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REPRODUCTIVE HEALTHCARE

IN THE REPUBLIC OF MACEDONIA

Situational analysis with a focus on human resources

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Abbreviations

CME	Continuous Medical Education	SSHI	State Sanitary and Health Inspectorate
CPH	Centers of Public Health	STI	Sexually Transmitted Infections
DRG	Diagnostic Related Groups	UN	United Nations
ECTS	European Credit Transfer System	UNDP	United Nations Development Program
EU	European Union	UNFPA	United Nations Population Fund
GH	General Hospital	UNICEF	United Nations International Children's Emergency Fund
HERA	Health Education and Research Association	VCT	Voluntary Counseling and Testing
HIF	Health Insurance Fund	WHA	World Health Assembly
HIV	Human Immunodeficiency Virus	WHO	World Health Organization
HFA	Health for All		
HPV	Human Papilloma Virus		
IMCH	Institute of Mother and Child Health		
IPH	Institute of Public Health		
IPPF	International Planned Parenthood Federation		
MICS	Multi-indicator Cluster Survey		
MLSP	Ministry of Labor and Social Policy		
MoESS	Ministry of Education and Science		
MoH	Ministry of Health		
OECD	The Organization for Economic Cooperation and Development		
PAP	Papanicolaou test		
PHC	Primary Healthcare		
PPA	Polyvalent patronage activity		
PrHCI	Private Healthcare Institution		
PuHCI	Public Healthcare Institution		
SDG	Sustainable Development Goals		
SEEHN	South Eastern European Network		
SRH	Sexual and Reproductive Health		



Executive summary

Healthcare services in the area of reproductive health have been recognized not only as key interventions for the improvement of health, but also as a human right. The fulfillment of needs for services related to the reproductive health promotion and maintenance still represent a challenge in many countries. The reasons for this are numerous: frequent healthcare system reforms, health worker migration, epidemiological transition, frequent introduction of new technologies, the sensitive nature of reproductive health, growing social and health inequalities etc.

It has been established that, globally, 20% - 40% of all health spending is wasted, with health workforce inefficiencies and weaknesses in governance and oversight responsible for a significant proportion of that. *The WHO's Global Strategy on Human Resources for Health: Workforce 2030*, among other things, calls for the best possible use of the limited resources and implementation of health workforce evidence-informed policies. This entails health workers closely cooperating within the full scope of their profession while avoiding under-utilization of skills. WHO emphasizes that the nursing scope of practice has been shown to be adaptable to population and patient health needs, and has been particularly successful in delivering services to the most vulnerable and hard-to-reach populations. It has been established that the midwifery scope of practice has the potential to provide 87% of the essential care needed for sexual, reproductive, maternal and newborn health services.

Women in Macedonia, particularly those from socially vulnerable groups, face different **barriers** (institutional, financial and subjective) while trying to obtain reproductive health services. The healthcare sector plays a role in providing information whether all women have equal access, as well as how to reduce the barriers created by the health system itself.

The analysis of the reproductive health **indicators** showed that they perform worse in comparison to the values in the European region. Some of them lack the required quality. On the other hand, the disaggregation according to the socioeconomic status of the women confirmed that not all women have equal access to the services. The service coverage constitutes a part of the routine health statistics, but the big differences with respect to different sources suggest a questionable reliability.

In 2017, the civil society organization HERA initiated the implementation of a Reproductive Healthcare Situational Analysis in Macedonia focusing on Human Resources, through a participatory process and involvement of representatives of all stakeholders in society. The analysis **aimed** at providing an objective assessment of the situation in the country from several viewpoints, in order to contribute to the process for making evidence-informed decisions for this healthcare segment. The analysis looked at the problem from several viewpoints: the capacities of the country related to the available health workforce actually or potentially involved in the provision of reproductive health services (number, competences, education, and training); the health information system and the healthcare financing system

with respect to reproductive health. The employed data collection techniques included: a desk analysis of domestic and international documents, consultations/workshops of the team of experts and a focus group with primary healthcare gynecologists.

The analysis provided several factual and comparative findings. It also included a comparative quantitative overview of specific indicators in the developed countries, mainly EU countries, as well as their examples and experiences. In addition, it reflected specific time trends, especially with respect to the number of the health workers. The findings of the analysis served as a basis for creating recommendations for further improvement of the situation, presented in a separate document – *Proposed modalities and guidelines for systemic solutions to reduce the barriers to accessing reproductive healthcare of women in the Republic of Macedonia, Focus on the human resources in the health sector*.

The specialist obstetrician-gynecologists generally acquire the same set of skills irrespective of the level of healthcare they further engage in (primary, secondary or tertiary). Most of the reproductive health services are provided at **all three healthcare levels**, including primary healthcare, as defined in the existing legislation. Neither the Law on Health Protection nor the evidence based medicine or the practice feature a clear delineation of the healthcare level responsible for providing specific reproductive healthcare services, except for abortions and biomedical assisted fertilization, which should be performed at a higher level of healthcare.

The system of **highly-specialized midwifery education** is not aligned with the conditions in the labor market or with the flexibility recommendations from the Council of Europe. Judging from the education institution curricula, the specialized **educational curricula for midwives** envision sufficient competences, but the healthcare system fails to sufficiently utilize the competences in practice. This discourages students from enrolling in midwifery secondary level studies. The competences acquired from the specialized curricula for **patronage nurses** seem insufficient. This gap is offset by in-service training, which is not done systematically. No efficient professional protection for the nursing and midwifery profession exists, such as the existence of a chamber and licensing and re-licensing system, as well as a continuous medical education system.

Family physicians have a legal basis and possess a certain set of skills for providing reproductive healthcare services. However, in practice they are involved very little, if at all. No incentives exist that could motivate this segment of the health workforce to get more involved in the provision of services in this field. The interest for enrolling in the specialization in family medicine exhibits a downward trend, one of the reasons being the lack of any distinction in the remuneration between the family medicine specialists and general practitioners.

With a view of achieving a higher quality of service, a lot of **evidence-based guidelines** for different reproductive health components, have been prepared and adopted. The complete adoption, without adaptation to the local context, still is the prevailing drafting method. The Agency for Quality and Accreditation of Healthcare Institutions began the process of preparing standards and criteria for accreditation of healthcare institutions, some of which refer to the use of evidence-based guidelines, which is expected to further contribute to the improvement of service quality.



The health workforce tracking system is on a very low level. Vague legally mandated responsibilities for healthcare records may be one of the reasons for the lack of systematized records of many indispensable datasets, which could greatly facilitate healthcare planning and programming. The data which are currently collected about the health workforce represent only a small fraction of all of the data that, according to the international standards and recommendations, should be collected in order to assess the situation and create policy, considering that the health workforce costs represent the biggest segment in the total healthcare costs. The data availability for midwives and nurses is very limited because there is no updated **registry** for this type of healthcare workforce, nor is there any information regarding the share of midwives and nurses that actually provide such services to patients. There are no systematized records of the revenues and expenditures of the private healthcare institutions, nor are there any systematized **records of the monthly salaries of the health workers**, although **all** health institutions in Macedonia are obligated to maintain cumulative records of **revenues and expenditures**, and detailed records of the monthly salaries of the healthcare workforce are recommended in the international healthcare human resource management strategies and this is a common practice in the developed countries.

The current number of specialist physicians involved or potentially involved in the provision of reproductive healthcare services in Macedonia is satisfactory and comparable to that in the developed countries. Macedonia has 17 gynecologists per 100,000 people, more than the EU average (about 15.5 per 100,000), more than the southeastern European countries, as well as the Nordic countries.

The total potential of midwives and nurses in Macedonia is almost half of the European average. In 2016 there were a total of 1,020 midwives (55.1 per 100,000 people) and 8,700 nurses (469 per 100,000 people). Some of them (311) comprise the polyvalent patronage service.

In Macedonia there are 1,532 selected general physicians, an indicator in line with the statistical average of the European region of the WHO. Out of them, 284 are family medicine specialists.

The rural teams, the capacities of the civil society organizations, as well as the Roma health mediators can also be used in the reproductive health services provision system, especially service provision to hard-to-reach populations.

There are serious threats to the availability of reproductive health workforce in Macedonia. **The average age of the health workers**, especially the gynecology and obstetrics specialists, as well as the midwives, rapidly declines, which represents a great threat to this segment of the healthcare in the **near future**. The total number of general physicians is declining. In the last 10 years **the number of midwives** rapidly decreases. The number of midwives and nurses with **higher vocational education**, especially the number of those recognized and used as highly educated staff by the healthcare system, is very low (almost a third of the European average). **The distribution** of the health workforce on the territory of the country, especially gynecologists and obstetricians, is extremely uneven, with big discrepancies regarding the access to health workers for women of different regions. The average number of women in their reproductive period per primary gynecologist is 3,610, with big disparities between



the regions and a 1:3 ratio between the best and most poorly supplied region. The highest number of insured women per gynecologist is **8,679**. The number of selected gynecologists per 1,000 newborns also suggests a great variance in the potential capacities for reproductive healthcare between the different regions in the country. There are significant differences in the number of in-patient gynecologists between different hospitals of different regions.

The primary healthcare currently engages 40% of the specialist gynecologists. Capitation is the provider payment method, which was introduced more than 10 years ago and since then it has not been adapted to the developments in healthcare and society and there are no indicators showing its efficiency. This system represents a payment method which is not conducive to quantity or quality of services, is unacceptable to the service providers and has been identified as one of the direct causes of the increase of the barriers to accessing reproductive healthcare services.

Primary (so called “selected”) physicians are **remunerated** for each insured person registered to them. The number, the type and quality of the provided services do not influence the remuneration level, except for specific predefined process oriented public-health targets, so called “goals”. The level of the remuneration primary gynecologists receive is the same for all women, irrespective of their age, the number and type of provided services or the pregnancy status. The remuneration to the primary gynecologists solely contingent on the number of registered insured women does not foster serving of regions that have fewer women.

There is no regulation that determines the standard of equipment to be provided by the primary gynecologists, which creates inequalities in the administration of the right to a certain quality of reproductive health services. Considering that Macedonia lacks a **Health Technology Assessment system**, the country has not conducted a cost-benefit analysis of the different equipment standards in the different levels of the healthcare system. Having in mind that the capitation point is the same for every physician, irrespective of the potential for implementation of different types of services at different quality levels, this remuneration model does not encourage investments in more sophisticated equipment in the office or investments in the intellectual capacity, through additional education and training.

The contract between the Health Insurance Fund (HIF) and the primary gynecologists **comprehensively defines the scope of the healthcare services**, although it stipulates that the healthcare institution shall be obligated to provide services to the insured persons, in accordance with evidence-based medicine, which envisions protocols and guidelines with defined service contents. There is no regulation, suggesting and defining how to act in the event of a requested and/or provided services which fall outside of the evidence-based medicine practicing guidelines.

The education level of general practitioners, as well as the education and the number of midwives/nurses employed in primary healthcare institutions do not have an impact on the rights and obligations of the healthcare institutions, established by the contract with the HIF.

For the primary care physicians, HIF allocates 12.5% of the total healthcare services budget. The highest average monthly capitation per physician is paid in the area of gynecology and it is about 50% higher than that for general practitioners.



HIF finances the patronage service as part of the preventive healthcare within the public healthcare institutions – Health Homes. This is based on reference prices for specified service packets – “patronage per nurse” which costs 40,000 denars per month. This group also includes the “rural teams” which cost 90,300 denars per team. The HIF pays for the secondary and tertiary level services, included in the specialist and consultative healthcare, to the service providers in accordance with a predefined reference price for each service, up to a specific budget limit, stipulated in the contract between the healthcare institution and the HIF.

The examinations by the primary care physician gynecologist/general practitioner are free of charge for the insured person in order to eliminate any financial barriers. The copayments for the examinations/tests performed with a referral, at secondary and tertiary healthcare, can amount to at most 20% of the cost of the service.



Background

Why such an analysis?

Reproductive health is defined as a physical, mental and social wellbeing of all aspects of the reproductive system in all stages of life. This means prevention, maintenance of good health, as well as treatment of health conditions related to the reproductive system and reproduction. More specifically, in a broader context, the comprehensive reproductive health-care includes: family planning services, providing care for mothers and newborns (antenatal care protection, care during delivery and the postnatal care), gynecology care, safe abortion, prevention and treatment of sexually transmitted infections including HIV, gender based violence prevention and management, as well as special programs for sexual and reproductive health of adolescents.¹

Reproductive healthcare services are recognized not only as key health improvement interventions, but also as a human right. The reproductive rights are human rights, already recognized in national regulations, international law and international human rights documents. They are based on the recognition of the right of all couples and individuals to be able to freely and responsibly decide about the number, the sequence and the interval of bearing children, to acquire information and means to bear children, as well as have access to health services in line with the highest possible standards.²

The poor reproductive health causes one third of the global burden of disease of women of reproductive age and one fifth of the global burden of disease of the general population. The need of services to improve and maintain reproductive health still constitutes a huge challenge in the developing countries, but continues to be a challenge in the developed countries as well. The reasons for this are numerous and include:³

- Frequent healthcare system reforms,
- Health workforce migration,
- Epidemiological transition,
- Demographic transition, primarily the increase of the age of the first-time mothers,
- Constant introduction of new technologies,

1 World Health Organization. *The WHO Definition of Reproductive Health*. Available at: <http://www.who.int/reproductive-health/hrp>

2 World Health Organization. *Department for Reproductive Health*. Geneva, WHO. Available at: http://www.who.int/topics/reproductive_health/en/

3 Alan Gutmacher Institute and UNFPA. *Adding it up: The benefits of investing in sexual and reproductive health care*. 2014.



- The sensitive nature of reproductive health (the need to respect the reproductive rights, the level of women emancipation, gender equality),
- The growing awareness about the need of greater involvement in the elimination of gender based violence,
- Growing social and health inequalities etc.

The benefit of improving the reproductive health comprises two main categories: the health benefit, which is more apparent, includes reduction of the number of deaths and illnesses and is measured using the mortality and morbidity indicators. The second group of the so called non-health benefits refers to social and economic benefits of individuals and families, investing in the economic prosperity of the country, reduction of health inequalities, reduction of poverty, gender equality and promotion of human rights, ultimately contributing to the attainment of most of the 17 UN sustainable development goals.^{4,5}

International perspective of human resources in healthcare

The World Health Organization calls for a new, modern agenda to deal with the challenges related to global disparities and the health workforce deficit. Globally, 20% to 40% of all health spending is wasted mainly through inefficiencies of the healthcare workforce and weaknesses in management and supervision⁶.

WHO adopted the Global Strategy of Human Resources for Health: Workforce 2030⁷. The strategy mainly aims to improve health, social and economic development outcomes by ensuring universal availability, accessibility, acceptability, coverage and quality of the health workforce through adequate investments to strengthen health systems, and the implementation of effective policies at national, regional and global levels. It specifies 4 objectives, with defined milestones:

4 Cohen SA. *The broad benefits of investing in sexual and reproductive health. The Guttmacher Report on Public Policy*. 7(1); 2004. Available at: <http://www.guttmacher.org/pubs/tgr/07/1/gr070105.html>

5 UNDP. *Sustainable Development Goals. Transforming our world: the 2030 Agenda for Sustainable Development*. Available at: <http://www.undp.org/content/undp/en/home/sustainable-development-goals.html>

6 WorldHealth Organization. *The world health report 2010 – health systems financing: the path to universal health coverage*. Geneva, 2010. Available at: <http://www.who.int/whr/2010/en/>

7 World Health Organization. *Global Strategy on Human Resources for Health: Workforce 2030*. Geneva, 2016.



Objective 1

Optimize performance, quality and impact of the health workforce through **evidence-informed policies** on human resources for health, contributing to healthy lives and wellbeing, effective universal health coverage, resilience and strengthened health systems at all levels.

Milestones:

- 1.1. By 2020, all countries will have established **accreditation** mechanisms for health training institutions.
- 1.2. By 2030, all countries will have made progress towards **halving inequalities** in access to a health worker.
- 1.3. By 2030, all countries will have made progress towards improving the course completion rates in medical, nursing and allied health professionals training institutions.

Objective 2

Align investment in human resources for health with the current and future needs of the population and health systems, taking account of labor market dynamics and education policies, to address shortages and improve distribution of health workers, so as to enable maximum improvements in health outcomes, social welfare, employment creation and economic growth.

Objective 3

Build the capacity of institutions at subnational, national, regional and global levels for effective public policy stewardship, leadership and governance of actions on human resources for health.

Objective 4

Strengthen **data on human resources for health for monitoring** and accountability for the implementation of national and regional strategies, and the Global Strategy.

Milestones:

- 4.1. By 2020, all countries will have made progress to establish registries to track health workforce stock, education, distribution, flows, demand, capacity and remuneration.
- 4.2. By 2020, all countries will have made progress on sharing HRH data through national health workforce accounts and submitting core indicators to the WHO Secretariat annually.
- 4.3. By 2020, all bilateral and multilateral agencies will have strengthened health workforce assessment and information exchange.



The WHO Strategy also emphasizes that the Sustainable Development Goals and the Universal Healthcare coverage requires making the best possible use of the limited resources and ensuring their strategic deployment through the adoption and implementation of evidence-informed health workforce policies adapted to the national health systems contexts at all levels. Better alignment to population needs, while improving cost-effectiveness, depends on recognition that integrated and people-centered health-care services can benefit from team-based care at the primary level^{8,9}. This means different health professionals working closely and within the full scope of their profession while avoiding under-utilization of skills. WHO emphasizes that the nursing scope of practice has been shown to be adaptable to population and patient health needs, and has been particularly successful in delivering services to the most vulnerable and hard-to-reach populations. Similarly, the midwifery scope of practice has the potential to provide 87% of the essential care needed for sexual, reproductive, maternal and newborn health services¹¹.

Regarding the health workforce records, as the basis for effective monitoring, it is recommended to establish national health workforce registers of the competent and practicing health professionals rather than those who have simply completed the training program. Data collected should include a comprehensive overview of workforce characteristics (public and private practice); remuneration patterns (multiple sources, not only public sector payroll); worker competency (e.g. the role of health workers disaggregated across cadres and between different levels of care); performance (systematic data collection on productivity and quality of care); absence, absenteeism and their root causes; labor dynamics of mobility (rural vs urban, public vs private, international mobility); attacks against health workers; and the performance of the HRH management system itself (the average time it takes to fill a vacancy, the attrition rate during education and employment, the outcomes of accreditation programs, etc.).¹²

8 Milani RV, Lavie CJ. Health care 2020: reengineering healthcare delivery to combat chronic disease. *Am J Med.* 2015; 128(4): 337–43.

9 World Health Organization. Resolution WHA62.12. Primary health care, including health system strengthening. In: *Sixty-second World Health Assembly, Geneva, 18–22 May 2009. Resolutions and decisions, annexes.* Geneva, 2009 (WHA62/2009/REC/1). Available at: <http://apps.who.int/medicinedocs/documents/s17694en/s17694en.pdf>

10 World Health Organization. *Nursing and midwifery services – Strategic directions 2011–2015.* Geneva 2010. Available at: <http://www.who.int/hrh/resources/nmsd/en/>

11 United Nations Population Fund. *The state of the world's midwifery 2014.* New York 2014. Available at: <http://www.unfpa.org/sowmy>

12 Global Health Workforce Alliance, 2014. *Data and measurement of HRH availability, accessibility, acceptability, and quality.* [Technical Working Group 3 background paper for the Global Strategy on Human Resources for Health]. Available at: http://www.who.int/workforcealliance/media/news/2014/TWG3_Paper_07Dec14.pdf?ua=1



Barriers to obtaining reproductive healthcare services in Macedonia

Qualitative and quantitative research conducted in Macedonia by civil society organizations and international agencies show that some groups of women, mainly Romani women, women from lower social layers and from rural areas face various barriers while attempting to obtain reproductive health services.

Institutional barriers:

- No access to services considering the unequal geographic distribution of gynecologists. Fifteen percent of the Romani surveyed in the Shuto Orizari community, responded that they were rejected at least once while attempting to select a gynecologist. The gynecologist justified this by stating that “he had enough patients”, i.e. “his quota was already full”.¹³
- The estimates suggest that a certain number of women have not regulated their civil status, have problems with their marital status, and also do not have personal identification documents and therefore do not have health insurance.
- Gynecologists are not sufficiently motivated to devote more time to family planning services because this activity “takes too much of their time”.¹⁴
- The positive list of drugs (covered by the insurance) does not contain any contraceptives.¹⁵
- The most frequently used technique for abortion is the surgical termination of the pregnancy (mechanic dilatation, electric vacuum aspiration and control curettage). Not only did the changes to the Law on pregnancy termination from 2013¹⁶ not improve the access to modern methods for abortion, but they also imposed additional barriers to obtaining this service.
- The pharmaceuticals needed for medical abortion are not registered in the country. The results of the survey conducted in 2013 among selected gynecologists, showed that 93% of the gynecologists think that the pharmaceuticals for medical abortion should be registered and be available because of the women’s right to choose (63.3%), as well as the positive health aspects (43.3%).¹⁷

13 HERA – Health Education and Research Association. *Fourth Community Scorecard for Healthcare During Pregnancy, Childbirth and the Postnatal Period among Romani Women in Shuto Orizari, Skopje, 2016* (XEPA – Асоцијација за здравствена едукација и истражување. Четврта карта со оцена од заедницата за здравствената заштита во текот на бременоста, породувањето и по породувањето меѓу Ромките од општина Шуто Оризари. Скопје, 2016). Available at: <http://hera.org.mk/wp-content/uploads/2016/07/cetvrta-karta-web.pdf>

14 IPPF European Network and UNFPA. *Key factors influencing contraceptive use in seven middle-income countries of Eastern Europe and Central Asia, 2011*.

15 Health Insurance Fund of Macedonia. Available at: <http://www.fzo.org.mk/>

16 *Law on Pregnancy Termination, 2013, Official Gazette of the Republic of Macedonia, No. 87 from 17.6.2013* Available at: <http://zdravstvo.gov.mk/wp-content/uploads/2015/10/1-ZAKON-ZA-PREKINUVAN-E-NA-BRE-MENOSTA-87.13.pdf>

17 Mladenovik B, Stankova Ninova K, Jovanovski B, Vuckovska A. Knowledge, attitudes and practices regarding medical abortion among gynecologists in Macedonia, quantitative-qualitative survey. *Vox Medici*, 2010; 126-130.=13



- Modern contraception is unavailable to young couples and women, especially poorer and socially excluded groups – the modern contraceptive prevalence rate is only 12.7% and Macedonia is one of the countries with the lowest prevalence rate in Southeastern European and the European regions.

Financial barriers:

- Transport costs are a significant barrier because all primary gynecologists are located in the urban areas and therefore women from rural areas and remote city neighborhoods have difficult access.¹⁸ According to certain surveys, the average distance to the health-care institution providing this type of services is 2.7 km for non-Roma population and 3.7 km for Roma population¹⁹. Twenty two percent of the respondents to a survey conducted in three towns with large Roma communities (Kumanovo, Kochani and Shtip), think that there should be a gynecologist in the place where they live.²⁰
- The healthcare services copayment costs continue to be a significant barrier for the access to the reproductive health services. In order to mitigate this barrier, since 2015, pregnant women (both insured, as well as those that are uninsured) are entitled to receive the service without copayment. This arrangement is provided by the preventive programs of the Government of the Republic of Macedonia. This includes all of the services performed out of the gynecologist office, which require a referral and which require copayment (microbiology smear, blood and urine laboratory examinations, urine culture, PRISCA test for detecting genetic abnormalities). This measure was expected to mitigate the access to these services of the vulnerable groups of women with lower social and economic status, including Romani women. However, field research reports suggest that this is not fully implemented. The findings of the Community Scorecard from 2016 in the municipality of Shuto Orizari shows the utilization of services to which the women were referred by the primary gynecologist: only 32% had a free PAP test, only 14% had a free microbiology smear, 48% had a free blood and urine sample analysis, 58% free screening tests for genetic abnormalities²¹.

18 HERA – Health Education and Research Association. *Fourth Community Scorecard for Healthcare During Pregnancy, Childbirth and the Postnatal Period among Romani Women in Shuto Orizari, Skopje, 2016* (ХЕРА – Асоцијација за здравствена едукација и истражување. Четврта карта со оцена од заедницата за здравствената заштита во текот на бременоста, породувањето и по породувањето меѓу Ромките од општина Шуто Оризари. Скопје, 2016). Available at: <http://hera.org.mk/wp-content/uploads/2016/07/cetvrta-karta-web.pdf>

19 Open Society Foundation – Macedonia and Association for Emancipation, Solidarity and Equality of Women (ESE). *We are all people: healthcare for all regardless of ethnicity: the status of health, healthcare and the right to health among the Roma in the Republic of Macedonia. Skopje 2014* (Фондација Отворено општество – Македонија и Асоцијација за еманципација, солидарност и еднаквост кај жените (ECE). Сите сме луѓе: секому здравствена заштита без разлика на етничката припадност: состојбите во однос на здравјето, здравствената заштита и правото на здравје помеѓу Ромите во Република Македонија. Скопје, 2014). Available at: <http://www.esem.org.mk/en/pdf/Publikacii/2014/We%20are%20all%20human.pdf>

20 National Roma Center Kumanovo. *Accessibility to Healthcare during Pregnancy in the Republic of Macedonia – do women have equal access? Kumanovo 2016*; (Национален Ромски Центар Куманово. Достапност до здравствена заштита во текот на бременоста во Република Македонија – имаат ли жените еднаков пристап? Куманово 2016).

- The illegal charging of fees for health services provided by a primary gynecologist (the services at primary gynecologist, according to the legislation are free of charge) is a phenomenon which has been officially tracked, registered and reported since 2012. The surveys show that a staggering 83% of the pregnant women in the municipality of Shuto Orizari stated that they did not receive the ultrasound service free of charge, i.e. they had to pay to the primary gynecologist for it.²² Other testimonies of women also suggest that they frequently had to pay for services that should have been free of charge – this was suggested by 28.8% of the Romani women and 28.4% of the non-Roma population in several cities in the country.²³

Between 2012 and 2016, HERA registered 957 cases when Romani women from Shuto Orizari reported illegal charges levied by 15 primary gynecologists. The Ombudsman and the Health Insurance Fund of Macedonia addressed the official complaints submitted by the women. In 2016, the Ombudsman provided an opinion to the Health Insurance Fund regarding the need to perform extraordinary and unannounced controls, as well as other measures to prevent the illegal levying of charges for health services provided to Romani women. The Ombudsman also asked the Ministry of Health to urgently address the issue with the lack of a primary gynecology practice in Shuto Orizari and the employment of a specialist gynecologist.²⁴

There are indications that gynecologists in secondary healthcare illegally charge women for reproductive health services, but these practices have not been documented yet.

- The price of contraceptives significantly prevents their effective use. The poorest 40% of the population cannot afford even the cheapest contraceptive. Certain groups of people cannot afford to regularly use modern contraceptives and they need access to free or subsidized contraceptive. These groups include people from rural areas, 15 to 24 year olds, Romani women, unemployed women or women entitled to social protection rights.²⁵

21 HERA – Health Education and Research Association. *Fourth Community Scorecard for Healthcare During Pregnancy, Childbirth and the Postnatal Period among Romani Women in Shuto Orizari, Skopje, 2016* (XEPA – Асоцијација за здравствена едукација и истражување. Четврта карта со оцена од заедницата за здравствената заштита во текот на бременоста, породувањето и по породувањето меѓу Ромките од општина Шуто Оризари. Скопје, 2016). Available at: <http://hera.org.mk/wp-content/uploads/2016/07/cetvrta-karta-web.pdf>

22 *Idem*.

23 Association for Emancipation, Solidarity, and Equality of Women in Macedonia (ESE). *We are all human: Health care for all people regardless of their ethnicity: Health status, health care and right to health among Roma people in R. Macedonia*. Foundation Open Society Macedonia, 2014. Available at: <http://www.esem.org.mk/en/pdf/Publikacii/2014/We%20are%20all%20human.pdf>

24 Republic of Macedonia, Ombudsman. *Annual Report about the Level of Provided Respect, Promotion and Protection of Human Rights and Freedoms, 2016* (Република Македонија, Народен правобранител. Годишен извештај за степенот на обезбедувањето почитување, унапредување и заштита човековите слободи и права, 2016 година).

25 Updated information for the consideration of the Committee on Economic, Social and Cultural Rights regarding the review of the combined second, third and fourth periodic reports of Republic of Macedonia under the International Covenant on Economic, Social and Cultural Rights, 58th Session (06 Jun 2016 - 24 Jun 2016). HERA – Health Education and Research Association, Youth Platform for Comprehensive Sexuality Education Reactor and Coalition “Sexual and Health Rights of Marginalized Communities”.



Subjective barriers:

- Insufficient knowledge especially among the young girls and women from rural areas, about the benefits of family planning.
- Prejudices/misconceptions and fear of negative effects from using contraceptives (this exists among women, but also among some of the health workers).²⁶
- Women with low level of education have insufficient knowledge about the importance and regular antenatal protection, which in turn may be the reason why they do not visit their gynecologist regularly.
- A lot of women do not know what services to expect from their primary gynecologist.²⁷
- Cultural factors such as the fear of a physical examination subsist in 12% of the Romani women, while 23% of them think they do not need to visit a gynecologist as long they feel well.
- A lot of studies suggest that women with low level of education are more likely to not fully understand or not to fully comply with the recommendations of the gynecologist, to have a low level of healthcare literacy and, particularly among Romani women, to have a language barrier.
- The patients are dissatisfied with the behavior of the primary gynecologist mostly because of the perception that the primary gynecologist treated them with less respect than the other women (18.7%). For 23.1% of the respondents, the main reason for the inadequate behavior of the primary gynecologist is their ethnicity, and 14.3% think that it is due to their low social status.²⁸
- Gender stereotypes are particularly strong in families where the woman is economically dependent on the husband or other family members who influence the decision making of the women and the women cannot make independent decisions about their health.²⁹

26 Jovanovski B, Carovska M, Turmakovska V, Busen R. C. *Key Factors Influencing the Contraceptive Prevalence Rate in the Republic of Macedonia*. HERA, Skopje, 2012. (Јовановски Б, Царовска М, Турмаковска В, Бусен Р.Ц. Клучни фактори што влијаат врз употребата и однесувањето кон контрацепцијата во Република Македонија. ХЕРА, Скопје, 2012 година).

27 HERA – Health Education and Research Association. *Fourth Community Scorecard for Healthcare During Pregnancy, Childbirth and the Postnatal Period among Romani Women in Shuto Orizari, Skopje, 2016* (ХЕРА – Асоцијација за здравствена едукација и истражување. Четврта карта со оцена од заедницата за здравствената заштита во текот на бременоста, породувањето и по породувањето меѓу Ромките од општина Шуто Оризари. Скопје, 2016). Available at: <http://hera.org.mk/wp-content/uploads/2016/07/cetvrta-karta-web.pdf>

28 National Roma Center Kumanovo. *Accessibility to Healthcare during Pregnancy in the Republic of Macedonia – do women have equal access?* Kumanovo 2016. (Национален ромски центар Куманово. Достапност до здравствена заштита во текот на бременоста во Република Македонија – имаат ли жените еднаков пристап? Куманово 2016 година).

29 IPPF (International Planned Parenthood Federation). *Sexual and reproductive health and rights – the key to gender equality and women's empowerment*. 2015.



It is important to point out that these barriers do not act alone, but rather create a system where they reinforce each other. In addition they tend to accumulate for certain groups of women such as Romani women or women with low level of education or low social and economic status.³⁰

All of this suggests that, in spite of the constitutionally guaranteed right to health protection and equal rights and liberties, still not all groups of women in Macedonia have equal access to the services. This happens because of different factors or barriers. These barriers are certainly not the result only of the deficiencies in the healthcare sector and some also are under the jurisdiction of the other sectors. **Still the role of the healthcare sector is key and it should provide information whether all the women have equal access, identify the barriers and undertake activities to mitigate the barriers and inequalities created by the health system.**

Concluding observations of the *Committee for Economic, Social and Cultural Rights of the UN Economic and Social Council* on the combined second to fourth periodic reports for Macedonia, 2016.³¹

Access to healthcare services

47. The Committee is concerned at the insufficient funding allocated to the health sector, the shortage of qualified medical professionals and the inadequate coverage and benefits under the Health Insurance Fund, which result in **limited access to healthcare services, particularly for Roma and those living in rural areas**. It is also concerned that some private health-service providers charge fees for services that should be provided free of charge, as stipulated by the licensing agreements under which they operate (art. 12).
48. *The Committee recommends that the State party intensify its efforts to ensure that primary healthcare services are available and accessible to all regardless of geographical location, including by allocating adequate funding to the health services, securing a sufficient number of qualified medical professionals and expanding the coverage and the benefits under the Health Insurance Fund. It urges the State party to put an immediate end to the practice of illegally charging fees and to monitor the compliance of private health-service providers with the licensing agreements under which they operate.*

30 Janneke van Mens-Verhulst, Lorraine Radtke. *Intersectionality and health care: support for the diversity turn in research and practice*. University for Humanist Studies, Utrecht, The Netherlands; University of Calgary, Canada.

31 Committee on Economic, Social and Cultural Rights. *Concluding observations on the combined second to fourth periodic reports of the Former Yugoslav Republic of Macedonia, 2016*. Available at: https://tbinternet.ohchr.org/_layouts/treatybodyexternal/Download.aspx?symbolno=E%2fC.12%2fMKD%2fCO%2f2-4&Lang=en



Sexual and reproductive health

49. The Committee is concerned at the acute shortage of gynecologists in the State party, particularly in rural areas and areas with a predominantly Roma population; at the limited access to information on sexual and reproductive health, particularly among young people, and the inadequate and outdated sex education at school; and at the limited access to modern contraception, particularly among women and girls. It is also concerned that the Law on Termination of Pregnancy of 2013 introduced severe penalties which can be imposed on medical practitioners who perform emergency abortions if it is later determined that the abortion did not comply with the conditions set forth in article 13 of the Law; this may have a chilling effect on medical practitioners and thus lead to unsafe abortions being practiced in emergency situations. The Committee's view on mandatory counseling prior to abortion is that such counseling is acceptable only if it is neutral and supports the free and informed choice of the women seeking to terminate her pregnancy (art. 12).
50. *The Committee recommends that the State party **take all measures necessary to increase the number of gynecologists in the country and to ensure that all women have access to gynecological health services within their municipality, particularly in Shuto Orizari**; make information on sexual and reproductive health available to the general public; improve school education on sexual and reproductive health that is up to date, age appropriate and based on a human rights perspective; and ensure that modern contraception methods are affordable to all, including by adding contraceptives to the list of medicines covered by the Health Insurance Fund. It also recommends that the State party review the restrictive provisions of the Law on Termination of Pregnancy. It draws the attention of the State party to its general comment No. 22 (2016) on the right to sexual and reproductive health.*

What does the data say?

- Women face various barriers while trying to get reproductive health services (institutional, financial, subjective).
- Not all groups of women in the Republic of Macedonia have equal access to the services.
- The role of the healthcare sector is to provide information whether all the women have equal access, identify the barriers and undertake activities to mitigate the barriers and inequalities created by the health system.



Reproductive health indicators

The following tables present the reproductive health indicators for Macedonia between 2011 and 2016 in comparison to EU member states and OECD countries.

Table 1. Basic reproductive health indicators (2011-2016) for the Republic of Macedonia and EU/OECD countries

Indicator	RM - 2011	RM - 2012	RM - 2013	RM - 2014	RM - 2015	RM - 2016	RM - 2017	EU region (latest data)
Total fertility rate ³²	1.46	1.51	1.48	1.52	1.49	1.5	1.4	1.6 (1.2-1.9) for 2015 ³³
Maternal mortality ratio (per 100,000 live births)	4.4	4.2	4.3	12.7	0	0	0	4 (2-12) for 2014 ²⁹
Perinatal mortality rate (per 1,000 births)	12.3	12.8	14.3	12.7	12.8	16.0	14.8	6.7 (4-11.8) for 2014 ²⁹
Infant mortality rate (per 1,000 live births)	7.5	9.7	10.2	9.9	8.6	11.9	9.2	3.7 (1.8-9.7) for 2014 (Nordic countries 2.5) ²⁹
Contraceptive prevalence rate (among women at reproductive age, 15-49)	40.2%	N/A	N/A	N/A	N/A	N/A	N/A	64 – 77% ³⁴
% of low birth weight infants (less than 2,500 grams out of the total number of live births)	7.0	7.2	7.4	7.2	7.6	8.2	No data	6.6 ³⁵ (OECD countries)
Abortions (per 1,000 live births)	233.8	228.5	215.0	199.3	198.7	184.8		228.0 ³⁶
Exclusive breastfeeding under 6 months	23%	N/A	N/A	N/A	N/A	N/A	N/A	25% ³⁷

Source of the data for RM: Institute of Public Health of Macedonia, 2017; ZZZMD³⁸

Table 2. Infant mortality (per 1,000 live births) in the OECD countries³⁹

	USA – 5.8 (2014)
	New Zealand – 5 (2013)
	Canada – 4.8 (2012)
	Australia – 3.2 (2015)
	Slovenia – 1.6 (2015) (2.1 according to WHO); 2,5 in 2010

Maternal mortality reflects the mortality due to maternal reasons and is expressed as the number of deaths per 100,000 live births due to reasons related to the pregnancy, delivery and puerperium. This is an important indicator of the quality and organization of healthcare for pregnancy and motherhood. The problem with this indicator is that even countries with proper registration systems fail to register 50% of the maternal deaths because of misclassification.⁴⁰

In 2016 and 2017 Macedonia has not registered a single death of a woman in the reproductive period due to maternal reasons. According to the UN Maternal Mortality Estimation Interagency Group (WHO, UNICEF, UNFPA, World Bank), in order to adjust the existing values of the risk of under-registration and misclassification, the maternal mortality value in the Republic of Macedonia should be multiplied with an adjustment factor of 1.5.⁴¹

32 Total number of children to which a woman will have given birth by the end of her reproductive period, if current age-specific fertility rates prevailed.

33 World Health Organization. Health for all data base, Geneva 2017. Available at: <http://data.euro.who.int/hfad/b/>

34 UN Department for Economic and Social Affairs Population Division: Trends in contraceptive use worldwide 2015. Available at: <http://www.un.org/en/development/desa/population/publications/pdf/family/trendsContraceptiveUse2015Report.pdf>

35 OECD, Health at a Glance: Europe 2014. OECD Publishing, 2014. Available at: http://dx.doi.org/10.1787/health_glance_eur-2014-en

36 World Health Organization. European Health Information Gateway: Abortion per 1000 live births, last updated September 2016. Available at: https://gateway.euro.who.int/en/indicators/hfa_586-7010-abortions-per-1000-live-births/visualizations/#id=19681

37 World Health Organization. WHO region has lowest global breastfeeding rates. WHO fact sheet, 2015. Available at: <http://www.euro.who.int/en/health-topics/Life-stages/maternal-and-newborn-health/news/news/2015/08/who-european-region-has-lowest-global-breastfeeding-rates>

38 Institute of Mother and Child Health, Health Home Skopje. Information about the healthcare status of mothers and children in the Republic of Macedonia in 2017, Skopje 2018. (Завод за здравствена заштита на мајките и децата, Здравствен дом на Скопје. Информација за здравствената состојба на мајките и децата во Република Македонија во 2017 година. Скопје 2018 година).

39 Organization for economic co-operation and development, OECD. stat. Available at: <http://stats.oecd.org/>. Accessed in October, 2017.

40 World Health Organization (WHO), UNICEF, UNFPA, and The World Bank. Trends in Maternal Mortality 1990–2008: Estimates Developed by WHO, UNICEF, UNFPA and The World Bank. Geneva: WHO, 2010. Available at: www.who.int/reproductivehealth/publications/monitoring/9789241500265/en/index.html

41 World Health Organization (WHO), UNICEF, UNFPA, and The World Bank. Trends in Maternal Mortality 1990–2015: Estimates Developed by WHO, UNICEF, UNFPA and The World Bank. Geneva: WHO, 2015. Available at: http://apps.who.int/iris/bitstream/10665/194254/1/9789241565141_eng.pdf?ua=1



The accurate measurement of this indicator and the comprehensive identification of the cause of the death can define the objectives and the justification to undertake specific healthcare interventions that could help improve the overall health of pregnant women. The Republic of Macedonia has not established a system for regular maternal death audits, which could help better understand the true causes of death and which could serve as a basis for recommendations to promote the quality and the organization of the healthcare system aimed at preventing future maternal deaths without resorting to the policy of blame. In addition to maternal death audits, near miss cases should also be reviewed, as well as the cases of maternal morbidity. This practice is applied in countries such as Macedonia, with relatively low maternal mortality and where the efforts should focus on preventing maternal mortality, as well as early detection and proper management of risky pregnancies. Therefore, in 2017, the Ministry of Health, in cooperation with the UNFPA office, began training trainers on the WHO Beyond the Numbers (BTN) methodology⁴², intended for gynecologists in maternity wards, to improve their maternal morbidity audit skills. This will ultimately lead to a systemic improvement of the healthcare quality during pregnancy, childbirth and the postnatal period.

Globally, three quarters of all maternal deaths happened during childbirth or immediately after delivery. The most important thing that can be done to prevent these deaths is to secure a competent health worker with obstetrics skills for every childbirth and provide timely transport to obstetrics care in case of emergencies.⁴³

In developing countries, maternal deaths are mostly related to termination of pregnancy. Therefore, the basic measures for reducing maternal mortality include prevention of unplanned pregnancies and prevention of ineptly terminated pregnancies. This entails health education and comprehensive sexual education, as well as measures for reducing premature sexual activity, adolescent pregnancy and parenthood planning.

Other basic measures for preventing maternal mortality include competent compliance with the protocols when performing antenatal controls, as well as during delivery, proper risk assessment by the primary healthcare services, as well as recognizing the risks for the purposes of timely referral to tertiary healthcare.

42 WHO. *Beyond the numbers: reviewing maternal deaths and complications to make pregnancy safer*. Geneva, 2004.

43 World Bank, "Maternal Death Audit as a tool reducing maternal mortality", 2011. Available at: <http://sitere-sources.worldbank.org/INTPRH/Resources/376374-1278599377733/MaternalDeathAuditMarch22011.pdf>



Perinatal mortality comprises the sum of stillborn babies and deaths during the first week of life per 1,000 births. The perinatal mortality rate fluctuates and it amounted to 14.8 per 1,000 births in 2017 in Macedonia. In comparison to 2016, perinatal mortality declined by 1.8 per 1,000 births, as a result of the reduced number of deaths of live newborns in the first 0 to 6 days of life. Macedonia still has not established a perinatal mortality audit system and methodology even though many strategic documents do include such a recommendation (Action plan of the Safe Motherhood Strategy 2010-2013⁴⁴, Action plan for reducing maternal, perinatal and infant mortality 2012-2013, Action plan for promoting maternal and infant health 2017-2020-draft, Action plan for sexual and reproductive health of the Republic of Macedonia 2018 - 2020⁴⁵).

The audit of the causes of perinatal mortality aims to determine the precise cause of the perinatal deaths, as well as all the contributing factors. The findings serve as a basis for preparing recommendations for improving the existing clinical practice, improving healthcare during pregnancy, childbirth and during the neonatal period, improving the quality of the data necessary to monitoring at the level of antenatal, intrapartum care, and postpartum care and planning future pregnancies (sharing the data with the parents in certain cases can help prevent perinatal deaths). At the same time, there should be mechanisms that will ensure that data obtained from the audit are not used in court proceedings.⁴⁶

In addition, the action plans in the Republic of Macedonia call for: an assessment of the conditions for potential regionalization of the birthing centers, based on already prepared regionalization standards; opening of a Reproductive Health Center within the University Clinic for Gynecology and Obstetrics, which collects, processes and analyzes perinatal care data (service quality and perinatal health indicators in primary, secondary and tertiary health-care); introduction of a new form for reporting perinatal deaths.

Infant mortality represents the number of deaths of children up to 1 year of age. This key indicator measures the overall health of children and the entire population. It is well known that the infant mortality rate is higher in countries with significant inequalities in the health status of the population and it increases in countries facing social, cultural and political adversities.⁴⁷ Infant mortality in Macedonia, in the past few years generally fluctuated and had an upward trend and, in 2017, it amounted to 9.2 per 1,000 live births.⁴⁸

44 Ministry of Health of the Republic of Macedonia. Action Plan of the Strategy for Safe Motherhood 2010-2013. (Министерство за здравство на Република Македонија. Акционен план на Стратегијата за безбедно мајчинство 2010-2013.). Available at: <http://zdravstvo.gov.mk/wp-content/uploads/2012/12/akcionen-bezbedno-majcinstvo.pdf>

45 Ministry of Health of the Republic of Macedonia. Action Plan for Sexual and Reproductive Health of the Republic of Macedonia 2018-2018. (Министерство за здравство на Република Македонија, Акциски план за сексуално и репродуктивно здравје на Република Македонија 2018-2018). Available at: <http://zdravstvo.gov.mk/wp-content/uploads/2018/09/Nov-tekst-na-AP-usoglasen-so-Sekretarijat-za-zakonodavstvo-11.09.2018.pdf>

46 World Health Organization. Making every baby count: audit and review of stillbirths and neonatal deaths. Geneva, 2016.

47 Bryce J, El Arifeen S, Pariyo G, Lanata CF, Gwatkin D, Habicht JP, et al. Reducing child mortality: can public health deliver? *Lancet*. 2003; 362: 159-64.

48 Institute of Mother and Child Health, Health Home Skopje. Information about the healthcare status of mothers and children in the Republic of Macedonia in 2017, Skopje 2018. (Завод за здравствена заштита на мајките и децата, Здравствен дом на Скопје. Информација за здравствената состојба на мајките и децата во Република Македонија во 2017 година. Скопје, 2018 година).



The disaggregation of this indicator according to the social and demographic characteristics of Macedonian mothers shows disparities, with higher values among mothers with lower education levels, certain ethnicities, mothers under 20 and over 40 years of age. In addition this indicator also varies regionally. We should point out that, in the last 10 years these disparities exhibit different, but mainly converging trends. For example, in 2017, the mortality of infants of mother with no education and with primary education, amounted to 9.5‰, in comparison to that among infants of mothers with higher education which amounted to 5.8‰, up from 3.7 ‰ in 2006. In reference to the age of the mothers, in 2017, mothers between 30 and 39 years of age had the highest infant mortality rate, which is different than the previous period when the mothers younger than 20 and older than 40 had the highest rate. Geographic differences in infant mortality rates (urban vs. rural areas) still persist (11.3‰ in urban areas and 7.9‰ in rural areas), but these differences have a converging trend.⁴⁹

In the past period, the Romani women constantly had the highest infant mortality rate, while in 2017, the highest rates were among the ethnic Albanian women.

Regarding the structure of the infant mortality, most of it (80%) can be attributed to neonatal mortality (0-29 days), and the most common reason is prematurity (86.7% of the neonatal deaths occur due to prematurity)⁵⁰.

Globally, preterm births and prematurity occur more commonly among mothers with lower social and economic status, mothers younger than 18 and older than 35, underweight and overweight women, women with hypertension, gestation diabetes, untreated vaginal and urinary infections and women with other conditions and risks such as depression, smoking, drinking alcohol, domestic violence etc. Some of these conditions could be prevented and treated, provided the women have adequate access to timely and good quality antenatal healthcare.^{51,52}

The contraceptive prevalence rate reflects the number of women in the reproductive age (15-49), currently married or in union, who use (or whose partner uses) a contraceptive method (modern or traditional). The global thinking suggests that access to modern contraception reduces maternal mortality by 25%, newborn mortality by 20%, reduces the healthcare costs and contributes to gender equality.⁵³

49 *Idem.*

50 *Idem.*

51 *Fisher S. Social inequalities in maternal and perinatal mortality: a summary of research. New Digest 2008; 44:18–26.*

52 *Requejo J. Born too soon: Care during pregnancy and childbirth to reduce preterm deliveries and improve health outcomes of the preterm baby. Reprod Health 2013; 10 (suppl): cmp. 4.*

53 *Singh S, Darroch L, Ashord M, Vlassoff M. Adding it up: The costs and benefits of investing in family planning and maternal and newborn health. New York, Guttmacher Institute and United Nations Population Fund, 2009.*



The latest data about the use of contraceptives for Macedonia come from the Multi Indicator Cluster Survey (MICS) conducted in 2011, with a revised report in 2014.⁵⁴ This survey suggests that the 40.2% percent of the women in reproductive age, married or in union use any contraceptive method, while 12.8% use modern contraceptive methods. The most commonly applied contraceptive method, among 25.3% of the women is the withdrawal method (termination of the sexual intercourse). In Macedonia 12.1% of the women have unmet contraception needs, i.e. they want to protect themselves against pregnancy, but neither they nor their partners use any contraceptives. The rate of unmet needs for contraception among women at the age 20-24 is 36.5%. Importantly, this survey also points out that only 52.7% of married or in union women have expressed the need to use any contraception. These indicators set the women emancipation dilemma regarding the selection of a contraceptive method, but also indicate high abortion rates in the country. No qualitative survey has been conducted which would provide detailed explanation about the reason for the low contraceptive prevalence rate, the reasons for avoiding modern contraceptives, the reasons for not expressing the need for contraception etc.

With respect to the socio-demographic characteristics of women, the use of modern contraceptives increases in line with the level of education and the socio-economic status. Modern contraceptives are mostly used by women with higher education (21.2%), and less so by women with secondary (13.4%), primary or lower level of education (7.9%). Of the women with highest socio-economic status, 18.5% use modern contraceptives, compared to 7.5% of the women from the poorest households. There are small differences among the ethnic groups (15% of the ethnic Macedonians use modern contraceptives compared to 10% of the ethnic Albanians and 7% of the ethnic Roma).

The importance of the contraception also increases because of the increasing gap between the start of sexual activity and marriage, i.e. the birth of the first child. In the Republic of Macedonia, 18% of the adolescents are sexually active before the age of 15.⁵⁵ On the other hand, the age of first time mothers constantly increases and it was 27.2 years in 2017, while the average age when women have their child was 28.9 years⁵⁶. In 2015, the average age of first time mothers was 26.6 years. In the European region the age of first time mothers usually ranges between 28 and 33 years, while in OECD countries it ranges between 31.8 and 31.9 years.⁵⁷

54 Ministry of Health, Ministry of Labor and Social Policy, Ministry of Education and Science. *Monitoring of the Status of Mothers and Children. Multi Indicator Cluster Survey 2011. Published in 2011. Revised and corrected in 2014.* (Министерство за здравство, Министерство за труд и социјална политика, Министерство за образование и наука. *Следење на состојбата кај децата и жените. Мултииндикаторско кластерско истражување 2011.*). Available at: <http://mics.unicef.org/surveys>. Accessed in November 2017.

55 World Health Organization, 2014. *Growing up unequal: gender and socioeconomic differences in young people's health and wellbeing. Health Behavior in School-aged Children (HBSC) Study. International Report from the 2013/14 Survey.*

56 State Statistical Office of the Republic of Macedonia, 2018. *Birthrate in the Republic of Macedonia in 2017.* (Државен завод за статистика на Република Македонија, 2018. *Наталитетот во Република Македонија во 2017 година.*). Available at: <http://www.stat.gov.mk/pdf/2018/2.1.18.19.pdf>

57 OECD, Social Policy Division - Directorate of Employment, Labor and Social Affairs. *OECD Family Database.* Available at: <http://www.oecd.org/els/family/database.htm>



The abortion rate represents the number of abortions per 1,000 live births. In 2014, in the European region, this rate was 228 per 1,000 live births, while the countries of Southeastern Europe had a rate of 309 per 1,000 live births.⁵⁸ Globally, the abortion rate in developed countries declines.

In Macedonia, the abortion rate per 1,000 live births was 198.7 in 2015 and 184.8 in 2016. This is more of an indication of under-registration, rather than a realistic reduction of the number of abortions. Therefore the data should be interpreted with caution. Out of all registered abortions in 2016, 3.8% were performed on adolescents and young women under 20 years of age (4.7% in 2015)⁵⁹.

Abortions are regulated in the Law on Pregnancy Termination (Official Gazette of the Republic of Macedonia no. 87/2013). The law stipulates that abortions shall be performed only in hospitals. The current abortion registration forms do not provide an option for registering the abortion method. Currently, surgical pregnancy termination is the preferred abortion technique. Developed countries gradually shift away from surgical abortion method in favor of the medical abortion and the vacuum aspiration. The drugs required for medical abortions (mifepristone and misoprostol) are not registered in Macedonia and are not included in the list of drugs covered by the Health Insurance Fund of Macedonia. The disadvantages of the surgical abortion in comparison to the other techniques include: higher cost, high level of professional staff needed to carry out this procedure and high hospitalization costs. Medical abortion costs less, the method is simpler for the health system since it requires less training, it has fewer complications and affords women with more choice when selecting the abortion method in accordance with the legislation.⁶⁰ The survey conducted in 2013 among primary gynecologists showed that 93% of the gynecologists think that drugs for medical abortion should be registered and be available because of the right of women to choose (63.3%) and the positive health aspects (43.3%).⁶¹

The clinical guidelines for safe abortion have been drafted and submitted to the Ministry of Health for adoption. However they have not been adopted yet.

Breastfeeding rate. Breastfeeding underpins the good health of newborns, provides health benefits to the mother and economic benefits to society. Breastfeeding is an important predictor of the survival of infants. Estimates suggest that breastfeeding reduces infant mortality

58 WHO. European Health Information Gateway: Abortion per 1000 live births, last updated September 2016. Available at: https://gateway.euro.who.int/en/indicators/hfa_586-7010-abortions-per-1000-live-births/visualizations/#id=19681

59 Institute of Mother and Child Healthcare, Health Home Skopje. Information about the health status of mothers and children in the Republic of Macedonia in 2016. MCHCI, 2017. (Завод за здравствена заштита на мајките и децата, Здравствен дом на Скопје. Информација за здравствената состојба на мајките и децата во Република Македонија во 2016 година. 333МД, 2017.)

60 WHO. Safe abortion: technical and policy guidance for health systems. Second edition. Geneva: World Health Organization, Department of Reproductive Health and Research, 2012.

61 Mladenovikj B, Stankova Ninova K, Jovanovski B, Vuchkovska A. Knowledge, attitudes and practices related to medical abortion among the gynecologists in the Republic of Macedonia, quantitative – qualitative study. Vox Medici, 2010; 126-130. (Младеновиќ Б, Станкова Нинова К, Јовановски Б, Вучковска А. Знаења, ставови и постапки поврзани со медикаментозниот абортус помеѓу гинеколозите во Р. Македонија, квантитативно – квалитативна студија. Vox Medici, 2010; 126-130.)



by 13%.⁶² Initial breastfeeding in the EU region is very high, but then it declines from the 4th to the 6th month after birth and the share of exclusive breastfeeding in the first 6 months is 25%. Globally, only 38% of the mothers exclusively breastfeed until the age of 6 months.

The latest data obtained from the survey of a representative sample conducted by the Ministry of Education and Science, the Ministry of Labor and Social Policy and the Ministry of Health supported by UNICEF in 2011 (the Multi Indicator Cluster Survey - MICS), suggest that, in the Republic of Macedonia, 90% of the mothers breastfeed during the first month, 41% predominantly breastfeed, which means that they add other liquids (water, tea, juice), while 23% of the mothers exclusively breastfeed (rely only of breastmilk). In Macedonia, like in the other European countries, the situation with the breastfeeding is not satisfactory. Midwives and neonatologists provide counseling to the mothers about breastfeeding in the birthing centers. After leaving the birthing center, patronage services and preventive counseling centers continue to advise the mothers about breastfeeding.

The possible reasons for the low level of breastfeeding, which should be further investigated, include the insufficient professional support provided to the mothers in the birthing centers, the short stays in the birthing centers, the insufficient staff, especially nursing staff, the high rate of cesarean sections, insufficient support of the patronage service, insufficient attention to breastfeeding in the medical curricula, the aggressive marketing of formula producers etc.

It has to be pointed out that in spite of the unfavorable reproductive health indicators, the relevant institutions in the country (Ministry of Health) do not have a sector or a department or at least a focal point solely dedicated to the promotion of maternal and newborn health.

What do the data say?

- Unfavorable maternal and newborn health indicators in Macedonia.
- Insufficient quality of health indicators (maternal mortality and abortions) due to under-registration, misclassification etc.
- The analysis of the infant mortality causes (preterm birth) implies the need of better quality and more accessible antenatal healthcare, especially for the vulnerable women.
- The low breastfeeding rate is, in part, due to the insufficient support provided by the health system.
- The disaggregation of this indicator according to the socio-demographic characteristics of Macedonian mothers suggests unequal service accessibility to all groups of women.
- No qualitative survey has been conducted which would provide detailed explanation about the reason for the low prevalence of the use of contraceptives, the reasons for avoiding modern contraceptives, the reasons for not expressing the need for contraception etc.

⁶² World Health Organization. *Global Strategy for Infant and Young Child Feeding, 2003*. Available at: http://www.who.int/maternal_child_adolescent/topics/child/nutrition/global/en/



Objectives of the study

Main objective of the study

This study aims to provide an analysis of the situation in Macedonia with respect to the health workforce capacities to provide reproductive healthcare services. The results of the study are used to develop and propose modalities to improve the situations which are determined to have an unfavorable trend.

Specific objectives of the study

To achieve the goal, this study will focus on the following:

- Overview of the identified barriers to accessing reproductive healthcare;
- Analysis of the basic reproductive health indicators in Macedonia, by comparisons with the developed countries;
- Review of the education system of health professionals providing reproductive health services and the relevant qualifications that they acquire;
- Overview of legislation and historical aspects related to defining reproductive health services at different healthcare levels;
- Overview of healthcare services provided by various health professionals and in different healthcare levels;
- Overview of the coverage indicators regarding certain types of reproductive health services (family planning, antenatal, perinatal, and postnatal healthcare);
- Overview of the setup of healthcare services quality system;
- Overview of the healthcare records system;
- Analysis of healthcare statistics about the number and distribution of the health workforce providing reproductive health services in Macedonia (gynecology and obstetrics specialists, family medicine specialist, midwives, medical and patronage nurses) and comparison with other countries from the European region of the WHO and other developed countries;
- Overview of other capacities that could be involved in improving the reproductive health in Macedonia;
- Analysis of the financial aspects of the reproductive health services provision, primarily in reference to the health insurance system, with a special focus on the participation of the insured women in the cost of the service (copayments) and the service provider payment method.



Methodology

This situational analysis follows a qualitative-quantitative methodological approach. The analysis employed a participatory approach to make an overview of the situation in the reproductive healthcare in Macedonia, with a special focus on the organization of human resources. In certain areas, a follow-up comparative analysis was conducted, taking into account the situation in the other countries of the European region of WHO and other developed countries.

The qualitative methodology, with its inductive approach, emphasizes the detailed and thorough review of the collected data and provides the researchers with rich information about the complexity of the organizational context and the societal processes in the current circumstances and the broader social and political environment⁶³. Although usually the data obtained through qualitative methods are not statistically representative of the surveyed population, still they facilitate a basic understanding of the situation which can lead, if necessary, to follow-up quantitative analyses⁶⁴.

The quantitative aspect of the analysis provides strengths with respect to clear and simple presentation of the findings and the opportunities for comparison.

The following data collection techniques were employed:

1. Documents research;
2. Qualitative consultative process.

The documents research mostly included an analysis of official public documents, but also some media coverage. The following documents were analyzed: government policies and strategies, national and international recommendations and guidelines, official demographic and epidemiological data and reports produced by relevant state institutions, primary and secondary legislation, annual HIF reports and contracts, statistical sources, university curricula and advertisements, reports, analyses and other publication of civil society organizations.

The qualitative consultative process comprised meetings of the consultation expert group made of professionals deliberately selected for their knowledge and diverse experience, invaluable to the research process: gynecology and obstetrics specialists in primary and tertiary healthcare, family medicine specialist, public health specialists, midwife, economist, lawyer, representatives of civil society organizations and the communities. Some of the group members were representatives from the relevant health institutions such as the Ministry of Health, the Health Insurance Fund and the Institute of Public Health. The group had seven

63 Neuman, W. Lawrence. *Social Research Methods: Qualitative and Quantitative Approaches*. 5th ed. Boston: Pearson Education, Inc. 2003.

64 Esterberg, Kristin G. *Qualitative methods in social research*. USA: The McGraw-Hill Companies, Inc. 2002.



consultation meetings/workshops, where the expert consultation group members contributed their knowledge and viewpoints in the area of reproductive health. The members of the group also contributed to the documents research, conducted as a continuous process.

The qualitative consultative process was accompanied by a focus group discussion with gynecology and obstetrics specialists working in primary healthcare, in order to obtain a deeper base of knowledge and viewpoints of the profession, bearing the biggest burden in providing reproductive healthcare services. The focus groups sample was also chosen deliberately.

The following major thematic groups/analytical categories were used to organize, process and present the collected data: Reproductive Healthcare, Reproductive Health Workforce and Financial Aspects. These major categories were broken down into previously defined subcategories, but also others were inductively generated and developed during the data collection phase. All of the data relevant for each of the categories and concepts was identified, reviewed and compared to the other data. This interim analysis guided the next stage of data collection and refinement of the research questions.



Competences of the reproductive health workforce in the Republic of Macedonia

Health workers education system

Gynecology and obstetrics specialists

The specializations in gynecology and obstetrics are published in accordance to relevant plans, for the purposes of the healthcare institutions – hospitals, mainly as means to replace the staff that would retire.

In 2015, the Law envisioned specializations in gynecology and obstetrics intended for private healthcare institutions in the primary healthcare level. Article 150-d of the Law on Health Protection stipulates the following:

- “ (1) Health professionals and supporting health staff not employed in the healthcare institution can, for the purposes of starting or completing a specialization/sub-specialization, apply to a public advertisement for enrolling into a co-financing private specialization or sub-specialization, published by the Ministry of Health in accordance with the **program for co-financing specializations and sub-specializations** enacted by the Government of the Republic of Macedonia.
- “ (2) The co-financing program specifies the number of specialization or sub-specialization vacancies **by municipalities** and public healthcare institutions and **the amount of the co-financing** by the Ministry of Health. (...) in accordance with the number and the age structure of specialists or sub-specialists, the waiting time in accordance electronic list of scheduled examinations and interventions and the utilization of specialist-consultative and hospital healthcare services in the municipality of the healthcare institution.”

Advertisements for such co-financed **specializations in gynecology and obstetrics for primary physicians** were published only in 2016. **In most cases the state co-finances 90%**, but in some cases it co-finances only 60%. The advertisements offer specializations for predetermined regions, also covering rural areas (according to the determined “shortages of gynecologists” in the Regulation on the Network of Healthcare Institutions). Three advertisements have been published, advertising specializations for a total of 84 physicians (20 for the first one, 47 for the second and 17 for the third advertisement). Of all of the advertised specializations, only 6 were awarded on the first advertisement and 32 on the second. For 15 regions (for example: Krushevo) no candidates applied on both advertisements.⁶⁵ In 2017, there were no advertisements for co-financed specializations.⁶⁶

The gynecology and obstetrics specialization lasts 60 months.



Midwives education and training, competencies and responsibilities

In Macedonia, the midwives, nurses and medical technicians education is organized at a university level. However, midwives, nurses and patronage nurses graduated from secondary education or two years of higher education according to the older education system, practiced until 1996 are also involved in reproductive healthcare service provision.

Candidates acquire work competences in the area of reproductive health after having completed the curricula for midwives, nurses and medical technicians. The first cycle study programs in all universities last 6 semesters (3 years). After graduation candidates acquire 180 ECTS points. The curricula include a theoretical section (lectures), as well as practical elements (practical training, seminar and practical work).

The Faculty of Medical Sciences at the University Goce Delchev in Shtip, the High Medical School at the University of St. Clement of Ohrid in Bitola and the Faculty of Medical Sciences at the State University in Tetovo offer curricula for **midwives**. However, students of the Medical Faculty at the University St. Cyril and Methodius can acquire midwifery competences as part of the curriculum for nurses and medical technicians.

The competences acquired from these study programs conform to those provided by the International Confederation of Midwives⁶⁷ (shown in table 3):

65 Public advertisement of the MoH – 2016: "Medical doctors that complete, on time, the specialization in gynecology and obstetrics, sign a contract with HIF to be primary gynecologists and they shall receive a stimulation of 1000 points per month for a total of 36 months. If, before the expiration of the 36 months period, the primary physician exceeds 1000 points, then the capitation shall be calculated/paid in accordance with the number of patients. Primary gynecologists in: Arachinovo, Bogovinje, Bosilovo, Brvenica, Vasilevo, Vrapchiste, Dolneni, Zhelino, Jegunovce, Krushevo, Lipkovo, Chucher Sandevo, Makedonski Brod, Novo Selo, Studenichani, Tearce, Caska, Suto Orizari, Demir Hisar, Demir Kapija and Butel, shall also receive a monthly stimulation in the amount of 15,000.00 denars from the Mother and Child Healthcare Program for the Ministry of Health for a period of two years."

66 Ministry of Health of the Republic of Macedonia, www.mz.gov.mk

67 International Confederation of Midwives: *Essential competencies for basic midwifery practice 2010*. Revised 2013.

**Table 3.** *Competences of midwives*

1	Competences pertinent to the sociological, epidemiological and cultural context of maternal and infant health: Midwives have the necessary knowledge and skills in the area of obstetrics, neonatology, social sciences, public health and ethics, which comprise the basis for a high quality, culturally sensitive and proper care of women, newborns and expecting families.
2	Competences pertinent to providing care to women prior to conception and family planning: Midwives provide high quality, culturally sensitive health education and health care services to all members of the community with a view to promoting healthy lifestyle of the family, family planning and positive parenthood..
3	Competences pertinent to providing services during pregnancy: Midwives provide high quality care to women during pregnancy (antenatal care) in order to maximize health during pregnancy. The care involves timely and early detection and treatment of complications and referral to higher levels of healthcare for the treatment of the complications.
4	Competences pertinent to providing services during childbirth: Midwives provide high quality, culturally sensitive care immediately prior to, as well as during delivery, they can conduct a safe delivery and are able to cope with certain emergencies in order to maximize the health of the mother and the newborn.
5	Competences pertinent to providing postnatal services: Midwives provide comprehensive, high quality, culturally sensitive postnatal services to women.
6	Competences pertinent to providing care to the newborn after birth: Midwives provide comprehensive, high quality, culturally sensitive services for healthy newborns.
7	Competences pertinent to the facilitation of abortion related care: Midwives provide a certain scope of individual, culturally sensitive care to women that need such care or that terminated their pregnancy or lost the baby, in accordance with the existing legislative framework and the national clinical pregnancy termination protocols.

The basic characteristics of the curricula of the university study programs covering the education of midwives in Macedonia, suggest that they generally comply with the basic global standards provided by the International Confederation of Midwives⁶⁸, in reference to the secondary education completion requirement for enrollment and at least 3 years of higher education, as well as in reference to the theory to practice ratio (at least 40% theory and at least 50% practice). The only difference with respect to the criteria provide by the Federation, relates to the longer practice after graduation (18 months) relative the practice envisioned with the Macedonian regulation (10 months).

68 *Idem.*



Directive 2013/55/EU of the European Parliament and of the Council from 20th November 2013, stipulates the following: “In order to prepare midwives to meet complex healthcare needs relating to their activities, midwifery trainees should have a solid general education background before they start midwifery training. Therefore, admission to midwifery training should be increased to 12 years of general education or successful examination of an equivalent level, except in the case of professionals who are already qualified as a nurse responsible for general care.” This directive stipulates that midwife training should last for three years, unless the candidates have formal general nursing qualifications, in which case the training can last two years or one year if the candidate has had appropriate professional practical experience.⁶⁹

Some universities (the universities in Bitola and Shtip) also offer a **second cycle of studies**, i.e. specialization in obstetrics.

Midwives and nurses strongly believe that the education process does not include sufficient practical training and that, over time, the situation in this respect further deteriorates. The schools for nurses/midwives need to emphasize the practical part of the training, particularly because they also admit students that have graduated from any secondary school and without any medical prerequisite knowledge. Some of the professionals in this field think that reinstating the midwives vocation in the secondary medical school could help raise the professionalism of the workforce that can either continue in the education system or start practicing healthcare.⁷⁰

In practice, the work of the midwives largely depends on the institution where they work, i.e. on their specific job. Most of them work in birthing centers, followed by the patronage service and about 70 of them work in the primary gynecological healthcare.

69 *DIRECTIVE 2013/55/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 November 2013 amending Directive 2005/36/EC on the recognition of professional qualifications and Regulation (EU) No 1024/2012 on administrative cooperation through the Internal Market Information System (‘the IMI Regulation’).*

70 *National Roma Center Kumanovo. Profession of midwives in the Republic of Macedonia – Status and Challenges. Kumanovo, October 2016. Available at: http://static.nationalromacentrum.org/zdravstvo/2017/broshura-A4_ANG_new.pdf*



Patronage nurse education and training, competences and obligations

Specialized training/modules for acquiring competences for **patronage care** have been incorporated in the education for midwives and nurses and technicians in the University of Goce Delchev in Shtip and the Medical Faculty at the University St. Cyril and Methodius, as an elective course entitled *Patronage Healthcare*. At the High Medical School at the University of St. Clement of Ohrid in Bitola, the patronage healthcare content forms a part of the elective course Primary Healthcare. The Faculty for Medical Sciences at the State University in Tetovo does not include patronage healthcare in any of the courses it offers.

The competencies acquired from these study programs comply with the required competences for patronage nurses in the Republic of Macedonia defined in the Polyvalent Patronage Nurse Work Standards and Norms – PPS (drafted document, still not approved by the Ministry of Health⁷¹). Some of these standards refer to reproductive health and are shown in the following table:

Table 4. Polyvalent Patronage Nurse Competences with respect to reproductive health

1	Healthcare promotion and prevention activities related to the improvement of the health and hygiene habits of the population through provision of information, advice and assistance.
2	Participation in the social mobilization for successful implementation of the preventive programs of the Ministry of Health (immunization program, active healthcare of mothers and children and other programs), especially in the socially marginalized areas and for vulnerable groups.
3	Participation in the implementation of specific measures, healthcare procedures and activities for women in the area of safe motherhood, especially in regards to pregnancy, childbirth, motherhood, family planning and abortion. In addition such services are provided to newborns, infants, preschool and school children, especially children with disabilities.
4	Cooperation with the network of health organizations and social institutions, as well as all of the public institutions in the local community in order to provide the people with a comprehensive access to healthcare.

The Faculty of Medical Sciences at the University of Goce Delchev in Shtip offers a specialization program for family and patronage nurses, and the High Medical School at the University of St. Clement of Ohrid in Bitola, offers a specialization program for family and patronage care.

71 Ministry of Health of the Republic of Macedonia, *Information of the activities to expand the scope and type of services of the polyvalent patronage service in the Republic of Macedonia, 2011.* (Министерство за здравство на РМ, Информација за тековни активности за проширување на обемот и видот на услугите на поливалентната патронажна служба во Република Македонија, 2011 година).



Family medicine specialists

The specialization in family medicine lasts three years. If a physician has had appropriate practice as a general practitioner, then he/she can acquire the family medicine specialist qualification just by attending one year of additional education.

The curriculum involves contents in the area of sexual and reproductive health. This healthcare profile has the competences with respect to the following activities⁷²:

Table 5. Competences envisioned with the family medicine specialization, related to reproductive health

1	Management of sexually transmitted infections (taking of vaginal and endocervical smears, interpretation of laboratory results and microbiological analyses).
2	Providing advice for related psychosexual problems and sexual dysfunctions.
3	Family planning (provides information about the benefits of family planning, about the effects of certain contraception methods, how to use specific contraception methods, takes anamneses, performs a vaginal examination, places diaphragms and intrauterine devices).
4	Pregnancy (diagnoses pregnancies, identifies most common complications during pregnancy, monitors a normal pregnancy, recognizes the onset of labor, interprets results of antenatal investigations, provides advice regarding healthy lifestyles during pregnancy).
5	Sexual education of adolescents

The specialization programs in family medicine started in 2009. The interest for enrolling in these study programs varies from year to year, and an average of about 30 specialists graduate from the program each year. This figure is not satisfactory when compared to the number of physicians graduating from the medical studies. According to personal opinions of certain physicians, the main reason for this relates to “the dissatisfaction due the undervaluation (financial) of the specialization, which the specialization candidates have to pay for themselves, but are not in a position to recover the initial investment by practicing the attained skills that the other primary physicians do not have. This makes this specialization unattractive in comparison to the other specializations, which are paid through specialist packages”. On the other hand, the full valuation and utilization of the competences of family doctors should contribute to a greater patient satisfaction, because it would incur savings for the patients, as well as for the HIF (fewer referrals, alleviation of the burden on the secondary healthcare system).

72 Primary Care Specialist Training Team FINAL REPORT: The recommended strategy.



Professional development (continuous medical education)

Continuous medical education and in-service trainings significantly contribute to maintaining the quality of the existing workforce and maintaining the service quality, especially considering the local context, where most of the workforce in the Republic of Macedonia has a secondary level education. The existing laws do not envision a system of licensing and relicensing.

Patronage nurses have had many opportunities to participate in such trainings on various topics in the field of safe motherhood (breastfeeding, antenatal care, family planning, caring for newborns). On the other hand, the midwives from the birthing centers have had fewer such opportunities.⁷³

There is a need to establish a system of continuous medical education of these profiles in order to improve quality and unify the standpoints. At the same time, this represents an important professional motivation method.

The lack of a chamber of nurses and midwives may be one of the reasons for this situation. Primary legislation regulates the right of the midwives to associate in a chamber or in associations. However, in practice, there is no association at the level of a chamber because, currently, the core responsibilities that a chamber should have (registration of the workforce, issuing of licenses, organization of professional examinations etc.), have been taken over by other state administrative institutions (Ministry of Health, Institute of Public Health). A process was started to adopt a Law on Nurses and Midwives. This law should have regulated all the pending issues regarding these two professions. However, such a law is not yet a part of the legally effective legislation in the Republic of Macedonia.

Reproductive health responsibilities

The responsibilities of the health professionals in the area of reproductive health depend on the type of the institution or the service where they work. The table below presents an overview of the responsibilities of the health workers in the area of reproductive health, depending on their employment in accordance with the established practice:

⁷³ National Roma Center Kumanovo. *Profession of midwives in the Republic of Macedonia – Status and Challenges*. Kumanovo, October 2016. (Национален ромски центар Куманово. *Професијата на акушерките во Република Македонија – Состојба и предизвици*. Куманово, октомври 2016.) Available at: http://static.nationalromacentrum.org/zdravstvo/2017/broshura-A4_ANG_new.pdf. Accessed in November 2017.



Table 6. Responsibilities in the area of reproductive health by service providers in accordance with the established practice in Macedonia

Reproductive health areas	Gynecologists from the birthing centers	Primary gynecologist	Midwives/nurses in birthing centers	Patronage nurses	Midwives/nurses in PHC (teamed up with primary gynecologists)	Midwives/nurses in PHC (teamed up with family physicians)	Family physicians
Providing care before conception and advice about family planning	+	+	-	+	+/-	-	-
Providing care and services during pregnancy	+	+	+	+	-	-	-
Providing care and services during delivery	+	+/-	+	-	-	-	-
Providing care and services in the postnatal period	+	+	+/-	+	-	-	-
Providing care to newborns after birth, including sustaining breastfeeding and breastfeeding complications management	-	-	+	+	-	-	+/-
Providing abortion facilitation care and services	+	-	+	+	-	-	-
Gynecologic care, including dealing with infertility	+	+	-	-	-	-	-
Prevention and treatment of STIs including provision of condoms	+/-	+	-	+	-	-	-
Voluntary HIV counselling and testing	-	-	-	-	-	-	-
Prevention and management of gender based violence	-	-	-	-	-	-	-
Sexual and reproductive health of adolescents	+	+	-	+	-	-	+/-



The gynecologists, and midwives/nurses provide most of the services in the birthing center and the patronage service provides fewer services. The role of the family physicians and of the nurses who work with the primary gynecologists and the primary family doctors is almost nonexistent. The underutilization of midwives in practice leads to low motivation to enroll in specialization programs for midwives. The fact that the calls for employment of nurses/midwives require only a secondary school diploma, further exacerbates the low motivation. In addition, the number and the education of midwives/nurses in primary healthcare institutions does not influence the per-capita remuneration they receive from the HIF which discourages primary physicians to recruit midwives/nurses with university level education.

The catalogue of jobs in the public sector (hereinafter in the text: the catalogue) is a systematized list of jobs in the public sector, organized in groups, subgroups, categories and levels, prepared and maintained by the Ministry of Information Society and Administration⁷⁴. According to the “Rule Book on the Content and the Method for Preparing the Internal Job Organization and Systematization Acts, as well as the Content of the Functional Review of the Public Sector Institutions”⁷⁵, when preparing the internal job organization and systematization acts, the job code should correspond to the Catalogue. The most recently published version of this Catalogue (version 8), stipulates several health worker positions in the area of midwifery and patronage services, and they require two years of university education or secondary education, such as:

- Senior nurse midwife (60/120 ECTS) (requires two years of university education)
- Senior health worker, patronage specialist (60/120 ECTS) (requires two years of university education)
- Midwife (level G01) (requires secondary education)
- Midwife in a birthing arena (level G03) (requires secondary education)
- Patronage nurse (G02) (requires secondary education)

The current education system does not have secondary schools or two year university programs for midwives and therefore the above mentioned positions refer to midwives educated according to the older education system. In Macedonia, from 1996, the education of midwives is organized at the level of university education followed by a specialization. The catalogue does not contain a single job position in the area of midwifery and patronage which requires a university level education nor a specialization. Jobs requiring a university level education involve only medical nurses, such as “graduated nurse working in a ward” or “nurse specialist” (without mentioning the field of specialization).

74 Ministry of Information Society and Administration. Public Sector Job Catalogue. (Каталогот на работни места во јавниот сектор). Available at: http://www.mioa.gov.mk/files/dokumenti/KATALOG_NA_RABOTNI_MESTA_21012016_v8.pdf

75 Ministry of Information Society and Administration. Rule Book on the Content and the Method of Preparation of the Internal Organization and Systematization Acts, as well as the Content of the Functional Review of Public Sector Institutions. Official Gazette of the Republic of Macedonia No. 11 from 26.01.2015; (Министерството за информатичко општество и администрација. Правилник за содржината и начинот на подготовка на актите за внатрешна организација и систематизација на работните места, како и содржината на функционалната анализа на институциите на јавниот сектор. Службен весник на РМ, бр. 11 од 26.01.2015 година.)



Considering that internal job organization and systematization acts have to comply with the Catalogue, which still does not recognize midwives with university level education, this represents a significant barrier to motivating and stimulating the enrollment of candidates to university study programs for midwives.

The catalogue is a documents subject to constant changes (insertions of new and deletions of existing jobs), made at the request of and in line with the needs of the institutions, regulated by a rule book.

What do the data say?

- The gynecology and obstetrics specialists have a unified specialization that lasts 60 months and all of them acquire the same competences irrespective of the level of healthcare where they are referred to work.
- Only in 2016, advertisements were published offering specializations in gynecology and obstetrics, intended only for physicians working in primary healthcare, mainly for regions with insufficient supply of such workforce. The interest in this specialization is partial.
- The competences envisioned with the higher vocational programs for midwives seem sufficient, but they are underutilized in practice by the health system, which influences the low motivation for enrollment in the studies for midwives.
- The competences acquired from the specialized education programs for patronage nurses seem insufficient (this needs a more in-depth analysis) because these competences are included in an elective course. This shortcoming is partly offset by in-service training, but these do not follow a systematic approach.
- There is no chamber or a plan for continuous medical education (CME) for the midwives, the nurses and the patronage nurses, which begs the question of maintaining the quality of performance.
- Family physicians possess a certain scope of competences for providing reproductive health services, but in practice family physicians rarely provide such services. These physicians are not motivated to provide services in this area.
- The responsibilities of the health workforce depend on the job/institution where they work.
- The job catalogue prepared by the Ministry of Information Society and Administration does not contain a single job in the area of midwifery or patronage which requires a university level education or a specialization, which constitutes a significant discouragement and dissimulation to enroll in higher vocational studies and specializations for midwives.



Reproductive health services

Basics of the reproductive healthcare organization

According to the existing structure of the healthcare system in the Republic of Macedonia, reproductive healthcare services can be performed at all levels of healthcare.

According to the Law on Health Protection, **primary healthcare** encompasses most of the reproductive healthcare services, namely: "detection and treatment of illnesses and injuries, provision of healthcare and obstetrics services, healthcare in the area of sexual and reproductive health, healthcare for the needs of children and students, implementation of preventive programs and measures for children, youth, women (...) and implementation of screening programs for detecting the disease risk factors, i.e. early detection of the initial signs of the onset of the disease, except screenings referred to other levels of healthcare, patronage care" (article 30).

The Law on Health Protection does not recognize family planning and gender based violence as distinct health areas. This might be due to the fact that these are generally not related to diseases.

Secondary healthcare encompasses health services and measures which, due to the severity of the illness, the need for expert specialized diagnostics and treatment, professional and technological complexity and the multidisciplinary approach, as well as the need for hospital treatment, cannot be provided at primary level. Secondary healthcare encompasses specialist – consultative and hospital healthcare (article 33). Most of the reproductive health services are covered by this level of healthcare as well.

Tertiary healthcare encompasses healthcare services which require professionally, organizationally and technologically complex and multidisciplinary health treatment. A large portion of the reproductive health services are covered by this level of healthcare as well (article 37).

Regarding the coverage with reproductive health services at the different levels of healthcare, the health insurance regulations generally comply with the provisions in the Law on Health Protection.

The gynecology and obstetrics specialists, as the main providers of reproductive healthcare, work as a **specialist in the out-patient care**, organized only at the level of primary healthcare (according to the principle of a primary 'selected' gynecologist), as well as **hospital** gynecologists in the secondary and tertiary healthcare. Unlike the gynecology specialists, the out-patient care for most of the other specialties is included in the secondary healthcare as well.

The pediatrics and gynecology specialist were transformed to primary healthcare level in order to provide for an easier access to healthcare for the women and the children, without the need for a referral from another primary physician. People involved in the primary healthcare transformation process from 2000 to 2007, implemented with the support of the World Bank stated that “(...) then they enacted a strategy for the development of primary healthcare until 2020, which stipulated that until 2020 the primary healthcare will have no pediatricians and gynecologists and there will be no specializations for gynecology and pediatrics for primary healthcare”⁷⁶. However, in the past 4-5 years there was tendency of emphasizing the differences in the competences of gynecology and obstetrics specialists in primary and secondary healthcare, reflected through offering specializations specifically intended for primary level gynecologists, through limiting the range of services provided at the primary level etc.⁷⁷ This situation counters the standpoints of the gynecology and obstetrics specialists who think that the competences acquired with the gynecology and obstetrics specialization of 60 months, are the same and should remain the same for gynecologists regardless, and all of their potential should be fully utilized⁷⁸. This standpoint is in accordance with the recommendations of the WHO regarding the utilization of the human potential in healthcare, within the **full scope of their profession**.

The secondary healthcare institutions in the reproductive health area, that operate within the health insurance system constitute mostly state owned institutions, located in different towns throughout the country. These mainly include general and clinical hospitals. There are several private hospitals as well in the secondary healthcare. Most of them do not have a contract with the HIF that cover reproductive health services, with the exception of biologically assisted fertilization.

Tertiary healthcare in Macedonia is state owned and it is concentrated in the capital city of Skopje.

In addition, the health insurance regulations also regulate the manner of exercising the rights to healthcare of the insured persons. Insured persons basically receive primary healthcare services from the **primary physician**. Insured persons have a right and an obligation to select primary physician. Unlike in the case of primary healthcare, in higher healthcare levels, patients receive the services pursuant to a referral issued by the primary physician, except for emergencies.

Within the health insurance system, primary health care offices can practice one of the three areas – general practice, gynecology and general dental care. All of them sign contracts with the HIF, as a financial intermediary. The contract in each of these areas contains specific provisions regarding the contractual obligations and the manner of payment for the services.

76 Source: Focus group for the purposes of this analysis, comprising gynecology and obstetrics specialists, Skopje 18th May 2018.

77 Source: sample of the Decision to award a license to operate to the PrHCI Gynecology and Obstetrics Offices and Contract for Awarding the License for Providing Healthcare Services in the Network of Healthcare Institutions, issued by the Ministry of Health after 2013.

78 Source: Focus group for the purposes of this analysis, comprising gynecology and obstetrics specialists, Skopje 18th May 2018 (Annex 2).



The general practitioners include physicians working in general practice, occupational medicine, pediatrics, school medicine and family medicine. Every GP healthcare institution has the same rights and obligations irrespective of the qualifications of their workforce. The primary healthcare in the field of gynecology can be performed by gynecology and obstetrics specialists.

The Rule Book on the Content and the Manner for Exercising the Rights and Obligations related to the Mandatory Health Insurance, defines **the contents of the basic healthcare services provided by the primary physician** to the insured person, including preventive measures for “protection of women during pregnancy, childbirth, the postnatal period and contraception, protection of infants and small children” (article 27). No restrictions exist stipulating that only gynecologists can provide such services, which provides a legal basis for general practitioners to also provide such services.

The primary gynecologist, in addition to implementing the measures and activities envisioned for the general primary healthcare, shall also have the obligation to monitor and provide advice in reference to the pregnancy and contraception; undertake measures and activities for prevention and early detection of illnesses in women. The primary gynecologist also provides ultrasound and colposcopy services. According the existing secondary legislation “the primary physician cannot provide services from the specialist – consultative healthcare, except the gynecologist who can deliver a baby in a birthing center within a health home, if the delivery is not done in a hospital” (article 15, article 28 and article 32 of the Rule Book on the Content and the Manner for Exercising the Rights and Obligations related to the Mandatory Health Insurance). Still, in the area of gynecology, it is not precisely defined which are the services from the specialist – consultative healthcare, that gynecology and obstetrics specialists in primary healthcare cannot perform. According to the contract signed by the primary gynecologists and HIF, the healthcare institution has to provide an ultrasound and a colposcopy. However, the legislation does not stipulate the standard to which this equipment has to conform. This, in turn directly impacts the type of services that can be provided.

The decisions issued by the Ministry of Health to the gynecology offices, authorize these officers to provide **specialist – consultative** healthcare service, except services requiring the use of anesthesia and blood transfusion. However, lately (since 2013) the authorities devised a new system of awarding decisions for operating a healthcare service provider, by precisely stipulating a limited list of health services in primary healthcare. According to some gynecologists, this list contains a series of flaws and illogical limitations of the competences of the gynecology and obstetrics specialists (for example the list allows a primary level gynecologist to deliver babies at home, which is a high risk intervention, but does not allow that gynecologist to perform biopsies). In addition, some of the specialists think that the practices in other countries cover a much larger scope of specialist gynecology services, provided in out-patient care, depending on the equipment, than those “allowed” in Macedonia with the new decisions of the Ministry of Health (for example: fraction curettage, laparoscopy, hysteroscopy etc.).⁷⁹

79 Source: Focus group for the purposes of this analysis, comprising gynecology and obstetrics specialists, Skopje 18th May 2018.



Healthcare treats the individual, the family and their surroundings when they are healthy or ill in order to maximize the level of health and enable the patients to autonomously perform the basic life functions, promote their health, care for the ill and participate in the process of treatment, rehabilitation and palliative care. “Obstetrics care” entails the treatment of women during pregnancy, delivery and the postnatal period, as well as care of newborns and infants in order to preserve or achieve the best possible level of health, as well as specific tasks from the area of gynecology and family planning.

Healthcare team means a group of nurses and other health workers that provides healthcare to the patients, managed by the nurse (article 15 of the Law on Health Protection).

Patronage (community nursing system) entails active and social treatment of an individual or a family in the home or within the local community. **Polyvalent patronage** entails activities performed only within the primary healthcare network within the PuHCI Health Home (article 29, article 30, article 73 of the Law on Health Protection). It is an integral part of the public health system, an organizational unit within the public healthcare institution, implementing a polyvalent patronage (PP) as well as preventive and curative services to the entire family through visits of the patronage nurse to the home and cooperation with the healthcare and other institutions in the area. According to the Rule Book on the Content and the Manner for Exercising the Rights and Obligations related to the Mandatory Health Insurance, insured persons shall have the right to healthcare by a polyvalent nurse, including patronage visits to women in the reproductive period, patronage visits to pregnant women and women who have given birth, as well as newborn children and preschool children. Annex 1 of this study report provides the procedures related to polyvalent patronage care, their duration and the average number of visits per day in accordance with the Polyvalent Care Standards and Norms, which have not been adopted yet, but are used by the patronage care providers.⁸⁰

⁸⁰ Source: Polyvalent patronage service at the Health Home, Skopje.



Service coverage

The type of reproductive healthcare services and the healthcare level that provides them are shown in the table below (table 7):

Table 7. *Types of reproductive health services by healthcare level and provider specialty in Macedonia*

Area	Service	Healthcare level	Service providers
Family planning	<ul style="list-style-type: none"> Family planning (information, counseling, prescribing contraceptives) Pregnancy testing Emergency contraception 	<ul style="list-style-type: none"> Primary Secondary Civil society organizations⁸¹ 	<ul style="list-style-type: none"> Gynecologists Patronage nurses Roma health mediators
Healthcare for pregnant women, mothers and newborns	<ul style="list-style-type: none"> Antenatal care Care during delivery Postnatal care Breastfeeding advice Health of newborns 	<ul style="list-style-type: none"> Primary Secondary/Tertiary 	<ul style="list-style-type: none"> Gynecologists Neonatologists Patronage nurses
STIs/HIV	<ul style="list-style-type: none"> STIs/HIV prevention HIV Voluntary counseling and testing Provision of condoms and lubricants Screening, diagnosis and treatment of STIs/reproductive system infections 	<ul style="list-style-type: none"> Secondary/Tertiary Primary IPH, CPH Civil society organizations⁸² 	<ul style="list-style-type: none"> Gynecologists Infectious diseases specialists Dermatologists
Safe abortion	<ul style="list-style-type: none"> Prevention of unsafe abortion Care for women during abortion and after abortion 	<ul style="list-style-type: none"> Secondary/Tertiary 	<ul style="list-style-type: none"> Gynecologists
Gynecology care	<ul style="list-style-type: none"> Prevention of unsafe abortion and provision of contraception Screening for cervical cancer/PAP test Infertility treatment Sexual dysfunction treatment 	<ul style="list-style-type: none"> Primary Secondary/Tertiary Civil society organizations 	<ul style="list-style-type: none"> Gynecologists Dermatologists
Gender based violence	<ul style="list-style-type: none"> Prevention and management of gender based violence⁸³ 	<ul style="list-style-type: none"> Civil society organizations 	<ul style="list-style-type: none"> Social workers Psychologists Pedagogues

According to the above, most of the reproductive healthcare services are provided at all three levels of healthcare. Neither the Law on Health Protection nor the evidence-based medicine nor the practice do not clearly delineate the level of healthcare responsible for providing the different reproductive health services, except for abortion and biomedical assisted fertilization which are provided at a higher level of healthcare.

Family planning services

Family planning services in Macedonia are mostly provided by gynecologists (providing information, counseling, prescribing drugs, insertion of IUDs, monitoring) and some by the patronage nurses (providing information, counseling).

A survey about sexual and reproductive health and rights of the population was conducted in Macedonia in 2009 and 2010. This research aimed at analyzing the situation with SRH of women and men in the country, including knowledge, attitudes and practices of the population, access to healthcare services, quality of the offered healthcare services and satisfaction with such services. The research involved a prospective cross-sectional study of a representative sample of 2,691 respondents from 15 to 49 years of age, of which 1,346 women and 1,345 men. The findings suggested that women and men do not have sufficient knowledge regarding the various contraception methods and means, i.e. between 52% and 69% of the women do not have any knowledge of the efficiency of the hormone contraception and the barrier contraceptives and between 64% and 76% of the men do not have any knowledge about contraceptives.

Half of the women and half of the men that responded to the survey did not use any protection during their first sexual intercourse. A contributing factor is the low level of contraception use among women. In the 12 months prior to the survey, 5.7% used hormone contraception and only 2.2% used barrier contraception. Condoms are the most commonly used contraceptive. However, only 23.4% of the men and 16.6% of the women reported regular use of condoms. In addition, 20.7% of the women stated that they wanted to have their first child, but did not plan to have it. This survey also suggests that 14.5% of the women had at least one abortion or, 1.6 abortions on average.⁸⁴

81 *Mobile gynecology out-patient office and Youth Centers "I want to know", Vodno and Shuto Orizari, Skopje, managed by HERA – Health Education and Research Association.*

82 *Network of civil society organizations offering services for prevention and support with respect to HIV: HERA, HOPS – Healthy Live Options Skopje, STRONGER TOGETHER, EGAL – Equality for Gays and Lesbians, Trust, STAR-STAR, Red Cross in Prilep and Veles, Option - Ohrid, Zona - Kavadarci, Center for Promoting Public Life – Tetovo, HELP – Gostivar, Youth Club – Shtip, Choice – Strumica, PULS - Kumanovo, Inter-Ethnic Project – Gostivar – Via Vita – Bitola.*

83 *National Action Plan for Gender Equality 2013-2016 and National Action Plan for Gender Equality 2018-2020 (draft). Ministry of Labor and Social Policy, 2017. (Национален акционен план за родова еднаквост 2013-2016 and Национален акционен план за родова еднаквост 2018-2020 (draft). Министерство за труд и социјална политика, 2017). Available at: <http://www.mtsp.gov.mk/dokumenti.nsp>*

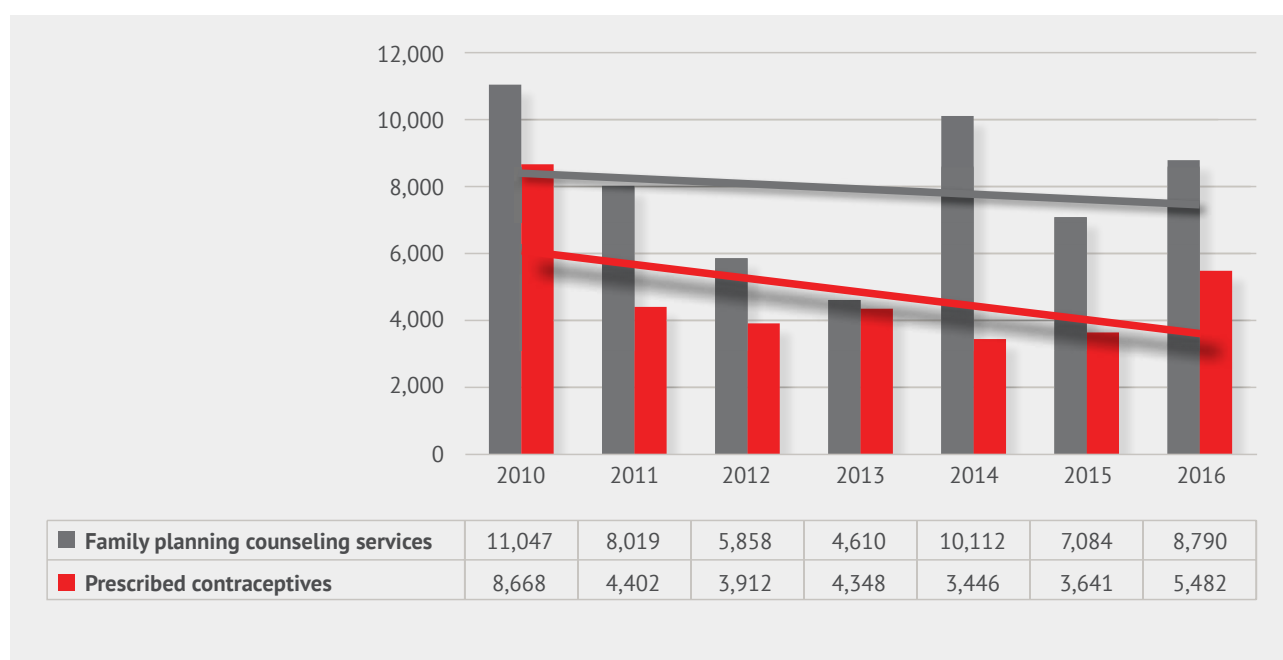
84 *Pavlovski Borjan. Assessment of the Status of Sexual and Reproductive Health and the Rights of the Population in the Republic of Macedonia. Association for Emancipation, Solidarity and Equality of Women in RM-ESE, 2010. (Павловски Борјан. Проценка на состојбата по однос на сексуалното и репродуктивно здравје и права на населението во Р. Македонија. Здружение за еманципација, солидарност и еднаквост на жените на РМ-ECE, 2012).*



The fact that no contraceptives are included in the HIF's positive list represents an additional barrier.

The Institute of Mother and Child Health analyzes and presents the data registered by the primary gynecologists and the patronage services (primary healthcare) and reported to the Centers of Public Health and the Institute of Public Health, in an annual document entitled "Information about the health status of mothers and children in the Republic of Macedonia". The registered number of first time counseling services in this system of information suggests that in 2016 the coverage of women in their reproductive period, with counseling for contraception is very low (1.2%) in spite of the fact that the absolute number of counseling services for family planning in primary healthcare has increased in comparison to 2015, by 24%, i.e. a total of 8,790 counseling services for family planning have been registered in 2016 in comparison to 7,084 in 2015 (the coverage in 2015 is less than 1%). The number of prescribed contraceptives also increased (5,482 in 2016 compared to 3,641 in 2015), but still this number is very low. In 2016, only 1.2% of the 19 year old adolescents were covered with family planning advice, while in 2015 that value was 0.8%.⁸⁵

Chart 1. Access to family planning services – number of visits and number of prescribed contraceptive (2010-2016)



⁸⁵ Institute of Mother and Child Health, Health Home Skopje. Information about the health status of mothers and children in the Republic of Macedonia in 2016. Skopje, 2017. (Завод за здравствена заштита на мајките и децата, Здравствен дом на Скопје. Информација за здравствената состојба на мајките и децата во Република Македонија во 2016 година. Скопје, 2017).

As a result of one of the recommendations given in the family planning system assessment, performed by the MoH in cooperation with UNFPA⁸⁶, between 2014 and 2016, all PHC family medicine specialists participated in a training in the Center for Family Medicine related to providing family planning services (providing information, counseling, prescribing oral contraception), which increased the number of potential service providers in this area. The training was implemented by a team of trainers using a specific manual.⁸⁷

In the period from 2015 to 2017, as part of the Continuous Medical Education (CME), all family medicine specialists were trained in providing services in this area (providing information, prescribing oral contraception, monitoring). They were also provided with the necessary guidelines and practical tools (contraception wheel etc.) prepared by the WHO. The objective was to increase the number of family planning service providers and increase the access to those services, especially for the vulnerable group of women (women from rural areas, adolescents, women with lower socio-economic status). This project improved the competences of the family physicians. However, no financial or any other type of incentive was introduced in the meantime. Still it has not been estimated how many of the trained family physicians actually began providing these services in practice.

Access to antenatal, perinatal and postnatal care

According to the antenatal care guidelines, women pregnant with their first child need to have 10 antenatal examinations and pregnant women who have already given birth need to have 7 examinations. **Antenatal** healthcare services are mostly provided by the primary gynecologists, partly in the birthing center itself and also by the patronage service.

In Macedonia there are several data collection methodologies regarding antenatal healthcare. **Healthcare institutions** report these data to the **Institute of Public Health**. Then, the Institute of Mother and Child Health processes the data. The data suggest that, in 2017, the primary physicians registered a total of 127,763 examination of pregnant women or 6.7% more than in 2015. According to this data source, **70%** of the pregnant women had at least one antenatal examination⁸⁸. This has to be interpreted with caution because some of the women do not go to their primary gynecologist to monitor their pregnancy, but rather they go to another private healthcare institution which complicates the registration of these examinations.

86 Koo B, Mladenovikj B, Tofoski G, Jovanovski B. *Evaluation of the Family Planning System and the Training Needs of the Health Workers in the Area of Family Planning in the Republic of Macedonia*. Ministry of Health of the Republic of Macedonia and the UNFPA Office, Skopje, 2013. (КОО Б, Младеновиќ Б, Тофоски Г, Јовановски Б. *Евалуација на системот за семејно планирање и потребите за обука на здравствените работници во доменот на семејното планирање во Р. Македонија*. Министерство за здравство на РМ и Канцеларија на УНФПА, Скопје, 2013).

87 Stavrikj K., Mladenovikj B., Stankova Ninova K, Tofovski G, Jovanovski B. *Family Planning: Manual for Training of Primary Healthcare Service Providers*. CA HERA, Healthcare Education and Research Association Skopje, 2015. (Ставриќ К, Младеновиќ Б, Станкова Нинова К, Тофовски Г, Јовановски Б. *Семејно планирање: Прирачник за обука на даватели на услуги од примарната здравствена заштита*. ЗГХЕРА, Асоцијација за здравствена едукација и истражување Скопје, 2014).

88 Institute of Mother and Child Health, Health Home Skopje. *Information about the health status of mothers and children in the Republic of Macedonia in 2016*. Skopje, 2017. (Завод за здравствена заштита на мајките и децата, Здравствен дом на Скопје. *Информација за здравствената состојба на мајките и децата во Република Македонија во 2016 година*. Скопје, 2017).

According to the **perinatology results in the Republic of Macedonia**, published by the National Reproductive Health Center, in 2016, **90.3%** had at least one examination during pregnancy, while 83/1% of the pregnant women had 5 or more antenatal examinations during the pregnancy. The report emphasized that these data are inconsistent, considering that the number of antenatal examinations was taken from the medical histories where the examinations are registered on the basis of a patient statement provided at admission to hospital and not on the basis of data from the mother's booklet or data from the records of primary gynecologists.⁸⁹ This way of collecting data is susceptible to a serious response bias.

The Multiple Indicator Cluster Survey (MICS) is a household survey implemented in accordance with the internationally adopted methodology developed by UNICEF. Multiple cycle of this survey were implemented in different countries. The latest survey in Macedonia was conducted in 2011⁹⁰. This survey considers a sample from the general population, as well as the population in Roma settlements. The results reveal that in Macedonia, most of the antenatal healthcare was provided by a skilled personnel (99%) of which 93.3% were medical doctors, 5.1% were midwives/nurses, 0.2% auxiliary midwives, and only 1.4% did not receive any antenatal healthcare, i.e. did not have any antenatal examination. In addition, 93.9% received antenatal care four or more times. In the Roma settlement, the percentage of women that have not had any antenatal examinations was higher, i.e. 6% and 85.9% received antenatal care four or more times.

Table 8. Overview of the data about antenatal services provided by a gynecologist in Macedonia according to various sources

Data source and year	% of pregnant women having at least one antenatal examination	Average number of antenatal examinations per pregnant woman by a gynecologist
IPH/IMCH (2016)	70%	7.5
National Reproductive Health Center (Perinatology results for 2016)	90.3%	N/A
MICS (2011, verified in 2014)	98.6%	N/A

89 National Reproductive Health Center of the Republic of Macedonia. University Clinic for Gynecology and Obstetrics. *Perinatology Results in the Republic of Macedonia, 2016*. Skopje, May 2017. (Државен центар за репродуктивно здравје на РМ. Универзитетска клиника за гинекологија и акушерство. Перинатолошки резултати во РМ, 2016 год. Скопје, мај 2017 г.).

90 Ministry of Health, Ministry of Labor and Social Policy, Ministry of Education and Science. *Monitoring of the Status of Mothers and Children. Multi Indicator Cluster Survey 2011*. Published in 2012. Revised and corrected in 2014. (Министерство за здравство, Министерство за труд и социјална политика, Министерство за образование и наука. Следење на состојбата кај децата и жените. Мултииндикаторско кластерско истражување 2011.). Available at: <http://mics.unicef.org/surveys>.



The existence of significant differences in the data regarding realized antenatal examination according to different data sources indicates a problem in the existing system of tracking records and reporting antenatal examinations. This is largely attributed to the lack of a national methodology for data collection, which in turn suggests questionable reliability of the data. The reasons for such discrepancies have not been analyzed although a National Electronic Health Records System already exists (integrated health information system or the so called “My Appointment”).

However, although there are no systematized data about the coverage with antenatal care, in practice, according to statements of pregnant women and gynecologists, some women have more antenatal examinations than recommended by the clinical guidelines. On the other hand, some women have fewer examinations than necessary.

Deliveries performed by a skilled professional in a healthcare institution are at a high level. In 2015 and 2016 this parameter was 99.9%⁹¹. The percentage of deliveries in the population in the Roma settlements performed by a skilled professional supervision in a healthcare institution was high as well⁹².

According to the official data **the patronage service** performs, on average, 2 visits per pregnant woman and more than two visits for high-risk pregnancies (pregnant women younger than 18 and older than 35 years, pregnant women from vulnerable groups including Romani women, women who live in remote and rural areas). In Macedonia, in 2016, a total of 14,754 patronage visits were registered, covering about 41% of the pregnant women with about 1.6 visits per pregnant woman. There are differences in the coverage with patronage visits between the different cities in Macedonia. This can be correlated to the differences in the availability of patronage teams. In 2016, the number of patronage visits to pregnant women declined by 14% than in 2015.⁸⁹

Still, field surveys, conducted in Šuto Orizari since 2012, show that the coverage of pregnant Romani women with the patronage service is much lower than the average obtained from the official data. Thus in 2012, only 13% of the pregnant women were visited by a patronage nurse during pregnancy, in 2013 only 7%, in 2014 – 14%, in 2015 – 5.9% and 11% in 2017⁹³.

91 Institute of Mother and Child Health, Health Home Skopje. *Information about the health status of mothers and children in the Republic of Macedonia in 2016*. Skopje, 2017. (Завод за здравствена заштита на мајките и децата, Здравствен дом на Скопје. Информација за здравствената состојба на мајките и децата во Република Македонија во 2016 година. Скопје, 2017).

92 Ministry of Health, Ministry of Labor and Social Policy, Ministry of Education and Science. *Monitoring of the Status of Mothers and Children. Multi Indicator Cluster Survey 2011*. Published in 2012. Revised and corrected in 2014. (Министерство за здравство, Министерство за труд и социјална политика, Министерство за образование и наука. Следење на состојбата кај децата и жените. Мултииндикаторско кластерско истражување 2011.). Available at: <http://mics.unicef.org/surveys>.

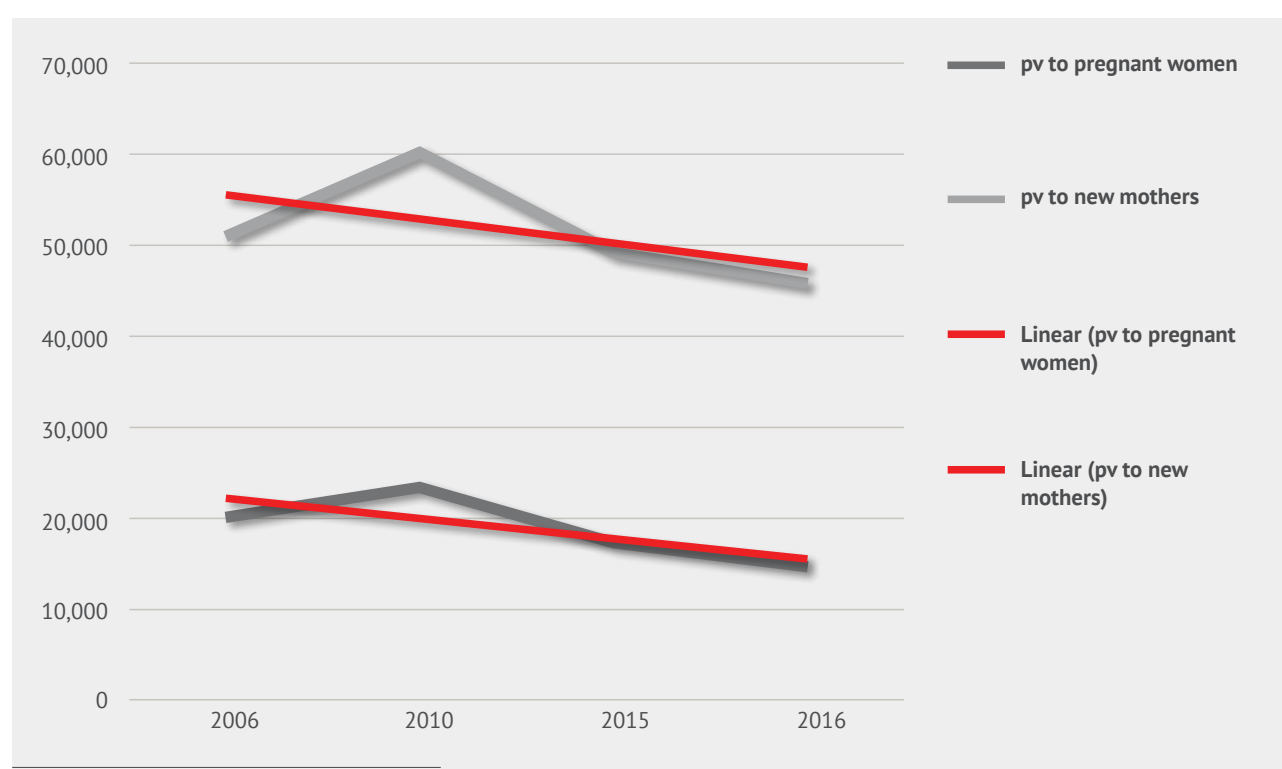
93 Roma Women's Initiative from Šuto Orizari, HERA, Sumnal, CDRIM, Ambrela, CSI Nadez. *Information on the Former Yugoslav Republic of Macedonia to the Committee on the Elimination of Discrimination against Women with regard to the adoption of the Concluding Observations 71th Session, 2018*. Available at: https://tbinternet.ohchr.org/Treaties/CEDAW/Shared%20Documents/MKD/INT_CEDAW_CSS_MKD_32514_E.pdf



The patronage service visits the home of the new mother after she had left the birthing center. On average, the patronage service makes 2 visits per new mother and newborn and more than 2 visits to new mothers whose babies were delivered at home, who belong to vulnerable groups, Romani women, and new mothers living in remote or rural areas. In 2016, the patronage service visited 83% of the new mothers for a total of 45,872 patronage visits or 2.4 visits per new mother. In 2016 the number of patronage visits to new mothers is 7% less than in 2015.⁹⁴

In the last decade, the number of patronage visits to pregnant women and new mothers in the Republic of Macedonia continuously declined. Considering that the patronage service complements the health system, which should provide access to health services even in the most remote areas and for the most vulnerable groups (in places without primary gynecologists), the reduction of the number of these health services threatens the universal access of women in the reproductive period, to health services to improve the health of women during motherhood.⁹⁵

Chart 2. Number of registered patronage visits to pregnant women and new mothers (period 2006-2016)



*pv = patronage visits

94 *Idem.*

95 *Idem.*



Patronage nurses are polyvalent, i.e. in addition to providing services to improve reproductive health (visits to pregnant women, new mothers, newborns, women in the reproductive period), they also visit chronically ill patients and elderly and decrepit patients which reduces the time they have available, as well as the focus of their work. There are no patronage nurses that work only in the area of safe motherhood. Table 4 provides an overview of the main indicators of the coverage of the population with patronage services for pregnancy, childbirth, and puerperium.

Table 9. *Access of women to antenatal and postnatal healthcare provided by the patronage service 2015/2016*

Type of service	Coverage (%)	
	2015	2016
% of pregnant women covered by patronage visits	40	40
Average number of patronage visits per pregnant woman	1.6	1.5
% of new mothers visited by a patronage nurse	83	83
Average number of patronage visits per new mother	2.6	2.4



What do the data say?

- Most of the reproductive health services are provided by all three levels of healthcare. Neither the Law on Health Protection nor the evidence-based medicine nor the practice do not clearly delineate the level of healthcare responsible for providing the different reproductive health services, except for abortion and biomedical assisted fertilization which are provided at a higher level of healthcare.
- Healthcare provided by gynecologists and obstetrics specialists does not include specialist and consultative (secondary) outpatient care, as is the case in many other specialties.
- PHC provides all types of reproductive health services, except abortion which has to be provided by a gynecologist in a hospital.
- According to the regulations and the contract with the HIF the primary physician cannot provide services from the specialist – consultative healthcare, except the gynecologist who can deliver a baby in a birthing center within a health home, if the delivery is not done in a hospital. Still, in the area of gynecology, it is not precisely defined which are the services from the specialist – consultative healthcare, that gynecology and obstetrics specialists in primary healthcare cannot perform. According to the contract signed by the primary gynecologists and HIF, the healthcare institution has to provide an ultrasound and a colposcopy.
- The law allows all primary healthcare physicians, including family doctors to implement “preventive measures to protect women during pregnancy, childbirth, puerperium and contraception” and not only gynecologists.
- Most of the reproductive health services in Macedonia are provided by gynecologists and the patronage service, while family doctors are almost never involved.
- The Law on Health Protection does not recognize family planning and gender based violence as distinct health areas, mainly not related to diseases.
- The patronage service provides SRH services, while the other services it provides (services to chronically ill, decrepit people etc.) are still not regulated by the existing legislation.
- The coverage with family planning services is very low.
- There are significant differences in the data regarding realized antenatal examinations according to different data sources. The reasons for such discrepancies have not been analyzed although a National Electronic Health Records System already exists.
- The coverage of pregnant women with patronage visits is not satisfactory and is declining. A particular concern is the low coverage of women from certain regions inhabited with Roma population.

Content and quality of reproductive health services

Evidence-based medicine – protocols and guidelines

The Law on Health Protection of the Republic of Macedonia (Official Gazette of the Republic of Macedonia no. 43 from the 29th of March 2012), in article 27 – Evidence-based medicine guidelines – envisions healthcare in healthcare institutions practiced by health workers and co-workers in strict compliance with the guidelines for evidence-based medicine, prescribed by the Minister of Health in accordance with modern medical practices.

The Ministry of Health formed a working body responsible for drafting guidelines for practicing evidence-based medicine. Thus far this body has drafted numerous guidelines concerning reproductive health, grouped in three groups: midwifery (containing 11 guidelines), gynecology (18 guidelines), and neonatology (32 guidelines). STIs are covered by the dermatology guidelines.⁹⁶

The guidelines are updated at certain time intervals. When they are published in the Official Gazette and the website of the Ministry of Health, the healthcare professionals are obligated to follow the guidelines and they start to fully apply. The guidelines are prepared by adoption, i.e. the guidelines are completely translated without adaptation to the local conditions.

In 2010, the Ministry of Health, in cooperation with the UNFPA office formed a working group. This working group assessed the quality of the services in the area of family planning and pregnancy termination. After that, it prepared Guidelines for safe abortion (working draft)⁹⁷ in accordance with the recommendations provided in the safe abortion guidelines of the WHO from 2008, adopted by the association of gynecologists and obstetricians. These guidelines were also submitted to the Ministry of Health for adoption, but they were never adopted. The guidelines were updated, harmonized with the newer recommendations provided in the WHO Guidelines for safe abortion from 2012⁹⁸ and submitted to the Ministry of Health for adoption in 2013, but, again it was not adopted.

In 2014, the Ministry of Health in cooperation with the UNFPA office formed a new working group. Pursuant to the recommendations from the assessment of the family planning system⁹⁹, this group translated WHO reference materials on family planning, namely Medical eligibility criteria for contraceptive use, 2008, WHO; Selected practice recommendations

96 Ministry of Health of the Republic of Macedonia. Available at: http://zdravstvo.gov.mk/upatstva_update/

97 Association of gynecologists and obstetricians of the Republic of Macedonia, working group on safe abortion, versions from 2009 and 2013.

98 WHO. Safe abortion: technical and policy guidance for health systems, Second edition. WHO, Geneva, 2012.

99 Koo B, Mladenovikj B, Tofoski G, Jovanovski B. Evaluation of the Family Planning System and the Training Needs of the Health Workers in the Area of Family Planning in the Republic of Macedonia. Ministry of Health of the Republic of Macedonia and the UNFPA Office, Skopje, 2013. (Коо Б, Младеновиќ Б, Тофоски Г, Јовановски Б. Евалуација на системот за семејно планирање и потребите за обука на здравствените работници во доменот на семејното планирање во Р. Македонија. Министерство за здравство на РМ и Канцеларија на УНФПА, Скопје, 2013).



for contraceptive use, Second edition, WHO; and Family planning: a global handbook for providers 2011 Update, WHO. These documents were then provided to the family physicians after conducting training.

In 2015, the UNFPA office in Skopje, within the activities stipulated in the cooperation agreement with the Ministry of Health, conducted training of a group of experts to prepare clinical guidelines using an internationally recognized methodology, which calls for adapting the guidelines to the local conditions. So far, the following guidelines were prepared using this methodology: Guidelines for prevention and treatment of primary postpartum hemorrhage¹⁰⁰, Clinical guidelines for management of risks during pregnancy, Guidelines for screening and treatment of HPV infections, Guidelines for management of gender based violence. Some of these guidelines are in the process of being adopted.

Table 10. Number of prepared evidence-based guidelines, in the area of reproductive health, 2017

Topic/area	Number of adopted guidelines, published in the Official Gazette	Number of prepared guidelines undergoing the process of adoption
Family planning (contraception methods)	1	3
Antenatal care	11	1
Intrapartum care	3	
Postpartum care	2	
Care for the health of newborns	32	
Gynecological care	21	
Infertility	1	
Safe abortion	-	1
Breastfeeding	2	
STIs	3	1
Management of gender based violence	-	1
SRH of adolescents	-	

¹⁰⁰ Ministry of Health. Manual for prevention and treatment of primary postpartum hemorrhaging, 2018. (Министерство за здравство, Упатство за превенција и третман на примарна постпартална хеморагија, 2018). Available at: <http://zdravstvo.gov.mk/upatstvo-za-prevencija-i-tretman-na-primarna-post-partalna-hemoragija/>

Monitoring of the implementation of the guidelines for practicing evidence-based medicine

The monitoring and implementation of the guidelines for practicing evidence-based medicine is prescribed in the Law on Health Protection of the Republic of Macedonia¹⁰¹ (article 27 and article 245). This is done as follows:

- The Health Insurance Fund, as the purchaser of health services provides a prior opinion about the guidelines from a financial standpoint (article 27, paragraph 2).
- The Ministry of Health and the State Sanitary and Health Inspectorate shall supervise the healthcare in accordance with the guidelines (article 27, paragraph 3).
- The professional healthcare chambers shall assess the performance of the healthcare institutions and the health professionals, implement the guidelines, as well as assess the conditions and the manner of provision of healthcare services.

Standards, accreditation and monitoring of the quality of the healthcare institutions

The Law on Health Protection of the Republic of Macedonia also envisions **monitoring and promotion of the quality of healthcare**. This entails a procedure for monitoring the quality of the professional work performed in the healthcare and other institutions that provide healthcare services, the healthcare workers and co-workers, as well as proposing of measures for promotion (article 233). This is done by internal quality monitoring, using quality indicators. The quality of healthcare is promoted using established accreditation standards. The Minister of Health shall prescribe the types of quality indicators (article 234).

Internal monitoring and improvement of the quality of the healthcare shall be implemented in every healthcare institution, as well as with respect to the health workers and co-workers, pursuant to an annual program for monitoring and improvement of the quality of the healthcare institution, submitted to the Ministry of Health (article 235).

The healthcare institution providing hospital healthcare shall be obligated to form a healthcare quality monitoring and promotion committee (hereinafter in the text: quality committee). All health workers and co-workers shall be obligated to actively participate in the implementation of the annual program for monitoring and promotion of the quality of healthcare (article 235).

The quality committee comprises at least five members, of which four shall be health professionals, and at least one shall be a health worker with a secondary, two years post-secondary or a higher vocational degree, as well as a representative of the patients' associations (article 236). The quality committee shall collect, process, and keep data related to the quality indicators, participate in the external monitoring of quality, implement activities related to the preparation of the accreditation procedure and shall cooperate with the Agency for Quality and Accreditation of Healthcare Institutions in implementing the program for monitoring and promotion of healthcare (article 237).

101 Official Gazette of the Republic of Macedonia no. 43 from 19th of March 2012.

The healthcare and other institutions performing healthcare activities shall submit **annual reports** on the implementation of the activities stipulated in the program for monitoring and promotion of the quality of healthcare, to the Agency for Quality and Accreditation of Healthcare Institutions (article 238).

The work of healthcare institutions and healthcare workers and co-workers is subject to supervision for the purposes of control of the performance, implementation of the guidelines, assessment of the performance, as well as assessment of the conditions and the manner of providing healthcare. The supervision is done by the Doctors' Chamber, the Dental Chamber and the Pharmacists' Chamber on a regular basis (in accordance with an annual plan) or as needed (at the request of a patient, a member of the patient's family or a state authority). The Minister of Health, if needed, can form a committee for supervision of the performance of healthcare institutions and of healthcare workers and co-workers.

The Agency for Quality and Accreditation of Healthcare Institutions was established by the Government of the Republic of Macedonia in 2014. According to article 245 of the Law on Health Protection, the Agency shall evaluate the quality of the work performed in the healthcare institutions, by the health workers and co-workers based on the following criteria:

- own analyses and findings prepared in accordance with predefined and internationally accepted indicators (prepared by the Agency),
- data obtained from the supervision performed by the State Sanitary and Health Inspectorate, as well as the Ministry of Health,
- data from the self-evaluation of the quality of the work in the healthcare institutions, the health workers and co-workers and
- data obtained from the evaluation of the quality of the work in the healthcare institutions, the health workers and co-workers, by the patients.

In addition, the Agency shall be responsible for determining the healthcare institutions accreditation standards, assessing the quality of the healthcare provided to the patients and for granting accreditation of healthcare institutions (article 242). Accreditation shall be mandatory and shall be performed at the request of the healthcare institution (article 243). The Agency shall issue a healthcare institution accreditation certificate, with a validity period of 5 years.

The Agency for Quality and Accreditation of Healthcare Institutions has prepared a document containing the accreditation **standards and criteria**¹⁰² of the healthcare institutions providing secondary and tertiary (hospitals) level and comprises six chapters:

1. Management and governance
2. Human resources management
3. Information management
4. Management of risks and patient safety

¹⁰² Agency for Quality and Accreditation of Healthcare Institutions. Accreditation Standards, version 1, 2015; (Агенција за квалитет и акредитација на здравствени установи. Стандарди за акредитација, верзија 1, 2015). Available at: <http://www.akazum.gov.mk/?q=node/61>



5. Treatment of patients and

6. Standards for specific clinical services (operating theater, intensive care unit, emergency medicine, laboratory, birthing centers etc.)

The group of standards related to human resources management, Standard 4: *“Directing and monitoring professional performance”*, contains criterion 4.2: *“The guidelines for practicing evidence-based medicine shall apply to the work in the service”*.

Currently two documents are being drafted with respect to reproductive healthcare. They define the work standards for institutions that provide specific services in this area, namely: Draft standards for birthing centers/perinatal care ward (Standard 4, Criterion 4.7 – *Treatment shall comply with previously determined guidelines for practicing evidence-based medicine*) and Proposed standards for accreditation of specialist gynecology and obstetrics offices (Standard 4.0 Undertaking measures regarding the antenatal care of patients during pregnancy, in order to ensure positive experience and outcome of the pregnancy, in accordance with the currently effective Clinical guidelines for normal pregnancy, which defines 8 criteria that refer to the clinical guidelines for monitoring the pregnancy). The standards are still in the process of preparation.

What does the data say?

- Numerous guidelines for practicing evidence-based medicine have been prepared for different components of reproductive health.
- Guidelines for safe abortions are missing.
- The prevailing method of preparing these guidelines involves complete adoption without adaptation to the local context.
- The Agency for Quality and Accreditation of Healthcare Institutions prepares standards and criteria for accreditation. Some of them refer to the use of the guidelines for practicing evidence-based medicine.



Reproductive healthcare workforce - statistics

Health records system

According to the Law on Health Records¹⁰³, healthcare institutions shall maintain individual records of the health workers and co-workers (article 8). The Institute of Public Health and the Centers of Public Health (article 5) shall be responsible for the health statistics and records maintained in the healthcare institutions (article 5). Every healthcare institution shall provide cumulative and individual records and statistical reports regarding its operations, through the regional Center for public health, to the Institute of Public Health of the Republic of Macedonia. The records shall comprise individual records (data on individuals or legal entities) and cumulative records (aggregated data). The individual and cumulative records shall be collected using predefined models, determined by the Minister of Health (article 8 and 9). Pursuant to the submitted individual records, the Institute of Public Health shall maintain health registries, including the Registry of Health Workers and Co-Workers and the Registry of Healthcare Institutions. The Minister of Health shall prescribe the form and the content, as well as the maintaining, processing and storage of the registries (article 11).

The Central Database provides the unity of health data and the unique information and communications infrastructure used for the managing and transferring of the datasets, the reports and the healthcare documentation materials. In 2013, the Central Database became the **National Health Electronic Records System** (article 17 of the Law on Health Records). The national system contains data about the healthcare institutions, basic medical documentation data, data from individual and cumulative records, data about insured persons, data about health workers and co-workers, data from the electronic list of scheduled health examinations and healthcare interventions, healthcare services and data regarding healthcare consultations provided to patients by the healthcare institutions and consultations provided over the phone. Until 2013, the Institute of Public Health was responsible for maintaining the Central Database. With the introduction of the National Health Electronic Records System, according to the Law on Health Records, the responsibility to use and manage the data from the system was transferred to Ministry of Health and the Health Insurance Fund of Macedonia (article 26). The Minister of Health prescribes the details regarding the storage, administration, as well as the accessibility of the data from the National System (article 17). Certain datasets, stipulated in the Law on Health Records, continue to be managed by the Institute of Public Health. MoH, HIF, SSHI and IPH shall exchange the data at their disposal, as well as request data from other entities (article 26). Still, according to the Law, the formal responsibilities for processing and analyzing the data from the National System and other datasets, for statistical and other purposes, remain in the Institute of Public Health (article 34).

¹⁰³ Parliament of the Republic of Macedonia. Law on Health Records, Official Gazette no. 20 from 16.02.2009 and changes and additions, Official Gazette 53/2011, 164/2013 and 150/2015.

The changes to the Law on Health Protection from 2015, introduced the Electronic Healthcare Directorate, a state administrative authority within the complement of the Ministry of Health, having the status of a legal entity. It performs technical operations of significance for the development and promotion of the **integrated health information system** (which is presumed to be just a different name for the National Health Electronic Records System stipulated in the Law on Health Records), as well as health policy concept development on the basis of the analyses of the data in the National System (article 249-a). According to the legislative provisions, the Directorate shall be responsible for the upgrade, optimization, execution, regulation, maintenance, control and education of the healthcare workforce and analysis of all the processes and functionalities related to the integrated health information system. However, this Law also provides the Electronic Healthcare Directorate some of the responsibilities which, according to the Law on Health Records, still belong to the Institute of Public Health, such as the establishment and maintenance of the Registry of Healthcare Institutions, the Registry of Healthcare Workers and Co-workers (article 249-c). Therefore, according to two different laws, there are currently two different institutions that have this responsibility.

In addition, the legislative changes in 2015 stipulate that the use and the access to the data from the integrated health information system shall be subject to a fee, except in the case of the HIF of Macedonia. The Electronic Healthcare Directorate and the Health Insurance Fund of Macedonia shall exchange data in accordance with their responsibilities.

The Law on Health Records also gives the Institute of Public Health the responsibility, in cooperation with authorized stakeholders in the area of statistics, as well as other state administrative authorities, to cooperate, mediate and exchange data with other countries that have established appropriate data protection mechanisms, as well as international organizations, in compliance with the international obligations (article 39). The international statistical cooperation involves preparing statistical reports in accordance with international and bilateral agreements signed and accepted by the Republic of Macedonia, membership in and cooperation with regional organizations and associations, preparation and provision of statistical data at the request of foreign customers etc. (article 41).

With a view of complying with the international obligations in the area of healthcare, the Institute of Public Health cooperates with the World Health Organization (WHO) in the area of health records and statistics.

Since the mid-1980s, the WHO European region states report essential health statistics to a system of databases called Health for All (HFA), one of the oldest data sources of the WHO. This system of data bases is of particular importance considering that it is based on reported and not on estimated data. The indicators in the HFA databases comprise the comprehensive monitoring frameworks, such as Health 2020 and Sustainable Development Millennium Goals. The indicators include demographic data, health status data, health determinants and risk factors, as well as healthcare resources and costs etc. The HFA databases allow access to regional, national and some subnational indicators and metadata¹⁰⁴. HFA contains data about 50 countries from the WHO European region (WHO EURO), i.e. countries located in Europe, including Russia and Turkey, but also the former USSR countries, geographically

104 WHO Regional Office for Europe 2017. Available at: <http://www.euro.who.int/en/data-and-evidence/databases/european-health-for-all-family-of-databases-hfa-db>

located in Asia. Out of the available regional statistics, this analysis finds particularly important the following: WHO_EURO (all countries of the WHO European region), EU_MEMBERS (EU member states), NORDIC (Nordic countries), SEEHN (countries of the Southeastern Europe Health Network, including Macedonia). According to article 9 of the Law on Health Records, the healthcare institutions in Macedonia, depending on the activities they perform, shall also maintain cumulative records related to the regular monitoring of the HFA health indicators. The last year when data were reported to the HFA database was 2013. Therefore this chapter will compare the 2013 data for Macedonia with the data for other countries.

This situational analysis will present an overview and an analysis of the capacities of the country with respect to the number and distribution of gynecology and obstetrics specialists (staff with university level education), as well as midwives (staff with secondary, two-years post-secondary or higher vocational education).¹⁰⁵ The analysis will also provide an overview of the capacities with respect to general practitioners, family medicine specialists, as well as nurses. The findings for the Republic of Macedonia will be compared with the other countries of the WHO European region.

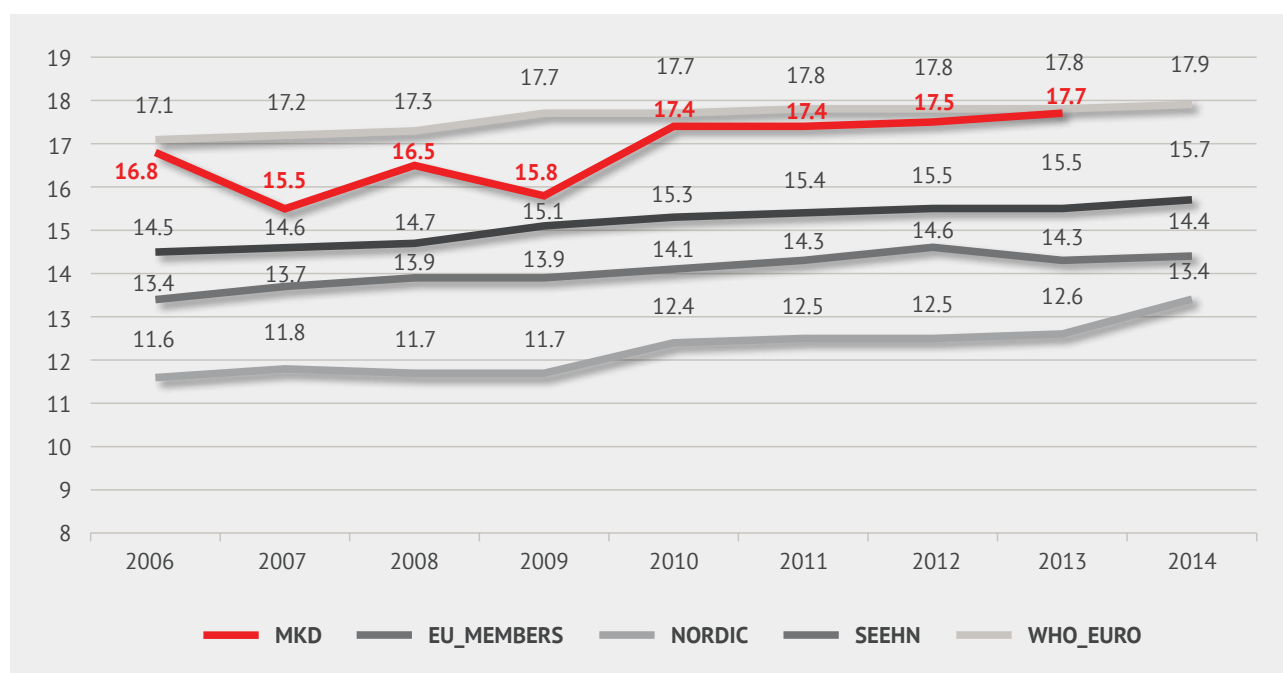
Gynecology and obstetrics specialists

According to the IPH data, reported to the Health for All (HFA) database of the WHO in 2013, Macedonia¹⁰⁶ had a total of **367 physicians, specialists in gynecology and obstetrics**, i.e. **17.7 per 100,000 people**. In the period from 2006 to 2013, according to this source, this parameter ranges from 15.5 to 17.7, mainly with an upward trend with some fluctuation. This trend for Macedonia, in comparison with the regional averages of the WHO European region, is presented on the chart below.

¹⁰⁵ The Law on Health Protection does not specify midwives as a separate profession, but midwives, like nurses, are covered by the definition for a "Health Worker", as a person that provides health services in a specific area of healthcare, graduated from a two year post-secondary or a higher vocational education or 180 ECTS points or secondary education.

¹⁰⁶ <http://www.stat.gov.mk/pdf/2014/2.1.14.20.pdf>

Chart 3. Number of gynecology and obstetrics specialists per 100,000 population, trend 2006–2014, Macedonia in comparison to European regional data

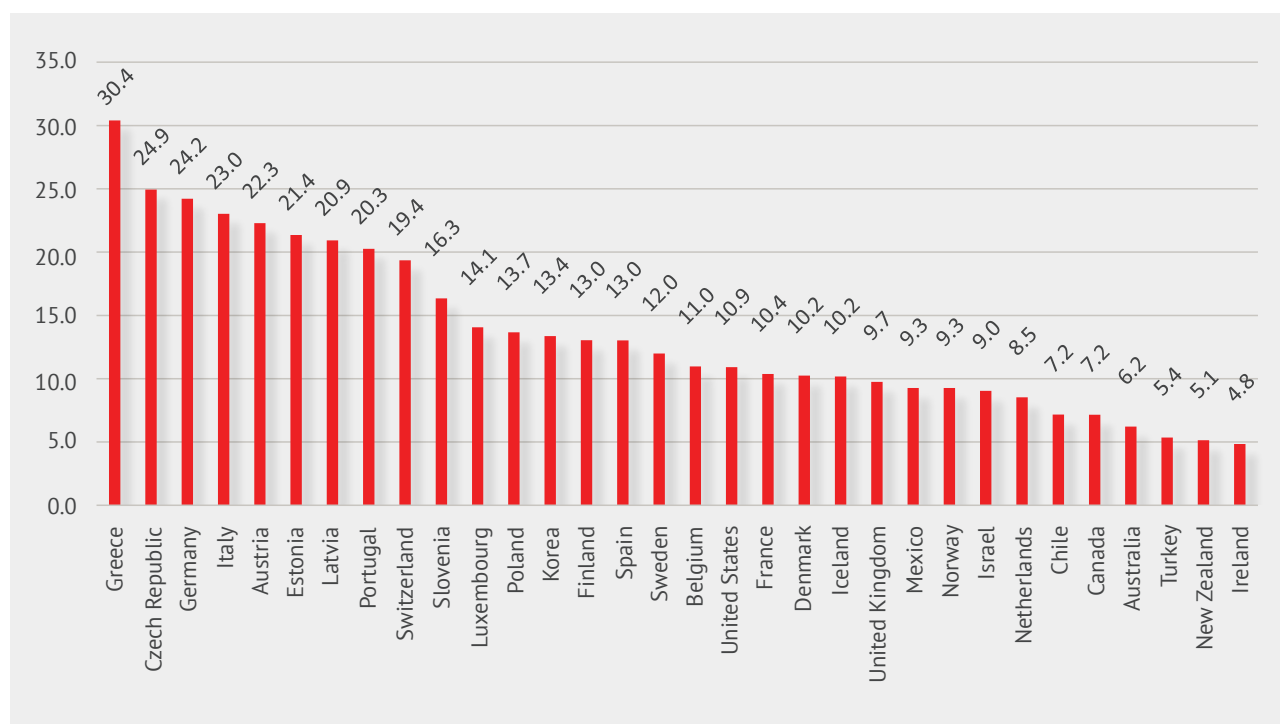


Source: HFA database, WHO Regional Office for Europe 2017

The European statistics suggest that, between 2006 and 2013, Macedonia had more gynecologists per 100,000 population in comparison to the European average, the Nordic countries average and the Southeastern Europe, SEEHN average. This parameter in the WHO_EURO region presents significant variations (from 6.6 to 34.8), which do not correlate to the economic development of the country. According to the national statistics reported to the HFA database, countries with lower averages than the EU, which was 15.5 per 100,000 population in 2013, are: the Nordic countries (12.6 per 100,000), Belgium (12.3), France (12.7), Great Britain (11.8), the Netherlands (8.7) etc. Countries like Germany, Austria, Italy, and Croatia have more gynecologists per capita than the EU average. Slovenia, with 16.8 gynecologists per 100,000 population has more than the EU average, but less than Macedonia (17.7). The countries with the highest number of gynecologists per capita in the European region of the WHO are the countries of the former USSR, i.e. Georgia, Kazakhstan, the Ukraine, Belarus, Armenia.

The statistical data of the Organization for Economic Cooperation and Development (OECD) reflect the indicators of the capacities of the countries regarding the health workforce, not only as a number of healthcare professionals per capita, but also per number of births. Having in mind that this situational analysis focuses on reproductive health, this is a good indication of Macedonia's position relative to the other developed countries.

Chart 4. Number of specialists in gynecology and obstetrics per 1,000 births in the OECD countries in 2013



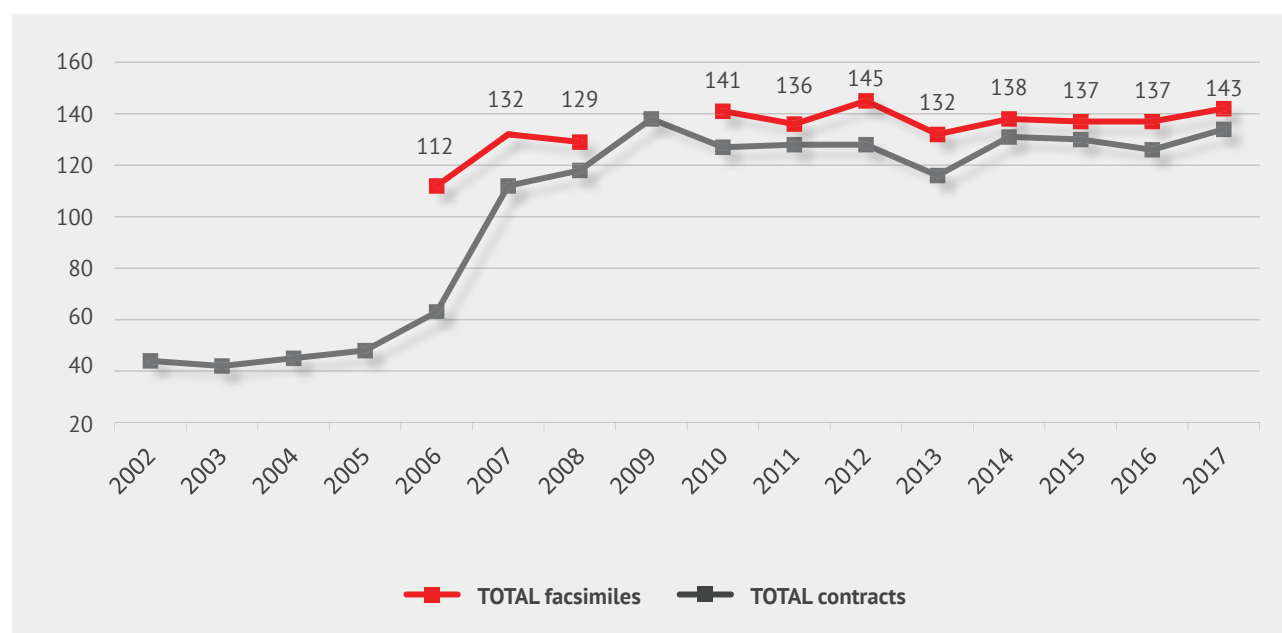
In Macedonia, in 2013 there were **15.7** specialists in gynecology and obstetrics per 1,000 births (367 gynecology specialists reported in the Health for All database, for 23,334 live births in 2013 according to the State Statistical Office¹⁰⁷). The findings from this indicator also largely confirm the findings from the previous indicator, i.e. that Macedonia has more gynecology specialists than many developed countries, per capita, but also per the total number of new born babies. The Nordic countries, USA, Great Britain, Netherlands, Australia etc., are countries that have fewer gynecologists than Macedonia, per 1,000 live births.

Gynecology and obstetrics specialists in primary healthcare

Primary health care in Macedonia consists mostly of private healthcare institutions, organized at the level of primary general practitioners, gynecologists and dentists. In 2007, the primary gynecologists were fully privatized. The following chart shows the number of private health-care institutions (PrHCI) in primary healthcare (PHC) in the area of gynecology, as well as the number of gynecologists that have a contract with the HIF and that the insured people can select as their primary gynecologist.

107 <http://www.stat.gov.mk/pdf/2014/2.1.14.20.pdf>

Chart 5. Number of contracts and number of primary gynecologists with which HIF has signed contracts in the period 2002–2017



Source: Annual reports of the HIF, www.fzo.org.mk

In addition, there are about 20 gynecologists that provide primary healthcare services, but do not have a contract with the HIF (source: Association of private gynecologists of the Republic of Macedonia). Most of them are located in Skopje (only 3 are located in other towns).

The above suggests that in 2017, Macedonia has a total of **160-170** gynecology specialists in the primary healthcare level.

The table below shows the number of women per primary healthcare gynecologist, according to various demographic categories. This indicator takes into account only the gynecologists who have a contract with the HIF, but also the total number of gynecologists in order to have an idea of the overall capacities in the country.

Table 11. Number of women per primary gynecologist

	Total number in RM	Number of women per gynecologist with a contract with HIF	Number of women per gynecologist
Women older than 14*	869,056	6,035	5,267
Women of reproductive age 15-49*	512,572	3,560	3,106
Women that have selected a primary gynecologists**	513,821	3,568	3,114

*(State Statistical Office, 31.12.2016); **(HIF, October, 2017)

The health institutions that have signed contracts with the HIF, comprise the “**network of healthcare institutions**” in primary healthcare. According to the Law on Health Protection from 2012¹⁰⁸ the “network of healthcare institutions” is the determination of the necessary number of healthcare institutions and the types of healthcare services or specialties provided **in specific geographic areas** where the healthcare beneficiaries actually live, which need to be provided in accordance with the healthcare needs of the population on the territory of the Republic of Macedonia. During that year, the legislators also enacted the “Regulation on the Network of Healthcare Institutions”¹⁰⁹, which regulates, at the primary healthcare level, the maximum number of teams **per municipality** and, at the level of secondary and tertiary healthcare or specialist, consultative, diagnostic and hospital services, it regulates the maximum number of different specialists **per region**.

The basic **demographic standard** of the network in primary healthcare for gynecology, according to the Regulation is: 1 gynecology team comprising 1 primary gynecologist and 1 nurse per 3,000 women older than 14 years.

According to the standards stipulated in the Regulation in 2012/2013, which still apply, the Republic of Macedonia should have a total of 293 gynecologists in primary healthcare, while the actual number in 2012 was 137. Accordingly, in 2012 there were 156 fewer primary gynecology specialists than required by the Regulation. This standard applies to each of the 78 municipalities/inhabited areas, grouped into 8 geographic regions. This also includes villages with 500-600 women older than 14 years. Therefore: the municipality of Demir Kapija, with 547 women older than 14 should have one gynecologist, the municipality of Vevchani with 1014 women older than 14 should have one gynecologist, the municipality of Krivogashtani with 604 women older than 14 should have one gynecologist etc. On one hand this increases the estimated number of gynecologists necessary in the Republic of Macedonia, and it creates inequalities whereby a gynecologist serving 500-600 women older than 14 operates under the same conditions as a gynecologist serving 3,000 women older than 14.

In comparison: although there are 10 times as many general practitioners than gynecologists, still they are subject to the same standards and are distributed to the same municipalities (the only municipality where they were further broken down was the Skopje region).

In order to present the territorial distribution of the gynecologists more realistically, this analysis considers 30 health regions which include the cities in the Republic of Macedonia and their surroundings (according to the Institute of Public Health and the HIF). The estimated number of people by age groups, by gender and by municipality provided by the State Statistical Office¹¹⁰ and the number of primary gynecologists provided by the HIF¹¹¹, suggest that none of the 30 health regions fulfills the demographic standard, i.e. all cities have more than 3,000 women over 14 per one gynecologist (team) even if we consider the gynecologists without a contract with the HIF.

108 Law on Health Protection, 2012, article 13 and article 15.

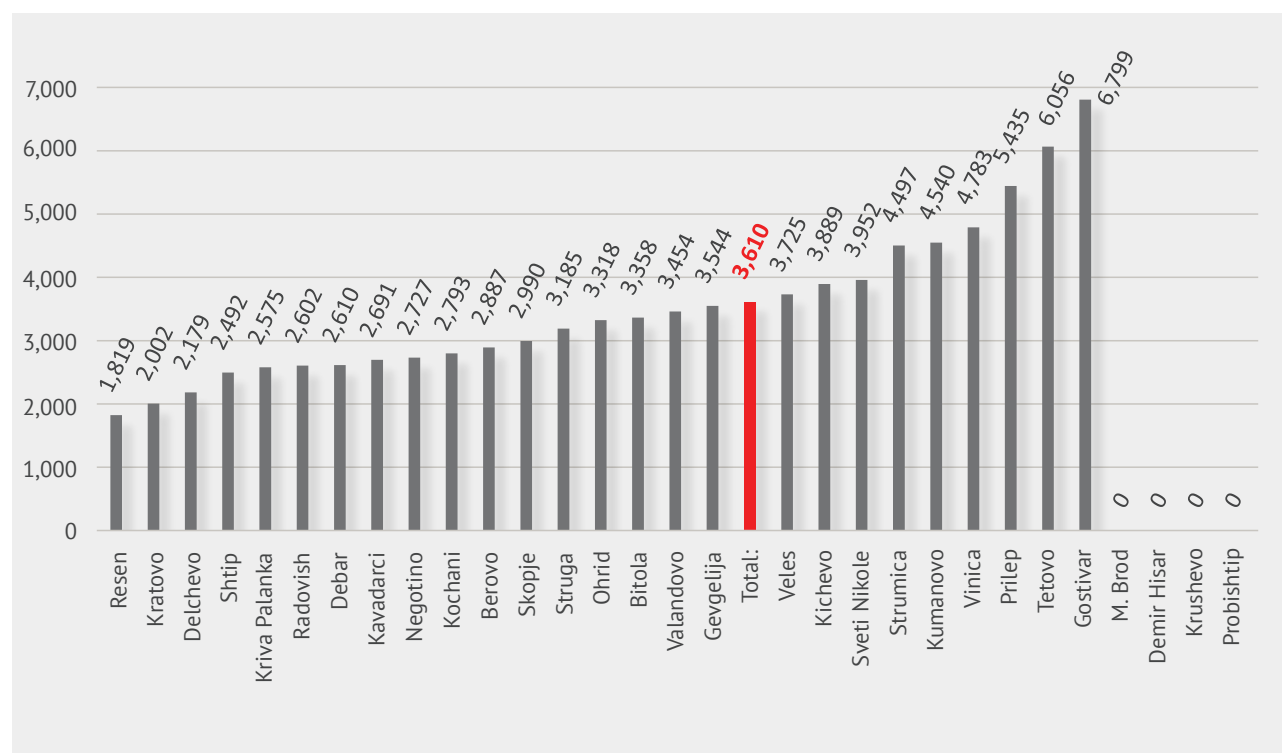
109 Regulation on the Network of Healthcare Institutions, Official Gazette of the Republic of Macedonia 81/2012, 147/2012, 169/2013, 21/2014, 90/2014, 2/2016, 5/2016, 144/2016.

110 <http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7ec5ef> (accessed on 13.11.2017).

111 www.fzo.org.mk; List of Physicians (accessed on 13.11.2017).

The target group of this situational analysis is women in the reproductive period (15-49 years of age). Using the same data sources, we analyzed the distribution of the indicator for “women in the reproductive period on 1 primary gynecologist” in the 30 health regions, as a potential capacity of the regions, regardless of whether they have selected a primary gynecologist or not. The results are shown on the chart below.

Chart 6. *Women in the reproductive period per primary gynecologist*



The overview suggests that Macedonia has 3,610 women in the reproductive period per a primary gynecologist, with large differences in different regions. Namely, in Resen and its surroundings, on average, there are 1,819 women in the reproductive period per gynecologist, while Gostivar has 6,799 women in the reproductive period per one gynecologist. The difference in the “saturation” of the 30 health regions with gynecologists can be as large as 4:1. Four towns in Macedonia (Makedonski Brod, Demir Hisar, Krushevo, Probishtip) do not have any gynecologists.

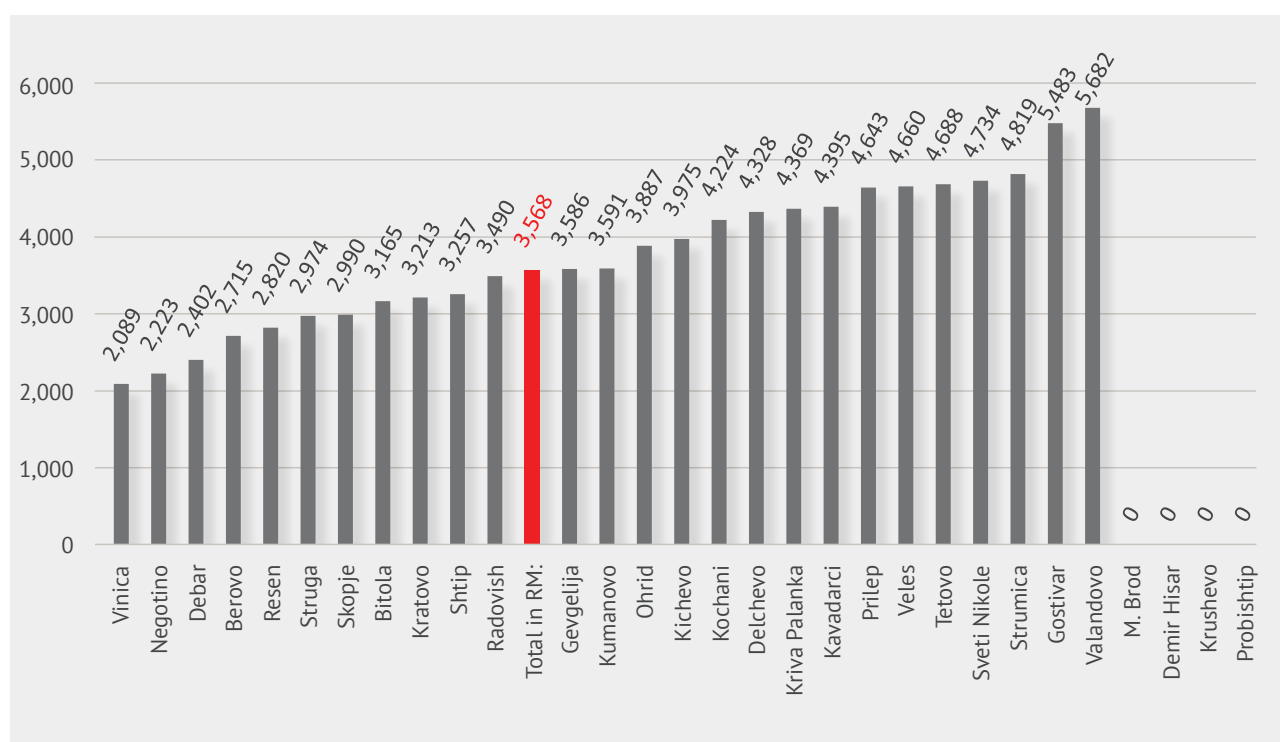
If we combine the 30 health regions into 8 territorial units, we notice differences of up to 2:1 between the Polog and the Southwestern region (shown in the table below).

Table 12. Number of gynecologists by region (Source: HIF, Annual Report for 2016, www.fzo.org.mk)

Region	Number of gynecologists in 2016	Number of physicians per 1,000 women
Vardar	11	0.16
Eastern	12	0.15
Southern	16	0.18
Southeastern	11	0.14
Pelagonija	14	0.13
Polog	12	0.09
Northeastern	14	0.19
Skopje	47	0.19
Total	137	0.15

Considering that not all women have selected a primary gynecologist, an analysis was made of the number of insured women registered with primary gynecologists in different regions (number of insured women that have selected their own primary gynecologist) using the data from the HIF:

Chart 7. Average number of insured women registered with a primary gynecologist



Source: Official HIF correspondence, no. 10-13347/2 from 25.10.2017

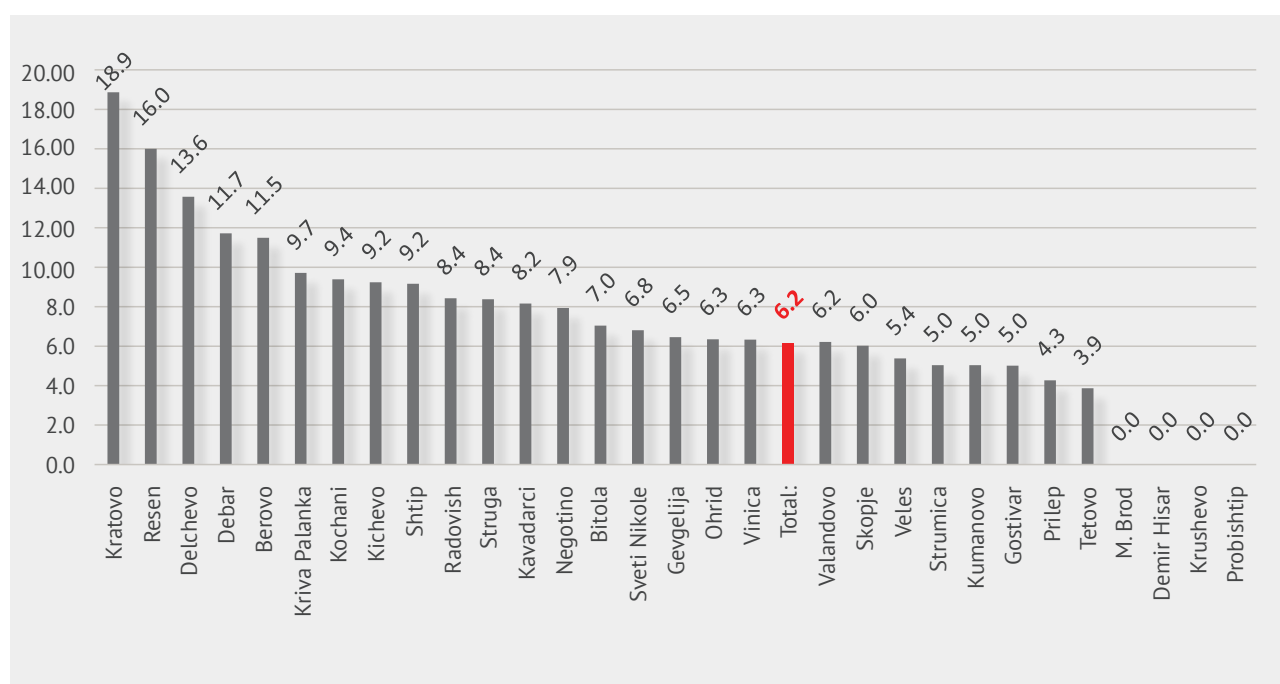
According to this source, 25 primary gynecologists have more than 5,000 patients registered women. The biggest number of insured women registered with one gynecologist is 8,679 women registered with a primary gynecologist in Tetovo.

We have to point out that, according to the Law on Health Insurance, insured people shall have the right and an obligation to select a primary healthcare physician. For children less than 14 year of age, the parent or the guardian shall select the primary physician. A physician can reject a patient who has selected him/her if the patient demonstrates mistrust or fails to act in accordance with the physician's advice or if the patient fails to provide true information about his/her health status. Students that attend school in a place different from their place of residence can select a primary doctor in both places. According to the contract with the HIF, if an insured patient is on vacation or outside of his/her place of residence and cannot use the services of his/her selected primary physicians, and if the health problem is of an acute nature then such a service can be provided by any healthcare institution that has a contract with the HIF.

In the area of gynecology, the women above the age of 12 can select primary gynecologists. The primary gynecologist has an obligation, stipulated in the contract with the HIF, to provide healthcare services to insured patients that choose would like to choose him/her, irrespective of the number of other patients that have selected the same physician as their primary gynecologist.

Considering the number of primary gynecologists per 1,000 live births as one of the indicators of the capacities of the country, in particular for reproductive health, the distribution in the 30 health regions is shown on the following chart.

Chart 8. Number of primary gynecologists per 1,000 live births



Source: State Statistical Office, 31.12.2016; HIF, www.fzo.org.mk, October, 2017

This indicator also illustrated the huge variances of the capacities for providing reproductive health services in different regions of the country.

In addition to the regional distribution of the workforce, another concern is the age distribution of the gynecologists. About 1/3 of the gynecologists in the country are older than 60 and about 1/2 have between 50 and 60 years of age. This suggests that, in the next 15 years we should expect 7-8 gynecologists to retire per year, if we take 65 as the average retirement age.

Gynecology and obstetrics specialists in secondary and tertiary healthcare

According to the **network** of health institutions, the general and clinical hospitals in the country, including the Special Hospital for Gynecology and Obstetrics Chair¹¹², are public healthcare institutions and offer reproductive healthcare services at the secondary level. The only healthcare institution that provides tertiary level reproductive healthcare services is the PuHC University Clinic for Gynecology and Obstetrics.

In addition to these healthcare facilities at the secondary level there are a few other private hospitals in Macedonia that offer specialist gynecology and obstetrics services **out of the network** of healthcare institutions. These institutions have not signed a contract with the HIF and cannot provide reproductive healthcare through the mandatory health insurance system. Most of the 40 gynecologists working in healthcare institutions without a contract with the HIF, are located in Skopje, 7 are in Bitola and 1 in Shtip. In the last 3 years the number of gynecologists working outside the network of health institutions has not increased (source IPH).

The following table shows the current number (as of October 2017) of specialists in gynecology and obstetrics in the secondary and tertiary healthcare.

Table 13. Number of gynecology specialists

	In the network	Out of the network	Total
Secondary level	98	~40*	138
Tertiary level	51	0	51
Total	149	~40*	189

*about 15 of these are in the network only for services related to biomedical assisted fertilization

*Source: HIF, www.fzo.org.mk, October 2017; IPH; websites of private healthcare institutions

112 The new name of this healthcare institution is Special Hospital for Gynecology and Obstetrics Mother Theresa.

The network at the secondary and tertiary level healthcare, i.e. specialist-consultative healthcare, diagnostic healthcare and hospital healthcare, determines the maximum number of specialists for each healthcare department and the number of hospital beds for each department in the secondary healthcare hospitals, the structure of the tertiary healthcare, as well as the maximum number of certain services at the regional level or at the level of the Republic of Macedonia.

The basic demographic standard of the **secondary** healthcare network, according to the Regulation is 1 gynecology and obstetrics specialist for 25,000 women over 14 years of age.

Healthcare institutions at the secondary and tertiary level that implement complex, more complex and the most complex health procedures can have 10% more specialists or institutions for the complex healthcare procedures, 20% more for the more complex procedures and 30% more for the most complex procedures. This infers that norm for **tertiary level** healthcare institutions can range up to 1 gynecologist for about 17,000 women. There is no precise standard for the maximum number of specialists in the tertiary healthcare network.

The following table shows the current number of women over 14 on 1 secondary and tertiary healthcare gynecologist.

Table 14. Number of women over 14 years of age per one gynecologist

	In the network	Women over 14 per one gynecologist
Secondary Level	98	8,867
Tertiary level	51	17,039
Total	149	

869,000 women over 14

This suggests that the current situation at the tertiary level, generally complies with the suggested demographic standard. However, at the secondary level, in Macedonia, there are 2.8 times more specialists in gynecology and obstetrics than the specified demographic standard.

According to the data from the network, the ratio between the maximum (per standards) and the actual number of gynecology and obstetrics specialists in secondary healthcare ranges from 1:2 to 1:4 in different regions in the country. The greatest difference is in the southwestern region, with 17 gynecologists in secondary healthcare compared to the 4 envisioned by the norms, calculated according to the number of women over 14 years of age.¹¹³

The following table presents the cities in Macedonia which have gynecologists in secondary and tertiary healthcare that operate within the network. Most of these gynecologists operate in hospitals. The number of gynecologists in the table excludes the gynecologists working within the network only on biomedical assisted fertilization.

¹¹³ Regulation on the Network of Healthcare Institutions; HIF, www.fzo.org.mk

Table 15. *Gynecologists in hospital healthcare by city*

City	Gynecologists (status as of 10.09.2017)	City	Gynecologists (status as of 10.09.2017)
Bitola	8	Ohrid	5
Gevgelija	1	Prilep	5
Gostivar	8	Skopje	70 (19 in secondary and 51 in tertiary HC)
Debar	1	Struga	9
Kavadarci	1	Strumica	5
Kichevo	2	Tetovo	12
Kochani	2	Veles	5
Kumanovo	9	Shtip	6
Total		149 (98 in secondary and 51 in tertiary HC)	

This overview also shows the uneven distribution of gynecologists in different hospitals serving the respective regions. Although, according to the norm, it is likely that none of the cities/regions have insufficient number of gynecologists, still it can be seen that cities like Gevgelija, Kavadarci, Debar, Kichevo, Kochani have significantly fewer gynecologists than, for example, Shtip, Struga, Ohrid, Bitola, Veles (taking into account the number of people living in the city). Some general hospitals (for example GH Gevgelija) solved this issue by cooperating with gynecologists from other hospitals, mainly in Skopje, while some other hospitals cooperate with other nearby hospitals (for example Prilep cooperates with Bitola, Kochani cooperates with Shtip, Kumanovo and Tetovo cooperate with Skopje).

On several occasions, such cooperation was also established between primary health-care institutions in an attempt to achieve greater territorial coverage and availability of the workforce. Primary gynecologists from Skopje organized shifts in the Health Home in Shuto Orizari which has the proper conditions for providing gynecology examinations. This measure, although justified, was not sufficiently developed and, considering how it was actually implemented, proved to be impractical. The basic weakness of the measure relates to the requirement, according to the current health insurance system, that women must have a primary physician in order to be able to perform other health services through the health insurance (prescription drugs, referrals to laboratory tests, referrals to higher health-care levels, sick leaves). This barrier was not removed and thus this model for increasing the territorial coverage was discontinued.

The network of healthcare institutions, by geographic regions, is presented in the following table:

Table 16. Comparison between the actual and the maximum number (per standards) of gynecologists in secondary healthcare

Region	Actual number	Maximum number	Region	Actual number	Maximum number
Pelagonija	13	4	Vardar	6	2
Southeastern	6	3	Eastern	8	3
Polog	20	5	Northeastern	9	3
Southwestern	17	4	Skopje	19	5
			Total	98	29

Gynecology and obstetrics specialists – Overview

The table below provides an overview of the current situation regarding gynecology and obstetrics specialists in the Republic of Macedonia by healthcare level, relative to the demographic standards specified in the Regulation on the Network of Healthcare Institutions.

Table 17. Overview of the number of and the standards for gynecology specialists

	Actual number (Oct. 2017)	Maximum number (per standards)	Demographic standard
Primary level	143	290	3,000 women over 14 years of age on one gynecologist
Secondary level	98	29	25,000 women over 14 years of age on one gynecologist
Tertiary level	51	51*	17,000 women over 14 years of age on one gynecologist *
Total in the network	292	370	
Gynecologists outside the network	60		
Total in RM	352		

*This standard is estimated and is not explicitly stated in the Regulation

According to the Regulation, the network of healthcare institutions has 78 fewer gynecology specialists than necessary. **If all of the gynecologists currently working outside of the network joined the network**, the network would still have 18 fewer specialists than necessary. If the proposed norm is achieved, Macedonia would have 370 gynecologists or 17.8 per 100,000 population. This would be in line with the broader European region of the WHO, but significantly more than the averages in the EU, the Nordic countries and the countries of Southeastern Europe.

What does the data say?

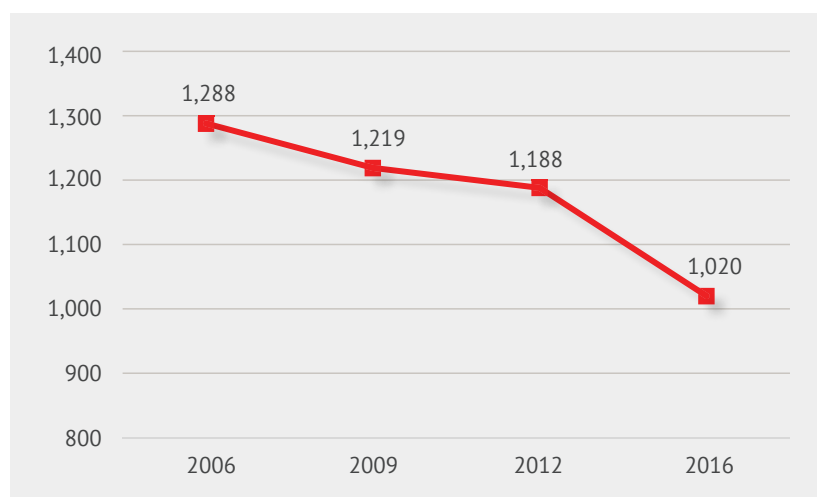
- In Macedonia, **in 2013**, there were **367 physicians, specialists in gynecology and obstetrics**, or **17.7 per 100,000 population**. About half of them provide services in primary healthcare. **In 2017, there were 352** physicians, specialists in gynecology and obstetrics, a slight decline of less than 5%.
- The number of **primary gynecologists with contracts with the HIF** was stable in the last 8 years (~140).
- In the period from 2006 to 2013, Macedonia had more gynecologists per 100,000 population relative to the averages in Europe, the Nordic countries and to the Southeastern Europe countries, members of the SEEHN network. This parameter in the countries from the WHO_EURO regions varies significantly (from 6.6 to 34.8). These variations do not correlate with the economic development of the country.
- The Nordic countries, USA, Great Britain, the Netherlands, Australia etc., are countries that have fewer gynecologists than Macedonia per 1,000 live births.
- The demographic standards for primary gynecologists are set at the level of the same inhabited areas as for the general practitioners, who are 10 times as many as the gynecologists.
- According to the national demographic standards envisioned with the Regulation on the Network of Healthcare Institutions, in 2012, in the Republic of Macedonia
 1. There were 156 fewer gynecology specialists in primary healthcare than required,
 2. There were 69 more gynecology specialists in secondary healthcare than required,
 3. There was an appropriate number of specialists at the tertiary level of healthcare.
- If all the gynecologists envisioned with the national demographic standards would be provided, then Macedonia would have 17.8 gynecologists per 100,000 population, which would be significantly more than the averages in the EU, the Nordic countries and the countries of Southeastern Europe.
- None of the 30 healthcare regions fulfills the national norm for the network of healthcare institutions at the level of primary healthcare, i.e. all cities have more than 3,000 women over 14 years of age on 1 gynecologist (team) even including the gynecologists without a contract with the HIF.
- In Macedonia there are, on average, 3,610 women in the reproductive period on one primary gynecologist, with big disparities between the different regions.

- The number of selected gynecologists per 1,000 newborns also suggests a great variance in the potential capacities to perform reproductive healthcare between the different regions in the country. The measures undertaken so far to improve the territorial coverage have not produced the desired outcome.
- About 1/3 of the gynecologists in the country are older than 60 and about ½ have between 50 and 60 years of age. This suggests that, in the next 15 years we should expect 7-8 gynecologists to retire per year, if we take 65 as the average retirement age.
- The biggest number of insured women registered with one gynecologist is 8,679 women registered with a primary gynecologist in Tetovo.
- There are significant differences in the number of gynecologists in hospital health-care between different hospitals, serving the relevant regions.
- Some general hospitals (for example GH Gevgelija) solved this issue by cooperating with gynecologists from other hospitals, mainly in Skopje, while some other hospitals cooperate with other nearby hospitals (for example Prilep cooperates with Bitola, Kochani cooperates with Shtip, Kumanovo and Tetovo cooperate with Skopje).

Midwives, nurses and patronage nurses

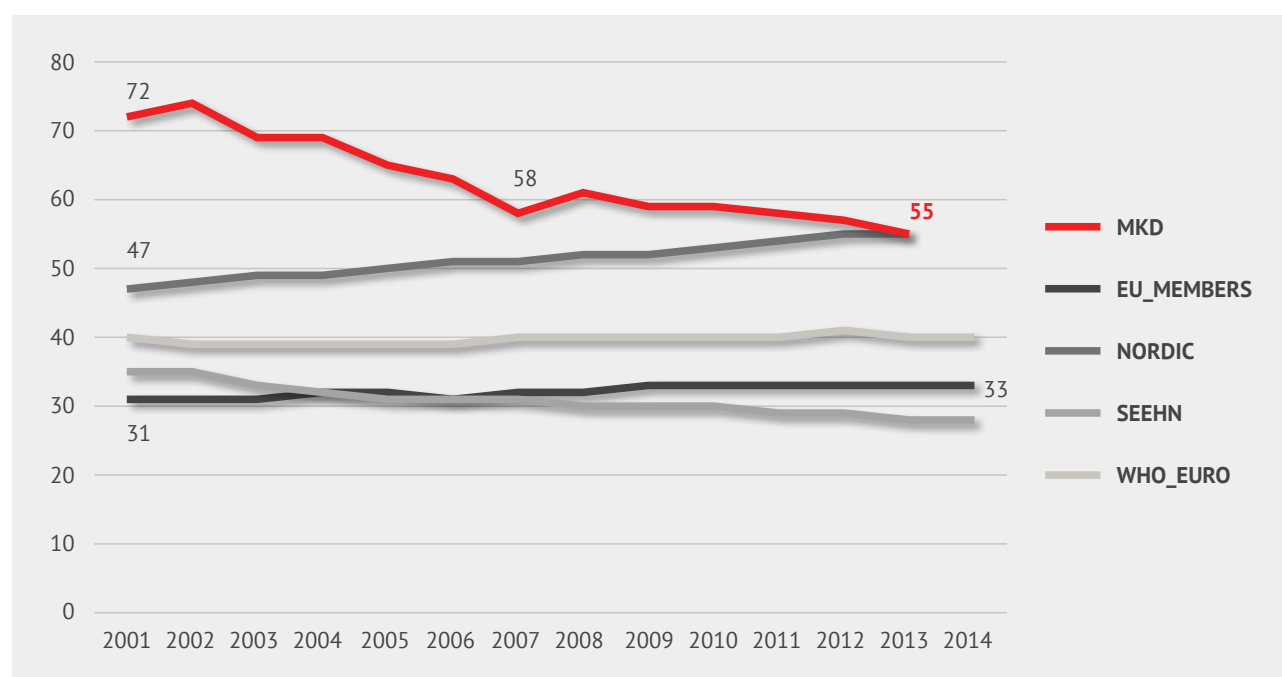
According to the data from the IPH, in the past 10 years the number of **midwives** in Macedonia declines and in 2016 it was 1,020 which is 20% fewer midwives than in 2006. This number includes all of the people that have the required education for midwives, but there is no systematized information how many of them actually practice midwifery and provide midwife services directly to patients.

Chart 9. Number of midwives in the Republic of Macedonia



This figure corresponds to the figure reported in the WHO “Health for All” database, which suggests that in 2013¹¹⁴ there were 55 midwives per 100,000 population in Macedonia. In the period from 2001 to 2013, according to the same source, this parameter dropped from 72 to 55. This trend for Macedonia in comparison to the regional averages in the WHO European region is shown on the following chart.

Chart 10. Number of midwives per 100,000 population, trend 2001–2013, Macedonian in comparison to the European regional averages



Source: HFA database, WHO Regional Office for Europe 2017

The European statistics suggest that Macedonia has more midwives than the European averages (WHO_EURO and EU_MEMBERS), as well as the average of the Southeastern Europe countries, members of the SEEHN network. Only the Nordic region, with its upward trend of the number of midwives, reaches the same number of midwives as Macedonia. This parameter in the WHO_EURO region varies significantly (from 6 in Slovenia to more than 80 in Iceland and Uzbekistan), and this cannot be correlated to the economic development of the country. According to the national statistics, lower values than the EU average for 2013 (33 midwives per 100,000 population) can be found in Germany (27), Austria (16), the Netherlands (18) etc. Higher values than the EU average, in addition to the Nordic countries (55 per 100,000 population), can also be found in Croatia (38), Great Britain (50), Poland, Czech Republic etc.

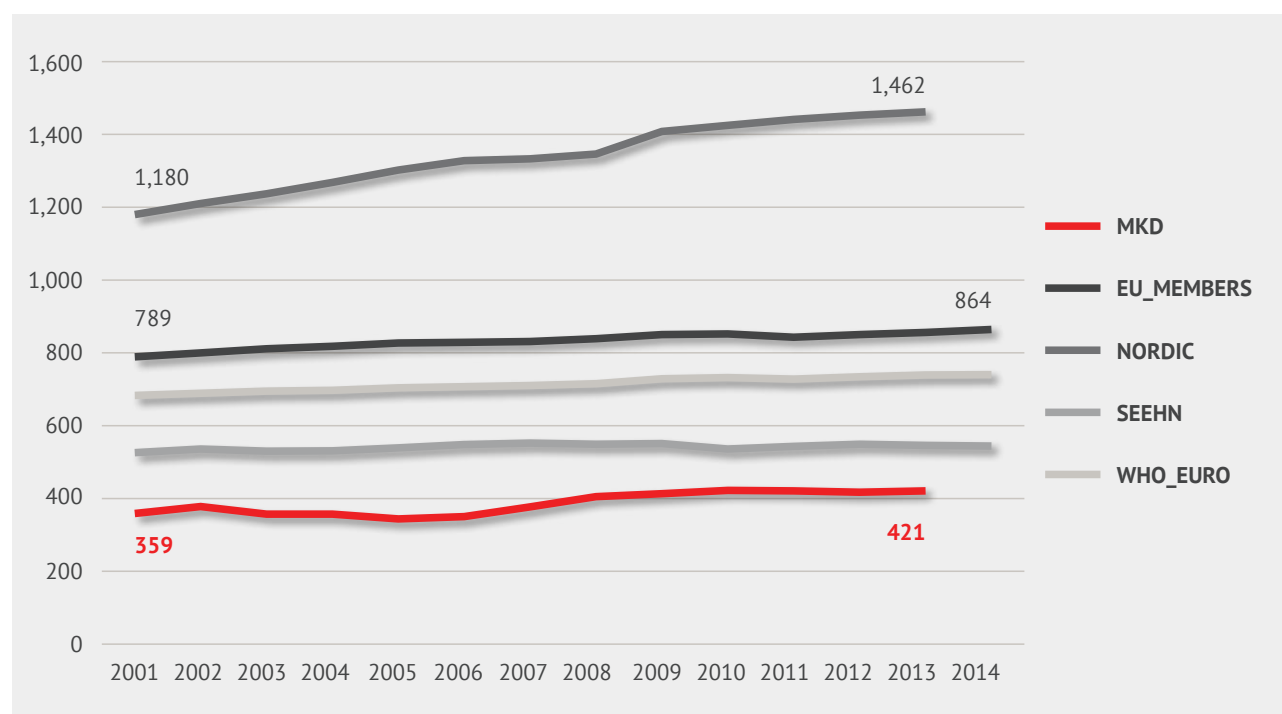
According to the data reported to the WHO’s “Health for All” database, in 2013¹¹⁵ there were 421 **nurses** per 100,000 people in Macedonia or a total of 8,700. In the period from 2001 to 2013, according to the same source, this parameter moderately increased from 359 to 421. This trend for Macedonia in comparison to the regional averages in the WHO European region is shown on the following chart.

¹¹⁴ Latest data reported for Macedonia in the Health for All database refer to 2013.

¹¹⁵ Latest data reported for Macedonia in the Health for All database refer to 2013.



Chart 11. Number of nurses per 100,000 population, trend 2001–2014, Macedonian in comparison to the European regional averages



Source: HFA database, WHO Regional Office for Europe 2017

The European statistics suggest that Macedonia has significantly fewer nurses than the European averages (WHO_EURO and EU_MEMBERS), as well as the average in the Nordic countries and the average of the Southeastern Europe countries, members of the SEEHN network. Macedonia has half the number of nurses per capita than the EU. Only Greece, Turkey and Georgia have fewer nurses per capita than Macedonia. This parameter in the WHO_EURO region varies significantly (from 254 to 1,849), and this cannot be correlated to the economic development of the country. In all of the statistical regions, this parameter moderately increased in the past 14 years by 5-10%, and in the Nordic countries it increased significantly by 25%. According to the national statistics, higher values than the EU average for 2013 (856), in addition to the Nordic countries which have significantly higher values, can also be found in the Czech Republic (1,767), Germany (1,323), France (1,000), etc. Most of the other countries in the broader European region of the WHO have lower values than the EU average.

In addition to the general number, the “Health for all” database also contains statistics about the number of midwives and nurses with **university level education**. The following table shows this parameter for Macedonia, as it has been reported to this database, relative to the regional averages in the WHO European region.

Table 18. *Number of midwives and nurses with university level education*

Per 100,000 population	Midwives	Nurses
MKD	0.7	10
EU_MEMBERS	1.9	34
NORDIC	2.8	75
SEEHN	1.2	36
WHO EURO	2.7	36

The number of midwives with university education in Macedonia, from 2008 to 2012 shows significant nonlinear variations: 2008 – 0.8 per 100,000 population; 2009 - 1; 2010 – 0.7; 2011 – 0.5; 2012 – 0.7. This suggests the need to reexamine the system of reporting the education level of the midwives. According to the Institute of Public Health, in 2016 there were only 14 midwives with university education¹¹⁶. It is presumed, although not proven, that this number includes only the midwives graduated from university, whose university level education is recognized within their respective job positions. In this case, the low value of this parameter would be understandable, considering that the Catalogue of Jobs in the Public Sector does not recognize midwives with university education. Having in mind that there are three higher education institutions in the country, offering curricula for midwives, the actual potential of the midwives with university education is higher, but this is not corroborated by systematized data.

In any case, although the number of midwives in Macedonia is relatively high, still the number of university educated midwives per 100,000 population in Macedonia is 2.5 times lower than the European average; 4 times lower than the Nordic countries and the average in the entire WHO_EURO region.

The situation is similar with respect to nurses. The ratio between the reported total number of nurses in Macedonia and that in the EU is 1:2, but the ratio of university educated nurses is 1:3. With respect to Nordic countries, the ratio is 1:7.

The competition for enrollment of students into the study programs of three universities in Macedonia, in the academic year 2017/2018, advertise 170 places for midwives.¹¹⁷

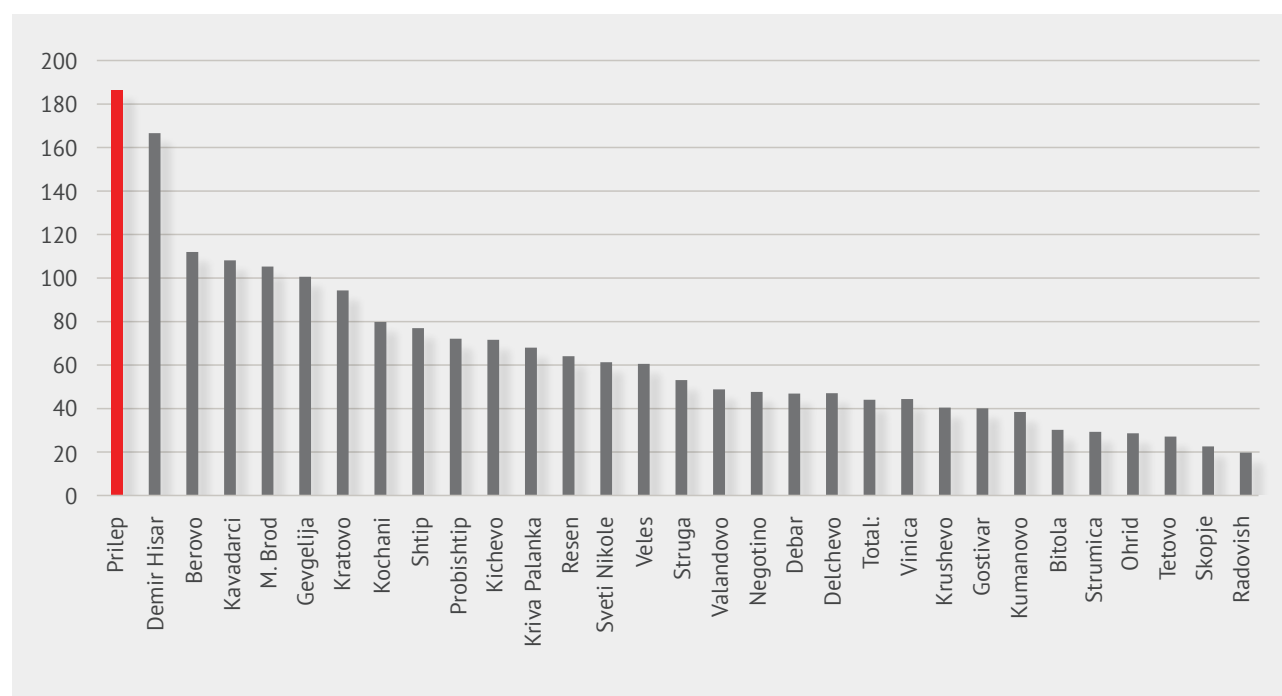
¹¹⁶ Institute of Public Health. Center for Statistical Analysis of Healthcare Data, Publishing and Education.

¹¹⁷ COMPETITION for enrollment of students in the first cycle of study programs at the University “Goce Delchev” in Shtip in the academic year 2017/2018; COMPETITION for enrollment of students in the first cycle of study programs at the University “St. Clement of Ohrid” – Bitola in the academic year 2017/2018; COMPETITION for enrollment of students in the first cycle of study programs at the University in Tetovo in the academic year 2016/17.

The paragraphs below provide an overview of the **territorial distribution of midwives** in Macedonia. The number of midwives ranges from 4 in Krushevo, 5 in Kratovo to 175 in Prilep and 191 in Skopje. This figure does not indicate how many of the midwives actually practice midwifery. The disproportionally high number of midwives in Prilep relates to the existence of a secondary medical school in the past, which only offered a study program for midwives. However, most of them do not practice midwifery, are at an advanced age, and therefore this situation is expected to change significantly in the near future. This example reflects the challenges related to the accurate estimation of the actual midwifery potential in a setting where there is no systematic, updated and publically available registry.

The following reflects the distribution of the number of midwives per 1,000 births:

Chart 12. *Number of midwives per 1,000 live births*



The ratio between the region with the fewest and the region with the most midwives is 1:8.

Macedonia has not established a demographic standard for the number midwives and nurses by regions.

With respect to the distribution of midwives in the different healthcare levels, 65 of the **PHC teams** (about ½ of the total number of teams) involve midwives.¹¹⁸ However, it has to be pointed out that if one gynecologist works with two nurses / midwives in the office, from the point of view of the network of healthcare institutions and the contracts with the HIF, this shall be considered as one team (the number of teams is equal to the number of gynecologists). In addition, it makes no difference whether the nurse/midwife has secondary or higher vocational degree.

¹¹⁸ From an official letter from the HIF, no.10-13347/2 from 25.10.2017.

The **polyvalent patronage service** comprises nurses and midwives with secondary, two years post-secondary and/or higher vocational education. Every nurse has its micro region, territory where the nurse works, and this territory includes 5,000 – 6,000 population in the area covered by the public healthcare institution.¹¹⁹

According to the proposed standards and the work norms of the polyvalent patronage service (not adopted yet), polyvalent patronage is performed by patronage nurses and midwives who have at least graduated from secondary vocational education and who provide healthcare services independently or as part of a team. These draft standards for implementing the standard polyvalent patronage services have the following requirements:

- For urban and suburban areas – one polyvalent patronage nurse per 1,000-1,500 families, or 3,000-5,000 population;
- For rural areas – one polyvalent patronage nurse per 800-1,300 families, or 2,000-4,000 population¹²⁰.

In 2017, the number of **patronage nurses** in the patronage services in Macedonia was 311 or 1 patronage nurse per 1,650 women in the reproductive period¹²¹, or 14 patronage nurses per 100 live births or about 70 live births per patronage nurse. Out of the total patronage nurses, 31% are midwives and the others are medical nurses.

The patronage service consists of 36 regional services. There are big differences in the number of staff providing polyvalent patronage services in different regions. The situation is the worst in Skopje, Valandovo and Probishtip where the ratio between the number of women in the reproductive period and the number of patronage nurses is 5 times higher than that in the cities that are well “stocked” with patronage nurses (Brod, Berovo and Demir Hisar). In approximately 10 regional services the patronage service teams are without any midwives, the teams in two regional services consist only of midwives, while the rest of the teams have varying shares of midwives (from 6% to 70% share of the midwives).

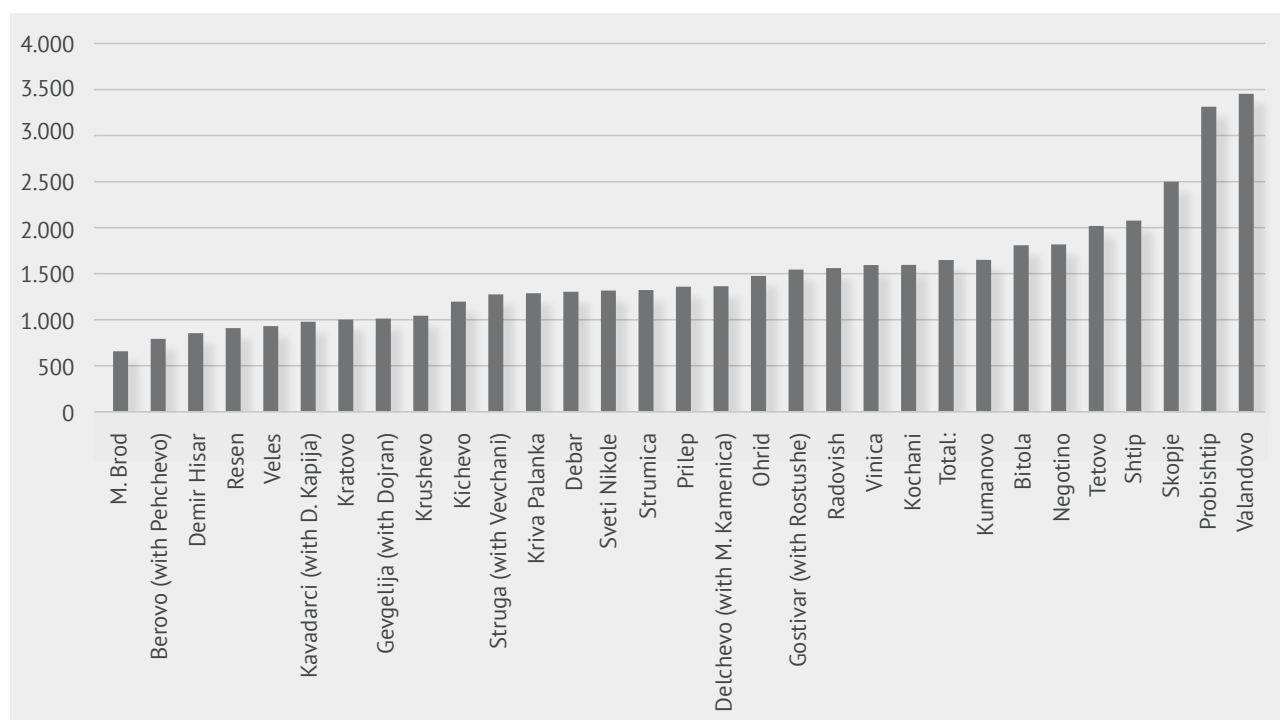
The following chart shows the number of women in the reproductive age per one patronage nurse, structured by the 30 geographic regions also used as a basis for the analysis of the other segments of this report.

119 Rule book for changes and additions to the Rule book on the criteria for determining the organizational units of the public healthcare institutions that cannot be rented out, Official Gazette of the Republic of Macedonia no. 04/2007, Ministry of Health of the Republic of Macedonia.

120 Ministry of Health of the Republic of Macedonia. Information about the ongoing activities to expand the scope and type of services provided by the polyvalent patronage service in the Republic of Macedonia, 2011. (Министерство за здравство на РМ, Информација за тековни активности за проширување на обемот и видот на услугите на поливалентната патронажна служба во Република Македонија, 2011).

121 Polyvalent patronage services provided in the Health Home in Skopje.

Chart 13. Number of women in the reproductive period per one nurse



Macedonia has not established a demographic standard for the number of patronage nurses on regional level.

The country does not have systematized data regarding the number of midwives and nurses **in secondary healthcare** (in general and clinical hospitals) and in tertiary healthcare, as well as in the departments where they work and the healthcare services they provide.

Because of the obsolescence of the record tracking models (cumulative and individual), the old software solutions for electronic data processing and the lack of a registry of health workforce, it is not possible to obtain data about employed personnel (physicians, specialists, nurses, midwives etc.) broken down by job positions in the healthcare institution and the level of education. It is necessary to renew and modernize the recording models, prepare new software solution and connect the institutions in a network, as well as to establish a comprehensive healthcare workforce registry.¹²²

Therefore, the available data regarding nurses and midwives in the Republic of Macedonia is very limited. There is no updated registry of midwives.¹²³ In comparison, the OECD countries keep the following healthcare workforce statistics:

¹²² Source: Institute of Public Health of the Republic of Macedonia.

¹²³ Association of nurses and midwives of the Republic of Macedonia.

Table 19. Examples of the midwife and nurse statistics maintained in OECD countries

OECD head counts	Australia 2016 (estimated value)	Slovenia 2015
Practising nurses*	281,752	18,122
Professional nurses, practising	232,525	5,346
Associate Professional nurses, practising	49,227	12,776
Professionally active nurses*	311,740	18,382
Professional nurses, professionally active	260,233	5,465
Associate Professional nurses, professionally active	51,507	12,917
Nurses licensed to practice*	365,931	
Professional nurses, licensed to practice	300,997	
Associate Professional nurses, licensed to practice	59,626	

*Categories that apply to midwives; Minimum 3-4 of categories for all healthcare workforce

The following table provides an overview of the numbers of midwives, patronage nurses and medical nurses in the Republic of Macedonia (latest available data).

Table 20. Number of midwives, nurses, patronage nurses in the Republic of Macedonia

	Midwives (2016)	Patronage nurses (2017)	Nurses (2013)
Total	1,020 ¹²⁴	311 ¹²²	8,700 ¹²⁵
Number of women in the reproductive period (15-49) per 1 midwife/patronage nurse/nurse	503	1,650	59
Per 100,000 population	55.1	15.0	469
Number of population per 1 midwife/ patronage nurse/nurse	2,030	6,655	238
Number of staff per 1,000 live births	44	14	/

¹²⁴ Institute of Public health of the Republic of Macedonia. Center for statistical analysis of healthcare data, publishing and education.

¹²⁵ Health for All Database. WHO Euro Office.

What does the data say?

- In 2016, Macedonia had a total of 1,020 midwives (55.1 per 100,000 population) and 8,700 nurses (469 per 100,000 population). Some of them (311) make up the polyvalent patronage service.
- In the past 10 years, the number of midwives in Macedonia declined, while the number of nurses gradually increased. The total potential of midwives and nurses in Macedonia is far below the European average.
- Macedonia has **more midwives** than the European regional averages, as well as in comparison to the Southeastern Europe average. Only the Nordic region, with its upward trend of the number of midwives, converges to the number in Macedonia.
- Macedonia has **significantly fewer nurses** than the European averages, as well as in comparison to the average in the Nordic countries and Southeastern Europe. Macedonia has half fewer nurses per capita than the EU average.
- The number of **highly educated midwives and nurses** in Macedonia is significantly lower than the European average, the Nordic countries and the average in the entire WHO_EURO region. In 2016, the Republic of Macedonia registered only **14** midwives with university education, although the actual number may be higher.
- The ratio of the number of midwives per 1,000 births between the region with the most and the fewest midwives is 1:8. However, most of them do not practice midwifery or are elderly and therefore this situation is expected to change significantly in a few years. This indicates the difficulties in estimating the actual midwifery potential in a setting where there is no systematic, updated and publically available registry.
- 65 of the **PHC** teams (about ½ of the total number of teams) include midwives.
- **The availability of data** regarding midwives and nurses in Macedonia is very limited. There is no updated registry of midwives and nurses. There are no publically available and up-to-date data regarding the number of midwives and nurses by healthcare levels. In addition there is no data how many of the midwives and the nurses actually practice midwifery.
- Every patronage nurse has its micro region, territory where the nurse works, and this territory includes 5,000–6,000 population in the area covered by the public healthcare institution. The draft **standards** for the polyvalent patronage services, prepared in accordance with the international standards, require one polyvalent patronage nurse per 1,000-1,500 families, or 3,000-5,000 population in urban and suburban areas and one polyvalent patronage nurse per 800-1,300 families, or 2,000-4,000 population in rural areas.

General practitioners – family medicine specialists

One of the reproductive healthcare potentials includes the general practitioners, family medicine specialists at primary healthcare level.

There are more than 10 times as many primary level doctors in general practice, with contracts with the HIF, than gynecologists. In the past 4-5 years there were about **1,500 doctors in general practice**. Some of them are family medicine specialists, some are pediatric specialists and most of them are general practitioners.

The network of healthcare institutions in 2016 included 1,532 general practice physicians – primary physicians (74 per 100,000 population). This indicator is in accordance with the statistical averages in the European region of the WHO (EU = 79, NORDIC = 69, WHO_EURO = 64), which were relatively stable in the last 10 years. In Macedonia there is a downward trend.

The basic demographic standards for the primary healthcare network for general practitioners require: - 1 general practice team, comprising 1 primary physician and 1 nurse per 1,000 population.¹²⁶ The assumption is that this includes all general practice physicians, including the specialists and not only the general practitioners.

Out of the total number of primary physicians, according to the data obtained from the Family Medicine Department at the University of St. Cyril and Methodius, 284 are family medicine specialists. The family medicine specializations started in 2009. The interest to enroll in this study programs varies from year to year and the program produces about 30 specialists per year.

Other capacities

Rural teams

The project that introduced rural physicians and teams started in 2014. Rural physicians provide healthcare services to insured persons that cannot receive healthcare services in their place of residence. Rural teams work in the health homes throughout the country. In order to provide healthcare to insured persons in accordance with the needs of the population, the health home organizes the work of the rural physicians. The health home informs, ex officio, the primary physician of the insured person about the services that the rural physicians provided to the insured person.

¹²⁶ Regulation on the Network of Healthcare Institutions, Official Gazette of the Republic of Macedonia no. 81/2012, 147/2012, 169/2013, 21/2014, 90/2014, 2/2016, 5/2016, 144/2016.

According to the legislation, the rural physician performs the following:

- Examines patients in accordance with their health condition in out-patient care department in the health homes, as well as at the home of the patient;
- Undertakes preventive measures and activities specified in the programs for improving and preservation of the health of the patients;
- Prescribes drugs from the Primary Healthcare Positive List of Drugs;
- Participates in the implementation of team work in primary healthcare;
- Takes blood samples;
- Applies injections.

In 2014 and 2015 there were about 30 teams, while in 2016 that number fell to 23. Although there is no evidence, still there are indications that this system of rural teams does not function in accordance with the set objectives, primarily due to the lack of motivation among the physicians.

Capacities of the civil society organizations

There are several programs/services of nongovernmental organizations, which cover reproductive health services. **The mobile clinic for sexual and reproductive healthcare and the Youth centers for sexual and reproductive health “I Want to Know”** by the nature of their activities belong to the primary level of care. They function as vertical programs, not included in the overall system of healthcare (the system of referrals, prescription of drugs, etc.).

The service of the **Mobile clinic for sexual and reproductive health** is managed by the civil society organization HERA – Healthcare Education and Research Association. As the only service of this kind in the country, it began to implement outreach activities in 2013 and received support from the Global Fund for AIDS, Tuberculosis, and Malaria and the Ministry of Health as the primary recipient of the funds from this international donor.¹²⁷ The primary objective of the Mobile gynecology clinic is to improve the access to and the quality of sexual and reproductive health services, primarily among women from the key populations, with particular risk of HIV (sexual female workers, women that inject drugs and convicted women), as well as among women from rural areas that do not have access or have limited access to gynecology and other sexual and reproductive health services.

The outreach activities are implemented using a vehicle, appropriately adapted for providing gynecology services, equipped with a gynecology chair, an ultrasound device and the necessary medical equipment. The gynecology services are provided by a professional team comprising a gynecology and obstetrics specialist and a nurse/midwife, which have received additional training to provide services to persons from vulnerable groups.

In the Mobile clinic, the clients can receive the following gynecology services: gynecology examination; ultrasound examination, PAP test, chlamydia test, application of an intrauterine device, oral hormonal contraception, emergency contraception, quick pregnancy tests, free

¹²⁷ Report of the consultation process with the young people from the key groups. Available at: <http://hera.org.mk/wp-content/uploads/2017/01/Izvestaj-od-konsultativniot-process-so-mladite-od-klucni-populacii.pdf>.

treatment of STIs, advice about modern contraception, advice for parenthood planning and pregnancy termination, preventive counseling about HIV and provision of free condoms, lubricants and informative and educational materials.

The services offered by the Mobile clinic are voluntary, based on the principles of confidentiality and privacy. They are completely free of charge and do not require a personal identification document, a healthcare identification document or proof of health insurance of the clients. The gynecologists that provide the services in the Mobile clinic provide information to the client regarding the health rights and informally refer her to the nearest healthcare out-patient offices or institutions in accordance with her needs. The quality of the provided services and the satisfaction of the clients with the services are continuously monitored through a survey of the client satisfaction.

The Mobile clinic offers its services in various geographic regions of the country in accordance with the identified needs for SRH services. The outreach activities with the key populations concerned with HIV, are implemented in partnership with other civil society organizations which involve additional persons that communicate with the target groups, so called gatekeepers that promote the services among these hard-to-reach populations. A particularly significant activity of the Mobile clinic involves offering gynecology services to women from rural areas, who have limited access to SRH services because of hard-to-reach locations and the remoteness of the nearest gynecology office. Local patronage nurses or field officers from the civil society sector participate in the activities provided to women from rural areas. The Clinic has provided different gynecology services to about 3,000 clients since it has been established.¹²⁸

The Youth centers for sexual and reproductive health “I Want to Know” – Vodno and “I Want to Know” – Shuto Orizari are the only “friendly” services that operate on the territory of the city of Skopje. They have been active since 2005/2006 and partner with HERA and the Ministry of Health, as part of the Balkan Project of the International Federation of Parenthood Planning for Promotion of Sexual and Reproductive Health¹²⁹. These two services offer anonymous integrated social and primary healthcare services, available to the most vulnerable young citizens – the Roma, children living on the street or in institutions, sexual workers, men having sex with man, and persons who inject drugs.¹³⁰

The youth center comply with the principles of the World Health Organization (WHO) regarding “youth friendly services”, i.e. availability, appropriateness, efficiency, acceptability, equality, and confidentiality.¹³¹ The facility provides complete privacy and guarantees confidentiality to the clients that use their services.

128 *Assessment of the Capacities of the Civil Society Organizations Implementing HIV Programs*. Available at: <http://hera.org.mk/wp-content/uploads/2015/12/Informativna-karta-procenka-na-kapaciteti-HIV-organizacii.pdf>.

129 Baltag, V., Mathieson, A. and World Health Organization, 2010. *Youth-friendly health policies and services in the European region: Sharing experiences*. p.174. Available at: http://www.euro.who.int/__data/assets/pdf_file/0017/123128/E94322.pdf.

130 *Annual Report of HERA*, page 39. Available at: http://hera.org.mk/wp-content/uploads/2017/05/HERA_Godish-en_izveshtaj2016.pdf.

131 *World Health Organization*, 2012. *Making health services adolescent friendly: Developing national quality standards for adolescent friendly health services*. page.8. Available at: http://apps.who.int/iris/bitstream/10665/75217/1/9789241503594_eng.pdf.



The services offered at the Youth Centers include: gynecology examinations (diagnostic of sexually transmitted infections, administering therapy and contraception, ultrasound examinations), dermatologic (cryotherapy, diagnostic of STIs, administration of therapy), HIV counseling and testing, psychological counseling and peer education in the area of sexual and reproductive health, distribution of condoms and educational materials, counseling for prevention of drug use, services of a general (school) practitioner (examinations, advice, therapy, immunization and systematic examinations), legal assistance.

From 2006 to 2017, 27,500 clients received more than 87,000 services. From January to December 2017, the Youth center “I Want to Know” had 3,772 visits by 2,526 clients (1,925 new clients) and provided 8,736 SRH services.

The operation of the youth center is further justified considering the number of diagnosed positive HIV and STI cases. Namely, the youth centers identified 8 HIV cases in 2016 which is close to 30% of all newly discovered HIV cases in the country during that year. In addition, the centers diagnosed 7 cases of syphilis, 12 cases of chlamydia infections and 7 cases of trichomonas infections, which also further justifies the operation of these centers, in particular for the purposes of providing sexual and reproductive health services to marginalized groups.

The analysis of the responses to the client satisfaction survey suggests that more than 90% of the users were satisfied with the services they received in the centers and would come again to the centers.¹³²

In November and December 2017, the Program for Protection of the Population against HIV in the Republic of Macedonia financially supported, for the first time, the activities of the Mobile gynecology clinic and the Youth centers “I Want to Know”. Their role and importance was also recognized by the Program for Protection of the Population against HIV in the Republic of Macedonia for 2018, which helped support the sustainability of the services after the end of the international support.¹³³

Roma health mediators

The program Roma Health Mediators (RHM) began in 2011 when the Ministry of Health, at the initiative of the civil society organization HERA, the Open Society Foundation of Macedonia and the international community, adopted the *Strategic Framework for Improving the Health and the Social Status of the Roma in the Republic of Macedonia by Introducing the Roma Health Mediators (RHM)*. The program aimed at improving the health of the Roma and their access to healthcare by engaging Roma health mediators (RHM) as another link in the system that would improve the communication between the Roma community and the healthcare system. The mediators help facilitate the access to healthcare services, establish the trust in the relationship between the physician and the patient, as well as establish habits regarding one's own health and the health of others in the Roma community.

¹³² Programmatic area: Youth Centers, available at: <http://hera.org.mk/%D0%BF%D1%80%D0%BE%D0%B3%D1%80%D0%B0%D0%BC%D1%81%D0%BA%D0%BE%D0%BF%D0%BE%D0%B4%D1%80%D0%B0%D1%87%D1%98%D0%B5%D0%BC%D0%BB%D0%B0%D0%B4%D0%B8%D0%BD%D1%81%D0%BA%D0%B8%D1%86%D0%B5%D0%BD%D1%82%D1%80/>.

¹³³ Program for Protection of the Population against HIV Infections in the Republic of Macedonia for 2018.

The program implementation is technically supported by HERA, especially with respect to activities such as preparation of training programs for RHM¹³⁴, training and continuous education of the RHM, introduction of a system for keeping records, data collection and evaluation of the situation with the Roma population with respect to health and access to healthcare etc.

Some of the services offered by the RHM include visits to women in the reproductive period, counseling and support when selecting a primary gynecologist, information about the different methods of family planning available in Macedonia, helping women overcome prejudices with respect to using certain contraceptives, assessment of risk of sexually transmitted infections, promotion of double protection etc.

In 2017, the program involved 10 health mediators in nine municipalities: Shuto Orizari, Gjorche Petrov, Karposh, Gazi Baba, Tetovo, Gositivar, Shtip, Kochani and Delchevo.

The budget of the Republic of Macedonia provides the funds to engage the RHM, as part of the support of the implementation of the Roma decade and strategy.¹³⁵ Although the funding is growing continuously, the main challenges facing the implementation of the program include the employment status of the Roma health mediators and the extension of the engagement of the trained mediators in other municipalities with a high percentage of Roma.¹³⁶

Overview of the reproductive healthcare workforce

The following table provides a comparison between the workforce involved in reproductive healthcare in Macedonia and the averages in the EU and the Nordic countries.

Table 21. Overview of all reproductive healthcare workforce per 100,000 population

	General practitioners	Gynecologists	Nurses	Midwives
MKD	75	17.7	421	55
EU_MEMBERS	79	15.5	856	33
NORDIC	69	12.6	1,462	55

¹³⁴ HERA. Manual for training of Roma Health Mediators. Available at: <http://hera.org.mk/%D1%80%D0%BE%D0%BC%D1%81%D0%BA%D0%B8%D0%B7%D0%B4%D1%80%D0%B0%D0%B2%D1%81%D1%82%D0%B2%D0%B5%D0%BD%D0%BC%D0%B5%D0%B4%D0%B8%D1%98%D0%B0%D1%82%D0%BE%D1%80/>.

¹³⁵ http://www.finance.gov.mk/files/BUDZET_2018-SOBRANIE-10112018_0.pdf.

¹³⁶ Report on the evaluation of the program for Roma health mediators. Available at: https://www.unicef.org/eval-database/files/RHM_Evaluation_FINAL_Macedonia_2017-003.pdf.



Financial aspects

The healthcare service costs incurred by persons with regulated health insurance are generally covered by the Health Insurance Fund of Macedonia (HIF), as a financial “intermediary”, unless the specific type of service is not covered with the health insurance or if the service is of a higher standard (for example accommodating a new mother in a private suite).

The insured persons pay a copayment (“participation”) to the costs covered by the HIF. The HIF determines the amount of the copayment depending on the value (reference price) of the healthcare service, also determined by the HIF. The level of the copayment to be paid by the insured persons is defined by a special “Decision for Determining the Level of the Participation of the Insured Persons in the Total Costs and Drugs”¹³⁷, but it shall not exceed 20% of the price of the service (a legislatively mandated limitation).

Some people are exempt from paying copayments, in accordance with different regulations and for different types of services:

- **Article 34 and 35 of the Law on Health Insurance** defines categories of insured persons exempt from the obligation to pay copayments for all or only for some health services.^{138,139} This article also envisions that copayment shall not be charged for health examinations by a primary physician and for emergency medical assistance. If the primary physician performs diagnostic examinations using ECG, ultrasound or other devices, or a colposcopy for gynecologists, such health services shall not be considered as separate health services, but shall be included in the overall health services provided by the primary physician and shall not be charged separately, i.e. the costs of those services shall be included in the capitation paid by the HIF to the primary physicians.^{140,141}
- The Decision for the Level of Participation envisions exemptions from copayments for insured persons with low family incomes, as well as insured persons who have exceeded the maximum level of copayment.

¹³⁷ HIF. 2011. *Decision for determining the level of copayment by insured persons in the total costs and the drugs – Consolidated text*. Official Gazette of the Republic of Macedonia no. 95/2011 and 20/2012. Available at: <http://www.fzo.org.mk/default.asp?ItemID=0BF0A02A773E024596D0A98CF54D94C5>.

¹³⁸ HIF. 2012. *Rule Book on the Content and the Method for Administering the Rights and Obligations related to the Mandatory Health Insurance*. Official Gazette of the Republic of Macedonia no. 54/2012. Available at: <http://www.fzo.org.mk/default.asp?ItemID=ADFED111BB5B6848A8BCFFD07DB814F2>.

¹³⁹ Parliament of the Republic of Macedonia. 2012. *Law on Health Insurance – Consolidated text*. Official Gazette of the Republic of Macedonia no. 65/2012.

¹⁴⁰ HIF. 2012. *Contract for providing and payment of primary healthcare services*. Available at: <http://www.fzo.org.mk/default.asp?ItemID=8D8AC9C6A44E4849BAE751A25E7C8E5A>.

¹⁴¹ HIF. 2012. *Rule Book on the Method of Payment for Primary Healthcare Services*. Official Gazette of the Republic of Macedonia no. 42/2012. Available at: <http://www.fzo.org.mk/default.asp?ItemID=D07456BACF895140A0B-EC53D46857316>.

- According to the public health programs of the Government, different categories of insured persons are exempt from copayments for different services/drugs. For example, every insured woman shall be exempt from having to pay copayments for non-invasive or invasive delivery in an institution with a contract with the HIF¹⁴². Also all pregnant women are exempt from copayments for all specialist and hospital services during pregnancy.

For each out-of-pocket payment for healthcare services, either fully or just to the level of the copayment, the healthcare institution shall have to issue a fiscal receipt.

HIF is the only purchaser of healthcare services and, as such, collects the mandatory health insurance contributions, disburses the funds, signs contracts and controls the healthcare institutions that provide healthcare services, both private and public (state owned).¹⁴³

The way HIF pays for the services to the healthcare service provides is defined in rule books and depends on the level of healthcare.

For the primary healthcare services, provided by the primary physicians, HIF shall pay the service providers with whom it has signed contracts, a capitation fee for every registered insured person. The capitation is paid in accordance with the number of insured persons. In gynecology, every capitation point is worth 50 denars per month and this applies to all women registered with the gynecologist, regardless of their age. In general practice, the value of the capitation point depends on the patient age. In addition, the regulations have not envisioned higher values of the capitation point for pregnant women, considering that they are insured persons requiring more complex healthcare than the average gynecological healthcare service. If a gynecologist has registered up to 4,000 insured women, then it receives 100% of the capitation, while for all the insured women above this number, the gynecologist receives a smaller percentage of the capitation. The aim here is to stimulate the gynecology practice to employ another gynecologist if it wishes to service more patients. This measure makes sense if there is sufficient health workforce (gynecologists) to be employed. Otherwise, the objective of such a measure would not be achieved and it can influence the quality of healthcare provided. HIF intervened in the capitation payment system starting from 01.09.2018, whereby the value of the capitation point for the gynecologists increased by 10% and a new higher coefficient of the capitation point for pregnant women was introduced.¹⁴⁴ However, there is some doubt that these measures, if not accompanied by other changes in the payment system of specialist gynecologists, would ensure the removal of some of the barriers to the access of women to the services, such as the illegal charging of services.

The number, the type and the quality of the provided services do not affect the remuneration paid to the primary physicians, except for some predefined public health targets stipulated in the HIF contracts. These targets, in the area of gynecology include general targets related

¹⁴² Government of the Republic of Macedonia. Program for participation when using healthcare services for certain diseases of the citizens and healthcare for new mothers and infants in the Republic of Macedonia for 2017. Official Gazette of the Republic of Macedonia no. 192/2016.

¹⁴³ Parliament of the Republic of Macedonia 2012. Law on Health Insurance – Consolidated text. Official Gazette of the Republic of Macedonia no.65/2012.

¹⁴⁴ HIF, 2018. Personal Gynecologist Announcement, 01.08.2018 Available at: <http://www.fzo.org.mk/WBStorage/Files/SoopstenieGinekolozi2018.pdf>.

to rational prescription of drugs and sick leaves (9% of the fee), specific services related to malignant disease prevention (PAP and colposcopy – 19% of fee), as well as antenatal care services, but only the microbiology smear for all pregnant women (only 2% of the fee). All targets have a share of 30% in the total amount of the remuneration. The quality of health-care at primary level also does not impact the remuneration, except with respect to issued contractual fines for failure to perform some of the obligations stipulated in the contract with the HIF.

The primary healthcare institutions sign a contract with the HIF on the basis of the number of teams. Some of the rights and obligations correlate with the number of teams. A team includes a physician and a nurse/midwife. The educational profile and the number of midwives/nurses do not have an impact on the rights and obligations of the primary healthcare institutions stipulated in the contract with the HIF. For example, if the institution employs one physician and two nurses, the contract and the corresponding remuneration paid by the HIF would be the same as if the institution employed one physician and one nurse. In the area of general practice, the rights and obligations of the healthcare institutions are not influenced even by the level of education of the physician, i.e. they are the same regardless of whether the physician is a general practitioner or a family medicine specialist.

One of the obligations of the primary physicians in the area of gynecology, according to the HIF contract is to procure an ultrasound and a colposcopy. The physicians who signed the contracts with the HIF in 2007 received colposcopies from the HIF as a contribution to the capital investments required to realize the contract.

The capitation model was introduced in Macedonia when the primary healthcare was transformed from public into private. When the primary healthcare was within the public health institutions, the payment model was “payment per service”. One of the arguments for introducing capitation was to simplify the system of administration and payment and reduce the potential for irregularities when calculating the claim from the HIF. The payment per service, in a setting when there was no health information system, provided possibilities for irregularities in tracking the services actually provided. The capitation model minimizes the possibilities for irregularities and thus simplifies the control of the claims. The field of primary gynecology was privatized in 2007, at the same time when the capitation payments started. No evaluation of the effects and subsequent adaptation of this model has been performed since. On the other hand, this period witnessed a significant progress in the health information and records management system, including the introduction of a complex National Electronic Health Records System or the so called “Moj Termin” (My Appointment) managed by the Ministry of Health. This system is reasonably expected to significantly reduce the possibilities for irregularities related to the tracking of the actual examinations performed.

The financial management mainly deals with the institutional aspects of paying the healthcare service providers. The provider payment methodology influences the scope and the quality of the provided services. The financial institutions should be aware of the ramifications that the different payment methods may produce with respect to generated economic incentives, as well as the financial risk distribution between the financial intermediary (the HIF) and the service providers. The capitation payment model is defined as payment based on a fixed cost per insured person, intended to cover a defined benefits package. It is described as a model

that stimulates reduction of the cost per case. However it can lead to selection of easy cases, inadequate reduction of the quantity of services per case, as well as inadequate referrals to other healthcare institutions. This model shifts the financial risk to the service providers. Therefore, other countries using the capitation payment model, take into account additional provisions for cases incurring higher costs (complex cases), and sometimes they use combined payment models in order to reduce the impact of the weaknesses of each of the individual models¹⁴⁵.

Although the term capitation means a fee for a defined package of services, still, the contract that the primary gynecologists sign with the HIF in Macedonia is not very clear in this context. On one hand, it stipulates that the healthcare institution shall provide services to the insured persons in accordance with evidence-based medicine, which entails protocols and guidelines with a defined content of services. On the other hand, no regulation states or defines what to do if the patient asks for and/or receives a service outside the scope of the evidence-based medicine practicing guidelines. In addition, the legislation and the contract between the HIF and the primary physicians regulate that, in general, the examinations performed by a primary physician/gynecologist shall not be charged. This includes all examinations by the primary physician, including the examinations with ultrasound, ECG and colposcopy. No regulation specifies the standard of the equipment that primary gynecologists should have, which in turn directly impacts the types of services that can be provided. Considering that the level of the capitation point is equal for every physician, regardless of the potential to provide different types of services at different levels of quality, the payment model does not stimulate the practice to invest in more sophisticated equipment. This creates further inequalities regarding the administration of the right to a certain quality of reproductive healthcare. Considering that Macedonia does not have a Health Technology Assessment System, the country does not have an analysis of the benefits versus the costs for the healthcare system, with respect to the different standards of equipment in different levels of healthcare.

The gynecology specialists stress that the capitation model does not stimulate the private specialists to invest into intellectual capacities through additional education and training.¹⁴⁶

Public debates, but also reactions to the HIF suggest that the service providers find the payment method for gynecology services in primary healthcare, unacceptable. This dissatisfaction leads to somewhat predictable reactions (for example: inadequate referrals to other healthcare institutions for services that the gynecologists can provide themselves), but also other more unpredictable and sometimes illegal reactions (for example: charging patients for services). The state still has not devised effective mechanisms to control these reactions, which further deepens the barriers for the women.¹⁴⁷

145 Gruen R., Howarth A. *Financial Management in Health Services*. London School of Hygiene and Tropical Medicine. 2005.

146 Source: Focus group implemented of the purposes of this analysis, with gynecology and obstetrics specialists. Skopje, 18 May 2018 (Annex 2).

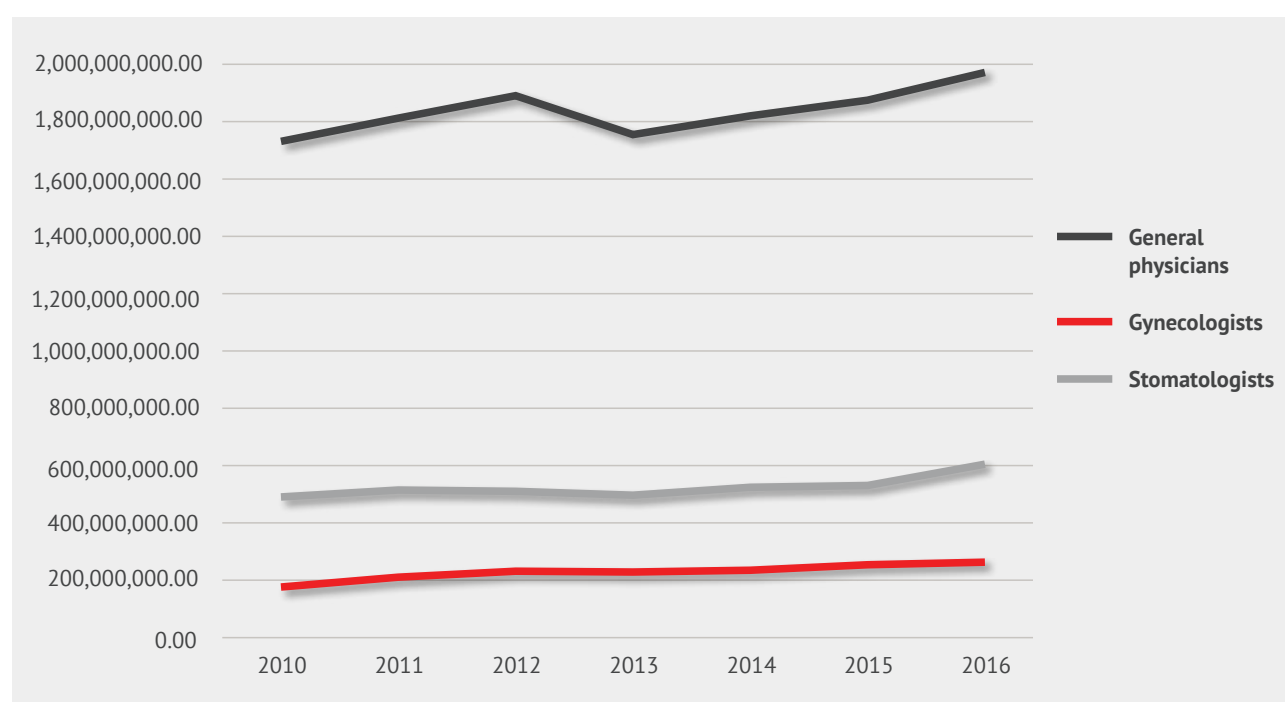
147 24 News. 24 Analysis 19.01.2018; (24 Вестни. 24 Анализа. 19.01.2018). Available at: <http://24vesti.mk/24-analiza-rodilki-umiraat-vo-bolnicite-matichnite-ginekolozi-ne-zakonski-im-naplakjaat-za-uslugi>.



Payment to primary gynecologists only on the basis of the number of registered insured women does not stimulate servicing regions with fewer women. HIF introduced stimulations for the new practices, but having in mind the deepening of the issue with the distribution of the gynecologists, begs the question of the success of this measure.

The total annual amount that HIF pays for capitation to primary healthcare institutions in the area of general practice, gynecology, and dental care is 2.84 billion denars, which represents about 12.5% of the total budget of the HIF allocated to healthcare services (chart 14).¹⁴⁸

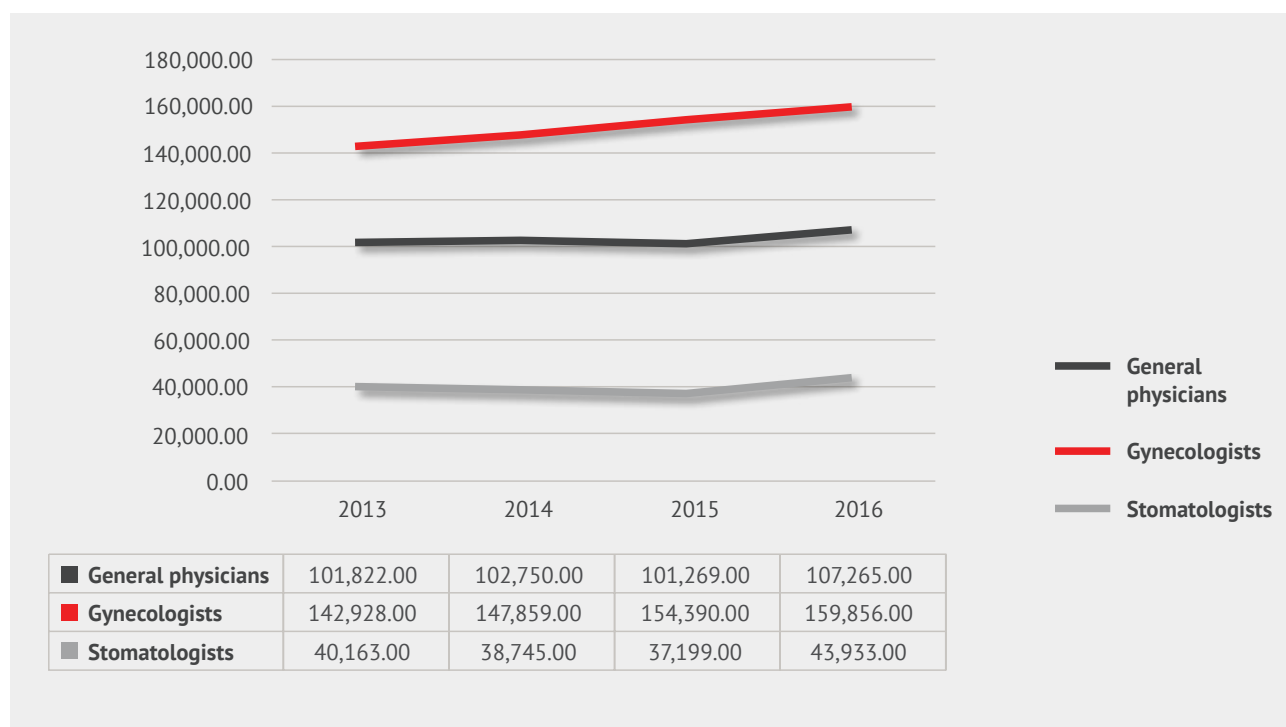
Chart 14. Total annual amount for capitation of primary healthcare institutions in general practice, gynecology and dental care



Gynecologists receive the highest average monthly capitation, about 50% higher than that paid to general practitioners. The following chart shows the average monthly capitation for the different primary healthcare services.

¹⁴⁸ Health Insurance Fund of Macedonia. Annual Report for 2016. Available at: <http://www.fzo.org.mk/WBStorage/Files/Godisen%20Izvestaj%202016.pdf>. Accessed in December 2017.

Chart 15. Average monthly capitation paid per physician in different areas of primary healthcare



HIF finances the patronage service as part of the preventive healthcare services in the public healthcare institutions – health homes. The payment is based on reference prices specified for a service package of “patronage per nurse”, for which the healthcare institution receives 40,000 denars per month to cover all of its cost. This group of services also includes the “rural team” which costs 90,300 denars per team.¹⁴⁹

The secondary and tertiary healthcare services, comprising the specialist-consultative healthcare, are paid to the service providers, in accordance to a previously defined reference price of the service (“payment per service”) up to a certain budget limit, stipulated in the contract between the healthcare institution and the HIF. This group includes laboratory services, diagnostic tests and procedures etc. For hospital healthcare services (during hospitalization), the HIF pays according to Diagnostic Related Groups (DRGs).

To receive a higher level healthcare service, the insured person should be referred by his/her selected primary physician. Some women receive gynecology healthcare services in private health institutions that do not have a contract with the HIF. In order to attain the right to maternity leave, they need to have selected a primary gynecologist who will “prescribe” the maternity leave. Some of the pregnant women select a primary gynecologist just for this reason and they do not actually use the other healthcare services the gynecologist provides. Doing this they do incur a cost for the HIF by just having selected a primary gynecologist.

¹⁴⁹ HIF 2010. Decision to determine the reference prices for service packages in preventive healthcare and emergency medical assistance with home treatments. Official Gazette of the Republic of Macedonia 171/2010; 151/2011; 138/2014.

The Law on Health Records stipulates that the healthcare institutions shall maintain cumulative records using models prescribed by the Minister of Health. These models shall include records for revenues and expenditures in healthcare institutions (article 9). The private healthcare institutions also have this obligation. The Law on Health Records does not clearly define certain responsibilities. For example, the law states that all cumulative records shall be entered in the National Health Electronic Records System, under the responsibility of the Ministry of Health. On the other hand, the same article of the Law states that they shall be collected and processed by the Institute of Public Health, as the authorized holder of the health statistical records maintained in the healthcare institutions (article 5). The unclearly defined responsibilities likely contribute to the lack of systematized records that could be used for planning and programming purposes, including data on the revenues and expenditures of the private healthcare institutions, including primary gynecologists.

Having in mind the weaknesses of the health workforce registration system, underlined in the previous chapter, although the law stipulates an obligation to maintain a registry, the country, nevertheless, does not have systematized records of the monthly incomes of the health professionals in the private healthcare institutions (nor those included in the health insurance system i.e. the network and even less so for those outside of the network). The recommendations of the WHO, stated in the Global Strategy on Human Resources for Health, clearly state that health workforce records, as an exceptional financial burden to the healthcare systems, should include a comprehensive overview of the workforce characteristics (public and private practice). This includes data such as: payment modalities (from multiple sources and not only the payroll of the public sector), competences of the workers (for example, the role of health workers broken down by staff profiles and different levels of care), absences from work and the different reasons for that, workforce mobility dynamics (rural vs. urban, public vs. private mobility), attacks on the health workers and the performances of the healthcare workforce management system (the average time to fill a job vacancy, education dropout rates, accreditation program results etc.).¹⁵⁰ The statistics from the OECD countries also include systematized data about the incomes of the health workforce, including general practitioners and specialists (working for a salary or self-employed), as well as nurses.¹⁵¹

150 WHO. *Global Strategy on Human Resources for Health: Workforce 2030*. WHO, Geneva 2016.

151 <http://stats.oecd.org/>

What does the data say?

- The insured persons participate, with their own funds, in the cost covered by the HIF. The amount of this copayment is defined by the HIF, but it cannot exceed 20% of the price of the service.
- Copayments should not be charged for examinations by the primary physicians, including the concomitant diagnostic examinations with ECG, ultrasound or similar devices, as well as colposcopy for gynecologists.
- Certain categories of patients are exempt from copayments for certain healthcare services, as well as in accordance with the public health programs of the government and other regulations.
- The remuneration of the primary physicians is performed with a method of capitation (fee per registered insured person). The provider payment method applied in Macedonia has not been revised since it was first introduced and has proven to be rigid and disincentivizing in many aspects.
- The service providers find the current payment method for primary healthcare gynecology services, unacceptable. This causes dissatisfaction expressed through predictable, but also unpredictable and sometimes illegal reactions by the gynecologists, for which the state has not yet devised effective mechanisms to control. This causes further deepening of the barriers for the women.
- For the primary physicians, HIF allocates 12.5% of the total budget for healthcare services.
- The highest average monthly capitation is paid in the area of gynecology and it is about 50% higher than that for general practitioners.
- HIF finances the patronage service as part of the preventive healthcare services in the public healthcare institutions – health homes.
- There are serious deficiencies in the availability of systematized data necessary for financial analysis and management of the healthcare payment system.

The secondary and tertiary healthcare services, comprising the specialist and consultative healthcare, are paid in accordance to a “price per service” method. 1.



Main findings

1. Why such an analysis?

- 1.1. The poor reproductive health causes one third of the **global burden of disease** in women of reproductive age and one fifth of the global burden of disease in the general population.
- 1.2. The improvement of reproductive health has a health benefit, but also a **social and an economic benefit** for every individual and every family. It is an investment in the economic prosperity of the country, reduction of health inequalities, reduction of poverty, promotion of gender equality and human rights, as well as a step closer toward achieving the UN Sustainable Development Goals.
- 1.3. Globally, 20% to 40% of all health spending is wasted mainly through **inefficiencies of the health workforce** and weaknesses in management and supervision.
- 1.4. The WHO recommends optimizing performance, quality and impact of the health workforce through **evidence-informed policies on human resources for health**.
- 1.5. The WHO sets a milestone suggesting that by 2030 all countries will have made progress towards **halving inequalities in access to a health worker**.
- 1.6. The WHO set a milestone suggesting that by 2020, all countries will have made progress to establish **registries to track health workforce stock**, education, distribution, flows, demand, capacity and remuneration.
- 1.7. The WHO recommends healthcare based on **primary level teams** In order to better align the needs of the population and at the same time improve cost-effectiveness. The nursing scope of practice has been shown to be **adaptable to population and patient health needs**, and has been particularly successful in delivering services to the **most** vulnerable and hard-to-reach populations. The **midwifery** scope of practice has the potential to provide **87% of the essential care** needed for sexual, reproductive, maternal and newborn health services.
- 1.8. In spite of the constitutionally guaranteed right to health protection and equal rights and liberties, still not all groups of women in Macedonia have equal access to services.
- 1.9. In Macedonia, field research has determined multiple types of **barriers** (institutional, financial and subjective) and large **inequalities in the accessibility and availability** of the reproductive healthcare services. This situation affects women with low socio-economic status the most.
- 1.10. **The most significant barriers include:** uneven geographic distribution of the services, illegal charging for reproductive healthcare services by the primary gynecologists, the transportation costs to the nearest practice, the lack of motivation of the gynecologists to provide family planning services, the exclusion of any contraception methods from the list of drugs and services covered by the health insurance, limited access to



evidence-based information about the benefits of contraception for girls and women, gender stereotypes etc.

- 1.11. For quite some time **measures** have been undertaken to address some of the identified barriers, such as the illegal charging for primary reproductive healthcare services (actions by the Ombudsman, controls by the HIF). These measures have **not produced any significant results**. It has been identified that most of these issues/barriers persist or even deepen, according to some indications.
- 1.12. **The Committee for Economic, Social and Cultural Rights of the UN Economic and Social Council, in June 2016, recommends** “the states should ensure that all women have equal access to gynecology services in their municipalities and put an **immediate** end to the practice of illegally charging fees and to monitor the compliance of private health-service providers”.
- 1.13. **The reproductive health indicators** for Macedonia are relatively **unfavorable**. The perinatal mortality rate is 2 times higher than the EU average. The infant mortality rate is 3 times higher than the EU average. Contraceptive prevalence rate is among the lowest in the world.
- 1.14. **Deficiencies have been identified regarding the monitoring and registration of some indicators**, such as the maternal mortality rate and the abortion rate, which leads to possible under-registration of these indicators.
- 1.15. The disaggregation of certain indicators according to the socio-economic and educational status of the mothers implies **unequal availability of** these services for all groups of women.
- 1.16. No system for **maternal and perinatal death audit** has been developed, as way to improve the existing clinical practices, the healthcare services and the quality of the data necessary for monitoring of the performance in antenatal, intrapartum and postpartum care and planning of future pregnancies.
- 1.17. In spite of the unfavorable reproductive health indicators, the relevant institutions in the country (Ministry of Health) do not have an organizational unit solely dedicated to the promotion of maternal and newborn health.

2. Competences of the reproductive health workforce in the Republic of Macedonia

- 2.1. **The competences related to reproductive health**, according to the international recommendations, are grouped in several areas, namely: family planning, healthcare for pregnant women, mothers and newborns (including delivery), STIs/HIV, safe abortion, gynecology care, gender based violence.
- 2.2. The gynecology and obstetrics specialist have a unified **specialization** that lasts 60 months and all of them acquire the same competences irrespective of the level of healthcare where they are referred to work.
- 2.3. Only in 2016, advertisements were published offering specializations in gynecology and obstetrics, intended only for physicians working in primary healthcare, mainly for regions with insufficient supply of such workforce. The interest in this specialization is partial.



- 2.4. **The family physicians**, during their specialization, acquire a certain quantum of competences for providing reproductive health services, which have been underutilized in practice.
- 2.5. The competences envisioned with the **university level study programs for midwives**, are sufficient, but underutilized in practice by the healthcare system, which influences the low motivation to enroll in university programs for midwives. There are no available indicators about the quality of these programs.
- 2.6. **The is no chamber**, a system for licensing and relicensing, nor is there a plan for **continuous medical education** of midwives, nurses and patronage nurses, which begs the question of maintaining the quality of performance.
- 2.7. The University level education for midwives lasts for **36 months**. However, the Council of Europe envisions **flexible duration of the specialized university programs for midwives** (from one to three years), depending on the level of previous professional nursing practice.

3. Reproductive healthcare services in the Republic of Macedonia

- 3.1. Most of the reproductive health services are provided at **all three healthcare levels**, including primary healthcare, as defined in the existing legislation. Neither the Law on Health Protection nor the evidence based medicine or the practice feature a clear delineation of the healthcare level responsible for providing specific reproductive healthcare services, except for abortions and biomedical assisted fertilization, performed at a higher level of healthcare. However, in the past 4-5 years there was tendency of emphasizing the differences in the competences of gynecology and obstetrics specialists in primary and secondary healthcare, reflected through offering specializations specifically intended for primary level gynecologists, defining a limited range of services provided at the primary level etc. This situation counters the standpoints of the gynecology and obstetrics specialists who state that the competences acquired with the gynecology and obstetrics specialization of 60 months, are the same and should remain the same for gynecologists regardless, and all of their potential should be fully utilized. This standpoint is in accordance with the recommendations of the WHO regarding the utilization of the human potential in healthcare, to the fullest.
- 3.2. The healthcare services provided by the gynecology and obstetrics specialists, do not include specialist-consultative (secondary) out-patient care, as is the case with many other specialties.
- 3.3. According to the regulations and the contract with the HIF “the primary physician cannot provide services from the specialist – consultative healthcare, except the gynecologist who can deliver a baby in a birthing center within a health home, if the delivery is not done in a hospital”. Still, in the area of gynecology, it is not precisely defined which are the services from the **specialist – consultative** healthcare, that specialists in gynecology and obstetrics in primary healthcare cannot perform. According to the contract signed by the primary gynecologists and HIF, the healthcare institution has to provide an ultrasound and a colposcopy. However, the legislation does not stipulate the standard to which this equipment has to conform. This, in turn directly impacts the type of services that can be provided. The decisions issued by the



Ministry of Health to the gynecology offices, authorize these officers to provide specialist – consultative healthcare service, *except services requiring the use of anesthesia and blood transfusion*. In addition, the standards set by the Quality Assurance and Accreditation, apply to the level of “**specialist gynecology and obstetrics practices**”. However, in the past few years, the Ministry issued decisions for healthcare service provision, to primary gynecological practices, whereby the practice is restricted to providing only primary healthcare services.

- 3.4. Most of the reproductive health services in Macedonia are provided by the **gynecologists and the patronage service**.
- 3.5. **Family medicine specialists** have a legal basis and possess a certain set of skills for providing reproductive healthcare services. However, in practice they are involved very little, if at all. The existing payment mechanisms for primary healthcare do not incentivize the family physicians to provide services of this kind at the level of general practice. Although the specialization provides the family medicine doctors with special competences, it does not influence the remuneration they receive for providing general practice services and it is equal to the remuneration for general practitioners.
- 3.6. The family planning and gender based violence are distinct health areas, mainly not related to diseases. As such they are not recognized in the Law on Health Protection.
- 3.7. **Family planning** service coverage, including counseling and application of contraceptives is **at a very low level**, both among gynecology specialist and family medicine specialists. In the past seven years this indicator shows significant nonlinear variations, which precludes any conclusions regarding the successfulness of the measures undertaken by the Family Medicine Department at the Medical Faculty in Skopje, the civil society organizations and the international UN agencies, to improve the coverage with such services.
- 3.8. There are significant differences in the data regarding realized antenatal examination in Macedonia according to different data sources. The reasons for such discrepancies have not been analyzed, although a National Electronic Health Records System already exists.
- 3.9. Although the **average of the realized antenatal examinations** is mainly in accordance with the recommendations on antenatal care, still there are indications that some women undergo significantly more examinations and other women do not perform sufficient number of examinations. There are no data about the correlation between these variations and the complexity of the pregnancy case.
- 3.10. **The number of reproductive health patronage visits continuously declines**. A particular concern is the low number of visits to pregnant women, which is especially low among vulnerable groups of women such as the Romani women. One of the reasons relates to the additional workload of the patronage service, i.e. providing services to chronically ill patients, the elderly etc., which is still not regulated in the existing legislation.
- 3.11. Healthcare providers in the Republic of Macedonia provide their services in accordance with **guidelines for practicing evidence-based medicine**. This is an ongoing process, and in the past 10 years a large number of guidelines were prepared. A total of 61 guidelines were prepared and adopted in the area of reproductive health, including 32 for providing newborn care. The responsibility for monitoring and implementation



of the guidelines lies with several institutions, including the Ministry of Health, the State Sanitary and Health Inspectorate and the Health Insurance Fund. However, there are indications that the process of creating, adopting, practicing and monitoring of the guidelines has a series of flaws.

- 3.12. **Healthcare quality** monitoring and promotion is regulated by system for internal quality monitoring and the committees for quality, accreditation of healthcare institutions and performance supervision.

4. **Reproductive healthcare workforce - Statistics**

- 4.1. The Institute of Public Health and the Centers of Public Health shall be **responsible for the health statistics and records** maintained in the healthcare institutions in Macedonia. The Institute of Public Health of the Republic of Macedonia shall maintain health registries, including the Registry of Health Workers and Co-workers and the Registry of Healthcare Institutions. However, with the establishment of the **National Health Electronic Records System**, i.e. the integrated health information system, under the responsibility of the Ministry of Health through the Electronic Healthcare Directorate, the Directorate that shall be responsible for establishment and maintenance of the Registry of Healthcare Institutions, the Registry of Health Workers and Co-workers. Therefore, according to two different laws, there are currently two different institutions that have this responsibility.

Gynecology and obstetrics specialists

- 4.2. In Macedonia, the number of gynecology and obstetrics specialists has **moderately declined** from 367 (17.7 per 100,000 population) in 2013 to 352 (17 per 100,000 population) in 2017. The primary healthcare in 2017 employed 163 specialists, the secondary healthcare - 138 and the tertiary level - 51 (University Clinic of Gynecology and Obstetrics).
- 4.3. The number of primary gynecologists with a contract with the HIF in the last 8 years is stable around 140.
- 4.4. Macedonia, in the period 2006–2013, has **more gynecologists** per capita relative to the European average (which in 2013 was 15.5 per 100,000 population), but also relative to the average of the southeastern European countries. The Nordic countries, USA, Great Britain are countries with fewer gynecologists than Macedonia, per 1,000 live births, and the Netherlands, Australia, New Zealand etc., have half or even a third of the gynecologists per live birth.
- 4.5. **The demographic standards** for gynecology and obstetrics in primary, secondary and tertiary healthcare are set at the level of the set at the level of the same inhabited areas as for the general practitioners, who are 10 times as many.
- 4.6. According to the Regulation on the Network of Healthcare Institutions, only 50% of the national demographic standards referring to the total number of primary gynecologists have been fulfilled, while the secondary level has about three times more gynecologists than required. The number of gynecology specialists on tertiary level of healthcare is appropriate.



- 4.7. If all the gynecologists envisioned with the national demographic standards would be provided, then Macedonia would have 17.8 gynecologists per 100,000 population, which would be significantly more than the averages in the EU, the Nordic countries and the countries of Southeastern Europe.
- 4.8. None of the 30 health regions fulfills the national demographic standard for the network of healthcare institutions at the level of primary healthcare, i.e. all cities have **more than 3,000 women over 14 years of age** on 1 gynecologist (team) even including the gynecologists without a contract with the HIF.
- 4.9. In Macedonia there are, on average, 3,610 women in the reproductive period, i.e. 3,568 registered insured women per primary gynecologist, with **huge discrepancies** between the different regions. The ratio between the region with most and with fewest gynecologists is 1:3. The highest number of registered insured women to one primary gynecologist is **8,679**.
- 4.10. The number of selected gynecologists per 1,000 newborns also suggests great variance in the potential capacities to perform reproductive healthcare between the different regions in the country (ratio 1:4.8 between the region with the most and the fewest gynecologists).
- 4.11. The **aging** of gynecology specialists represents a big threat to the reproductive health in the country. About 1/3 of the gynecologists in the country are older than 60 and about ½ have between 50 and 60 years of age. This suggests that, in the next 15 years we should expect 7-8 gynecologists to retire per year, if we take 65 as the average retirement age.
- 4.12. There are **significant differences in the number of gynecologists in hospital healthcare** between hospitals in different regions.
- 4.13. Various measures have been undertaken to achieve a higher territorial coverage and accessibility to the workforce. This includes cooperation agreements between health-care institutions: gynecologists from the Special Hospital Chair operate in the GH in Gevgelija, primary gynecologists took shifts in the health home in Shuto Orizari etc. At the hospital healthcare level these measures prove functional, while at the primary level this is not the case. The basic weakness of the measure at primary level relates to the requirement, according to the current health insurance system, that women must have selected primary physician in order to be able to perform other health services through the health insurance (prescription drugs, referrals to laboratory tests, referrals to higher levels of healthcare, sick and maternity leaves). This barrier was not removed and therefore this model to improve the territorial coverage in primary healthcare did not become functional.

Midwives, nurses, patronage nurses

- 4.14. In 2016, in Macedonia there were **a total of 1,020 midwives** (55.1 per 100,000 population) and **8,700 nurses** (469 per 100,000 population). Some of them (311) comprise the **polyvalent patronage service**.



- 4.15. In the past 10 years, the number of midwives in Macedonia **rapidly declined**, while the **number of nurses slightly increased**, although **far from the** European average. **The total potential** of midwives and nurses in Macedonia is far below the European average.
- 4.16. Macedonia has **more midwives** per 100,000 population than the European regional averages, as well as in comparison to the Southeastern Europe average. Only the Nordic region, with its upward trend of the number of midwives, converges to the number in Macedonia.
- 4.17. Macedonia has **significantly fewer nurses per 100,000 population** in comparison to the EU average (2:1), the average of the Nordic countries (3.5:1), and the average of the southeastern Europe countries (1.8:1).
- 4.18. The number of **highly educated midwives and nurses** in Macedonia is **significantly lower** than the European average (2.7:1 for midwives and 3.4:1 for nurses), the Nordic countries (4:1 for midwives and 7.5:1 for nurses) and the average in the entire WHO_EURO region. In 2016, the Republic of Macedonia registered only **14 midwives** with university education. The presumption is that the actual potential of midwives with university education is higher, but there is no systematized data to corroborate this. In the school year 2017/2018, 170 places for graduated midwives were offered.
- 4.19. **The ratio** of the number of midwives per 1,000 births between the region with the most and the fewest midwives is 1:8. However, most of them do not practice midwifery or are elderly and therefore this situation is expected to change significantly in a few years.
- 4.20. 65 of the **primary healthcare teams** for gynecology (about ½ of the total number of teams) include midwives.
- 4.21. In 2017, the number of **patronage nurses** in the patronage services in Macedonia was 311 or 1 patronage nurse per 1,650 women in the reproductive period. Out of the total patronage nurses, 31% are midwives and the others are medical nurses.
- 4.22. **The patronage service** consists of 36 regional services. The regional services suggest that there are **big differences** in the capacities of staff providing polyvalent patronage services. The situation is the worst in Skopje, Valandovo and Probishtip where the ratio between the number of women in the reproductive period and the number of patronage nurses is 5 times higher than that in the cities that are well “stocked” with patronage nurses (Brod, Berovo and Demir Hisar). Some of the 10 regional services have patronage service teams without any midwives, the teams in two regional services consist only of midwives, while the rest of the teams have varying shares of midwives (from 6% to 70% share of the midwives).
- 4.23. Macedonia has **not established a demographic standard** for the number midwives, nurses and patronage nurses by regions.
- 4.24. The country does not have systematized data about the number of midwives and nurses at the secondary healthcare level (in general and clinical hospitals) and the number of midwives and nurses at tertiary level, as well as the wards where they work, i.e. the healthcare services they provide. The actual midwifery potential is very hard to estimate in a setting where there is **no systematic, updated and publically available registry**, or systematized data about how many of the midwives actually practice midwifery.



- 4.25. The **health records models are old**, the software solutions for electronic data processing have not been renewed and there is no registry of health workforce. Therefore, it is very difficult to obtain data about employed personnel (physicians, specialists, nurses, midwives etc.) broken down by job positions in the healthcare institution and the level of education.

Family medicine specialists and other capacities

- 4.26. In Macedonia there are 1,532 doctors who practice general medicine, an indicator in line with the statistical average of the European region of the WHO. The total number of **general practitioners has an unfavorable trend**.
- 4.27. Out of the total number of general practitioners, about 20% or 284 are **specialists in family medicine**. The interest for enrolling in family medicine specialization programs has an unfavorable trend from year to year, and an average of about 30 specialists graduates annually.
- 4.28. The rural teams, the capacities of the **civil society organizations**, as well as **the Roma health mediators** can also be used in the reproductive health services provision system, especially service provision **to hard-to-reach populations**.

5. Financial aspects

- 5.1. The healthcare service costs incurred by persons with regulated health insurance are generally covered by the Health Insurance Fund of Macedonia (HIF), as a financial “intermediary”, unless the specific type of service is not covered with the health insurance or if the service is of a higher standard (for example accommodating a new mother in a private suite).
- 5.2. The insured persons contribute with a copayment (**“participation”**) in the cost covered by the HIF. These copayments can not exceed 20% of the price of the service.
- 5.3. Copayments should **not be charged for examinations by the primary physicians**, including the concomitant diagnostic examinations with ECG, ultrasound or similar devices, as well as colposcopy for the gynecologists.
- 5.4. Certain categories of patients are **exempt from copayments** for certain healthcare services, as well as in accordance with the public health programs of the government and other regulations. This includes all of the services related to antenatal care and delivery, as well as the health services for newborns up to 12 months of age.
- 5.5. Primary physicians are remunerated only in accordance with the **capitation** method (fee for every registered insured person). The value of the capitation point for the gynecologists is 50 denars per month for all registered insured women, regardless of their age and whether the woman is pregnant or not etc. **The number, the type and the quality of the provided services** do not affect the remuneration paid to the primary physicians, except for some predefined public health process oriented “targets”, wherein antenatal care services participate with only 2%. If a gynecology practice has registered up to 4,000 insured women, then it receives 100% of the capitation, while



for all the insured women above this number, the gynecologist receives a smaller percentage of the capitation. In an environment where there is no sufficient health workforce (gynecologists) to be employed to meet the demand from the additionally registered insured women, the objective of such a measure would not be achieved and it can adversely influence the quality of healthcare provided.

- 5.6. Having in mind that the capitation point is equal for every physician, irrespective of the potential to provide different types of services at different levels of quality, the remuneration model does not encourage investments in more sophisticated equipment in the office or investments in the intellectual capacity, through additional education and training.
- 5.7. HIF announced some interventions in the capitation payment system whereby the value of the capitation point increased by 10% and a new higher coefficient of the capitation point for pregnant women will be introduced. However, there is some doubt that these measures, if not accompanied by other changes in the payment system of specialist gynecologists, would ensure the removal of some of the barriers to the access of women to the services, such as the illegal charging of services.
- 5.8. **The level of education** of the general practitioners, as well as the education and the number of midwives/nurses in the primary healthcare institutions **bear no influence** on the rights and obligations of the healthcare institutions, stipulated in the contract with the HIF.
- 5.9. One of the obligations of the primary physicians in the area of gynecology, according to the HIF contract is to procure an ultrasound and a colposcopy. The physicians who signed the contracts with the HIF in 2007 received colposcopies from the HIF as a contribution to the **capital investments** required to realize the contract. There is no regulation that determines the standard of equipment to be provided by the primary gynecologists, which creates inequalities in the administration of the right to a certain quality of women reproductive healthcare services. Considering that Macedonia lacks a **Health Technology Assessment system**, the country has not conducted an analysis of the benefits versus the costs for the healthcare system in reference to the different equipment standards in different levels of healthcare.
- 5.10. The contract between the HIFM and the selected gynecologists **comprehensively defines the scope of the healthcare services**, although it stipulates that the healthcare institution shall be obligated to provide services to the insured persons, in accordance with evidence-based medicine, which envisions protocols and guidelines with defined service contents. There is no regulation, suggesting and defining how to act in the event when a service which falls outside of the evidence-based medicine practicing guidelines is requested and/or provided.
- 5.11. **The effects of the capitation as a payment model for primary healthcare has not been analyzed and revised since 2007**, although certain conditions in the healthcare system in the Republic of Macedonia have changed, such as the introduction of a National Health Electronic Records System.
- 5.12. Predictable reactions of the service providers, when capitation is the only payment model for their services include: reduction of the cost per case, unjustified selection of easy cases, inadequate reduction of the quantity of services per case, as well as



inadequate referrals to other healthcare institutions for services that the gynecologist himself/herself can provide. This leads to a reduction in the quality of the services. **This model shifts the financial risk** to the service providers. Therefore, other countries using the capitation payment model, take into account additional provisions for cases incurring higher costs (complex cases), and sometimes they use **combined payment models in order** to reduce the impact of the weaknesses of each of the individual models.

- 5.13. The service providers find the current **payment method** for primary healthcare gynecology services, unacceptable. This causes dissatisfaction expressed through predictable, but also unpredictable and sometimes illegal reactions by the gynecologists (for example, charging registered patients for services). The state has not yet devised effective mechanisms and systemic solutions to control these reactions. This causes further **deepening of the barriers** for the women.
- 5.14. Payment to primary gynecologists only on the basis of the number of registered insured women does not stimulate servicing regions with fewer women.
- 5.15. For primary healthcare institutions in the area of general practice, gynecology and dental care, HIF allocates **12.5% of the total budget for healthcare services**.
- 5.16. The amount of monthly capitation per physician paid to gynecologists is about 50% higher than that for general practitioners.
- 5.17. HIF finances the **patronage service** as part of the preventive healthcare services within the public healthcare institutions – Health Homes. This is based on reference prices for specified service packets – “patronage per nurse” which costs 40,000 denars per month. This group also includes the “rural teams” which cost 90,300 denars per team per month.
- 5.18. The HIF pays the secondary and tertiary healthcare providers, comprising the specialist-consultative healthcare, in accordance with a predefined reference price for each service, up to a specific budget limit, stipulated in the contract between the provider and the HIF.
- 5.19. **All** health institutions in Macedonia are obligated to maintain cumulative records of **revenues and expenditures**, using models prescribed by the Minister of Health. The legislation does not clearly state which institution is responsible for collecting and processing these records. There are no systematized records of the revenues and expenditures of the private healthcare institutions.
- 5.20. The country does not have any systematized **records of the monthly salaries of the health workers**, although this is recommended in the international strategies for management of healthcare human resources and this is a common practice in the developed countries.
- 5.21. Vague legally mandated responsibilities for the health records may be one of the reasons for the lack of systematized records of many indispensable datasets, which could greatly facilitate healthcare planning and programming.



Annex 1 – Polyvalent patronage procedures

Type of procedure	Expected duration of the procedure	Number of visits
Primary prevention		
First visit to the family	up to 90 minutes	1
Pregnant women	60 minutes	2
New mother and newborn baby	60 minutes	3
Infant	30 minutes	2
Small and preschool child	30 minutes	1
School child and adolescent	30 minutes	1
Women in reproductive period and menopause	30 minutes	1
Elderly people	30 minutes	1
Secondary and tertiary prevention		
Tuberculosis patient	30 minutes	1
Patients with malignant neoplasms	30 minutes	1
Diabetes patients	30 minutes	1
Patients suffering from chronic noncommunicable diseases	30 minutes	1
Old and exhausted and disabled persons	30 minutes	1
Group work		
Pregnant women	120 minutes	
Patients suffering from chronic noncommunicable diseases	120 minutes	
Kindergartens	120 minutes	
Schools	120 minutes	
Local community	120 minutes	
Cooperation with other professionals		
Primary physician, gynecologist, pediatrician, stomatologist	15-30 minutes	
Social services	15-30 minutes	
Hospitals	15-30 minutes	
Home healthcare	15-30 minutes	
Palliative care	15-30 minutes	
Kindergartens	15-30 minutes	
Schools	15-30 minutes	
Police	15-30 minutes	
Other	15-30 minutes	
Other procedures		
Counselling at the request of an institution	40 minutes	
Healthcare lecture	180 minutes	
Counselling over telephone	5-15 minutes	



Annex 2 – Focus group quotes

Reference no. 70:

- “ Participant no. 1: “...started the first private specializations for gynecologists, which, considering their scope, work and curriculum are no different than the specialization so far... The training that we receive during the specialization, regardless of the healthcare level we work, is unique. My competences with the diploma that I have are as they are, depending on my technical capacities and training ... we will do whatever we are able to do, naturally under the supervision of the Ministry depending of the criteria, which will determine what kind of practice we will register, we would register... This is how we see it.”; “Gynecology is included in primary healthcare, together with pediatrics, occupational medicine and school medicine, in order to provide better accessibility for the patients. Unfortunately, the healthcare authorities, including the HIF, in their perception, do not delineate between healthcare service level and healthcare service quality. So if I provide a service at the primary healthcare level it does not mean that I am worth less than the guy at the secondary level. Please do not tell me that my specialization is worth less than the specialization in physical therapy, and physical therapy is at the secondary level and now, is a physiatrist worth more than me as a gynecologist?”;
- “ Participant no. 2: “...will the concept of a primary gynecologist survive until 2025 according to the principle of specialist gynecologist – primary gynecologist? This is one thing... because it hangs in the air. It hangs in the air, it should be pointed out and it should be clearly stated because we can think about investments, employ new physicians, buy know how?”
- “ Participant no. 3: “...it is a huge sin to take a physician who is getting a specialization and develops professionally at both primary and secondary level, and not allow them to work in the secondary level...”

Reference no. 134:

- “ “A system of values has to exist, the money have to be a consequence of the invested effort ... only the public health institutions charge extra for the apartments. The apartment is where the patient stays. Here, people pay for someone who made physical efforts, cleaned and arranged the room, the staff engagement etc. With respect to intellectual work, one probably does not necessarily need to make the ultimate physical efforts, but the intellectuality, the investment that one made in oneself in during your lifetime, learning and working, examining patients, that is the exclusivity, just as the exclusivity of a patient staying in the apartment within the public healthcare sector.”



Annex 3 – Examples of organizing reproductive healthcare in other countries¹⁵²

Country	Antenatal care	Intrapartum care	Postnatal care	Challenges
New Zealand	Midwives can work either as personal caregivers during childbirth or as midwives in birthing institutions. Midwives are available in the public sector as well as in the private sector. The services are free in all stages and at all levels (from confirmation of the pregnancy to the postnatal period).	Midwives deliver babies in uncomplicated pregnancies in the birthing institution in the community, and if there are risk factors patients are referred to hospitals. A small number of patients (3%) give birth at home. 23.6% are delivered with a cesarean section. The average length of stay in the birthing institution is two days.	The personal caregiver during childbirth is responsible to provide women with daily visits during their hospital stay and between five and ten home visits by a midwife including one visit within 24 hours after the discharge from the hospital (a total of at least seven visits). Midwives provide postnatal care to most women even when their primary caregiver during childbirth is a general practitioner or a gynecologist.	In the early to mid-2000, there was a chronic lack of midwives, critically affecting rural areas. In 2009 and 2010, the midwife workforce grew at about 4.7% per year. However large gaps in this type of professionals still exist in specific areas. In 2010, New Zealand had 2,767 midwives and 232 gynecologists (4,610,100 population in 2017).
Australia	Antenatal care is financed by the state and also privately. 2005/6, slightly less than half (45%) of the antenatal care was provided privately. Private care is subsidized by the government, and it can be provided by general practitioners, gynecologists or midwives, although the funds for midwives were limited to specific services provided under the supervision of a physician. The other (55%) antenatal care was provided in state hospitals.	Almost all (96.9%) mother give birth in birth wards, and a few (2.2%) in birthing centers for new mothers, at home (0.3 %) or other locations (0.6%). The share of births with a cesarean section is 31%. The intervention rates are higher in private hospitals where the childbirth care is managed mainly by a gynecologist. The average length of stay in a hospital is 3 days. There is a deficit of gynecologists and general practitioners in rural areas.	The healthcare service for children and families provides a visit to the parent two weeks after the birth of the baby. Initiatives are necessary to increase access to midwife postnatal care in the few weeks after childbirth.	The Australian government introduces initiatives to increase the number of younger physicians focusing on such carriers. The number of institutions responsible for 1 to 100 births declined to less than half, proportionally to the increase of birthing institutions responsible for 2000+ births.

¹⁵² Source: National Roma Center, 2015, *Accessibility of healthcare during pregnancy in the Republic of Macedonia – Do all women have equal access?* (Национален ромски центар, 2015, *Доступност до здравствената заштита во текот на бременоста во Република Македонија – Имаат ли сите жени еднаков пристап?*)

Country	Antenatal care	Intrapartum care	Postnatal care	Challenges
		The recent childbirth delivery (2011) expanded the role of midwives by expanding certain financial structures previously intended and limited only to gynecologists, general practitioners and some obstetricians. Qualified midwives now have access to subsidies for antenatal, intrapartum and postpartum care, as well as a right to prescribe some drugs.		
Canada	Most women receive antenatal care services from gynecologists (58%) or family physicians (34%), of midwives and nurses (6%). Most women (95%) initiate antenatal care in the first trimester of the pregnancy and make 12.9 visits on average.	Most of the deliveries are done in hospitals. The delivery units range from small units, mostly in rural and isolated areas with up to 100 planned births per year, to huge tertiary centers with more than 7,000 births per year. Most women give birth in the presence of a gynecologist, because fewer and fewer family physicians attend deliveries and births, and the midwives are not widely represented. The average length of stay in a birthing center is 2 days.	Postnatal care is provided by hospitals, healthcare centers, nurses and primary care providers. Various models apply including telephone calls, triage telephone services, clinical visits (with or without appointments) and home visits.	In 2008 Canada had 1,650 gynecologists, of whom 600 planned to retire in the next five years. Gynecologists in Canada provide routine and emergency gynecological care in 330 hospitals, 24 hours per day, 7 days a week, 52 weeks in the year. More than a decade ago, the association of Canadian gynecologists foresaw the lack of physicians practicing gynecology. Currently there are 700 registered midwives working in five provinces and one territory where the midwives are regulated.
Ireland	Antenatal care is provided by midwives, general practitioners, gynecologists and hospitals or a combination thereof. Most of the mothers (81% in 2010) use the combined model where part of the antenatal care is provided by their general practitioner and part by a midwife or a gynecologist in a state hospital. Hospital antenatal care is provided in the hospital or, in some case, in community clinics.	Most of the women give birth in a hospital. Very few women give birth at home and under the supervision of an independent midwife. Deliveries in hospitals are supervised by hospital midwives whose care is supervised by gynecologists. The intervention rate, especially for cesareans, significantly increased in recent years. There are very few independent midwives offering support and care for childbirth at home.	The system finances two postnatal visits by a general practitioner at two and six weeks for both mother and child. A nurse from the public healthcare sector visits the mother and her child in the first six weeks after delivery. Under the early transfer home scheme, functioning in some hospitals, mothers are provided with individual care by hospital midwives after leaving the hospital (around six hours after delivery).	Support groups exert more and more pressure against medical childbirth and for midwife care in the community. The deficit of midwives, as well as their expanded role, and the reduction of the number of physician hours, leads to tensions in the system of childbirth services. Measures against the deficit of midwives in 2000 include training programs for midwives.

Country	Antenatal care	Intrapartum care	Postnatal care	Challenges
		Their number is limited due to the access to insurance against damages.	The midwife visits the new mother in her home during the next five days.	
Netherlands	Most women receive this type of care from midwives, although almost half of the women also receive care from a gynecologist at least some of the time during their pregnancy. About a third of them have more than one treatment with a gynecologist. Antenatal care is provided by midwives in the community, usually in the homes of the women.	Women with low risk during pregnancy can decide where they are going deliver their child, whether at home, in a hospital or in a birthing center. Whatever they decide, their personal midwife or a member of the obstetrics team will be present during the delivery process. Birthing centers become more and more popular as the first choice of where women have their babies. If the woman experiences complications and requires a secondary healthcare, then she will be delivered in a hospital in the presence of a midwife and a gynecologist.	This type of care is provided by midwives, and sometimes by general practitioners or assistants in childbirth care (kraamverzorgster or kraamzorg) except if the mother and child are hospitalized, when the care is provided by specialists. Assistant delivery caregivers care about the new mothers and their new babies right after birth until eight to ten days after delivery.	Midwives provide primary care to pregnant women, referred by the general practitioners. The Dutch government vigilantly monitors the conditions of the midwife practices in order to preserve an adequate inflow of midwives: new schools for midwives are opened, the number of students increases and the income of employed midwives improves. The number of postpartum caregivers that support midwives in providing postpartum care, also increases.
Great Britain	Pregnant women first visit their general practitioners. Midwives attend the scheduling of the examination and the assessment of the needs and the plan of care to be provided to the mother. General practitioners share the medical history of the mothers with the antenatal care providers, especially the midwives. If some risk factors are identified, the midwife informs and involves the gynecologist. The midwives provide care to the women with low level of risk. A gynecologist and a midwife provide care to women experiencing complications, who have risk factors or who pay for a private care.	The general physicians no longer provide intrapartum care. Most of the women give births in gynecology wards (90%) in spite of the fact that most of them have low risk pregnancies and deliveries. In these wards, the care is provided by midwives (2/3 of women), while gynecologists get involved only when the situation requires an intervention or it the event of complications (1/3 of the births). When women give birth at home (3%) care is provided by community midwives although in some cases care is provided by independent midwives outside of the public healthcare sector.	General physicians provide postnatal control after six weeks and this is an opportunity to discuss various issues, including contraception, back pain, incontinence, mental health, as well as preparation for potential future pregnancies.	Midwives work within the communities or in the public healthcare sector hospitals. In addition, there are a lot of independent midwives that provide their services privately. There is a chronic deficit of midwives; Although the number of midwives and the number of obstetrics students increases, the birth rate far exceeds the increase of the obstetrics workforce.

Country	Antenatal care	Intrapartum care	Postnatal care	Challenges
	They are taken care of in gynecology wards in the hospitals. About two thirds of the women visit a gynecologist at least once during their pregnancy.	On average, women stay in hospitals less than two days.		

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