

Discussion Paper for the Workshop: EU minimum harmonised training for midwives – time for an update?



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List of Abbreviations and Acronyms

AT	Austria
BE	Belgium
BG	Bulgaria
CH	Switzerland
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
EL	Greece
ES	Spain
FI	Finland
FR	France
HR	Croatia
HU	Hungary
IE	Ireland
IS	Iceland
IT	Italy
LI	Liechtenstein
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta
NL	Netherlands
NO	Norway

PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SI	Slovenia
SK	Slovakia
EU	European Union
EFTA	European Free Trade Association
EEA	European Economic Area
EMA	European Midwives Association
ICM	International Confederation of Midwives
EFNNMA	European Forum of National Nursing and Midwifery Association
EFCNI	European Foundation for the Care of Newborn Infants
EAPM	European Association of Perinatal Medicine
Study Team	Spark Legal and Policy Consulting & midwifery expert
TFEU	Treaty on the Functioning of the European Union

Any views expressed in this document are the preliminary views of Spark Legal and Policy Consulting based on desk research and consultation with stakeholders. They may not in any circumstances be regarded as stating a position of the European Commission.

1. Introduction

This paper is developed within the framework of the study ‘Mapping and assessment of developments for sectoral professions under Directive 2005/36/EC – Midwife’ (‘the Study’). It serves as a background document for the discussions at the **Workshop - EU minimum harmonised training for midwives – time for an update?**

The main objective of the Study is to assist the European Commission (“the Commission”) in its assessment of whether to propose an adaptation of the minimum elements of the training programme, knowledge and skills for the profession of midwives set out under Directive 2005/36/EC, as amended. Importantly, such an assessment needs to take account of generally acknowledged scientific and technical progress, within the limits of the delegated power granted to the Commission under the Directive. The objective of the Study is pursued through four main tasks:

1. Collection and presentation of data

During the Study, relevant data was collected via: 1) desk research by a network of national experts in the 27 EU Member States, the EEA countries (IS, LI and NO), and Switzerland¹ (hereinafter also referred to as “the countries”), the information was collected via desk research questionnaires which were verified by national registration authorities; 2) consultation of EU, EEA and international-level stakeholders, via a questionnaire in order to identify the main scientific and technical advancements affecting the training of midwives across the EU/EEA countries; and 3) consultation of national stakeholders via questionnaires. Two different questionnaires were sent to relevant stakeholders across the countries. The first questionnaire was tailored to regulatory bodies and national associations, and the second questionnaire to training institutions.

2. Comparative assessment of data

Comparative assessment of data collected through desk research and stakeholder consultation. Definitions of relevant concepts were elaborated for the purpose of the Study based on current literature and the input received from stakeholders in relation to scientific and technical advancements in midwifery. These definitions acted as the basis for the

¹ Directive 2005/36/EC applies in Switzerland based on an EU-Swiss agreement. However, the amendments brought by Directive 2013/55/EU do not apply to Switzerland.

creation of a model/ categorisation which enabled the Study Team to classify the findings and to carry out a preliminary assessment.

3. **Organisation of a stakeholder workshop**

The main objectives of this workshop are: 1) to present the findings of the Study to relevant EU/EEA and national stakeholders with the aim of verifying the correctness of the research outcomes; 2) to discuss the main generally acknowledged scientific and technical advancements affecting the profession of midwife; 3) to assess whether an adaptation of the minimum elements of the training programme, knowledge and skills under Directive 2005/36/EC, as amended seems necessary; and, if so 4) to provide suggestions on the priorities to be taken into account when adapting the Directive.

4. **Drafting of Final Study**

On the basis of the feedback received from stakeholders during the workshop and within a fixed deadline after the workshop (i.e., 8 November 2024),² the Study will be tailored and finalised.

The information presented³ in this paper covers the 27 EU Member States, the EEA countries (IS, LI and NO), and Switzerland and is based on desk research conducted by national experts and input from EU/EEA-level stakeholders and national stakeholders. Specifically, this paper provides an overview of:

1. The legal and policy context;
2. The definitions and categorisation elaborated for the purpose of the Study;
3. The generally acknowledged scientific and technical advancements in midwifery;
4. The elements, knowledge and skills reflecting generally acknowledged scientific and technical advancements; and
5. Subsequently, on the basis of the preliminary research results of this Study, a first draft of potential updates to Directive 2005/36/EC, as amended.

In this paper, the terms "Part A: Theoretical and technical instruction" and "Part B: Practical and clinical training" from Annex V, point 5.5.1 of the Directive, are jointly referred to as the "elements of the training programme". These elements encompass the structured components of the midwifery curriculum, distinguishing them from the "knowledge and skills" discussed under Article

² Please send your feedback to info@sparklegalpolicy.eu

³ Please note that the data presented in this document are based on desk research and stakeholder engagement conducted during the Study. While they reflect the Study Team's best understanding of the regulation and development of education and training of midwives across the EU/EEA countries, the Study Team does not guarantee 100% the accuracy of all the data contained herein.

40(3), which are considered in separate tables of this report. This distinction helps clarify the specific curriculum requirements.

Lastly, it should be noted that the present Discussion Paper is based on the findings of the Study. However, the Study Team acknowledges that national legal frameworks may evolve, as some governments are currently working on changing their laws, teaching standards, administrative rules and/or curricula.

2. Legal and policy context

2.1. EU competence under TFEU

The organisation and delivery of health services and medical care are the responsibility of the Member States according to Article 168(7) of the Treaty on the Functioning of the European Union (TFEU). The content of teaching and organisation of education and training systems are also national competence, in line with Articles 165 and 166 TFEU. Any supporting measures on EU level in this regard exclude full harmonisation of the laws and regulations of the Member States. Furthermore, it is in principle for Member States to decide whether and how to regulate access to and practice of professional activities in their territory, provided that their obligations under EU law are respected, in particular the principle of non-discrimination and proportionality.

Based on the TFEU provisions on free movement of services, establishment and workers, and in order to facilitate taking up and pursuing professional activities across the EU, Member States have agreed in the past on common EU-level minimum training requirements for several professions including the profession of midwife. They are set out in Directive 2005/36/EC. Any updates of these requirements should take account the legal basis and the objectives of these minimum harmonised rules – facilitation of intra-EU cross-border regulated professional activities. As a result of the above-described legal framework, there are differences between Member States both in terms of training and in terms of the way the midwifery practice is regulated.

2.2. Directive 2005/36/EC

The Directive sets out rules on the cross-border recognition of professional qualifications and lays down the EU-level minimum harmonised training requirements for seven sectorial professions (doctors of medicine, nurses responsible for general care, dental practitioners, veterinary surgeons, midwives, pharmacists, and architects). In that context, while countries can set requirements for their national midwifery training that go beyond the minimum requirements set in the Directive, they are bound to recognise automatically qualifications of professionals trained in other EU/EEA countries, as long as they are in possession of evidence of formal qualifications referred to in Annex V (point 5.5.2) to the Directive which complies with the minimum training conditions referred to in Article 40 of the Directive and satisfies the criteria set out in Article 41.

In this context, Articles 40 and 41 in combination with Annex V (point 5.5.1) to the Directive set out the minimum training requirements for midwives. These requirements include the minimum duration of theoretical and practical training (Article 40(1)); the conditions for admission to the training (Article 40(2)); and the minimum knowledge and skills that midwives should acquire during their training (Article 40(3)). Furthermore, Article 40(1) refers to point 5.5.1 of Annex V, which sets out the minimum midwifery training programme divided into two parts: Part A, covering the

theoretical and technical instruction, and Part B, covering the practical and clinical training. These parts outline the specific subjects and practical experiences that must be included in the training programme of each Member State.

2.3. Directive 2013/55/EU

Directive 2013/55/EU, amending Directive 2005/36/EC, grants the Commission the power to adopt delegated acts to update certain minimum training requirements in order to take account of generally acknowledged scientific and technical progress. However, the Commission does not have the delegated power to amend all the minimum training requirements for the profession of midwife. The delegated power vested in Articles 21(6) and 40(1) of the Directive concerns solely the possibility to update the following minimum training requirements for midwives:

- **Elements of the training programme (Article 40(1)):** The Commission shall be empowered to adopt delegated acts in accordance with Article 57c concerning the amendment of the list set out in point 5.5.1 of Annex V with a view to adapting it to scientific and technical progress.
- **Knowledge and skills (Article 21(6)):** In order to take account of generally acknowledged scientific and technical progress, the Commission shall be empowered to adopt delegated acts in accordance with Article 57c to update the knowledge and skills referred to in Article 40(3) to reflect the evolution of Union law directly affecting the professionals concerned.

In case of delegated power granted both under Article 40(1) and under Article 21(6) of the Directive, the purpose of possible amendments shall be the adaptation of the minimum training requirements to generally acknowledged scientific and technical progress. Such updates shall not entail an amendment of existing essential legislative principles in the countries regarding the structure of professions as regards training and conditions of access by natural persons. Such amendments shall respect the responsibility of the countries for the organisation of education systems, as set out in Article 165(1) TFEU.

2.4. Definitions and categorisation elaborated for the purpose of the Study

Definition of generally acknowledged scientific and technical progress

The wording of Directive 2013/55/EU differs with regard to the description of the Commission's delegated power to adapt the knowledge, skills (generally acknowledged scientific and technical progress) and elements of the training programme (scientific and technical progress).⁴ Nevertheless, it could be contended that the intention of the legislator is to allow the Commission

⁴ Article 21(6) and Article 38(1) of Directive 2005/36/EC, as amended.

to adapt elements of the training programme, knowledge and skills applying the same criteria. However, there is no compelling evidence that this is the case. At the same time, it could be said that scientific and technical progress in the midwifery field would affect elements of the training programme, knowledge and skills in a similar manner. What is more, the elements of the training programme that students study during the midwifery training allow them to acquire specific knowledge and skills, therefore it would seem artificial to only apply the "generally acknowledged" criterion to knowledge and skills, and not to elements of the training programme.

For those reasons, and for the purpose of this Study, the Study Team has developed a broad and harmonised definition of "generally acknowledged scientific and technical progress" in the framework of training of midwives that could be applied to the analysis of elements of the training programme as well as knowledge and skills (see Section 2.3.2).

Furthermore, while referring to existing literature and as described in Recital 8 of Commission Delegated Directive 2024/782⁵, the Study Team aims to develop a benchmark of "generally acknowledged scientific and technical progress" that is defined with sufficient breadth, is consistent with the wording of the Directive, and is detailed enough to allow for a well-grounded assessment of the findings of this Study. The appropriate level of detail will be enhanced by the categorisation of aspects of generally acknowledged scientific and technical progress based on underlying concepts which can be found in the healthcare sector, including the midwifery field. This is done in a framework which will serve as a basis to assess whether there are grounds to update the elements of the training programme as well as the knowledge and skills listed in the Directive (see Section 2.1.2).

For those reasons, and for the purpose of this Study, a working definition of "generally acknowledged scientific and technical progress", which has been applied in a harmonised way to the findings of the present Study, has been developed:

Scientific and technical advancements are considered by the Study to be "generally acknowledged" when these advancements have had an impact on the practice, laws, teaching standards, administrative rules and/or curricula in a majority of countries. Taking into account that the present Study covers 31 countries (27 EU Member States, 3 EEA countries (LI, IS and NO) and CH), a majority is considered to be obtained when relevant advancements have been noted in at least 16 countries.⁶

⁵ Commission Delegated Directive (EU) 2024/782 of 4 March 2024 amending Directive 2005/36/EC of the European Parliament and of the Council as regards the minimum training requirements for the professions of nurse responsible for general care, dental practitioner and pharmacist C/2024/1319 OJ L, 2024/782, 31.5.2024

⁶ Please note that Liechtenstein does not offer education for midwives.

This definition is not legally binding. It is a working definition developed for the purpose of this Study. The same definition was applied in the past with regard to similar studies concerning the professions of nurse responsible for general care, dental practitioner and pharmacist, as explained in Recital 8 to Commission Delegated Directive 2024/782.

Definition of scientific and technical progress

Furthermore, Directive 2005/36/EC itself does not provide a definition of scientific and technical progress. Therefore, for the purpose of the Study, the following definitions have been elaborated:

- *Scientific progress: Recent, current, and future scientific developments which enhance the knowledge acquired through research aiming at testing theories, explaining phenomena, providing understanding and predictions with the ultimate goal of enhancing healthcare and subsequently midwifery medicine.*
- *Technical progress: Technology and medical techniques which have been/are being implemented/developed in order to help enhance the care of patients.*

2.5. Categorisation of scientific progress and technical progress

A categorisation model has been elaborated by the Study Team for the purposes of the Study. Specifically, the categories elaborated are framed quite broadly, aiming at giving a comprehensive picture of scientific and technical progress in health care and subsequently in midwifery, and allowing the classification of the findings of the Study.

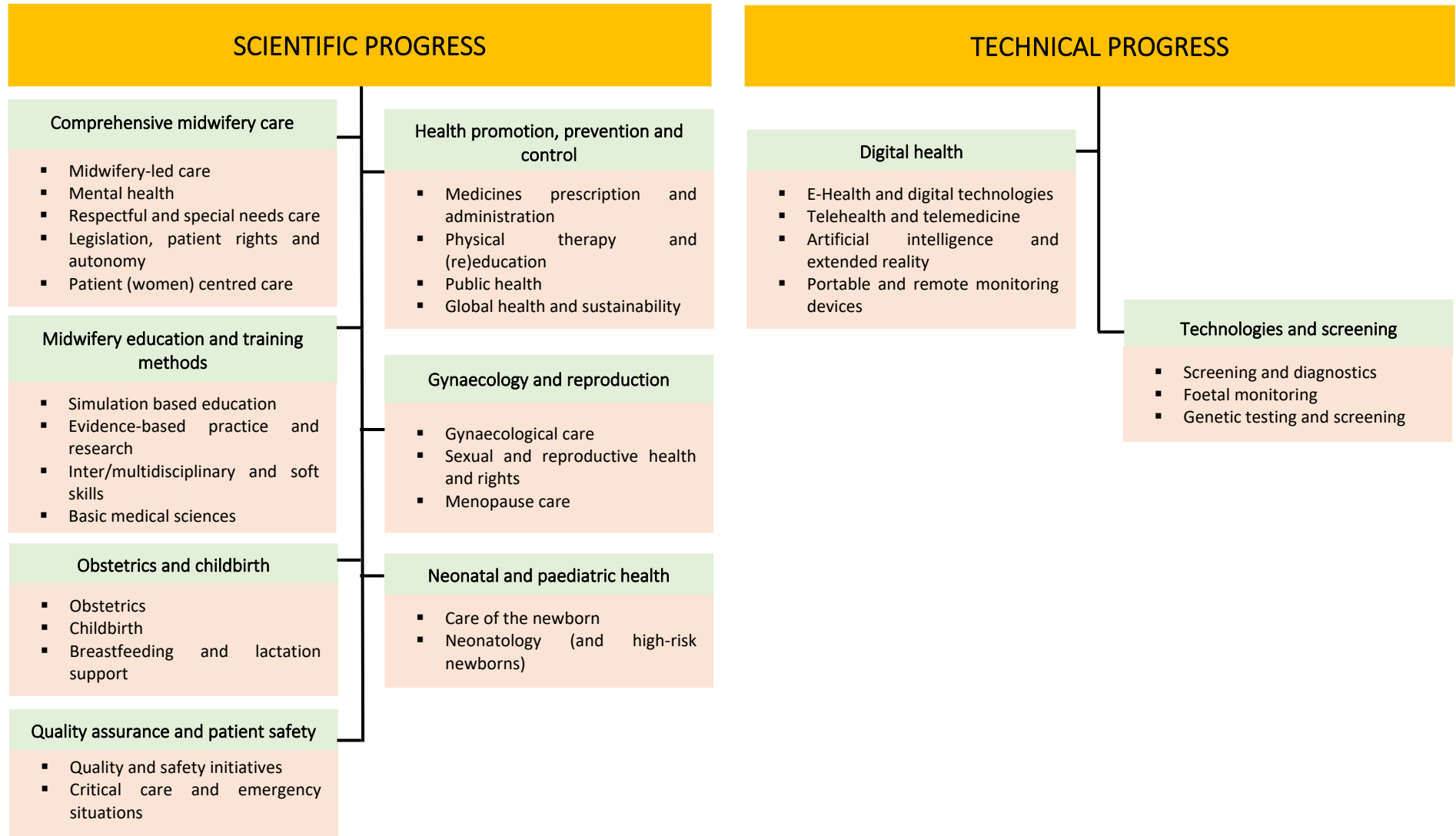
In this context, **scientific progress** encompasses seven broad categories:

1. Comprehensive Midwifery Care;
2. Health Promotion, Prevention and Control;
3. Midwifery Education and Training Methods;
4. Gynaecology and Reproduction;
5. Obstetrics and Childbirth;
6. Neonatal and Paediatric Health; and
7. Quality Assurance and Patient Safety.

Furthermore, **technical progress** encompasses two broad categories:

8. Digital Health and
9. Technologies and Screening.

Figure 1: Categorisation of scientific progress and technical progress in the midwifery field elaborated by the Study Team for the purpose of this Study



3. Elements of the training programme, knowledge and skills reflecting generally acknowledged scientific and technical advancements

During the Study, elements of the training programme, knowledge and skills introduced in the laws, teaching standards, administrative rules and/or curricula of the countries as result of scientific and technical progress have been identified through desk research and consultation with stakeholders. Furthermore, the elements of the training programme, knowledge and skills identified have been ranked with the aim of identifying which of them have been noted to reflect scientific and technical progress in at least 16 countries.

The table below specifies in how many countries elements of the training programme have been found to reflect scientific and technical progress, with the aim of identifying which elements have been noted in at least 16 countries:

Table 1: Elements of the training programme required at national level (or considered relevant by EU/EEA/International stakeholders) according to their prominence

Elements	EU/EFTA States
SCIENTIFIC ADVANCEMENTS	
Comprehensive midwifery care	
Midwifery-led care model	<div style="text-align: center; background-color: #fce4d6; padding: 5px;">10 countries</div> <ul style="list-style-type: none"> • Care process in midwifery practice (LV) • Community midwife (IT) • Continuous and midwife-led midwifery care models (DE, SI) • Midwife-led care (SI + EFNNMA) • Midwife-led midwifery care models (DE + EFNNMA) • Midwifery in the community (HR) • Midwifery work in the out-of-hospital sector (AT) • Outpatient midwife-led units (AT) • Theories and midwifery models of care (NO) • Clinical hours in community-based midwifery practices alongside independent midwives (NL) • Promote key concepts in midwifery including continuity in midwifery care, such as reduced likelihood of interventions and improved positive care experiences for women and families (IE)

	<ul style="list-style-type: none"> • Independence of midwives (EE) • Independent ambulatory midwifery care (EE) • Legal position of midwives (NL)
<p>Mental health</p>	<p style="text-align: center;">17 countries</p> <ul style="list-style-type: none"> • Prenatal and reproductive psychology (PL) • Accompanying grieving processes (AT) • Assessment of biological, psychological and social state of health (CH, DE) • Attachment theory (neurobiology) (DE, DK) • Basics of psychosomatic medicine and psychotherapy for midwives (LV) • Basics of psychotherapy (PL) • Counselling methods (AT) • Higher level, comprehensive perinatal mental health strategy and action plan (No countries + EFNNMA) • Management of stillbirth and perinatal grief (ES) • Mental health (DE) • Mental health care (BE) • Mental health counselling (EE) • Mental health nursing (EE) • Obstetric psychosomatics (HU) • Perinatal bereavement (PT, IT) • Perinatal bereavement training (IT) • Perinatal mental health (PT) • Principles of the helping relationship (BE) • Psychiatry (BE) • Psychological support during birth. Non-medical interventions and care. Mental health care and support. • Psychopathology of family life (PL) • Self-care (HU) • Sociology and psychology as major subject (IE) • Spirituality in midwifery (MT) • Spirituality module (MT) • Spirituality, hermeneutics, dialogue (PL)

	<ul style="list-style-type: none"> • Studies in the field of specialist care, including subjects: psychiatry (PL) • Simulation-based studies courses as ‘Physiological pregnancy management’, ‘Physiological obstetrics’ (LV) • To attend at least 40 started physiological visits (NL) • ‘Preparation for childbirth and parenthood’ is covered within ‘psychology as applied to midwifery practice’ (IE) • ‘Psychological and social factors’ includes history, psychosociological and physical approach to birth, birth preparation method (FR) • ‘Psychology’ as ‘Psychology as applied to midwifery practice’ includes perinatal mental health and childbirth-related trauma (IE) • ‘Preparation for childbirth and parenthood’ is formulated as a critical component of midwifery practice, providing a fundamental introduction to psychological theories (IE) • ‘Psychological and social factors’ includes perinatal mental health addresses the global increase in mental health issues (MT) • Basics of psychiatry (AT, PL) • Psychology (AT, HU, NL) • Psychosomatic preparation class (EL) • Conduct of support groups in midwifery and gynaecology (PL)
<p>Respectful and special needs care</p>	<p style="text-align: center;">17 countries</p> <p style="text-align: center;">Care for women with special needs</p> <ul style="list-style-type: none"> • Addictology patient (HU) • Families with special needs (MT) • Health impairment and chronic diseases (AT) • Living with chronic diseases and/or disabilities and/or (psychological) trauma (DE, SI) • More complex bio-, psycho-social care in individualised care plans (No countries + EFNNMA) • Substance misuse (in childbearing women) (MT)

	<ul style="list-style-type: none"> • Antenatal, birth, and postpartum care for specific populations: migrants and refugees living with chronic diseases and/or disabilities and/or (psychological) trauma (DE) • Domestic violence (AT) • Midwifery care for vulnerable populations (EL) • Care in special situations (AT) • Sexual assault treatment unit (IE) • Ethics in midwifery (HU, BE, RO, IE) • Female Genital Mutilation; Gender-based violence, Obstetric violence (SE) • Gender health, gender violence and female genital mutilation (IT) • Violence against women including gender violence (BE)
	<p>Respectful care and ethics</p>
	<ul style="list-style-type: none"> • Adaption to diverse populations, including an aging population, different family structures, and evolving healthcare needs (BE, RO) • Diversity (BE) • Diversity and cultural care (PT) • Ethical considerations and professionalism (BE, RO) • Ethical decision-making (IE) • Genital Mutilation (SE) • Intercultural competences including human rights, equity, diversity and inclusion (CH, DE) • Multiculturalism in women’s care (PL) • Needs-based and culturally sensitive care for childbearing women (AT) • Philosophy and ethical principles of midwifery (AT) • Respectful maternity care (DE) • Socio-medical issues in midwifery work (poverty, violence, abuse, immigration...) (AT) • Women’s health and migration services (AT) • Women’s prison services (IE) • Women’s refuge services, sexual assault treatment unit (IE) • Cultural aspects of childbirth (DE)

	<ul style="list-style-type: none"> • Cultural competence and diversity (RO, BE) • Cultural competence and diversity training (DE, IE + EMA) • Bioethics (EL) • ‘Basic sociology and socio-medical questions’ includes the relevance of sociology to women’s healthcare, understanding of unequal status, poverty, social exclusion, unequal gender relations impact on health patterns, understanding of cultural influences and societal valuation of mothers and families (IE) • ‘Professional ethics and professional legislation’ include adherence to a Code of Professional Conduct and Ethics, and key ethical considerations such as respect for autonomy, beneficence, non-maleficence, and justice (IE) • ‘Gynaecological and obstetrical pathology’ is formulated to encompass knowledge of diagnosing gynaecological pathologies, their examination methods, treatment principles and procedures, prevention and rehabilitation, understanding of the anatomical and physiological changes due to ageing (HU) • Care ethics, (intra- and interprofessional) (DE) • Ethics (NL) • Sociology and anthropology of medicine and technology (DE) • Notion of Saami people, the Norwegian indigenous first nation people (NO) • Ethics in perinatal health (SE) • Family at risk (HR)
<p>Legislation, patient rights and autonomy</p>	<p style="text-align: center;">4 countries</p> <ul style="list-style-type: none"> • Patient rights (NO) • ‘Legal protection of mother and infant’ includes significant legal considerations like duty of care, negligence, informed consent, right of refusal, confidentiality, and accountability, all crucial for safeguarding the rights and well-being of mothers and infants to incorporate a detailed understanding of ethical and legal frameworks that specifically apply to midwifery (IE) • Legal protection of mother and infant (HU) • Perinatal health and rights (SE)

<p>Patient (women) centred care</p>	<p style="text-align: center;">8 countries</p> <ul style="list-style-type: none"> • Family- and person-centred care (DE, DK) • Pregnancy care (HU) • Woman-centred care and shared decision-making (No countries + EFNNMA, EMA) • Women-centred care (RO, BE, DE) • ‘Advising of pregnant women, involving at least 100 pre-natal examinations’ is mirrored through the holistic support, advice, and assessment of at least 100 women during pregnancy, placing the woman as the primary decision-maker in her care (IE) • ‘Care of women with pathological conditions in the fields of gynaecology and obstetrics’ includes support for women experiencing complications, adopting a partnership approach where the woman is the primary decision-maker in her care (IE) • ‘Conduct by the student of at least 40 deliveries’ includes the requirement to personally care for and assist in at least 40 spontaneous vaginal births, adopting a partnership approach, where the woman is the primary decision-maker in her care (IE) • ‘Supervision and care of 40 women at risk in pregnancy, or labour or post-natal period’ includes the provision of holistic care for at least 40 women at risk of complications, adopting a partnership approach in where the woman serves as the primary decision-maker in her care (IE) • ‘Supervision and care of at least 40 pregnant women’ includes the provision of holistic care and support to at least 40 women during labour, adopting a partnership approach that positions the woman as the primary decision-maker in her care (IE) • Midwifery practice – knowledge, skills, and professional behaviours includes compassionate, women-centred care; individualised care; and the requisite skills to promote and implement these concepts (IE) • Women’s and Family Health (AT) • Woman and family support journey (EE) • Women's health specialisation (EE) • Healthy woman (EE) • Maternity care (EE)
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	<ul style="list-style-type: none"> • Holistic care to women (IE)
Health promotion, prevention and control	
Medicines prescription and administration	<div style="text-align: center; background-color: #fce4d6; padding: 5px;">13 countries</div> <ul style="list-style-type: none"> • Advanced pharmacology linked to prescribing (No countries + EFNNMA) • Basic pharmacology and prescribing of essential drugs (CH, DE) • Homeopathy in obstetrics (HU) • Intravenous drug administration and therapy for midwives (MT) • Pharmacology in obstetrics and gynaecology (AT, HU) • Pharmacology including teratology (BE) • Prescribe medicines (EE, NL, PL) • Prescribing modules (BE, EE) • Specialised knowledge of obstetrics and gynaecology pharmacology (HU) • Obstetric anaesthesia and pain management (AT, RO) • Pharmacology (AT, IT, NL) • ‘Basic pharmacology’ is phrased as ‘Pharmacology’ (and includes administration and drug calculation skills) (IE) • ‘Health and social legislation and health organisation’ encompasses health economics, includes authorisation for French midwives to prescribe and administer vaccinations to newborn babies, women, and their spouses (FR) • ‘Analgesia, anaesthesia, and resuscitation’ is formulated to provide a comprehensive overview of pharmacology, drug administration and developing drug calculation skills, advanced pharmacological practices, a diverse range of medications, drugs, and vaccinations (IE) • ‘Basic Pharmacology’ is formulated to encompass an understanding of the pharmacological bases of treatments for various pathologies and preventative measures. This includes understanding the pharmacokinetics of drugs in pregnant women and newborn babies, criteria for drug selection to optimise treatment and prevent iatrogenic accidents, familiarity with best practices in drug prescribing, elements of therapeutic

	<p>drug monitoring, and understanding variability in therapeutic responses due to patient conditions and drug interactions (FR)</p> <ul style="list-style-type: none"> • ‘Pharmacology’ encompasses the knowledge of pharmacokinetic properties of drugs in pregnant women and newborn babies, the prescription of medicines, therapeutic drug monitoring and response, includes extensive training in pharmacology (FR)
<p>Physical therapy and (re)education</p>	<p style="text-align: center;">10 countries</p> <ul style="list-style-type: none"> • Body-oriented birth preparation and postnatal gymnastics (AT) • Care for the re-education and rehabilitation of the perineal pelvis structures and therefore for the management of alterations in pelvic statics (urinary and faecal incontinence) (IT) • Exercise during pregnancy (HR) • Evaluation and treatment of rectus diastasis (ES) • Pelvic floor assessment and treatment (ES) • Perineal rehabilitation (LU) • Pelvic floor strengthening techniques (PT) • Perineo-sphincter re-education (BE) • Physical examination (PL) • Physio related for women’s health modules (MT) • Physiotherapy in prenatal and postnatal women (MT) • Postpartum recovery, namely perineal floor (PT) • Practical training in a pelvic floor clinic (IT) • ‘Pregnancy, childbirth and puerperium’ is formulated as ‘Promotion of involuntal processes in puerperium’ and ‘Midwifery studies, including process-oriented supervision, advice and care during the pre-natal phase, childbirth (including introduction to episiotomy) and the post-natal phase as well as supervision and care of new-born babies and infants’ by adopting involuntal processes with various measurements like abdominal bandages, massages, pelvic floor exercises (AT) • Physical and rehabilitation addresses the increased life expectancy and growing elderly female population through the inclusion of specific disciplinary sectors focused on managing pelviperineal dysfunctions in educational study plans (IT)

	<ul style="list-style-type: none"> • ‘Psychological and social factors’ includes postural and respiratory support in the pre- and post-partum period (FR) • Medicine and obstetrics and gynaecology (urogynaecology) addresses the increased life expectancy and growing elderly female population through the inclusion of specific disciplinary sectors focused on managing pelviperineal dysfunctions in educational study plans (IT)
<p>Public health</p>	<p style="text-align: center;">16 countries</p> <ul style="list-style-type: none"> • Aetiology (SI) • Community health care (SI) • Community work and primary healthcare (EE) • Epidemiology and biostatistics (CY) • Evaluation of health systems and maternity services (AT) • Health care process (HR) • Health promotion (PL) • Health promotion and preventive healthcare (AT) • Health promotion, epidemiology & social hygiene (EL) • Healthcare system (AT) • Prevention and Health Promotion: promotion of health outcomes during, pregnancy, birth and post-partum period incl. newborn (CH, DE, FR) • Prevention and health promotion: promotion of health outcomes during preconception, pregnancy, birth, and post-partum period inc. newborn (CH) • Prevention and prophylaxis of different diseases (SI) • Preventive medicine in gynaecology of developmental age (PL) • Public health (EE) • Public health and community engagement (No countries + EMA) • Public health and coursework in public health (LV) • Public health and health promotion (AT, IE) • Territorial services and home visiting (IT) • Theory regarding COVID-19 and possible other epidemics (BE) • Vaccination (EE, PL) • Clinical practice bases throughout the country, as well as exchange projects in other countries (LV)

	<ul style="list-style-type: none"> • Hospital infections (PL) • Disease metaphor (PL) • Hygiene & Epidemiology (AT) • Primary healthcare (EE) • Hygiene (HU, IT) • Health and social legislation and health organisation (HU) • Preventive medicine (HU) • ‘Psychological and social factors’ is formulated as ‘Health education and preventive medicine, early diagnosis of diseases, psychological and social factors’ including the focus on health education and preventive medicine (AT) • ‘Principles and methods of teaching’ includes health promotion and education related to midwifery aligning midwifery education with the latest international standards (MT) • Midwife activities in health promotion (AT)
<p>Global health and sustainability</p>	<p style="text-align: center;">9 countries</p> <ul style="list-style-type: none"> • Coursework in the analysis of standards in midwifery practice, making a comparison between international and domestic ones (LV) • Global health (SE) • Global issues in women's health (PL) • Internationalisation (BE) • Midwifery in international perspective (SI) • Migration and global midwifery health (DE) • Obstetric practice in an international perspective (PL) • Planetary health and sustainability (DE) • Sustainability (BE, CH, DE, RO) • Sustainable development (NO)
<p>Midwifery education and training methods</p>	
<p>Simulation based education</p>	<p style="text-align: center;">13 countries</p> <ul style="list-style-type: none"> • Compulsory classes in the Medical Simulation Centre (PL) • Health simulation (BE) • Midwifery in a simulated clinical setting (SI)

	<ul style="list-style-type: none"> • Obstetric simulation (simulation lab) (HU) • Simulation exercises in obstetrics: use of high-fidelity simulation tools, history of midwifery, in the skill lab (HU) • Simulation integrated into acquisition of clinical skills (No countries + EFNNMA) • Simulation training (AT + EFCNI) • Simulation trainings on campus (BE) • Simulation-based training (AT, SI, IE, EL + EMA) • Simulation-based studies courses as 'Clinical practices' (LV) • Skills lab (AT, NL) • High-tech and low-tech simulation techniques (PL) • Simulation laboratories (DE, NL) • Skills lab including open lab (DE) • High-fidelity skills trainings (DE, FR) • Practical work, seminars, simulations, with a midwifery identity orientation (BE) • 'Analgesia, anaesthesia and resuscitation' includes the theory and practice (in lab) of drug administration via different routes and the use of drug trolleys (MT) • 'Analgesia, anaesthesia and resuscitation' includes simulation models to train for the administration of intravenous and intramuscular drugs (MT) • 'Anatomy and physiology' also includes abnormalities, integrating manikins and simulation models (MT) • 'Care and supervision of the newborn infant' includes care of the newborn requiring care in an intensive care setting through lab simulations (MT) • 'Gynaecological and obstetrical pathology' includes the use of high-fidelity simulation tools in skill labs (HU) • 'Pregnancy, childbirth, and puerperium' incorporates the use of high-fidelity simulation tools in skill labs (HU) • Simulation includes techniques to prepare students for clinical training, improve communication skills, and practice handling emergencies or exceptional situations (LU) • Preparation for delivery (including knowledge and use of technical equipment in obstetrics)' includes the use of
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	<p>simulation models in a lab setting to train for both normal childbirth and the management of complications (MT)</p> <ul style="list-style-type: none"> • Simulation of breech birth and suturing (IE) • Simulation training for obstetric emergencies and neonatal resuscitation (AT)
<p>Evidence-based practice and research</p>	<p style="text-align: center;">21 countries</p> <ul style="list-style-type: none"> • Academic and scientific training to understand scientific publications and to be able to perform simple scientific research (in order to facilitate evidence-based practice) (NL) • Academic reading and writing, research and dissertation (MT) • Basics of scientific research methodology (HR) • Biostatistics & writing scientific paper (EL) • Essential and advanced empirical social research (DE) • Ethical and methodological aspects of conducting scientific research in biomedicine (PL) • Evidence-based midwifery (AT, BE, FI, SI) • Evidence-based midwifery practice (IE, CY, DK, NL, NO + EFNNMA) • Integration of scientific knowledge into practice, knowledge transfer (CH) • Introduction to research methodology (SI) • Midwifery research (IT, SI) • Principles of research and evidence-based practice (CH, DE) • Principles of research and methodology (DE) • Qualitative and quantitative research (ES, DE, AT) • Research analytics, applications and implementation (No countries + EFNNMA) • Research and evidence-based practice (PT) • Research methodology (BE, SE, MT) • Research projects (BE) • Scientific methods (DK) • Scientific methods, research ethics (NO) • Statistics (AT) • Studies in the field of specialist care, including subjects: scientific research in obstetrics (PL)

	<ul style="list-style-type: none"> • Women’s health research (AT) Applied research and development includes fundamentals of research and apply newly developed standards in their professional practice (AT) • Research in obstetric-gynaecological nursing midwifery (ES) • Research methodology includes statistical methods (LU) • Research paper at the end of higher education training (LU) • Preparation for childbirth and parenthood' provides a fundamental introduction to research, principles, and processes, and their specific application to preparing expectant parents for childbirth and parenthood, incorporates the latest research and developments in the field (IE) • Scientific Writing Workshop (AT) • Scientific research (LT)
<p>Inter/multidisciplinary and soft skills</p>	<p style="text-align: center;">20 countries</p> <ul style="list-style-type: none"> • (Intra- and interprofessional) diversity and equality (DE) • ‘Professional ethics and professional legislation’ includes professional growth by equipping individuals with the ability to enhance their own competencies, reflect on their personal and professional performance across different areas of practice to ensure high-quality standards, identify and document improvement areas, and engage in the exchange of feedback with collaborators. It also emphasises the importance of managing personal uncertainties and errors professionally, taking responsibility for personal, social, and scientific capabilities and limitations, and adhering to professional and ethical standards (NL) • ‘Professional ethics and professional legislation’ is formulated to ensure the person concerned is able to work on their own competency development, reflect on personal and professional functioning, formulate and record points of interest for improvement, give or receive feedback, deal professionally with insecurity and mistakes, be accountable for personal, social, and scientific possibilities and limits, and act within professional and ethical standards (NL)

	<ul style="list-style-type: none"> • 2 lessons for conversations about the progress of professional development (LV) • Academic reading and writing in English (MT) • Art and science in midwifery (EE) • Autonomous referring (NL) • Basic business administration and operational management includes developing skills needed for self-employment (AT) • Basic economy (DE) • Basics of maternity care, including organisation of midwifery work, sign language, collaboration in health care teams (PL) • Business administration and marketing (AT) • Communication (AT) • Concepts and principles of communication (DE) • Collaboration and teamwork (DE) • Communication and mindfulness (DE) • Communication skills and group work (HR) • Communication trainings (DE) • Conflict management, teamworking (AT) • Consulting methods (AT) • Continuous professional development (BE, RO) • Cooperation in health care teams (PL) • Critical resource management (DE) • Critical thinking and reflective practice (DE, CH) • Critical thinking in midwifery (HR) • Cross professional methods /multi-disciplinary methods (DE) • Entrepreneurship (EE, BE) • Entrepreneurship and professional competence development includes organisation and establishment of enterprises, management methods, basics of project development and management, record-keeping and financial accounting system, knowledge of the establishment of social dialogue in society and regulatory enactments regulating employment legal relations (LV) • Evolving ECTS guidelines (BE) • Foreign language - English language (HR) • Forensic medicine (PL)
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	<ul style="list-style-type: none"> • Freelance midwifery (AT) • Health care communication (DK) • Health communication and shared decision making (DE) • Health professions interprofessional (AT) • History and sociology of midwifery in international contexts (DE) • History of obstetrics (HU) • Informatisation and administration in midwifery (HR) • 'Initiation into care in the field of medicine and surgery' includes the collaboration with other healthcare professionals (IE) • Innovation (DE, NO, DK) • Interdisciplinarity – revision of the boundaries of theory and practice, promotion of inter-sectoral cooperation (LV) • Interdisciplinarity (AT) • Interpersonal communication (PL) • Interprofessional collaboration (CH, RO, BE) • Interprofessional collaboration training (No countries + EMA) • Interprofessional education initiatives (BE) • Interprofessional emergency trainings (DE) • Interprofessional midwifery competences (DE) • Interprofessional team collaboration in healthcare (SI) • Introduction in scientific reading and writing (AT) • Leadership (No countries + EFNNMA) • Leadership and advocacy skills (IE) • Leadership, professional issues (IE) • Management and entrepreneurship (EE) • Medical and scientific English (AT) • Medical terminology for midwives in English language (SI) • Midwifery practice – knowledge, skills, and professional behaviours include advocacy; and the requisite skills to promote and implement these concepts (IT) • Motivational skills training (PL) • Nursing development: profession and discipline; quality standards for specialised nursing care (PT) • Nursing management and leadership (PT) • Optional interprofessional classes, such as with paramedics, physicians, or physiotherapists (PL)
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	<ul style="list-style-type: none"> • Organisation and administration of obstetric units/services (CY) • Practical skills (BE) • Practical training – professional development (EE) • ‘Professional ethics and professional legislation’ includes leadership and management skills (IE) • Principles of effective communication also in crisis situations (grief, loss, emergency situations) (CH, DE) • Professionalism and professional development project (PT) • Self-reflection and feedback culture (AT) • Social sciences and humanities, including English (PL) • Social, communicative, and organisational skills development includes formation of professional competence in entrepreneurship (innovations, organisation and establishment of enterprises, management methods, basics of business economics, project development and management, record-keeping and financial accounting system, knowledge of the regulation of employment legal relations, social dialogue in society, knowledge of others innovations in the management of a business or institution) (LV) • Statistics (LU) • Supervision (AT) • Supervision, personal and organisational counselling in midwifery (SI) • Basics of General Nursing (AT) • Clinical nursing care (EE) • Advanced Nursing (PT) • Professional Conversation and Counselling (AT) • Sociology (AT) • Professional and personal development (EE) • Multidisciplinary team in primary health care (EE) • Clinical leadership in reproductive health (DK)
<p>Basic medical sciences</p>	<p style="text-align: center;">14 countries</p> <ul style="list-style-type: none"> • Assessment of biological, psychological, and social state of health (CH, DE)

	<ul style="list-style-type: none"> • 'Basic bacteriology, virology and parasitology' encompasses a scope of infectious diseases, including their agents, specific care for various aspects related to dermatology, urology, empowering midwives to prescribe and administer treatments for certain infections in women, whether they are pregnant or not (FR) • Basic first aid (SI) • Basic internal medicine (SI) • Basics of biomedical statistics (HR) • Basics of clinical medicine (HR) • Big amount of surgery and internal medicine (CZ) • Biomedical sciences (BE) • Clinical practice in midwifery (internal medicine) (HU) • Clinical practice/Internship in primary health care (PT) • Complementary therapies in midwifery work (AT) • Cytology technique (PT) • Determinants of health (CH) • Embryology (NL) • Microbiology (AT, IT) • Observational practice - Introduction to health sciences (HU) • Principles of health education and health literacy (CH) • Treatment of common health problems (deviation from normal) and recognition when consultation or referral is indicated for identified health problems (pathology) (CH) • Embryology (AT, IT, NL) • Embryology and foetal development (AT, HU, RO) • Functional Anatomy (AT) • General Pathology (AT) • Pathology (AT, IT, NL) • Special anatomy and physiology (AT) • Basical Midwifery science (DE) • Physiology (DE, HU, IT) • Anatomy (DE, HU, IT, RO) • Virology (DE, HU, NL) • Analgesia (HU, RO) • Basic biophysics (HU, RO)
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	<ul style="list-style-type: none"> • Anaesthesia and resuscitation (HU) • Basics of Dietetic Knowledge for Midwives (HU) • Basic pathology (HU) • Basic pharmacology (HU) • Basic sociology and socio-medical questions (HU) • Bacteriology (HU, NL) • Biochemistry and radiology (HU) • Parasitology (HU, NL) • Histology (IT) • Radiology (PL)
Gynaecology and reproduction	
Gynaecological care	<div style="background-color: #fce4d6; padding: 5px; text-align: center;">18 countries</div> <ul style="list-style-type: none"> • 'Gynaecological and obstetrical pathology' is formulated in the national system as encompassing gynaecological and obstetrical care, specifically addressing the care process for gynaecological patients and obstetrics, including gynaecological nursing (IE) • 'Basic bacteriology, virology and parasitology' encompasses a scope of infectious diseases, including their agents, specific care for gynaecological infections and pathologies, empowering midwives to prescribe and administer treatments for certain infections in women, whether they are pregnant or not (FR) • Basics of instrumentation in gynaecology (HR) • Benign and malign gynaecology (SE) • Clinical practice in gynaecology (HU) • Counselling and referral in gynaecological pathology: lichen, vulvar pathology, urinary incontinence (ES) • Endometriosis (SE) • Evaluation and treatment of rectus diastasis and pelvic floor (ES) • General care in medicine/surgery/gynaecology (BE, FR) • Gynaecological and postoperative care (AT) • Gynaecological cancer and prevention and vaccination for cervix cancer (SI) • Gynaecological oncology & mastology (EL) • Gynaecology wards (NL)

	<ul style="list-style-type: none"> • Hospitalisation and gynaecology consultations (PT) • Medical equipment in gynaecology (HR, BG) • Practical training in a gynaecology clinic (IT) • Prenatal health issues among women and their families (NO) • Prevention and vaccination for cervix cancer (SE) • Preventive medicine in gynaecology (PL) • Seminars on polycystic ovary syndrome (PCOS) (SE) • Specific internships in gynaecology (BE) • Studies in the field of specialist care, including subjects: gynaecology, oncology (PL) • Teaching breast self-examination (HU) • Gynaecological midwifery (FI) • Gynaecology (IT, NL) • Children gynaecology (PL) • Gynaecological Health Nursing (PT, RO)
<p>Sexual and reproductive health and rights</p>	<p style="text-align: center;">20 countries</p> <p style="text-align: center;">Preconception care, family planning and reproduction</p> <ul style="list-style-type: none"> • Preconception counselling (DE) • Preconception health care (SE) • Anthropology of parenthood (BE) • Infertility services (IT) • Attachment theory and concepts of family finding (AT) • Care for infertility (FR) • Infertility clinics (IE) • Infertility services (IT) • Practical training in clinic of medically assisted procreation (IT) • Family sciences (DE) • Ethics in reproductive health (SE) • Field of reproduction (IV) (SI) • Reproductive and human rights (DE) • Reproductive health and rights (RFSU clinics) (SE) • Sociology of fertility and childbearing (SI) • Social debates around reproduction (PL)

	<ul style="list-style-type: none"> • Reproductive health (SRMNH) with special focus on continuity of care (DE, CH, FR) • Assisted reproduction (EL, FR, SE) • Assisted reproduction techniques (ES) • Medically assisted procreation (MAP) (BE) • Medically assisted reproduction (LU) • ‘Gynaecological and obstetrical pathology’ includes the specialized content reproductive health (FI) • ‘Pregnancy, childbirth and puerperium’ integrates the specialised content reproductive health (FI) • IVF Reproductive, perinatal health and rights (SE) • Infertility (SE) • Family-oriented care (FI) • Family planning (FI) • Parenting (FR) • Integrated reproductive health care of women (PL) • Parenting practices (PL) • Sexual dysfunctions and fertility problems (PT) • Reproductive Health Nursing (PT) • Childbearing (PT) • Preconception (PT) <div style="background-color: #fff9c4; padding: 5px; text-align: center;"> <p>Sexual health and rights, contraception and abortion</p> </div> <ul style="list-style-type: none"> • Anticonception (NL) • Comprehensive sexual education, contraception, and abortion (No countries + EFNNMA) • Contraception counseling (DE, SE, CH, FR) • Development of skills in the placement and removal of intrauterine and subcutaneous contraceptive devices (PT) • Hormonal and non-hormonal contraception including counselling and prescription (SE) • Insertion and removal of intrauterine contraceptive (PT) • Long-acting reversible contraception (LARC) (NO) • Prescribe hormonal contraception (NO) • Right to prescribe contraceptives, and insertion/withdrawal of long-acting reversible contraceptives (LARC) (NO)
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	<ul style="list-style-type: none"> • Andrology (SE) • Ethics in sexual health (SE) • Gender aspects (DE) • Gender medicine (AT) • Human sexuality (HR) • LGBTQ+ (AT) • Male sexology (SE) • Principles of informed choice and consent (CH, DE) • Sexual health and rights (RFSU clinics) (SE) • Sexology (BE) • Sexology for midwives (SI) • Sexual education for adolescents (SE) • Sexual health (SRMNH) with special focus on continuity of care (DE, CH, FR) • Sexuality, health, and gender (PT, SI) • Youth clinics (SE) • Abortion care (AT, SE, FR) • Abortion and stillbirths (DK) • Care for abortion (FR) • Care for infertility and abortion (FR) • Post abortion care after miscarriage up to pregnancy week 22 (SE) • Supervision and care of induced/legal abortion until 21+9 weeks (SE) • ‘Gynaecological and obstetrical pathology’ includes check-ups for prevention and contraception (FR) • ‘Sex education and family planning’ includes medico-psycho-socio-demographic aspects, as well as contraception and sterilization, and includes gynaecological check-ups for prevention and contraception (FR) • ‘Gynaecological and obstetrical pathology’ includes the specialized content of sexual health (LU) • ‘Pregnancy, childbirth and puerperium’ integrates the specialized content of sexual health (FI) • ‘Basic bacteriology, virology, and parasitology’ encompasses a scope of infectious diseases, including their agents, specific care
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	<p>for sexually transmitted infections, empowering midwives to prescribe and administer treatments for certain infections in women, whether they are pregnant or not (FI)</p> <ul style="list-style-type: none"> • Gender identity (SE) • Sexuality counselling (EE) • Sexually transmitted infections (EE, SE) • Contraceptives (EE) • Sexuality (sex education) (ES) • Sexuality Education (AT) • Sexual and reproductive health promotion and care (FI) • Placement of IUD's (NL) • Skills in placement and removal of intrauterine and subcutaneous contraceptive devices (PL) • Sexual health nursing (PT)
<p>Menopause care</p>	<p style="text-align: center;">3 countries</p> <ul style="list-style-type: none"> • 'Gynaecological and obstetrical pathology' includes the effects of menopause on mental and physical health (HU) • Counselling and care during the menopausal period (SE) • Counselling for menopausal symptoms (SE) • Menopausal care (SE) • The midwife and the menopausal woman (IT)
<p>Obstetrics and childbirth</p>	
<p>Obstetrics</p>	<p style="text-align: center;">20 countries</p> <ul style="list-style-type: none"> • 'Advising of Pregnant Women' no longer specifies a set number of prenatal examinations for obtaining a diploma but enables midwifery students to carry out more than 300 stages in prenatal consultations (FR) • 'Conducting Deliveries' no longer mandates a specific number of deliveries for students to qualify for a diploma but enables midwifery students to participate in more than 60 perinatal stages (FR) • 'Perform cervical and vaginal sampling for cytology, fresh smears, cultures and other tests on at least 150 women'

	<p>encompasses broader aspects of women's health beyond maternity care, with a greater focus on sexual health and comprehensive care for pregnant, labouring, and postpartum women (ES)</p> <ul style="list-style-type: none"> • ‘Pregnancy, childbirth and puerperium’ focuses on the role of midwifery throughout pregnancy, encompassing advice, care, monitoring, and management of health for both the mother and foetus, as well as the identification and prevention of potential complications (FI) • ‘Supervision and Care of Post-natal Women and New-born Infants’ is no longer dictated by a set number of required procedures for diploma qualification but enables midwifery students to engage in more than 300 postnatal stages (FR) • ‘Supervision and Care of Pregnant Women’ has evolved from requiring a specific number of clinical procedures to no fixed number of gestures necessary to obtain a diploma, but ensures that midwifery students participate in more than 60 prenatal stages (FR) • Alternative obstetric methods (HU) • Basics of instrumentation in obstetrics (HR) • Clinical practice in obstetrics (HU) • Counselling prenatal tests (NL) • Investigative techniques in foetal medicine (BE) • History of obstetrics (BE) • Maternal, newborn health (SRMNH) with special focus on continuity of care through preconception, pregnancy, post-partum including the newborn and family (DE, CH, FR) • Medical equipment in obstetrics (HR, BG) • Midwifery practice – knowledge, skills, and professional behaviours include normality in pregnancy, labour; and the requisite skills to promote and implement these concepts (IE) • Midwifery practice – knowledge, skills, and professional behaviours include postnatal period; and the requisite skills to promote and implement these concepts (IE) • Midwifery practice – knowledge, skills, and professional behaviours include holistic care throughout the continuum of
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	<p>pregnancy, labour, and the postnatal period; and the requisite skills to promote and implement these concepts (IE)</p> <ul style="list-style-type: none"> • Obstetric complications (AT) • Obstetric practice training, midwifery portfolio (BE) • Obstetrics e.g., surgical perineal care (AT) • Obstetrics emergencies (AT, CY, PT, IE) • Periconceptional health and care (SE) • Physiology and pathology of (pre)conception, pregnancy, childbirth and postnatal (up to 6 weeks pp) (NL) • Practical training in an obstetrics clinic (IT) • Prenatal diagnostics, non-invasive prenatal diagnostics (NO) • Prenatal health issues among women and their families (NO) • Prenatal midwifery, intrapartum care, postnatal care (FI) • Simulation course - emergency situations in obstetrics (LV) • Simulation-based studies courses as 'Foetal well-being assessment methods', 'Clinical care in obstetrics and gynaecology' (LV) • Studies in the field of specialist care, including subjects: rehabilitation in obstetrics (PL) • Studies in the field of specialist care, including subjects: rehabilitation in obstetrics, scientific research in obstetrics (PL) • The detection of (obstetric, medical etc) risk and, on the basis of risk to establish appropriate midwifery care policy (NL) • To attend at prenatal (450) and postnatal (120) visits (NL) • Pathology in Obstetrics (AT) • Physiology of Pregnancy (AT) • Prenatal care (AT) • Postpartum counselling (EE) • Postpartum care within primary health care (SE) • Intrapartum and Postnatal Care (SE) • Prenatal diagnosis (SE)
<p>Childbirth</p>	<p style="text-align: center;">15 countries</p> <ul style="list-style-type: none"> • 'Gynaecological and obstetrical pathology' covers also follow-up checks of high-risk or pathological childbirth (FR)

	<ul style="list-style-type: none"> • ‘Pregnancy, childbirth, and puerperium’ includes comprehensive knowledge of the physiology and pathology of labour and birth processes, familiarity with neonatal resuscitation tools (HU) • ‘Preparation for childbirth and parenthood, including psychological aspects’ includes a focus on ‘counselling of women in pregnancy and in the post-natal period, especially on breastfeeding, and counselling of their family’. Additionally, this approach extends to counselling the entire family, not just the woman (AT) • ‘Preparation for delivery (including knowledge and use of technical equipment in obstetrics)’ includes complications in childbirth (MT) • ‘Preparation for delivery’ includes assessing, monitoring and interpreting foetal heart rates and patterns using a Pinard’s stethoscope, including growing reliance on medical technology in normal birth processes and technological interventions that exceed WHO recommendations (IE) • Antenatal clinics (SE) • Antenatal ward (AT) • At least 5 episiotomies (the cut and the stitches) (NL) • Birth preparation (BE) • Childbirth preparation (BE, RO) • Childbirth preparation and innovative concept of birth plan as an orientation of the preparation intervention (PT) • Delivery room (PT) • Education preparation for birth (HU) • Greater focus on the importance of mobility and verticality during labour and delivery (PT) • Home birth – organisation and guidelines (SI) • Home birth (NL, PT) • Home delivery (HU) • Internship in maternity home (IT) • Low-risk pregnancy ambulatory (IT) • Midwifery practice – knowledge, skills, and professional behaviours include birth; and the requisite skills to promote and implement these concepts (IE) • Non-pharmacological techniques in preparing for childbirth (PT)
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	<ul style="list-style-type: none"> • Natural childbirth (IT) • Practical training – pathological childbirth, puerperium (EE) • Repair of simple perineal lacerations and episiotomies at least 15 under supervision (CH, DE) • Sexual, reproductive maternal, newborn health (SRMNH) with special focus on birth (DE, CH, FR) • Specific internships in maternity wards, delivery rooms, home care (BE) • To attend at least 60 births (NL) • Use of water during pregnancy and childbirth (PT) • Care during operative delivery (AT) • Care of physiological birth (AT) • Childbirth preparation (AT) • Delivery room (AT) • Preparation for delivery (HU) • Childbirth and puerperium (HU) • Institutional maternity and delivery care (SE)
<p>Breastfeeding and lactation support</p>	<p style="text-align: center;">8 countries</p> <ul style="list-style-type: none"> • Breastfeeding specialist (FI) • Breastfeeding (AT, LT, NL, SE, SI) • Breastfeeding counselling (PL, PT)
<p>Neonatal and paediatric health</p>	
<p>Care of the newborn</p>	<p style="text-align: center;">10 countries</p> <ul style="list-style-type: none"> • ‘Paediatrics, with particular reference to new-born infants’ includes ‘new-born babies and infants’ (until the first birthday) (AT) • ‘Physiology and pathology of the new-born infant’ and ‘Care and supervision of the new-born infant’ are included in ‘Midwifery studies, including process-oriented supervision, advice and care during the pre-natal phase, childbirth (including introduction to episiotomy) and the post-natal phase as well as supervision and care of new-born babies and infants’ and ‘General pathology, gynaecological and obstetrical pathology as well as pathology of

	<p>the new-born baby and infant’ (focus not only on the new-born but also to the infant until the first birthday) (AT)</p> <ul style="list-style-type: none"> • ‘Supervision and care (including examination) of at least 100 post-natal women and healthy new-born infants’ includes postnatal assessment and examination of women and babies, emphasising the detailed and comprehensive examination of infants at birth, reflecting the autonomous role of the midwife (IE) • Care and counselling for mother and child in the 1st year of life (AT) • Care of newborn (FI) • Children's development clinic and developmental neuro-physiotherapy (SI) • Clinical assessment of the newborn (CH) • Clinical examination of the newborn, at least 30 newborn examinations (CH) • First neonatal check of the newborn (IE) • Nutrition and dietetics, with particular reference to women, new-born and young babies (HU) • Paediatrics (PIC) (HU) • Paediatrics, with particular reference to new-born infants (HU) • Systematic examination of the newborn (SI) • Nutrition and Dietetics (AT) • Nutrition (NL) • Basics of Dietetic Knowledge for Midwives (HU) • Physiology of the Newborn (AT) • Postnatal Care (AT) • Assessment of the newborn (DE) • Newborn counselling (EE) • Pregnancy monitoring (EE) • Physiology and pathology of the new-born infant (HU) • Care and supervision of the new-born infant (HU) • Postpartum and neonatal nursing (PT)
<p>Neonatology (and high-risk newborns)</p>	<p style="text-align: center;">16 countries</p> <ul style="list-style-type: none"> • Care of high-risk pregnancies (FI)

	<ul style="list-style-type: none"> • Common health problems and deviations from normal to newborn infants (CH, DE) • Midwifery care for children with deviation in normal development (HR) • Midwifery care for high-risk newborn (EL) • Neonatal care unit (PT) • Neonatal resuscitation (AT) • Neonatal resuscitation emergency (IE) • Neonatology (AT, NL, IT, SI) • Perinatology (AT) • Sick, preterm, and very low birth weight infants (No countries + EFCNI) • Clinical practice in neonatal unit (HU) • Neonatal resuscitation in a skill lab (HU) • Specific internships in high-risk pregnancies, neonatology (BE) • Care of high-risk pregnancies (FI) • Paediatric surgery (SI) • Neonatal wards (NL) • Ethics in reproductive, perinatal, and sexual health (SE) • ‘Paediatrics, with particular reference to new-born infants’ encompasses also the management of newborn babies presenting pathology, neonatal physiology, management of neonatal emergencies, monitor and manage newborn babies in and out of the hospitals, including the performance of neonatal resuscitation pending the arrival of a paediatrician (FR) • ‘Pregnancy, childbirth, and puerperium’ includes recognition of vulnerable and high-risk pregnancies, understanding of physiological processes and potential complications during the puerperium (HU) • ‘Gynaecological and obstetrical pathology’ covers also follow-up checks of high-risk or pathological childbirth (FR) • ‘Basic bacteriology, virology and parasitology’ encompasses a scope of infectious diseases, including their agents, specific care for neonatal infections, empowering midwives to prescribe and administer treatments for certain infections in women, whether they are pregnant or not (FR)
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	<ul style="list-style-type: none"> • Complications/pathological conditions related to health status, emergency interventions / life-saving therapies/first line management (incl. basic emergency obstetric and newborn care) (CH, DE) • Foetal surgery (IT) • Health status, emergency interventions / life-saving therapies/first line management (incl. basic emergency obstetric and newborn care) (CH) • Obstetric emergencies (IE) • Pregnant resuscitation (PT, RO) • Pre-hospital lifesaving skills (postpartum haemorrhage (PPH), neonatal resuscitation, management of an unexpected breech or umbilical cord prolapse) (NL) • Simulation training for obstetric emergencies and neonatal resuscitation (AT) • Training regarding sick, preterm, and very low birth weight infants (DE)
Quality assurance and patient safety	
Quality and safety initiatives	<p style="text-align: center;">7 countries</p> <ul style="list-style-type: none"> • Medical guidelines, standards, and protocols (DE) • Quality and safety standards (No countries + EFNNMA) • Quality assurance (AT, DE, CH) • Quality management (AT) • Quality of care (NO) • Risk management module (MT) • Staff management, care and quality (PT) • Meeting health and safety needs (IE)
Critical care situations and emergency situations	<p style="text-align: center;">13 countries</p> <ul style="list-style-type: none"> • Activities in the field of obstetrics and gynaecology in the operating room (IT) • Basic surgery with traumatology (SI) • Basics of emergency medical services (PL, SI)

	<ul style="list-style-type: none"> • Emergency (BE) • Intensive care and anaesthesia (BE) • Intensive care treatment (EE) • Mastery in all types of sutures (PT) • Surgery (IT) • Surgery and internal medicine (CZ) • Surgical wound care and medical instruments (AT) • Sutation perinea (EE) • Transfusion medicine (HU) • War and disaster medicine (EE) • Clinical practice in surgery (HU) • Clinical practice in intensive care, specialised outpatient department (HU) • Immediate Life Support (ILS), European Paediatric Immediate Life Support (EPILS), Emergency Unit (EU), Baby Unit (BU) training (BE) • Hospitalisation of pregnant women at risk and postpartum women (PT) • ‘Environmental protection law, civil protection and disaster management law’ also includes first aid (LV) • Complications/pathological conditions related to health status, emergency interventions / life-saving therapies/first line management (CH, DE) • Suturing Techniques (AT) • Suturing/repair shall include theoretical instruction and supervised clinical practice of minimum 15 simple perineal lacerations and/or episiotomies (DE) • Suturing and perineal care and newborn resuscitation (EL)
TECHNICAL PROGRESS	
Digital health	
E-health and digital technologies	<div style="text-align: center; background-color: #fce4d6; padding: 5px;">16 countries</div> <ul style="list-style-type: none"> • ‘Communication and interpersonal skills’ includes the use of information communication technologies such as electronic

	<p>health records systems, which streamline and store clinical health information (IE)</p> <ul style="list-style-type: none"> • ‘Informatics’ includes introduction of new technologies within midwives’ training as well as training on working with new informational systems and programmes (BG) • A new way of conducting antenatal classes, supported by digital tools, has been introduced in the experiential training (IT) • Basic information and communications technology (SI) • Basics of maternity care, including health care information system (PL) • Data regulations (AT) • Digital health (DE, AT, MT) • Digital health, social media (IT) • Digital skills in healthcare (LV) • E-health (PL, PT) • E-health and innovation in care (BE) • E-health competencies (No countries + EFCNI) • E-health competencies in the requirements for basic training (DE) • E-Learning/e-health (AT) • Electronic Health Records (EHRs) (No countries + EMA) • Health care information system (PL) • Healthcare technology and digital competences including principles of confidentiality, privacy and data security, health records management (CH, DE) • Informatics (BG, EL) • Informatics in healthcare and documentation systems (AT) • Medical technology and digital competence (NO) • Training on new technologies and tools in modern healthcare practices (e.g., electronic health records) (BE) • User-oriented wellbeing technology (FI) • Electronic health records, and other technological tools (RO)
<p>Telehealth and telemedicine</p>	<p style="text-align: center;">6 countries</p> <ul style="list-style-type: none"> • Telehealth and medicine, virtual consultations (No countries + EFNNMA)

	<ul style="list-style-type: none"> • Telehealth and telemedicine skills (No countries + EMA) • Telehealth (RO) • Telemedicine (IT, PL, PT) • Training on new technologies and tools in modern healthcare practices (e.g., telehealth) (BE) • Telehealth competencies (No countries + EFCNI) • Telehealth competencies in the requirements for basic training (DE)
Artificial intelligence and extended reality	<p style="text-align: center;">2 countries</p> <ul style="list-style-type: none"> • Advanced simulators (SK) • Artificial Intelligence (AT) • Risk assessment and artificial intelligence (No countries + EMA) • Simulation training (including virtual reality scenarios) (No countries + EFCNI) • Standardised and virtual patients (SK)
Portable and remote monitoring devices	<p style="text-align: center;">1 country</p> <ul style="list-style-type: none"> • Assistive devices course (EE)
Technologies and screening	
Screening and diagnostics	<p style="text-align: center;">14 countries</p> <ul style="list-style-type: none"> • ‘Basic biophysics, biochemistry, and radiology’ includes teaching activities on radiation protection. (IT) • ‘Hygiene, health education, preventive medicine, early diagnosis of diseases,’ is formulated to include providing information and counselling to the woman and, where appropriate, her partner about the options for prenatal and neonatal screening as well as prenatal diagnosis and determining the indication for prenatal diagnosis, including the introduction of non-invasive prenatal testing (NIPT) and advanced ultrasound screening. (NL) • ‘Preparation for delivery’ includes ‘Special Midwife care for birthing women with normal and pathological birth medical equipment in obstetrics and gynaecology’ and introduces new

	<p>technologies such as intermittent auscultation or cardiotocography (CTG), newer ultrasound techniques (BG)</p> <ul style="list-style-type: none"> • ‘Professional ethics and professional legislation,’ updates midwives' training requirements in prenatal anomaly screening and counselling according to the latest developments (NL) • ‘Professional ethics and professional legislation’ includes additional training to midwives in line with national requirements, particularly in response to developments in prenatal anomaly screening and counselling (NL) • Advanced diagnostic imaging training (No countries + EMA) • Advanced ultrasound technology (No countries + EFCNI) • Basic obstetric ultrasound (ES) • Breast cancer screening, counselling, and referral (ES) • Counselling, assessment, and testing related to genital pathology of the lower genital tract (HPV-Human papillomavirus screening) (ES) • Diagnostic procedures and treatment (SI) • Diagnostic ultrasound in midwifery (MT) • Diagnostic ultrasound in obstetrics and gynaecology (PL) • In depth knowledge of mapping tools, examinations and treatment offered in pregnancy, birth and maternity, including basic knowledge of foetal diagnostics including early ultrasound and non-invasive prenatal testing (NIPT) to effectively counsel pregnant women and manage the complexities of modern foetal diagnostics (NO) • Introduction to foetal sonography (AT) • Midwife activities for ultrasound care (BG) • Order, perform and interpret basic and essential laboratory and/or imaging screening tests (DE, CH) • Perform ultrasound (PL) • Radiology (PL) • Reading of the normal cardiotocographic trace and recognition of the pathological trace (IT) • Training for the use of ultrasound (IT) • Training programs for using ultrasound (IT) • Ultrasound diagnostics in obstetrics and gynaecology (PL) • Ultrasound laboratory (clinical practice) (HU)
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	<ul style="list-style-type: none"> • Ultrasound logbook (BE) • Ultrasound principles (BE) • Basic ultrasound – theoretical aspects (PT) • Diagnostics (NL) • Early diagnosis of diseases (HU) • Ultrasound office (IT)
Foetal monitoring	<p style="text-align: center;">4 countries</p> <ul style="list-style-type: none"> • Foetal monitoring in pregnancy- childbirth (EL) • Training on the detection of foetal well-being- cardiotocographic monitoring (IT) • CTG interpretation (EE) • Electronic Foetal Monitoring (EE) • Foetal diagnostics (SE) • Prenatal testing – foetal medicine (EL)
Genetic testing and screening	<p style="text-align: center;">1 country</p> <ul style="list-style-type: none"> • Genetic counselling and testing (No countries + EMA)

The table below specifies in how many countries knowledge and skills have been found to reflect scientific and technical progress, with the aim of identifying which elements have been noted in at least 16 countries.

Table 2: Knowledge and skills required at national level (or considered relevant by EU/EEA/International stakeholders) according to their prominence

Knowledge and skills	EU/EFTA States
SCIENTIFIC PROGRESS	
Comprehensive midwifery care	
Midwifery-led care model	<p style="text-align: center;">6 countries</p> <ul style="list-style-type: none"> • Alternative midwifery methods (HU) • Community midwife (IT) • Community settings (No countries + ICM) • Philosophy of midwifery (EE) • Working as an independent midwife (DE, IT)

	<ul style="list-style-type: none"> • A holistic and reflective approach guides its decisions. (HU) • ‘Cooperation and management in midwifery work’. include understanding the importance of midwife-led activities and knowledge of how to work in the work community. (FI) • Focus on midwifery-led care (IE)
<p>Mental health</p>	<p style="text-align: center;">8 countries</p> <ul style="list-style-type: none"> • Humanised birth (SE) • Management of stillbirth and perinatal grief (ES) • Mental disorders (SE) • Perinatal bereavement (IT) • Perinatal mental health (EE, ES, IE) • Psychology (EL) • Psychosomatic preparation (EL) • Independently analyse and assess the need for supportive measures of a psychological or social nature in connection with pregnancy, birth, maternity and family formation. (DK) • Point (c) [on detailed knowledge of biological functions, anatomy and physiology in the field of obstetrics and of the newly born] recognises psychosocial change and development processes as well as taking and initiating appropriate measures. (AT) • Points (d) [on adequate clinical experience] and (e) [on adequate understanding of the training of health personnel], include interdisciplinary collaboration and targeted interventions to address the comprehensive mental health needs of women and newborns. (AT)
<p>Respectful and special needs care</p>	<p style="text-align: center;">14 countries</p> <p style="text-align: center;">Care for women with special needs</p> <ul style="list-style-type: none"> • Advanced maternal age (IE) • Care of women with pathological conditions (MT) • Caring for women with disabilities (PL) • Obesity (SE)

	<ul style="list-style-type: none"> • Gender violence (SE) • Violence and diversity and inclusion (AT) • Obstetric violence (SE) • Intimate relationship violence (SE) <div style="background-color: #fff9c4; text-align: center; padding: 5px;"> <p>Respectful care and ethics</p> </div> <ul style="list-style-type: none"> • Care ethics (DE) • Care for women who experience physical and sexual violence and abuse (EE) • Changing the code of ethics (PL) • Cultural competence and diversity training (IE + EMA) • Detailed knowledge of human rights and respectful maternity care (EE, NL, SE, FR + EFNNMA, ICM) • Education on obstetric violence (BE) • Ethical decision making (IE, LT, FR + EMA) • In terms of social competencies, the graduate is ready to: prioritise patient welfare, respect the dignity and autonomy of individuals under care, demonstrate understanding of ideological and cultural differences, and show empathy in interactions with patients and their families; adhere to patient rights; independently and conscientiously practice the profession in accordance with ethical principles, including observing moral values and duties in patient care; take responsibility for professional duties performed. (PL) • Point (b) [on adequate knowledge of the ethics of the profession and the legislation relevant for the practice of the profession] emphasises professional development, accountability in obstetric care, and understanding the legal and ethical aspects of midwifery practice. (NL) • Point (b) [on adequate knowledge of the ethics of the profession and the legislation relevant for the practice of the profession], is formulated as ‘act in line with the ethical principles and legal bases specific to the profession’. (AT) • Point (c) [on detailed knowledge of biological functions, anatomy and physiology in the field of obstetrics and of the newly born] takes account of cultural and regional needs, lifestyles and values. (AT)
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	<ul style="list-style-type: none"> • Science and technology ethics (DE) • With the protection of human life at its core, midwife strives for constructive professionalism, helpful behaviour, emphasises the ethical principles and professionalism. (HU) • Ethics of the profession and the professional legislation and regulation (DE, EE, EL, IT, LT, MT, PL, SE + ICM) • Diversity (NL) • Aspects on equality and equity (SE)
<p>Legislation, patient rights and autonomy</p>	<p style="text-align: center;">2 countries</p> <ul style="list-style-type: none"> • Point (a) [on detailed knowledge of the sciences on which the activities of midwives are based] includes care accountability (NL). • Legislation is in continuous change, position of the midwife (BE) • Regulation and Protection of Midwives in EU Countries (BE)
<p>Patient (women) centred care</p>	<p style="text-align: center;">10 countries</p> <ul style="list-style-type: none"> • Patient teaching (NO) • Woman-centred care (CZ, EE) • A person-centred approach includes appropriate solutions tailored to the specific problem. (HU) • Deal independently with entering into interprofessional and cross-sector collaboration and, based on a holistic perspective, support the citizen and the patient as a central and active player in the individual process, promoting holistic and interprofessional approaches. (DK) • For point (c) [on detailed knowledge of biological functions, anatomy and physiology in the field of obstetrics and of the newly born] includes a detailed approach to diagnosis, treatment, and care provision, incorporates a holistic view of patient care that considers social and environmental factors. (NL) • Point (c) [on detailed knowledge of biological functions, anatomy and physiology in the field of obstetrics and of the newly born] is phrased as ‘demonstrate the ability to integrate knowledge and analyse, assess and deal with complex issues and

	<p>situations, phenomena and problems, on the basis of the needs of individuals and groups'. (SE)</p> <ul style="list-style-type: none"> • For point (c) [on detailed knowledge of biological functions, anatomy and physiology in the field of obstetrics and of the newly born] includes a detailed approach to diagnosis, treatment, and care provision, includes understanding of biological functions, incorporating a holistic view of patient care that considers social and environmental factors. (NL) • Independently organise, manage and carry out midwifery care including training to provide comprehensive, patient-centred care autonomously. (DK) • Self-care Skills (AT) • Women's choice and autonomy (IE) • Care of the woman in all phases of life (IT)
Health promotion, prevention and control	
Medicines prescription and administration	<p style="text-align: center;">6 countries</p> <ul style="list-style-type: none"> • Prescribing medication (BE, NO, PL, FR) • Point (c) [on detailed knowledge of biological functions, anatomy and physiology in the field of obstetrics and of the newly born] and (d), which refers to adequate clinical experience, include using medicines in accordance with legal provisions. (AT) • For point (c) [on detailed knowledge of biological functions, anatomy and physiology in the field of obstetrics and of the newly born] includes understanding of pharmacology, incorporating a holistic view of patient care that considers social and environmental factors. (NL)
Physical therapy and (re)education	<p style="text-align: center;">3 countries</p> <ul style="list-style-type: none"> • Evaluation and treatment of rectus diastasis (ES) • Pelvic floor assessment and treatment (ES) • Perineal rehabilitation (LU) • Point (a) [detailed knowledge of the sciences on which the activities of midwives are based] specifies the types of different

	<p>acts and their specific weight or other additions in the teaching regulations of each university, includes deepening knowledge in urogynecology, urology, and physical and rehabilitation medicine in response to demographic trends of delayed reproduction and increased medically assisted pregnancies, as well as the rising prevalence of pelviperineal dysfunctions. (IT)</p>
<p>Public health</p>	<p style="text-align: center;">12 countries</p> <ul style="list-style-type: none"> • Covid and pregnancy (ES) • Critical appraisal of healthcare systems (AT, BE) • Epidemiologic concepts relevant to maternal and infant health (No countries + EFCNI) • New vaccines in pregnancy or newborn (ES) • Public health and health promotion (IE, NL, PL + EMA) • Relationship between the state of health and the physical and social environment of the human being (EL) • Salutogenesis (LU) • Demonstrate specialised knowledge of planning, managing and coordinating health care procedures. (SE) • Health promotion includes deepening the understanding of health promotion and public health concepts. (IE) • Independently and reflectively take care of citizen and patient-oriented health promotion and prevention. (DK) • ‘Maternal and social care services’ includes clinical governance, child protection, healthcare economics, and the evolving demographic profile of childbearing women. (IE) • Point (a) [on detailed knowledge of the sciences on which the activities of midwives are based] includes prevention and information. (NL) • Point (c) [on detailed knowledge of biological functions, anatomy and physiology in the field of obstetrics and of the newly born] is phrased as ‘demonstrate specialised skills in autonomously initiating health promotion and preventive measures’. (SE) • Point (c) [on detailed knowledge of biological functions, anatomy and physiology in the field of obstetrics and of the

	<p>newly born] includes implementation of, profession-specific concepts of health promotion and prevention in a targeted way. (AT)</p> <ul style="list-style-type: none"> • Point (a) [on detailed knowledge of the sciences on which the activities of midwives are based] includes understanding health policy provisions and care organisation principles. (LT) • Public Health and Health Promotion (BE) • Immunisation for women (IE) • Health promotion (NO)
Global health and sustainability	<p style="text-align: center;">4 countries</p> <ul style="list-style-type: none"> • Sustainability/sustainable development (FI, NO, SE) • Global outreach (DK)
Midwifery education and training methods	
Simulation based education	<p style="text-align: center;">12 countries</p> <ul style="list-style-type: none"> • Simulation based learning (EE, HU, IE, LT, LU, LV, NO, PL, PT, SK + EMA, EFCNI) • Simulation training (AT, DK) • Simulation education (HU)
Evidence-based practice and research	<p style="text-align: center;">18 countries</p> <ul style="list-style-type: none"> • Different methodologies (EE, LU) • Evidence-based midwifery practice (DE, EE, EL, IS, NL, NO, SE, FR + EMA, EFCNI) • Knowledge of evidence-based midwifery (AT, EE, EL) • New scientific evidence on late cord clamping and optimal cord clamping (ES) • Research (DE, EE, EL, IS, LU, SE, SI + EFNNMA, EFCNI) • Theoretical and practical insights (IT, LT, SE) • ‘Evidence-based development of midwifery’ includes skills/knowledge related to evidence-based practice. (FI) • Deal with basic academic working methods, including reflection, assessment and dissemination of practice, development and

	<p>research-based knowledge related to the profession specifically and healthcare activities in general. (DK)</p> <ul style="list-style-type: none"> • Point (a) [on detailed knowledge of the sciences on which the activities of midwives are based], is formulated as retrieving information on recent scientific findings obtained at the national and international level, formulating issues of relevance to research in the field specific to their profession, selecting and applying relevant scientific research methods and process the data obtained for finding answers to the issues raised, making scientific findings and phenomena usable for professional and scientific development'. (AT) • Point (d) [on adequate clinical experience] includes analysing and critically assessing knowledge bases and making professional assessments and actions in line with theoretical and research-based knowledge, experience-based knowledge and the patient's needs and wishes. (NO) • Research methods and bachelor thesis. (LV) • Research, audit and innovation in practice including ethical considerations for research in maternity care settings. (IE) • To formulate treatment or care plans, midwives must integrate applied research rooted in methodological knowledge which requires considering the patient's history, physical examination findings, scientific evidence, and the patient's preferences. (NL) • 'Professional management, professional development, innovation and quality knowledge and skills' and general competence as well as 'Research and dissemination' include advanced knowledge of scientific theory, research methods, and research ethics, enabling them to conduct independent scientific work, critically analyse information, communicate professional insights, and apply their expertise to new and advanced tasks. (NO) • Point (d) [on which refers to adequate clinical experience] is phrased as 'demonstrate knowledge of the disciplinary foundation of the field and insight into current research and development work as well as the links between research and proven experience and the significance of these links for professional practice'. (SE)
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	<ul style="list-style-type: none"> • Point (a) [on detailed knowledge of the sciences on which the activities of midwives are based] includes scientific research. (NL) • Research in midwifery (IE) • International research and projects (LV)
<p>Inter/multidisciplinary and soft skills</p>	<p style="text-align: center;">17 countries</p> <ul style="list-style-type: none"> • Art and science in midwifery (EE) • Counselling (ES) • Digital skills to supervise women and families (FI) • History (EL) • Human behaviour (No countries + ICM) • Information and communication terminology (SI) • Innovation management (AT) • Interdisciplinarity (DK, LV) • Interprofessional collaboration (BE, EL, IE, NL, NO, PL + EMA, EFCNI, ICM) • Leadership and advocacy skills (BE, IE, EL + EMA) • Organisation and innovation (LT, NO) • Perineal lacerations and suturing (SE) • Principles of effective communication with patients and teams (incl. Crisis communication) (EE) • Science in clinical decision-making (NL) • Sign language (PL) • Statistics (BE, LU) • Social sciences (DE) • Sociology (LU) • Continuous Professional Development (CPD) (No countries + EMA) • ‘Evidence-based development of midwifery’ includes multidisciplinary cooperation, communication, professional visibility and development, project planning and management. (FI) • Document the course of advice and care as well as analyse and evaluate the results. (AT)

	<ul style="list-style-type: none">• Point (e) [on adequate understanding of the training of health personnel] includes functioning in relation to other professionals involved in obstetric care as part of the curriculum, expanding the importance of interdisciplinary collaboration but also by incorporating it into the professional development and educational objectives for midwives, ensuring graduates are prepared for cooperative. (NL)• Point (e) [on adequate understanding of the training of health personnel] focuses on responsible shaping of intra- and interprofessional action. (DE)• Independently lead, participate in, apply and implement innovation and development work within the healthcare field as well as provide clinical leadership in the reproductive field. (DK)• Point (e) [on which refers to adequate understanding of the training of health personnel] includes knowledge and skills in terms of ‘Communication, user participation and interaction.’ This contains advanced knowledge of communication, health education methods, and the ability to apply these methods in practice, ensuring that user participation is cared for at individual, group, and system levels, and that a safe and trusting relationship is established with women, partners, families, and professionals. (NO)• Points (d) [on adequate clinical experience] and (e) [on adequate understanding of the training of health personnel] include understanding when other professions are competent and take the required measures in a targeted way to the benefit of women in pregnancy, in labour and post-natal period as well as new-born babies and infants through multi-professional cooperation adequate to the situation. (AT)• Social communication competences and self-competences include realistic assessment of their own capacity with regard to technical, organisational, co-ordinating and administrative professional requirements, justification of their own decisions in a responsible way to external actors, applying communicative and organisational skills required for accomplishing complex interdisciplinary tasks, providing information and explanations in a professional way and establish a relation of trust to the
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	<p>patient or his/her family members, working in line with professional rules as well as economic and ecological principles. (AT)</p> <ul style="list-style-type: none"> • Point (e) [on adequate understanding of the training of health personnel and experience of working with such personnel] includes effective work and communication with the healthcare team, as well as teaching activities aimed at midwives and other health professionals. (ES) • Handle and independently participate in communication in various contexts, including entering into an equal, dialogue-based and value-creating relationship with citizens, patients, relatives and interprofessional partners. (DK) • ‘Cooperation and management in midwifery work’ include multidisciplinary teamwork; quality system; entrepreneurship; leadership; economy and ecology. (FI) • In terms of social competencies, the graduate is ready to: seek expert opinions in case of difficulties in resolving problems independently; anticipate and consider factors influencing their own and the patient's reactions; recognise and acknowledge personal limitations in terms of knowledge, skills, and social competencies, and assess deficits and educational needs. (PL) • Independently diagnose, examine, treat and prescribe according to reserved business area in interaction with patient and citizen across organisations and professions in the entire healthcare system, by equipping midwives with the skills to make autonomous clinical decisions and coordinate care across different healthcare settings. (DK) • Point (a) [on detailed knowledge of the sciences on which the activities of midwives are based] includes professional development, interprofessional relations, entrepreneurship. (NL) • Skills in counselling and consulting (AT) • Communication skills (AT, DK) • Continuity of collaboration (SE)
Basic medical sciences	8 countries

	<ul style="list-style-type: none"> • Different conceptions of health with emphasis on relational and non-dichotomous understandings including planetary health (DE) • Science theory (DE) • Additional placements in primary care (BE) • Demonstrate specialised skills in planning and undertaking examinations and treatment autonomously and in cooperation with patients and on the basis of patient needs and circumstances. (SE) • Conduct a subjective and objective examination to make a nursing or midwifery diagnosis. (PL) • Point (c) [on detailed knowledge of biological functions, anatomy and physiology in the field of obstetrics and of the newly born] includes performing the activities of midwives in line with technical and scientific findings and experiences. (AT) • Point (c) [on detailed knowledge of biological functions, anatomy and physiology in the field of obstetrics and of the newly born] includes analysing measures, reflecting on them and developing solutions and approaches on their own in a way adequate to the situation. (AT) • For point (a) [on detailed knowledge of the sciences on which the activities of midwives are based] includes 'knowledge base includes fundamental and biomedical sciences, human and social sciences, public health and all the disciplines necessary for the practice of midwifery. (FR) • Develop, arrange and perform professional activities, especially in the case of self-employment, in line with organisational and managerial principles. (AT) • It is open to new procedures, professionalism, respect for human dignity and respect for all innovations and strives to develop its practical skills. (HU) • Professional and personal issues include education on their identity, roles, and responsibilities within the healthcare system. (IE) • Point (e) [on adequate understanding of the training of health personnel] focuses on further development of midwife-specific care. (DE)
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	<ul style="list-style-type: none"> • Social communication competences and self-competences include meeting the requirements of life-long learning and further training obligations with a view to continuously staying abreast of new findings in medical science in order to ensure a high-quality level in professional activities, contributing to the further development of the midwifery profession. (AT)
Gynaecology and reproduction	
Gynaecological care	<p style="text-align: center;">7 countries</p> <ul style="list-style-type: none"> • Gynaecological ontology and mastology (EL) • Follow-up gynaecological care for prevention (FR) • More detailed knowledge of gynaecology (DE, PL) • Prevention of STLI; Cancer (EE) • Point (a) [on detailed knowledge of the sciences on which the activities of midwives are based] includes understanding of the main fields of gynaecology. (LT) • Care of gynaecological patients (CZ)
Sexual and reproductive health and rights	<p style="text-align: center;">18 countries</p> <p style="text-align: center;">Preconception care, family planning and reproduction</p> <ul style="list-style-type: none"> • Pre-conceptual care (SE) • Assisted reproduction (EL, IE, IT, LU) • Family planning (IT) • Infertility treatment (PL) • Reproductive health and rights (NO, PT, SE, FR) • Fertility and reproductive health including gender diversity (FI) • Reproductive medicine (SE) • Independently handle involving and relationship-promoting communication and interaction, support the family formation process and attachment (DK) • Inform women and their families in a competent way, in particular with regard to sexuality, control of conception and family planning and thereby create the basis for their personal decisions (AT)

	<ul style="list-style-type: none"> • Point (c) [on detailed knowledge of biological functions, anatomy, and physiology in the field of obstetrics and of the newly born] requires French midwives to have precise knowledge of contraceptive therapies, enabling them to prescribe a range of contraceptives (FR) • Care in relation to IVF (SE) • Continuity of care through preconception (DE) • Assisted Fertility Treatments (HU) <p style="text-align: center;">Sexual health and rights, contraception and abortion</p> <ul style="list-style-type: none"> • Development of gender identity and sexual orientation (EE, SE) • Development of new laws in the field of sexual and reproductive health (ES, PL) • Safety culture (EE) • Sexual health and rights (NO, PT, SE, FR) • Sexual health including gender diversity (FI) • Sexuality (sex education) (ES, IT) • Greater focus and support of the physiology of the reproductive process (CZ, NL) • Insertion/withdrawal of long-acting contraceptives (NO, FR) • Abortion (PT, SE, FR) • Care for women undergoing medical abortion (SE) • For point (a) [on detailed knowledge of the sciences on which the activities of midwives are based] includes ‘broad and specialised knowledge in the field of reproductive, perinatal and sexual health’ (SE) • Point (c) [on detailed knowledge of biological functions, anatomy, and physiology in the field of obstetrics and of the newly born] includes providing information on medicinal options for voluntary termination of pregnancy up to 9 weeks (FR) • Non-Binary Parents (HU) • Contraceptive care (NL) • Prevention of the Sexual Transmitted Infections (IT)
Menopause care	<p style="text-align: center;">2 countries</p> <ul style="list-style-type: none"> • Menopausal service (IT)

	<ul style="list-style-type: none"> • Perimenopausal period (PT)
Obstetrics and childbirth	
Obstetrics	18 countries
	<ul style="list-style-type: none"> • Knowledge of obstetrics (AT, EE, EL) • Microbiome (CZ, IT) • Detailed knowledge of biological functions, anatomy and physiology in obstetrics (BE, DE, CZ, EL, PL) • Home visiting (IT) • Low-risk pregnancy care (IT) • Maternal brain changes (brain plasticity) in pregnancy (ES) • More detailed knowledge of obstetrics (DE, PL) • Non-invasive prenatal testing (NIPT) (NO) • Obstetric techniques (PL) • Pregnancy monitoring and consultations (LU) • Prenatal care (LU) • Prenatal diagnostics (NO, SE) • Point (a) [on detailed knowledge of the sciences on which the activities of midwives are based] encompasses theoretical and practical education aimed at acquiring knowledge, insight, and skills in various aspects of midwifery professional practice, including diagnosis, treatment planning, obstetric care provision, care evaluation. (NL) • Independently, in collaboration with a doctor, organise, handle, and carry out midwifery care during pregnancy, birth and maternity for women, fetuses and newborns in connection with complicated procedures. (DK) • Point (a) [on detailed knowledge of the sciences on which the activities of midwives are based] includes understanding of the main fields of obstetrics. (LT) • Points (c) [on adequate knowledge of general medical knowledge and of pharmacology], and (d) [on adequate clinical experience] include performing the tasks of supervision, advice, and care of women in pregnancy, in labour and postnatal period. (AT)

	<ul style="list-style-type: none"> • Point (d) [adequate clinical experience gained in approved institutions allowing the midwife to be able, independently and under his own responsibility, to the extent necessary and excluding pathological situations, to manage the antenatal care, to conduct the delivery and its consequences in approved institutions, and to supervise labour and birth, postnatal care and neonatal resuscitation while awaiting a medical practitioner] includes comprehensive educational goals that covers the entire spectrum of obstetric care, from diagnosis to delivery and postnatal care. (NL) • Point (c) [on detailed knowledge of biological functions, anatomy and physiology in the field of obstetrics and of the newly born] encompasses the acquisition of comprehensive skills and knowledge in medical biology, anatomy, physiology, and pharmacology specifically related to obstetrics and neonatal care. It focuses on the ability to detect and prevent health issues, establish diagnoses, design therapeutic proposals, and provide and coordinate appropriate care, highlighting a holistic approach to maternal and newborn health. (FR) • Point (d) [on adequate clinical experience] includes applying knowledge and skills to take independent responsibility for follow-up of normal pregnancy, birth, maternity and the healthy new-born child, including arranging for completeness and continuity in the service, applying knowledge and skills to support the physiological, social and cultural processes in pregnancy, birth and maternity, and only intervene when necessary. (NO) • Physiological obstetrics (LV) • Comprehensive prenatal care (PT)
<p>Childbirth</p>	<p style="text-align: center;">7 countries</p> <ul style="list-style-type: none"> • Childbirth management (PL) • High risk pregnancies and childbirth (FI) • Pain management in labour and birth (SI) • Pre-, intra- and postoperative care in caesarean section (FI)

	<ul style="list-style-type: none"> • Independently organise, manage and carry out midwifery care during pregnancy, birth and maternity for women, fetuses and newborns in connection with both spontaneous and uncomplicated processes. (DK) • Point (c) [on detailed knowledge of biological functions, anatomy and physiology in the field of obstetrics and of the newly born], and (d) [on adequate clinical experience] include providing assistance during delivery. (AT) • Postpartum midwifery home visits (IE) • Gentle birth and reducing risks for ruptures and lacerations (SE)
<p>Breastfeeding and lactation support</p>	<p style="text-align: center;">6 countries</p> <ul style="list-style-type: none"> • Breastfeeding problems: tongue tie (ES) • Lactation/breastfeeding education (IE, IS, PL + EFCNI) • Breastfeeding Lab (EL) • Breastfeeding (IT)
<p>Neonatal and paediatric health</p>	
<p>Care of the newborn</p>	<p style="text-align: center;">4 countries</p> <ul style="list-style-type: none"> • For point (a) [on detailed knowledge of the sciences on which the activities of midwives are based] includes neonatology and the environmental factors impacting mother and child, as well as prevention and monitoring in neonates from 0 to 28 days, and screening and prevention of STIs and vaccinations. (FR) • Point (d) [on adequate clinical experience] includes applying knowledge and skills to promote a good start to breastfeeding, take independent responsibility for supporting and guiding breastfeeding, as well as look after and support those who cannot, or do not want to breastfeed. (NO) • Point (c) [on detailed knowledge of biological functions, anatomy and physiology in the field of obstetrics and of the newly born], and (d) [on adequate clinical experience] include assessing the regular course of pregnancy, delivery, the post-natal period and the breast-feeding period as well as the healthy

	<p>development of new-born babies and infants and taking measures adequate to the situation. (AT)</p> <ul style="list-style-type: none"> • Point (c) [on detailed knowledge of biological functions, anatomy and physiology in the field of obstetrics and of the newly born], and (d) [on adequate clinical experience] include performing the tasks of supervision, advice, and care of as well as new-born babies and infants in an autonomous and process-oriented way. (AT) • Micro and macrobiota of the newborn (BE) • Post-partum home placement (BE)
<p>Neonatology (and high-risk newborns)</p>	<p style="text-align: center;">6 countries</p> <ul style="list-style-type: none"> • Modifications in the algorithms of cardiopulmonary resuscitation (CPR) in newborns (ES) • Neonatology (No countries + ICM) • Newborn life support (LU) • Resuscitation of the newborn (SE) • Point (c) [on detailed knowledge of biological functions, anatomy and physiology in the field of obstetrics and of the newly born] the national legislation specifically focusses on perinatology. (BE) • Point (d) [on adequate clinical experience] includes applying knowledge and skills to the practical, physical and psychological care of families in crisis related to stillbirth and seriously ill fetuses/newborn children. (NO) • Point (a) [on detailed knowledge of the sciences on which the activities of midwives are based] includes understanding of the main fields of neonatology. (LT)
<p>Quality assurance and patient safety</p>	
<p>Quality and safety initiatives</p>	<p style="text-align: center;">7 countries</p> <ul style="list-style-type: none"> • Health system, policies, safety and quality (No countries + EFNNMA) • Quality of care / quality improvement (NO)

	<ul style="list-style-type: none"> • Committed to quality professional work, performs his/her duties with accuracy and reliability. (HU) • Handle and assume responsibility for quality assurance and quality development. (DK) • Point (c) [on detailed knowledge of biological functions, anatomy and physiology in the field of obstetrics and of the newly born] includes meeting the requirements of quality assurance and hygiene. (AT) • Point (d) [on adequate clinical experience] is phrased as ‘demonstrate the ability to initiate and undertake quality assurance and improvement measures and also to evaluate treatment interventions’. (SE) • Show responsibility and keep professionally up-to-date based on an understanding of and identification of own learning processes and development needs including the importance of quality assurance and continuous improvement in healthcare services. (DK) • Point (e) [on adequate understanding of the training of health personnel], focuses on participation in quality management concepts and standards. (DE) • Point (a) [on detailed knowledge of the sciences on which the activities of midwives are based] includes quality of care. (NL) • Preventive measures in the care of pregnant women (AT)
<p>Critical care situations and emergency situations</p>	<p style="text-align: center;">7 countries</p> <ul style="list-style-type: none"> • Basic life support with defibrillation (BLS) (IT) • Foetal surgery (IT) • New suturing techniques (ES) • Obstetric surgery (IT) • Independently assess the need to involve a doctor in the course of pregnancy, birth or maternity, including calling for help and providing emergency aid until a doctor is present, empowering midwives to make critical decisions in emergency situations. (DK) • Point (d) [on adequate clinical experience] includes realising the limits of the autonomous performance of their profession and,

	<p>in the case of the suspicion or occurrence of irregular conditions hazardous for woman or child during pregnancy, delivery and puerperium, taking the measures required on a doctor’s order and in cooperation with a doctor. (AT)</p> <ul style="list-style-type: none"> • Point (d) [on adequate clinical experience] includes recognising life-threatening conditions and initiating or taking appropriate life-saving emergency measures. (AT) • In terms of skills, a graduate is able to administer first aid and perform rescue measures as part of cardiopulmonary resuscitation (CPR) (PL). • Medical interruption of pregnancy (LU) • Invasive midwifery procedures (EE)
TECHNICAL PROGRESS	
Digital health	
E-health and digital technologies	<p style="text-align: center;">11 countries</p> <ul style="list-style-type: none"> • Basics of technological advancements: digital health records and patient care documentations (EE, IE, PL) • Digital health, appraisal and utilisation of technology (EE, DE, IT, MT, NO + EFNNMA) • Distance learning methods (PL) • Health care information system knowledge and skills (PL) • E-health skills (IE + EMA) • Handle and use profession-relevant technology, including information and communication technology in the relevant context by integrating modern technologies into midwifery practice. (DK) • Information and technology for midwifery, integrating principles of information technology into midwifery practice, including enhancing data management and protection, utilising assistive technology for healthcare, and effectively employing social media for professional purposes. (IE) • Implementing e-health solutions in the direct care of women, babies, families (AT) • Digital Health Apps (HU)

	<ul style="list-style-type: none"> • Electronic Health Records (HU) • E-study environment activities (LV)
Telehealth and telemedicine	<p style="text-align: center;">2 countries</p> <ul style="list-style-type: none"> • Telehealth skills (IE + EMA) • Telehealth/Telemedicine (HU)
Artificial intelligence and extended reality	<p style="text-align: center;">3 countries</p> <ul style="list-style-type: none"> • Artificial Intelligence (HU, IE) • Virtual patient (PL)
Portable and remote monitoring devices	<p style="text-align: center;">1 country</p> <ul style="list-style-type: none"> • Portable/Remote Monitoring Device (HU)
Technologies and screening	
Screening and diagnostics	<p style="text-align: center;">10 countries</p> <ul style="list-style-type: none"> • Assessment and testing related to genital pathology of the lower genital tract (human papillomavirus (HPV) Screening) (ES) • Cardiotocography (CTG) interpretation (NL) • Diagnostic ultrasound training (EE, IE, NL, SE + EMA) • Echography (LU) • Foetal diagnostics (SE) • Quantum physics (CZ) • Risk screening and prevention (EE, NL) • Ultrasound interpretation (NL) • Ultrasound office (IT) • Ultrasound training (PL) • Methods of prenatal diagnostics (AT) • Modern CTG (PL) • Modern diagnostic techniques (PL)
Foetal monitoring	<p style="text-align: center;">4 countries</p>

	<ul style="list-style-type: none"> • Foetal monitoring technology including basics on ultrasound (EE, IE) • Foetal sonography (AT) • Techniques for monitoring foetal well-being (BE)
<p>Genetic testing and screening</p>	<p style="text-align: center;">5 countries</p> <ul style="list-style-type: none"> • Epigenetics (CZ, IT) • Genetic counselling and testing (BE, EE + EMA) • Prenatal genetic testing (EE, IE)

The findings of the Study reveal that certain scientific and technical advancements identified have been reflected in the training programme for midwives. Based on the data collected, the table below outlines the scientific and technical advancements that are reflected in the elements of the training programme and the knowledge and skills in at least 16 countries.

Table 3: Elements of the training programmes, knowledge and skills required at national level (or considered relevant by EU/EEA/International stakeholders) reflecting generally acknowledged scientific and technical progress

	Elements of the training programme	Knowledge and skills
SCIENTIFIC ADVANCEMENTS	Comprehensive midwifery care	
	<ul style="list-style-type: none"> • Mental health 17 countries + EFNNMA <i>EU: AT, BE, DE, DK, EE, EL, ES, FR, HU, IE, IT, LV, MT, NL, PL, PT; EEA/EFTA: CH</i> • Respectful and special needs care 17 countries + EFNNMA, EMA <i>EU: AT, BE, DE, EL, HR, HU, IE, IT, MT, NL, PL, PT, RO, SE, SI; EEA/EFTA: CH, NO</i> 	
	Health promotion, prevention and control	
	<ul style="list-style-type: none"> • Public health 16 countries + EMA <i>EU: AT, BE, CY, DE, EE, EL, FR, HR, HU, IE, IT, LV, MT, PL, SI; EEA/EFTA: CH</i> 	
	Midwifery education and training methods	
	<ul style="list-style-type: none"> • Evidence-based practice and research 21 countries + EFNNMA <i>EU: AT, BE, CY, DE, DK, EL, ES, FI, HR, IE, IT, LT, LU, MT, NL, PL, PT, SE, SI; EEA/EFTA: CH, NO</i> • Inter/multidisciplinary and soft skills 20 countries + EFNNMA, EMA <i>EU: AT, BE, CY, DE, DK, EE, HR, HU, IE, IT, LV, LU, MT, NL, PL, PT, RO, SI; EEA/EFTA: CH, NO</i> 	<ul style="list-style-type: none"> • Evidence-based practice and research 18 countries + EFCNI, EFNNMA, EMA <i>EU: AT, DE, DK, EE, EL, ES, FI, FR, IE, IT, LT, LU, LV, NL, SE, SI; EEA/EFTA: IS, NO</i> • Inter/multidisciplinary and soft skills 17 countries + EFCNI, EMA, ICM <i>EU: AT, BE, DE, DK, EE, EL, ES, FI, IE, LT, LU, LV, NL, PL, SE, SI; EEA/EFTA: NO</i>
	Gynaecology and reproduction	
	<ul style="list-style-type: none"> • Gynaecological care 18 countries <i>EU: AT, BE, BG, EL, ES, FI, FR, HR, HU, IE, IT, NL, PL, PT, RO, SE, SI; EEA/EFTA: NO</i> 	<ul style="list-style-type: none"> • Sexual and reproductive health and rights 18 countries

TECHNICAL ADVANCEMENTS	<ul style="list-style-type: none"> • Sexual and reproductive health and rights 20 countries + EFNNMA <i>EU: AT, BE, DE, DK, EE, EL, ES, FI, FR, HR, IE, IT, LU, NL, PL, PT, SE, SI; EEA/EFTA: CH, NO</i> 	<i>EU: AT, CZ, DE, DK, EE, EL, ES, FI, FR, HU, IE, IT, LU, NL, PL, PT, SE; EEA/EFTA: NO</i>
	Obstetrics and childbirth	
	<ul style="list-style-type: none"> • Obstetrics 20 countries <i>EU: AT, BE, BG, CY, DE, EE, EL, ES, FI, FR, HR, HU, IE, IT, LV, NL, PL, PT, SE; EEA/EFTA: CH, NO)</i> 	<ul style="list-style-type: none"> • Obstetrics 18 countries <i>EU: AT, BE, CZ, DE, DK, EE, EL, ES, FR, IT, LT, LU, LV, NL, PL, PT, SE; EEA/EFTA: NO</i>
	Neonatal and paediatric health	
	<ul style="list-style-type: none"> • Neonatology (and high-risk newborns) 16 countries + EFCNI <i>EU: AT, BE, DE, EL, FI, FR, HR, HU, IE, IT, NL, PT, RO, SE, SI; EEA/EFTA: CH</i> 	
Digital health		
<ul style="list-style-type: none"> • E-Health and digital technologies 16 countries + EFCNI, EMA <i>EU: AT, BE, BG, DE, EL, FI, IE, IT, LV, MT, PL, PT, RO, SI; EEA/EFTA: CH, NO</i> 		

Finally, it should be mentioned that certain scientific and technical advancements reflected in elements of the training programme, knowledge and skills across the countries, did not reach the minimum threshold of 16 countries. Nevertheless, they deserve recognition. These are scientific and technical advancements which were identified as being reflected in elements of the training programme, knowledge and skills of at least 10 countries and therefore are close to be regarded as generally acknowledged.

Table 4: Elements of the training programme, knowledge and skills required at national level (or considered relevant by EU/EEA/International stakeholders) reflecting scientific and technical advancements and identified in 10 – 15 countries

	Elements of the training programme	Knowledge and skills
SCIENTIFIC ADVANCEMENTS	Comprehensive midwifery care	
	<ul style="list-style-type: none"> • Midwifery-led care model 10 countries + EFNNMA <i>EU: AT, DE, EE, HR, IE, IT, LV, NL, SI;</i> <i>EEA/EFTA: NO</i> 	<ul style="list-style-type: none"> • Respectful and special needs care 14 countries + EFNNMA, EMA, ICM <i>EU: AT, BE, DE, EE, EL, FR, HU, IE, IT, LT, MT, NL, PL, SE</i> • Patient (women) centred care 10 countries <i>EU: AT, CZ, DK, EE, HU, IE, IT, NL, SE;</i> <i>EEA/EFTA: NO</i>
	Health promotion, prevention and control	
	<ul style="list-style-type: none"> • Medicines prescription and administration 13 countries + EFNNMA <i>EU: AT, BE, DE, EE, FR, HU, IE, IT, MT, NL, PL, RO; EEA/EFTA: CH</i> • Physical therapy and (re)education 10 countries <i>EU: AT, BE, ES, FR, HR, IT, LU, MT, PL, PT</i> 	<ul style="list-style-type: none"> • Public health 12 countries + EFCNI, EMA <i>EU: AT, BE, DK, EL, ES, IE, LT, LU, NL, PL, SE;</i> <i>EEA/EFTA: NO</i>
	Midwifery education and training methods	
	<ul style="list-style-type: none"> • Simulation based education 13 countries + EFCNI, EFNNMA, EMA <i>EU: AT, BE, DE, EL, FR, HU, IE, LV, LU, MT, NL, PL, SI</i> • Basic medical sciences 14 countries <i>EU: AT, BE, CZ, DE, FR, HR, HU, IT, NL, PL, PT, RO, SI; EEA/EFTA: CH</i> 	<ul style="list-style-type: none"> • Simulation based education 12 countries + EFCNI, EMA <i>EU: AT, DK, EE, HU, IE, LT, LU, LV, PL, PT, SK; EEA/EFTA: NO</i>
	Obstetrics and childbirth	
	<ul style="list-style-type: none"> • Childbirth 	

TECHNICAL ADVANCEMENTS	<p>15 countries <i>EU: AT, BE, DE, EE, FR, HU, IE, IT, MT, NL, PT, RO, SE, SI; EEA/EFTA: CH</i></p>	
	Neonatal and paediatric health	
	<ul style="list-style-type: none"> Care of the newborn 10 countries <i>EU: AT, DE, EE, FI, HU, IE, NL, PT, SI; EEA/EFTA: CH</i> 	
	Quality assurance and patient safety	
	<ul style="list-style-type: none"> Critical care situations and emergency situations 13 countries <i>EU: AT, BE, CZ, DE, EE, EL, HU, IE, IT, LV, PL, PT, SI; EEA/EFTA: CH</i> 	
	Digital health	
	<ul style="list-style-type: none"> E-health and digital technologies 11 countries + EFNNMA, EMA <i>EU: AT, DE, DK, EE, HU, IE, IT, LV, MT, PL; EEA/EFTA: NO</i> 	
Technologies and screening		
<ul style="list-style-type: none"> Screening and diagnostics 14 countries + EFCNI, EMA <i>EU: AT, BE, BG, DE, ES, HU, IT, MT, NL, PL, PT, SI; EEA/EFTA: CH, NO</i> 	<ul style="list-style-type: none"> Screening and diagnostics 10 countries + EMA <i>EU: AT, CZ, EE, ES, IE, IT, LU, NL, PL, SE</i> 	

4. Assessment of the identified generally acknowledged advancements under the current provisions of the Directive

Having identified the categories of generally acknowledged scientific and technical progress, the next step is to assess whether these advancements are adequately addressed in the current text of the Directive. Each main and subcategory of scientific and technical progress that has reached the threshold of at least 16 countries will be evaluated. Specifically, the advancements related to elements of the training programme and knowledge and skills will be assessed to determine if updates to the Directive are required. The table below shows the main topics within the generally acknowledged advancements, organised into elements of the training programme and knowledge and skills, which will be assessed against the Directive.

Table 5: Main categories of topics (as defined by the Study Team) within the generally acknowledged advancements to be assessed against the Directive

	Elements of the training programme	Knowledge and Skills
SCIENTIFIC ADVANCEMENTS	Comprehensive midwifery care	
	<ul style="list-style-type: none"> • Mental health • Respectful and special needs care 	
	Health promotion, prevention and control	
	<ul style="list-style-type: none"> • Public health 	
	Midwifery education and training methods	
	<ul style="list-style-type: none"> • Evidence-based practice and research • Inter/multidisciplinary and soft skills 	<ul style="list-style-type: none"> • Evidence-based practice and research • Inter/multidisciplinary and soft skills
	Gynaecology and reproduction	
	<ul style="list-style-type: none"> • Gynaecological care • Sexual and reproductive health and rights 	<ul style="list-style-type: none"> • Sexual and reproductive health and rights
	Obstetrics and childbirth	
	<ul style="list-style-type: none"> • Obstetrics 	<ul style="list-style-type: none"> • Obstetrics
	Neonatal and paediatric health	
	<ul style="list-style-type: none"> • Neonatology (and high-risk newborns) 	

TECHNICAL ADVANCEMENTS	Digital health	
	<ul style="list-style-type: none"> E-Health and digital technologies 	

Having identified the categories of generally acknowledged scientific and technical progress, the next step is to assess whether these advancements are already (sufficiently) provided for by the current text of the Directive. Each main category defined by the Study Team for the purpose of this Study and each relevant topic within such category that reached the threshold of at least 16 countries was assessed.

4.1. Scientific advancements

- **Mental health (reflected in elements of the training programme of 17 countries) - More emphasis needed**

The Directive does not include an explicit reference to mental health within midwifery training. The Directive partially covers mental health elements through general references in Article 40(3)(c), which includes knowledge of the relationship between health and the physical and social environment, and Annex V point 5.5.1 lists ‘Psychology’ and ‘Psychological and social factors’, however, it lacks explicit references to crucial aspects such as perinatal mental health, psychological support during childbirth, and the management of mental health disorders during the perinatal period. In several countries, these aspects – e.g., perinatal mental health, perinatal care, perinatal bereavement, and psychosocial and spiritual support – were noted as being integrated within the subjects (e.g. ES, HU, IT, LV, MT, PL, PT) and/or the knowledge and skills taught under the training curricula (e.g., EE, ES, IE). During the consultation, stakeholders, including the International Confederation of Midwives (ICM), have advocated for incorporating care for women experiencing pregnancy loss and increased attention to maternal mental health, while literature by Higgins, Carroll, and Sharek (2016)⁷ also highlights the gap in midwives' knowledge and skills to support women's' mental health effectively.

Therefore, in Annex V point 5.5.1 Part A, it is suggested to modify the subjects to 'Psychology' to include 'perinatal mental health', and 'Preparation for childbirth and parenthood' to include 'psychological and perinatal mental health support aspects'.

⁷ Agnes Higgins, Margaret Carroll, and Danika Sharek, "Impact of perinatal mental health education on student midwives' knowledge, skills and attitudes: A pre/post evaluation of a module of study." (2016), *Nurse education today* 36 364-369, available at: <https://www.sciencedirect.com/science/article/abs/pii/S0260691715003810> , (last accessed 18 July 2024).

- **Respectful and special needs care (reflected in elements of the training programme of 17 countries) – More emphasis needed**

The Directive includes some aspects related to respectful and special needs care indirectly through general references. For instance, Article 40(3)(b) ensures 'adequate knowledge of the ethics of the profession and the legislation relevant for the practice of the profession', and Annex V point 5.5.1 includes 'Psychological and social factors', 'Professional ethics and professional legislation', 'Health and social legislation and health organisation', and 'Care of women with pathological conditions in the fields of gynaecology and obstetrics'. However, the Directive does not explicitly cover some key areas such as intercultural competences, diversity, care for women with physical and mental disabilities, chronic diseases, concerned by substance misuse, or care for women experiencing (or having experienced) physical and/or sexual, including obstetric, violence.

In several countries, certain of these aspects were noted as being integrated within the subjects (e.g., BE, CH, DE, IE, PL, RO, SE) and/or the knowledge and skills taught under the midwifery training curricula (e.g., BE, EE, IE, SE); However, none of these specific aspects related to respectful and special needs care, reached the threshold of 16 countries. Stakeholders, including the International Confederation of Midwives (ICM) and the European Midwives Association (EMA), have emphasised the need for strengthening training on cultural competences and diversity, adapting training programs to demographic changes, and enhancing care for women experiencing chronic diseases or those from vulnerable populations.

Literature also supports these needs, highlighting the importance of cultural competence⁸, awareness of gender-based violence and female genital mutilation (FGM)⁹, and addressing the specific healthcare needs of vulnerable categories of women (e.g., with disabilities, substance misuse issues, etc).¹⁰ While Annex 5.5.1 includes 'Care of women with pathological conditions

⁸ Berta De-María, Gabriela Topa, and M. Angeles López-González. "Cultural competence interventions in European healthcare: a scoping review." (2024) *Healthcare* 12 10, available at: <https://www.mdpi.com/2227-9032/12/10/1040>, (last accessed 18 July 2024).

⁹ María Reig Alcaraz, José Siles González, and C. Solano Ruiz. "Attitudes towards female genital mutilation: an integrative review." (2014) *International nursing review* 61.1 25-34, available at: <https://onlinelibrary.wiley.com/doi/abs/10.1111/inr.12070> (last accessed 18 July 2024).

¹⁰ Hanneke Harmsen van der Vliet – Torij et al "Equipping future professionals in supporting pregnancy, childbirth, and parenthood with a physical disability." (2023) *European Journal of Midwifery* 7.Supplement 1, available at: <https://www.europeanjournalofmidwifery.eu/Equipping-future-professionals-in-supporting-pregnancy-childbirth-and->

in the fields of gynaecology and obstetrics', which may cover some of these aspects, a more emphasis on this area is recommended to ensure comprehensive training.

Given the wide range of specific subtopics encompassed by respectful care, and not sufficient number of countries reflecting each of these issues in the curricula (such as diversity, interculturalism, gender-based violence) it is considered fitting to integrate some general wording on respectful and special needs care into the subjects of Annex V point 5.5.1. This approach aligns with the Directive's existing provisions, such as those found in Article 40(3)(c), which discuss the connection between health and various environmental factors. This ensures that midwives are thoroughly trained to address the diverse and changing needs of the communities they serve, thereby enhancing their ability to provide respectful and dignified care to all individuals, including those who are vulnerable or survivors of physical and sexual violence.

Based on these considerations, in Annex V point 5.5.1 Part A: Theoretical and technical instruction, it is suggested to modify the elements of the training programme by adding 'including respectful care for women with special needs' to 'Psychological and social factors'.

- **Public health (reflected in elements of the training programme of 16 countries) – More emphasis needed**

The Directive includes aspects related to public health indirectly through general references. For example, Article 40(3)(c) mentions the importance of understanding the relationship between health and the physical and social environment, which touches on public health principles. However, the Directive does not explicitly cover many important areas of public health relevant to midwifery, such as community health care, epidemiology, health promotion, and public health strategies.

In several countries, public health aspects are integrated into the knowledge and skills required in the curricula (e.g., AT, BE, EL, ES, IE, LV, LU, NL, NO, PL). However, none of these specific aspects reached the threshold of 16 countries.

[parenthood,172263,0,2.html](#) , (last accessed 18 July 2024). ; Gemma Doleman, Sadie Geraghty, and Annemarie DeLeo. "Midwifery student's perceptions of caring for substance-using pregnant women." (2019) Nurse education today 76 26-30, available at: <https://www.sciencedirect.com/science/article/abs/pii/S0260691719301790> , (last accessed 18 July 2024).

Nevertheless, in terms of elements of the training programme, in some countries, essential public health components such as health promotion, preventive healthcare, epidemiology, and community engagement are comprehensively integrated into midwifery training programmes. For example, AT includes modules on preventive medicine, evaluation of health systems and maternity services, and midwife activities in health promotion. EE incorporates community work and primary healthcare, public health coursework, and primary healthcare practices within their curricula. PL emphasises preventive medicine in gynaecology of developmental age, health promotion, and the prevention and prophylaxis of different diseases. SI covers aetiology, community health care, preventive medicine, and the prevention and prophylaxis of various diseases. LV integrates public health and community engagement alongside simulation-based clinical practice and exchange projects with other countries. DE addresses the promotion of health outcomes during the preconception, pregnancy, birth, and post-partum periods, including newborn care, as well as cultural competence and bioethics. FR focuses on prevention and health promotion to enhance health outcomes across the perinatal continuum. Additionally, HU includes training on health and social legislation, health organisation, hygiene, and epidemiology. Finally, AT, CH, DE, FR and IE offer public health and health promotion modules.

Literature supports these needs, highlighting that midwives play a crucial role in public health by providing surveillance, support throughout preconception and pregnancy, education, reducing unnecessary interventions, and promoting breastfeeding and best parenting practices. These actions have significant positive outcomes on community health, maternal and family health, and the organisation of care, thereby enhancing health prevention and reducing mortality rates.¹¹

It is recommended to amend the existing element 'Hygiene, health education, preventive medicine, early diagnosis of diseases' in Part A of the training programme to 'Public health (including hygiene, health promotion and education, preventive medicine, early diagnosis of diseases)'. This recommendation is also supported by the input from multiple countries that have specifically indicated 'Public Health' (e.g., AT, EE, IE, LV) and/or 'Health Promotion' (e.g., AT, IE, DK, PL) should be incorporated in the subjects of national training programmes.

¹¹ Jenny McNeill, et al. "Public health education for midwives and midwifery students: a mixed methods study." (2012) BMC Pregnancy and Childbirth 12: 1-9, available at: <https://link.springer.com/content/pdf/10.1186/1471-2393-12-142.pdf>, (last accessed 18 July 2024).

- **Evidence-based practice and research (reflected in elements of the training programme of 21 countries and in knowledge and skills of 18 countries) – More Emphasis Needed**

Many countries have integrated evidence-based practice and research into their midwifery curricula, highlighting its importance as a core component of training programs (e.g., CH, CY, DK, IE, NL, NO, PT). Additionally, knowledge and skills related to evidence-based midwifery practice are emphasised in the training curricula of numerous countries (e.g., AT, EE, EL, FR, IS, NL, NO, SE). However, the Directive's current provisions on this topic, such as Article 40(3)(a), which ensures "detailed knowledge of the sciences on which the activities of midwives are based," and Annex V, point 5.5.1, which includes 'Principles and methods of teaching,' do not explicitly address the full scope of evidence-based practice and research. While these provisions lay the groundwork by ensuring midwives understand and apply scientific knowledge, they fall short of comprehensively covering the breadth of evidence-based practice and research as it is increasingly recognised in the field.

Our research indicates that many countries have proactively included midwifery research/science in their training programs, responding to scientific and technical advancements. Given that evidence-based practice is a critical aspect of modern healthcare, and its importance is acknowledged by the majority of EU/EFTA States, there is a strong rationale for improving the emphasis on evidence-based practice in the Directive. This could be achieved by explicitly incorporating evidence-based practice and research into the training requirements under Annex V.

Considering this, it is recommended to amend Article 40(3)(a) to include 'detailed knowledge of the sciences on which the activities of midwives are based, particularly midwifery, obstetrics and gynaecology, sexual and reproductive health, including the application of evidence-based midwifery practice'. Moreover, in Annex V, point 5.5.1 Part A: Theoretical and technical instruction, it is suggested to add 'Evidence-based midwifery practice and research'.

- **Inter/multidisciplinary and soft skills (reflected in elements of the training programme of 20 countries and in knowledge and skills of 17 countries) – More emphasis needed**

The Directive includes some aspects related to inter/multidisciplinary and soft skills. Article 40(3)(e) mentions 'adequate understanding of the training of health personnel and experience of working with such personnel', which touches on collaboration and teamworking with other health professionals. Annex V point 5.5.1 does not, however, include any elements that address inter/multidisciplinary skills or soft skills.

These aspects – e.g., interprofessional collaboration, communication skills, critical thinking, and leadership – were noted by several stakeholders as being integrated within the elements of the training programme (e.g., AT, BE, CH, DE, DK, HR, IE, LV, PT, RO, SI) and/or the knowledge and skills taught under national training curricula (e.g., BE, EFCNI, EL, IE, LV, NL, NO, PL). Literature emphasised the importance of including these skills in midwifery training, highlighting that soft skills such as effective communication, teamwork, and critical thinking are crucial for ensuring high-quality care and effective interdisciplinary support for women. These skills complement technical and clinical skills and are essential for midwives to effectively collaborate with other healthcare providers and support patients.¹²

Based on these considerations, it is recommended to amend Article 40(3) to add principles of interprofessional collaboration and soft skills to (e) ‘adequate understanding of the training of health personnel and experience of working with such personnel’. Additionally, in Annex V point 5.5.1 Part A: Theoretical and technical instruction, it is suggested to add ‘Communication and inter-personal and professional collaboration’.

■ **Gynaecological care (reflected in elements of the training programme of 18 countries) – Sufficiently covered**

Elements of gynaecological care (including e.g., gynaecological oncology, endometriosis etc) were noted as important elements of training programmes in several countries (e.g., AT, BE, EE, EL, ES, HU, FR, IT, NL, PL, SE, SI). While preventive care related to cancer is emphasised by some countries, it is not explicitly mentioned in the Directive. However, these aspects, including preventive care in general and broader gynaecological issues, are generally covered under the Directive. Article 40(3)(a) provides ‘detailed knowledge of the sciences on which the activities of midwives are based, particularly midwifery, obstetrics, and gynaecology’. Additionally, Annex V point 5.5.1 includes ‘Gynaecological and obstetrical pathology’ and ‘Care of women with pathological conditions in the fields of gynaecology and obstetrics’. These references in principle cover, depending on the national legal framework, crucial areas necessary for comprehensive midwifery training, such as specific gynaecological conditions, oncology, and preventive care. Based on these considerations, and the fact that specific elements of this broad category (such as preventive care related to cancer) have not reached

¹² Škodová, Zuzana. "Communication and interpersonal skills enhancement in midwifery." *Central European Journal of Nursing and Midwifery* 7.3 (2016): 504-510, available at: https://www.researchgate.net/publication/307868062_Communication_and_interpersonal_skills_enhancement_in_midwifery_Review, (last accessed 18 July 2024).

the threshold of 16 countries, the Study Team considered that it is not justified to suggest changes to the Directive in this area. In view of the Study Team, the Directive sufficiently covers the essential elements of gynaecological care and ensures that midwives acquire the necessary knowledge and skills to manage a wide range of gynaecological conditions and preventive care measures.

- **Sexual and reproductive health and rights (reflected in elements of the training programme of 20 countries and in knowledge and skills of 18 countries) - More emphasis needed**

The Directive does not explicitly reference several key components of sexual and reproductive health and rights (SRHR), reflecting a fragmented approach to this area. Article 40(3) of the Directive ensures midwives are well-versed in foundational sciences (a), understand the ethical and legal contexts of midwifery (b), and possess broad medical knowledge emphasising the interconnectedness of health, physical conditions, and social factors (c). Annex 5.5.1 also includes 'Sex education and family planning' and 'Legal protection of mother and infant' within the elements of the training programme. However, while these provisions cover some aspects of sexual and reproductive health, they do not comprehensively address all the necessary components. Key elements such as contraception counselling, infertility services, assisted reproduction, and comprehensive sexual education are not explicitly covered in the Directive.

The training curricula assessed by the Study Team covered both theoretical and practical aspects, such as infertility (SE, IE, IT), medically assisted procreation (BE, IT), preconception counselling (DE, SE, PT), and sexual dysfunctions and fertility problems (PT), with practical training in specialist clinics (IT). In some countries, there is a strong emphasis on reproductive rights, ethics, and human rights (DE, SE), along with practical skills in contraception counselling (DE, SE, CH, FR), anticonception (NL), contraceptive use (EE), hormonal prescription (NO), and the insertion of long-acting contraceptives (NO, FR). Certain curricula also explore social debates around reproduction (PL), reproductive medicine (SE), and the promotion of sexual and reproductive health (FI), ensuring midwives are equipped with the knowledge and skills to support diverse reproductive health needs, including gender diversity (FI). In some countries, special attention is given to reproductive health nursing (PT) and reproductive health and rights (NO, NL, PT, SE, FR). The Study Team also notes that some countries are currently working on the development of new laws in this area (ES, PL) and a deeper understanding of the physiological aspects of reproductive health (CZ, NL). These developments should be closely followed as any changes to the legal frameworks and curricula could affect the final findings of this Study. Literature supports the importance of these areas, emphasising that preconception care, family planning, and sexual health are fundamental for promoting health

and well-being.¹³ The role of midwives in providing comprehensive sexual and reproductive health services depends on the legal framework and regulations in the respective EU/EEA country.

Given the wide range of specific subtopics encompassed by sexual and reproductive health, and the fact that not a sufficient number of countries reflect each of these issues in their curricula (such as contraception counselling, infertility services, assisted reproduction, and comprehensive sexual education), it is considered fitting to integrate some general wording on sexual and reproductive health into the minimum training requirements under the Directive. This approach aligns with the Directive's existing provisions, such as those found in Article 40(3)(c), which emphasise the importance of general medical knowledge (including biological functions, anatomy, physiology, and pharmacology in obstetrics and newborn care).

Based on these considerations, it is recommended to amend Article 40(3)(a) to add 'reproductive health'. Additionally, in Annex V point 5.5.1 Part A: Theoretical and technical instruction, it is suggested to amend 'Sex education and family planning' to include 'Sexual & reproductive health, education and family planning (including contraception and pre-conception care)'.

- **Obstetrics (reflected in elements of the training programme of 20 countries and in knowledge and skills of 18 countries) – Sufficiently covered**

Even though many countries have listed obstetric methods, prenatal care, and diagnostics as important elements of their training programmes, these aspects are already comprehensively covered by the Directive. For example, in several countries, these aspects – e.g. obstetric methods, prenatal care and diagnostics, clinical practice in obstetrics – were noted as being integrated within the elements of the training programme (e.g., AT, EL, FI, HU, IT, NO) and the knowledge and skills, such as obstetric techniques and prenatal care (e.g., LU, NO, PL, SE). Nevertheless, the advancement of obstetrics within midwifery training is sufficiently covered under Article 40(3)(a), which ensures that midwives acquire detailed knowledge in midwifery,

¹³ Woet L Gianotten, Eva Wendt, and Ana Polona Mivšek. "Midwifery of the future; A widening field of competences." (2023) *Midwifery and Sexuality Cham*: Springer International Publishing 355-368, available at: https://link.springer.com/chapter/10.1007/978-3-031-18432-1_30 (last accessed 18 July 2024).

¹³ Sanna-Mari Manninen et al. "Medical and midwifery students need increased sexual medicine education to overcome barriers hindering bringing up sexual health issues—A national study of final-year medical and midwifery students in Finland." (2022) *European Journal of Obstetrics & Gynecology and Reproductive Biology* 279: 112-117, available at: <https://www.sciencedirect.com/science/article/pii/S030121152200570X> (last accessed 18 July 2024).

obstetrics, and gynaecology, along with Article 40(3)(d) which provides for adequate clinical experience gained in approved institutions, allowing midwives to manage antenatal care, conduct deliveries, and provide postnatal care.

Furthermore, Annex 5.5.1 further details elements of the training program in Part A, such as 'Gynaecological and obstetrical pathology,' 'Care for women with pathological conditions in the fields of gynaecology and obstetrics,' and 'Preparation for delivery, including knowledge and use of technical equipment in obstetrics'. Part B also refers to practical training elements, including 'advising pregnant women', 'conducting at least 40 deliveries', 'active participation in breech deliveries', and 'performance of episiotomy and suturing'. Therefore, the current provisions ensure that midwives are well-equipped to handle a wide range of obstetric situations, indicating that the advancement of obstetrics in midwifery training is sufficiently covered.

- **Neonatology (and high-risk newborns) (reflected in elements of the training programme of 16 countries) – More emphasis needed**

The analysis of the Directive's provisions on neonatology and care for high-risk newborns indicates that more emphasis is needed in this area. Annex 5.5.1 details elements of the training programme related to neonatology, including PART A: 'Physiology and pathology of the new-born infant', 'Care and supervision of the new-born infant', 'Observation and care of the new-born requiring special care, including those born pre-term, post-term, underweight or ill'. Despite these inclusions, the Directive's current provisions may not sufficiently cover the comprehensive needs for training midwives in the special care of neonatology and high-risk newborn care. In multiple countries, aspects such as care for neonatal care units, neonatal resuscitation emergencies, and specific internships in neonatology are integrated within the elements of the training programme (e.g., EL, HU, IE, PT). To ensure midwives are well-equipped to handle neonatology and high-risk newborn situations, it is recommended to incorporate specific terminology changes and additional elements into the Directive.

It is recommended to incorporate 'Basics of neonatology' as a standalone subject to Annex V point 5.5.1 (Part A) of the Directive. Additionally, 'Physiology and pathology of the new-born infant' and 'Care and supervision of the new-born infant' listed in Part A should explicitly include 'high-risk' newborns. Finally, the Part B element 'Observation and care of the new-born requiring special care, including those born pre-term, post-term, underweight or ill' should be updated to include reference to high-risk newborns.

4.2. Technical advancements

- **E-Health and digital technologies (reflected in elements of the training programme of 16 countries) – Not covered**

The Directive does not explicitly address e-health and digital technologies. Article 40(3) provides a comprehensive framework for midwifery training, ensuring knowledge in various medical and ethical areas but does not specifically mention digital competencies or e-health technologies. Additionally, Annex V point 5.5.1 covers numerous subjects necessary for midwifery training but lacks explicit references to digital health, electronic health records (EHRs), or other relevant technologies.

The stakeholder consultation showed that training curriculum in e-health and digital technologies spans a wide range of competencies, focusing on both the theoretical and practical integration of digital tools in healthcare. It includes topics such as e-health innovation (BE), e-health competencies for basic training (DE), and the use of digital health in social media (IT). There is a strong focus on health care information systems (PL) ensuring midwives are equipped to handle new healthcare technologies (CH, DE) and maintain principles of data security, privacy, and confidentiality. Practical applications include antenatal classes supported by digital tools (IT), user-oriented wellbeing technology (FI), and maternity care basics integrated with healthcare information systems (PL). Additionally, the curriculum includes training in informatics and modern healthcare tools (AT, BG), and communication skills enhanced by digital records (IE). Knowledge and skills development in this area includes proficiency in digital health technologies and patient care documentation (EE, IE, PL), utilisation of digital health and technology (EFNNMA, EE, DE, IT, MT, NO), and the implementation of e-health solutions directly in patient care (AT). Midwives are trained to handle profession-relevant technology and integrate it into their practice (DK), with a focus on enhancing data management and protection, as well as using assistive technology and social media for professional purposes (IE). There is also emphasis on digital health apps (HU), electronic health records (HU), and e-learning activities to further enhance their skills (LV). Literature emphasises the benefits of EHRs, such as improved accuracy of patient data, better coordination of care, and support for evidence-based practice. However, challenges such as privacy concerns and

the integration of technology into existing healthcare practices highlight the need for dedicated training in this area.¹⁴

To address this gap, it is recommended to update both Article 40(3) and Annex V point 5.5.1. to ensure a comprehensive and consistent emphasis on the importance of digital health technologies. While advancements were primarily observed in the elements of the training programme, including digital skills in Article 40(3) underscores the critical role of technology in modern midwifery, ensuring the Directive remains forward-looking and relevant across diverse contexts.

Specifically, it is suggested to add a new letter to Article 40(3) to include 'Adequate knowledge of IT and digital technology, and the skills for their practical application in the midwifery domain'. Moreover, 'Digital technology in midwifery' should be included under Annex V, point 5.5.1 Part A.

5. Preliminary suggestions to update the Directive

The table below lists the preliminary suggestions from the Study Team to update the EU-level minimum training requirements to generally acknowledged evolution of the midwifery profession in the scientific and technical field on the basis of the outcomes of the desk research and stakeholder consultations.

¹⁴ Joeri Vermeulen and Victoria G. Vivilaki. "A value-based philosophy debate on academic midwifery education in Europe." (2021) European Journal of Midwifery 5.November: 1-3, available at: <https://www.europeanjournalofmidwifery.eu/A-value-based-philosophy-debate-on-academic-midwifery-education-in-Europe,143528,0,2.html> , (last accessed 18 July 2024); Vickery et al., 'Midwives' Views towards Women Using mHealth and eHealth to Self-Monitor Their Pregnancy'.

Table 6: Preliminary suggestions on how to update the Directive

Elements of the training programme	Knowledge and skills
SCIENTIFIC PROGRESS	
Comprehensive midwifery care	
<p>Updates to Annex V point 5.5.1.:</p> <p>Mental health</p> <p><i>Updates to element PART A – Theoretical and technical instruction - General subjects</i></p> <ul style="list-style-type: none"> To add (including perinatal mental health) to Psychology → 'Psychology (including perinatal mental health)'; <p><i>Updates to element PART A – Theoretical and technical instruction – Subjects specific to the activities of midwives</i></p> <ul style="list-style-type: none"> To add including psychological and perinatal mental health support aspects to 'Preparation for childbirth and parenthood, including psychological aspects' → 'Preparation for childbirth and parenthood, including psychological and perinatal mental health support aspects'. <p>Respectful and special needs care</p>	<p>Mental health</p> <p>No updates</p> <p>Respectful and special needs care</p> <p>No updates</p>

<p><i>Updates to element PART A – Theoretical and technical instruction - Subjects specific to the activities of midwives</i></p> <ul style="list-style-type: none"> To add ‘(including respectful care for women with special needs)’ to ‘Psychological and social factors’ → ‘Psychological and social factors (including respectful care for women with special needs)’. 	
Health promotion, prevention and control	
<p>Public health</p> <p><i>Updates to element PART A – Theoretical and technical instruction - General subjects</i></p> <ul style="list-style-type: none"> To add ‘Public health (including ...)’, and ‘health promotion’ to ‘Hygiene, health education, preventive medicine, early diagnosis of diseases’ → ‘Public Health (including hygiene, health promotion and education, preventive medicine, early diagnosis of diseases)’; 	<p>Public health</p> <p>No updates</p>
Midwifery education and training methods	
<p>Evidence-based practice and research</p> <p><i>Updates to element PART A – Theoretical and technical instruction - General subjects</i></p> <ul style="list-style-type: none"> To add ‘Evidence-based midwifery practice and research’. 	<p>Evidence-based practice and research</p> <p><i>Additions to Article 40(3)(a):</i></p> <ul style="list-style-type: none"> To add ‘including the application of evidence-based midwifery practice’ → ‘detailed knowledge of the sciences on which the activities of midwives are based, particularly midwifery, obstetrics and gynaecology, including the application of evidence-based midwifery practice;’.

<p>Inter/multidisciplinary and soft skills</p> <p><i>Updates to element PART A – Theoretical and technical instruction - General subjects</i></p> <ul style="list-style-type: none"> To add ‘Communication and inter-personal and professional collaboration’. 	<p>Inter/multidisciplinary and soft skills</p> <p><i>Additions to Article 40(3)(e):</i></p> <ul style="list-style-type: none"> To add ‘including principles of interprofessional collaboration and soft skills’ → ‘adequate understanding of the training of health personnel and experience of working with such personnel, including principles of interprofessional collaboration and soft skills’.
<p>Gynaecology and reproduction</p>	
<p>Sexual and reproductive health and rights</p> <p><i>Updates to element PART A – Theoretical and technical instruction - General subjects</i></p> <ul style="list-style-type: none"> To amend ‘Sex education and family planning’ and add ‘Sexual & reproductive health’ as well as ‘(including contraception and pre-conception care)’ → ‘Sexual & reproductive health, education and family planning (including contraception and pre-conception care)’. 	<p>Sexual and reproductive health and rights</p> <p><i>Additions to Article 40(3)(c):</i></p> <ul style="list-style-type: none"> To add ‘reproductive health’ → ‘adequate knowledge of general medical knowledge (biological functions, anatomy and physiology), reproductive health and of pharmacology in the field of obstetrics and of the newly born, and also knowledge of the relationship between the state of health and the physical and social environment of the human being, and of his behaviour;’.
<p>Neonatal and paediatric health</p>	
<p>Neonatology (and high-risk newborns)</p> <p><i>Additions to element PART A – Theoretical and technical instruction - Subjects specific to the activities of midwives</i></p>	<p>Neonatology (and high-risk newborns)</p> <p>No updates</p>

<ul style="list-style-type: none"> ▪ To add '(high-risk)' in 'Physiology and pathology of the newborn infant' → Physiology and pathology of the (high-risk) new-born infant ▪ To add '(high-risk)' in 'Care and supervision of the new-born infant' → Care and supervision of the (high-risk) new-born infant <p><i>To add to element PART A – Theoretical and technical instruction – Subjects specific to the activities of midwives</i></p> <ul style="list-style-type: none"> ▪ Basics of neonatology <p><i>Updates to element PART B - Practical and clinical training</i></p> <ul style="list-style-type: none"> ▪ To add 'or otherwise high-risk' in 'Observation and care of the new-born requiring special care, including those born pre-term, post-term, underweight or ill' → Observation and care of the new-born requiring special care, including those born pre-term, post-term, underweight or ill, or otherwise high-risk. 	
TECHNICAL PROGRESS	
Digital health	
<p>E-Health and digital technologies</p> <p><i>To add to element PART A – Theoretical and technical instruction - General subjects</i></p> <ul style="list-style-type: none"> ▪ Digital technology in midwifery 	<p>E-Health and digital technologies</p> <p><i>To be newly added to the list of Article 40(3) as a new letter (g):</i></p> <ul style="list-style-type: none"> ▪ Adequate knowledge of IT and digital technology, and the skills for their practical application in the midwifery domain

Annex I: Extracts from the currently applicable consolidated version of Directive 2005/36/EC¹⁵

Article 40(3) - The training of midwives

3. Training as a midwife shall provide an assurance that the professional in question has acquired the following knowledge and skills:

- (a) detailed knowledge of the sciences on which the activities of midwives are based, particularly midwifery, obstetrics and gynaecology;
- (b) adequate knowledge of the ethics of the profession and the legislation relevant for the practice of the profession;
- (c) adequate knowledge of general medical knowledge (biological functions, anatomy and physiology) and of pharmacology in the field of obstetrics and of the newly born, and also knowledge of the relationship between the state of health and the physical and social environment of the human being, and of his behaviour;
- (d) adequate clinical experience gained in approved institutions allowing the midwife to be able, independently and under his own responsibility, to the extent necessary and excluding pathological situations, to manage the antenatal care, to conduct the delivery and its consequences in approved institutions, and to supervise labour and birth, postnatal care and neonatal resuscitation while awaiting a medical practitioner;
- (e) adequate understanding of the training of health personnel and experience of working with such personnel.’;

Point 5.5.1 of Annex V - Training programme for midwives (Training types I and II)

A. Theoretical and technical instruction

a. General subjects

- Basic anatomy and physiology
- Basic pathology
- Basic bacteriology, virology and parasitology
- Basic biophysics, biochemistry and radiology
- Paediatrics, with particular reference to new-born infants

¹⁵ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02005L0036-20240620>

- Hygiene, health education, preventive medicine, early diagnosis of diseases
- Nutrition and dietetics, with particular reference to women, new-born and young babies
- Basic sociology and socio-medical questions
- Basic pharmacology
- Psychology
- Principles and methods of teaching
- Health and social legislation and health organisation
- Professional ethics and professional legislation
- Sex education and family planning
- Legal protection of mother and infant

b. Subjects specific to the activities of midwives

- Anatomy and physiology
- Embryology and development of the foetus
- Pregnancy, childbirth and puerperium
- Gynaecological and obstetrical pathology
- Preparation for childbirth and parenthood, including psychological aspects
- Preparation for delivery (including knowledge and use of technical equipment in obstetrics)
- Analgesia, anaesthesia and resuscitation
- Physiology and pathology of the new-born infant
- Care and supervision of the new-born infant
- Psychological and social factors

B. Practical and clinical training

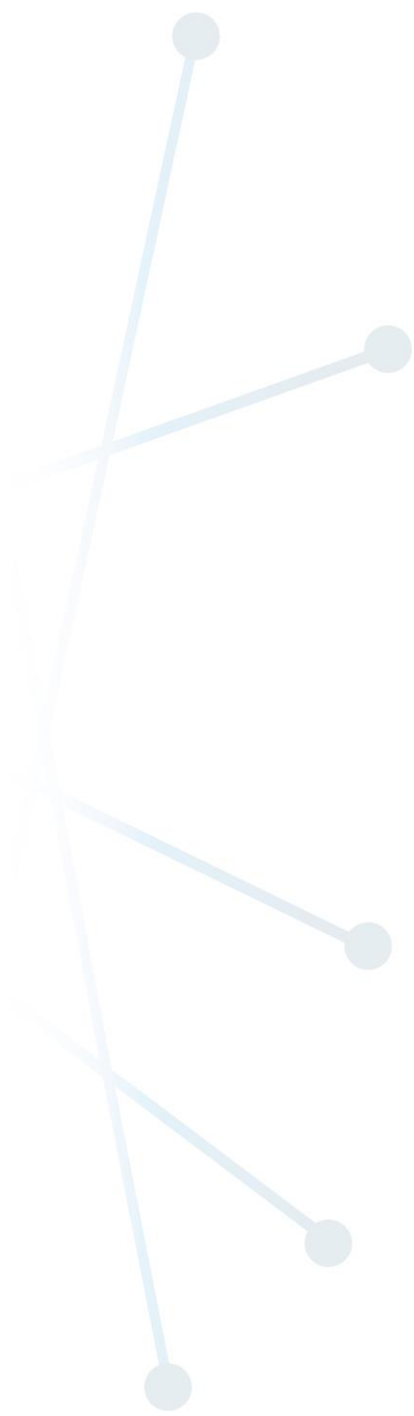
This training is to be dispensed under appropriate supervision:

- Advising of pregnant women, involving at least 100 pre-natal examinations.
- Supervision and care of at least 40 pregnant women.
- Conduct by the student of at least 40 deliveries; where this number cannot be reached owing to the lack of available women in labour, it may be reduced to a minimum of 30, provided that the student assists with 20 further deliveries.
- Active participation with breech deliveries. Where this is not possible because of lack of breech deliveries, practice may be in a simulated situation.


- Performance of episiotomy and initiation into suturing. Initiation shall include theoretical instruction and clinical practice. The practice of suturing includes suturing of the wound following an episiotomy and a simple perineal laceration. This may be in a simulated situation if absolutely necessary.
- Supervision and care of 40 women at risk in pregnancy, or labour or post-natal period.
- Supervision and care (including examination) of at least 100 post-natal women and healthy new-born infants.
- Observation and care of the new-born requiring special care, including those born pre-term, post-term, underweight or ill.
- Care of women with pathological conditions in the fields of gynaecology and obstetrics.
- Initiation into care in the field of medicine and surgery. Initiation shall include theoretical instruction and clinical practice.

The theoretical and technical training (Part A of the training programme) shall be balanced and coordinated with the clinical training (Part B of the same programme) in such a way that the knowledge and experience listed in this Annex may be acquired in an adequate manner.

Clinical instruction shall take the form of supervised in-service training in hospital departments or other health services approved by the competent authorities or bodies. As part of this training, student midwives shall participate in the activities of the departments concerned in so far as those activities contribute to their training. They shall be taught the responsibilities involved in the activities of midwives.



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