate professionals with formal midwifery training who are counted as part of the midwifery workforce and subtracted from the overall nursing workforce

14 Neonatal mortality rate (per 1,000 live births). Geneva: World Health Organization; 2018 (https://www.who.int/data/gho/data/indicators/indicator-details/GHO/neonatal-mortality-rate-(per-1000-live-births), accessed 29 July 2022).

15 Definition of a nurse. Geneva: International Council of Nurses; 1987 (https://www.icn.ch/nursing-policy/nursing-definitions, accessed 29 July 2022).

Potential met need (PMN)*	The percentage of health worker time needed for universal coverage of essential SRMNAH interventions that could be delivered by the current workforce if it was educated to global standards, equitably distributed and working within an enabling environment
Sexual, reproductive, maternal, newborn and adolescent health (SRMNAH) care	The continuum of sexual and reproductive health care and maternal and newborn health care, including for adolescents
SRMNAH doctors*	Generalist medical practitioners, obstetricians and gynaecologists and paediatricians
Stillbirth rate	Number of babies born with no sign of life at 28 weeks or more of gestation, per 1,000 total births[16]
Supply of health workers	The number of health workers available to provide clinical services
Total fertility rate	The average number of children a hypothetical cohort of women would have at the end of their reproductive period if they were subject during their whole lives to the fertility rates of a given period and if they were not subject to mortality. It is expressed as children per woman[17]
Unmet need for family planning	The percentage of women of reproductive age who have an unmet need for family planning, i.e. those wishing to stop or delay childbearing but not using any method of contraception[18]

* This term is specific to *The State of the World's Midwifery* (SoWMy) series of reports: it is not standard terminology.

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Technical annex

Table A.1 defines the health occupations considered to be part of the SRMNAH workforce for the purposes of this report.

Table A.1: SRMNAH workforce occupation definitions

OCCUPATION	DEFINITION
Midwifery professionals	Midwifery professionals plan, manage and provide midwifery care services before, during and after pregnancy and childbirth. They provide delivery care to reduce health risks to women and newborn children according to the practice and standards of modern midwifery, working autonomously or in teams with other health-care providers. They may conduct research on midwifery practices and procedures, and implement midwifery education activities in clinical and community settings.
Midwifery associate professionals	Midwifery associate professionals provide basic health care and advice before, during and after pregnancy and childbirth. They provide advice to women, families and communities on birth and emergency plans, breastfeeding, infant care, family planning and related topics; monitor health status during pregnancy and childbirth; and implement care, treatment and referral plans usually established by medical, midwifery and other health professionals.
Nurse-midwives	Nursing professionals who have successfully completed a midwifery education programme and have the requisite qualifications to be registered and/or licensed to practise midwifery. Usually this is achieved by qualifying as a nursing professional and then acquiring a further qualification in midwifery.
Associate nurse-midwives	Nursing associate professionals who have also successfully completed formal education to provide basic health care and advice before, during and after pregnancy and childbirth. They provide advice to women, families and communities on birth and emergency plans, breastfeeding, infant care, family planning and related topics; monitor health status during pregnancy and childbirth; and implement care, treatment and referral plans usually established by medical, midwifery and other health professionals.
Nursing professionals	Nursing professionals provide treatment, support and care services for people in need of nursing care due to the effects of ageing, injury, illness or other physical or mental impairment, or potential risks to health, according to the practice and standards of modern nursing. They assume responsibility for the planning and management of patient care, including the supervision of other health care workers, working autonomously or in teams with medical doctors and others in the practical application of preventive and curative measures in clinical and community settings.

OCCUPATION	DEFINITION
Nursing associate professionals	Nursing associate professionals provide basic nursing and personal care for people needing such care due to effects of ageing, illness, injury or other physical or mental impairment. They provide health advice to patients and families, monitor patients' conditions, and implement care, treatment and referral plans usually established by medical, nursing and other health professionals.
Community health workers	Community health workers provide health education, referral and follow-up, case management, and basic preventive health care and home visiting services to specific communities. They support and assist individuals and families in navigating the health and social services systems.
Paramedical practitioners	Paramedical practitioners provide advisory, diagnostic, curative and preventive medical services more limited in scope and complexity than those carried out by medical doctors. They work autonomously or with limited supervision by medical doctors, and perform clinical, therapeutic and surgical procedures to treat and prevent diseases, injuries and other physical or mental impairments common to specific communities.
Medical assistants	Medical assistants perform basic clinical and administrative tasks to support patient care under the direct supervision of a medical practitioner or other health professional. They perform routine tasks and procedures such as measuring patients' vital signs, administering medications and injections, recording information in medical record-keeping systems, preparing and handling medical instruments and supplies, and collecting and preparing specimens of bodily fluids and tissues for laboratory testing.
General medical practitioners	General medical practitioners (including family and primary care doctors) diagnose, treat and prevent illness, disease, injury and other physical and mental impairments, and maintain general health in humans by applying the principles and procedures of modern medicine. They plan, supervise and evaluate the implementation of care and treatment plans by other health-care providers. They do not limit their practice to particular disease categories or methods of treatment, and may assume responsibility for providing continuing and comprehensive medical care to individuals, families and communities.
Obstetricians & gynaecologists	Doctors in obstetric and gynaecological specialties and related branches focusing on the care of women's reproductive systems including before, during and after pregnancy and childbirth.
Paediatricians	Doctors in paediatrics and related specialties focusing on the prevention, diagnosis and treatment of health problems in infants, children and adolescents.

The methods used to produce the analyses in this report closely follow those described in the SoWMy 2021 webappendices, with one exception. Some of the data sources used to estimate the level of need for SRMNAH worker time were updated after the publication of SoWMy 2021. Table A.2 shows the interventions affected by the change, and cites the updated data sources. If an intervention is not shown in Table A.2, there has been no update since SoWMy 2021 and the same data source was used as shown in SoWMy 2021 webappendix 5.

Table A.2: Data sources updated since SoWMy 2021 which affected estimates of health worker time needed to deliver essential SRMNAH interventions

INTERVENTION	NUMBER AND AVERAGE DURATION OF CONTACTS NEEDED WITH AN SRMNAH WORKER	DATA REQUIREMENTS AND SOURCES
WOMEN (INCLUDING PRE-PREGNANCY INTERVENTIONS)		
Delivery of condoms, vaginal barriers, vaginal tablets	Three contacts per year totalling 35 minutes per WRA using condoms, estimated as follows: WRA x (contraceptive prevalence rate (CPR) + unmet need) x % of female contraceptive users who use male or female condoms	**Indicator**: CPR (any method), 2019-2030. **Source**: UN Department of Economic and Social Affairs family planning indicators (https://www.un.org/en/development/desa/population/theme/family-planning/cp_model.asp), accessed 29 September 2021. A regional mean was applied for countries not included within this source. **Indicator**: Unmet need for family planning (%). **Source**: UN Department of Economic and Social Affairs family planning indicators as above. **Indicator**: % of female contraceptive users (aged 15-49) who use each type. **Source**: UN Department of Economic and Social Affairs World Contraceptive Use dataset 2019 (https://www.un.org/en/development/desa/population/publications/dataset/contraception/wcu2019.asp), accessed 29 September 2021. A regional mean was applied for countries not included within this source.
Delivery of contraceptive pills and injectables	Three contacts per year totalling 40 minutes per WRA using pills or injectables, estimated as follows: WRA x (CPR + unmet need) x % of female contraceptive users who use pills or injectables	
Insertion and extraction of contraceptive implants	One 60-minute contact every 5 years per WRA using implants (assuming Jadelle), estimated as follows: WRA x (CPR + unmet need) x % of female contraceptive users who use implants	
Intrauterine device (IUD) insertion	One 55-minute contact every 10 years per WRA using IUD (assuming Copper T 380-A-IUD), estimated as follows: WRA x (CPR + unmet need) x % of female contraceptive users who use IUDs	
Female sterilization	One 100-minute contact per unsterilized WRA requesting sterilization, estimated as follows: (New members of the WRA cohort, i.e. 20% of women aged 15-19) x (CPR + unmet need) x (% of female contraceptive users who use female sterilization)	

INTERVENTION	NUMBER AND AVERAGE DURATION OF CONTACTS NEEDED WITH AN SRMNAH WORKER	DATA REQUIREMENTS AND SOURCES
PREGNANCY (ANTENATAL CARE)		
Prevention of malaria, including insecticide-treated nets and intermittent preventive treatment	Contacts totalling 6-minutes per pregnant woman living in areas of high malaria transmission, estimated as follows: pregnancies x % of population living in areas of high malaria transmission	**Indicator**: % of population living in areas of high malaria transmission. **Source**: WHO (2020) World Malaria Report (https://www.who.int/teams/global-malaria-programme/reports/world-malaria-report-2020), accessed 23 November 2021. Assumed 0% for countries not included in the report.
Treatment of malaria in pregnancy	One 4-minute contact per pregnant woman with malaria, estimated as follows: pregnancies x incidence of presumed and confirmed malaria cases	**Indicator**: Incidence of presumed and confirmed malaria cases (%). **Source**: WHO (2020) World Malaria Report as above, 2019 values.
POSTNATAL (MOTHER)		
Response to intimate partner violence (IPV)	Contacts totalling 35 minutes per new mother experiencing IPV, estimated as follows: (live births + stillbirths) x lifetime prevalence of IPV among women aged 15-49	**Indicator**: Lifetime prevalence of IPV among women aged 15-49. **Source**: WHO (2021) Global database on the prevalence of violence against women (https://srhr.org/vaw-data/data). A regional mean was applied for countries not included within this source.
ADOLESCENT SEXUAL AND REPRODUCTIVE HEALTH		
Prevention of harmful practices such as female genital mutilation (FGM) and early and forced marriage	Contacts totalling 5 minutes for all 10-19 year-old girls living in countries with prevalence of FGM >0 (on the assumption that this intervention will be delivered in groups of 30, each lasting 2.5 hours)	**Indicator**: FGM prevalence (%). **Source**: World Bank World Development Indicators (https://databank.worldbank.org/source/world-development-indicators), accessed 29 September 2021.

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