

MINISTRY OF HEALTH OF THE REPUBLIC OF MACEDONIA

**Improving Maternal and Infant Health
Macedonian Safe Motherhood Strategy
(SMS) 2011 - 2015**

- FINAL VERSION -



October 2010

Improving Maternal and Infant Health: Safe Motherhood Strategy in The Republic of Macedonia 2010 - 2015

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Abbreviations

ANC	Antenatal Care
CME	Continuous Medical Education
HC	Health Care
HIFM	Health Insurance Fund of Macedonia
HPV	Human Papilloma virus
ICT	Information and communication technology
LAP	Local Action Plan
MoH	Ministry of Health
MDMNH	Maternal and Newborn Health
OGC	(University) Obstetric Gynaecology Clinic
PHI	Public Health Institute
PHC	Primary Health Care
SRH	Sex and Reproductive Health
STI	Sexually Transmitted Infections
SM	Safe Motherhood
SMC	Safe Motherhood Committee
SMS	Safe Motherhood Strategy
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
WHO	World Health Organization

Summary/ Foreword

This document is intended for the Macedonian government, national and international agencies, professional associations, non-governmental organisations and other institutions. This strategy is a guiding instrument for actors in Mothers and Infants Health in Macedonia and should be open for the incorporation of new evidence or best practices in all of its segments, from the period of pre-conception to the post-natal care in the first year of life of the newborn, as an overall process of creation conditions for safe motherhood in Macedonia.

Obtaining the highest possible standards of health is a basic human right. All women and newborns, regardless of their socio-economic status, culture, race or other orientation and origin, have the right to the highest attainable standards of health. In order to ensure that these rights are respected, policies, programmes and interventions must be based on gender equality.

Women play an big role in the society, the family and the community. If a woman dies from complications of pregnancy, , the whole family's health and well being are severely affected. The process of improving maternal health involves emancipation of women, i.e. enabling their active participation in the economic and social life and respect of their choice..

Maternal and newborn health (MNH) services are evidence-based, regular, cost-effective and feasible to sustain in resource-poor settings. Maternal and newborn deaths can be significantly reduced using low cost and effective interventions. The health of the newborn is directly linked to the health of the mother. Avoiding complications that affect the mother will also improve perinatal outcomes and avert the majority of neonatal deaths.

Strengthening MNH services will benefit entire health systems. These health services are a cornerstone of public health services, as care for pregnant women can effectively be the entry point for health services to the family and community to prevent and treat some health risks, (e.g. STIs), introduce family planning, ensure child immunizations, etc.. Strengthening health services through upgrading capacities (such as outreach services, clinics and hospitals capacities), providing essential medicines and staff, effective referral systems, transportation and communications ensuring that mothers and babies receive the care they need, especially in relation to pregnancy-related complications, will benefit other areas of the health system.

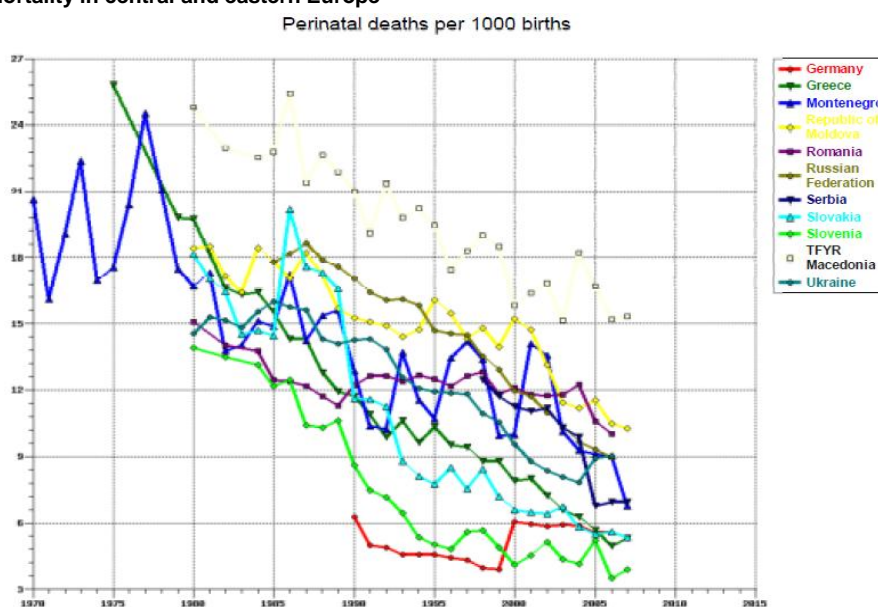
This strategy respects the needs of all Macedonian citizens, regardless of ethnicity, religion or socio-economic status, especially guaranteeing that the poor and marginalized have access to health services. Besides the goals directed towards the mere reduction of maternal and perinatal deaths, this Strategy goes one step further, aiming to respond to the needs of the improvement of maternal, newborn and infant health as whole.

1 Introduction

1.1 Why do we need a Strategy on Safe Motherhood?

Macedonia has seen a considerable reduction in maternal (WHO MMR estimate 10/100'000 live births, 2006 reported MMR: 4.43 per 100'000 live births) and perinatal mortality (per 1000 births: 20.98 (1990), 15.82 (2000), 15.33 (2007), 14.6 (2008))¹ in the last 20 years..

Figure 1: Perinatal mortality in central and eastern Europe²



Source: WHO/Europe, European HFA Database, August 2009

However, regarding perinatal mortality it has still the highest rate amongst its neighbours (see figure 1) and it is more than twice the European average (6.34 per 1000 births in 2007). Additionally, the positive downward tendency has been stagnating since the year 2000.

Table 1: Infant mortality and perinatal mortality rate in the Republic of Macedonia (2007)

Region	Infant mortality rate (1000 births in 2007)	Perinatal mortality rate (1000 births in 2007)
Republic of Macedonia (average at the national level)	10.3	15.5
Pelagonia region	13	18.0
Vardar region	6.4	13.0
Skopje region	9.9	15.3
North-East region	10.6	15.6
South-West region	9.1	14.6
East region	9.7	14.6
South-East	8.6	16.2
Polog region	13	17.4

¹ WHO Europe: European HFA Database, August 2009

² WHO Europe: European HFA Database, August 2009

For maternal mortality, there has not been a clear tendency. The 2008 MDG National Report suggests that “the annual fluctuations and the relatively small number of maternal deaths may arise from incomprehensive and inappropriate reporting”.³

The perinatal mortality is a complex indicator related to the antenatal care, the perinatal and postnatal care, which are a part of the three levels of health protection (primary, secondary and tertiary). Some social factors, as well as the ongoing reforms in the health sector, additionally influence the quality of perinatal care. Reducing the risk for maternal and perinatal ill health needs a multi-dimensional and multi-sector approach. Education in sexual and reproductive health (SRH), public awareness, equitable access and efficient provision of evidence based high quality health services, are just some of the activities of this approach.

This Strategy is based on a situation analysis of the conditions in the perinatal care in the country, reflecting the strong and weak points of current practices. Based on the gaps identified in the situation analysis, the Strategy proposes focussed action to address the insufficiencies within the system, and overall improvement of the health of the mothers and newborns in the Republic of Macedonia. The expected result from the implementation of this Strategy is to ensure healthy and safe pregnancy, motherhood and perinatal care, through equitable and efficient provision of health services, increase of the capacities of the trained staff, and special attention on marginalized and vulnerable groups.

Considering the relatively good mortality statistics in Macedonia, well targeted approaches are needed to achieve even marginal improvement.. This means, for example, reducing existing disparities of mortality between regions, and focus at the regions that are under performing in the area of perinatal care compared to the national average and the national goals⁴. This requires high quality ante-natal care services, a well developed communication strategy and also an active detection system for pregnant women, who do not have regular and timely access the health care services. Generally the perinatal health services need to be more targeted to the needs of pregnant mothers and their families. The role of partners and family in psycho-social support for the delivering women is currently at a very low level and needs improvement. Pre-natal and post-natal care are important foci of the present safe motherhood Strategy. The early booking of pregnant women and their introduction to the antenatal care system, and particularly the tracking of those coming from marginalized groups is important to further improve the system for early detection of at risk pregnancies, and therefore the health of these pregnant women and their newborns. This requires a stronger engagement of the primary health care, including the patronage nurses. In addition, special attention is needed for the interfaces between primary health care, perinatal and post-natal care.

1.2 What are the key principles of this Strategy?

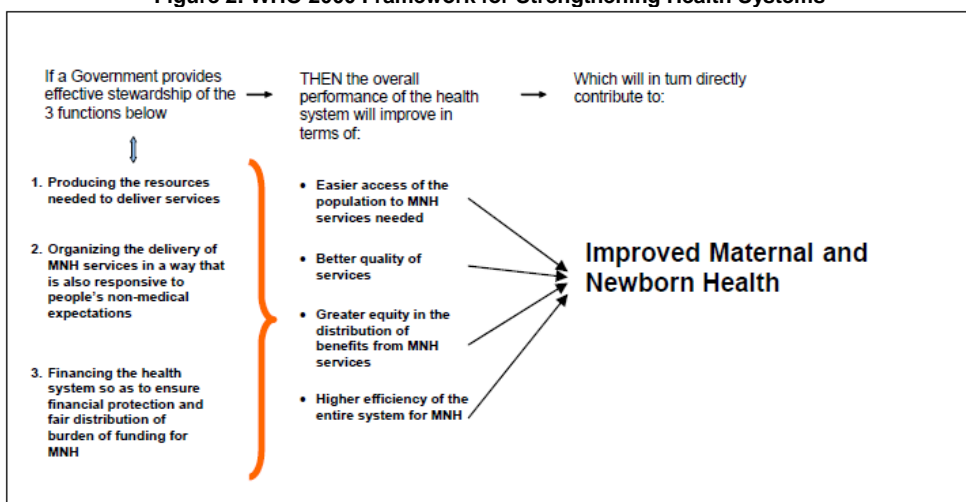
Due to the nature of the pregnancy process, it is not always possible to predict which woman or newborn and at what stage of the pregnancy and infant period will develop complications. Addressing perinatal mortality and morbidity therefore calls for an effective continuum of care that is available for the pregnant women and the family from the early stages of pregnancy to the post-natal period including

³ National report on progress to MDGs (2008)

⁴ Source: state statistical office, 2008.

timely and appropriate management of pregnancy related complications. The connections in this chain of caregivers must be strong enough to effectively manage life threatening complications, both for the mother and the infant. The continuum also includes the transfer of appropriate information between the various levels of health protection.. Perinatal care should be focused on clients' needs for health services, by involving women in the decision making process, respect of their privacy and dignity. As pregnancy and child birth are natural processes, they should be as much as possible culturally acceptable and family oriented. Safe motherhood is about much more than just a sum of medical services, but also includes other factors, for example the educational, social and contextual factors.

Figure 2: WHO 2000 Framework for Strengthening Health Systems⁵



The key principles of this Strategy for achieving high quality perinatal services are⁶:

- Multidisciplinary and multi-dimensional services
- High quality and functioning referral system which includes effective communication on all levels.
- Application of a holistic approach going beyond medical interventions, i.e. including the preventive services for health promotion
- evidence based procedures
- reduction of unnecessary and inappropriate interventions (de-medicalization)
- use of appropriate technologies
- respect of privacy and dignity of women, as well as the confidentiality of the health information
- involvement of women in decision-making
- family centred services
- culturally acceptable approach and services

⁵ Improving maternal and perinatal health: European strategic approach for making pregnancy safer, WHO Euro 2007

⁶ Improving maternal and perinatal health: European strategic approach for making pregnancy safer, WHO Euro 2007

2 The current maternal and infant health situation – a situation analysis

2.1 Pre-conception period:

The use of modern contraceptives is generally low in Macedonia with a CPR for modern methods being at 10%⁷. Adolescents and young adults make use even less of family planning services. Only 1.1% of women under 19 used contraceptives in 2007. The reported number of abortions is continuously decreasing and was at 26.8 per 100 births in 2007⁸. However, considering the low contraceptive use as an alternative, there might be a considerable issue of underreporting. According to a recent UNFPA report⁹, abortion is widely practiced as a contraceptive method and performed amongst others in private health institutions, which do not report the cases. Republic of Macedonia has a well developed network of health institutions in primary health care (preventive health services free of charge – financed through the preventive programs of the Ministry of Health, like the Program for health protection of mother and child) and the patronage services (community nursing) in order to provide information and services to rural and marginalized populations. However, the predominantly biomedical approach to maternal and newborn health limits the possibilities for activities in the field of health promotion and health education, amongst others demonstrated by the present incentive system for the level of primary health care, which favours curative rather than preventive or health promotional services. However, there are “preventive targets” funded by the health insurance fund (HIF) and incentives for the primary health care level to engage in preventive health activities, mostly health education activities among high-school students in school settings. The question arises about how that works in practise, because those activities require appropriate skills.

The decentralization of services process, hasn't started yet, and resources allocated to respond to health needs at community level are insufficient. This leads to unequal access to health information favouring urban populations ahead of rural areas. Chosen doctors and the primary health care system should be more actively involved in health promotion activities particularly in rural areas. However, the communication skills of health workers are relatively limited and inter-sectoral communication and coordination is generally weak. There are many NGOs, which have the capacity to work in the area of reproductive and sexual health in the local community, which could bridge the gap for health promotional services in this sphere.

Sexual and reproductive health related issues are promoted repeatedly using mass media campaigns but the activities are not continuous. National programs exist for health protection of mothers and children and for the promotion of reproductive health amongst women, (e.g. early detection and treatment program for breast and cervical cancer). There is an increasing trend of financial support for preventive programs in the last 3 years – (e.g. Health for All campaigns). The recent start of including life skills curricula in schools for the improvement of sexual and reproductive health for the youth and adolescents is certainly promising but is also new and just at its beginning. At present, monitoring and evaluation activities are too weak to amongst others answer the question of whether information and promotional activities reach the targeted beneficiaries and correspond to their needs.

⁷ Sue Newport: Desk Review on the Progress in Maternal Health Achieved in Eastern Europe and Central Asia, March 2009

⁸ Information on the health status of MCH, Institute for Mother and Child Health care, Skopje, 2009

⁹ IV puts in the reference

2.2 Antenatal care (ANC) period:

The coverage with antenatal services (ANC) is almost universal with 98% to 99.2%¹⁰ of pregnant women receiving ANC at least once during their pregnancy. However, the average number of visits is with 2.8 visits during pregnancy far below the target of 4 visits for normal pregnancies as recommended by the adopted national standard. Still not all women have equal access to the services, with large differences in urban and rural areas and particularly within socially vulnerable groups (e.g. Roma, women with low educational levels).

The first contact with ANC of pregnant women during the first trimester of their pregnancy is relatively low (41.7%) and approximately 10% of pregnant women do not use ANC services at all¹¹. Although the HIF introduced an incentive system for gynaecologists in primary health care to achieve the recommended number of antenatal check-ups, with the first to be in the first trimester, the practical implementation remains difficult as there is no active detection mechanism for pregnant women in the first trimester of pregnancy.

There is a general lack of awareness of women on healthy behaviour during pregnancy and for early visits and consultations with the gynaecologists in early pregnancy stages, particularly for women with low educational status.

The lack of nationally agreed standards for health checkups of pregnant women during ANC limits the possibility of monitoring the health status for women during pregnancy. Currently used clinic guidelines and ANC protocols are outdated and need revision. The same is true for standards on physical infrastructure and medical equipment, which needs to be updated and renewed in order to address current needs better.

Skilled professional staff is available within the national health system but it is not equally distributed according to local needs. Medical services including prevention is a domain of medical doctors, who perceive themselves as already overburdened particularly with record keeping and other administrative work, which in turn limits their availability to preventive and promotional health services.

The Health Statistics and Information System (HSIS) is not entirely computerised and a lot of administrative work requires considerable manpower and limits the utilisation of health information for planning purposes of the health institutions management. There is a lack of monitoring information for some indicators, especially on abortions (teenage abortion, miscarriages). Additionally, private practice doctors do not readily provide information and data to the relevant Public Health Institutes, which may influence the accuracy of the gathered information. Information sharing across all levels of the health care system, which is a key element for referral in a regionalised MNH care system, is also limited to primary health care based information. The planned “mother’s health care book (majcina kniska)” was introduced in the past but is not fully used currently.. Its implementation would nicely complement the information flow by keeping key information directly with the beneficiary. The book could also be used to provide mothers with some pregnancy related information (danger signs, nutritional information and other).

¹⁰ Sue Newport: Desk Review on the Progress in Maternal Health Achieved in Eastern Europe and Central Asia, March 2009

¹¹ Information on the health status of MCH 2009

The existing patronage system represents a true opportunity for the extension of services to the community level.

There is a significant need for upgrading staff knowledge, particularly in view of communicating updated ANC protocols and instruments. An existing system for continuous medical education (CME) was abandoned in 2005 and no new alternative is currently available.

2.3 Delivery period

The rate of skilled attendance at birth is with 98% nearly universal. On a national level 84% of deliveries are attended by a gynaecologist – a rate which is considerably lower for the Roma minority (70%) and for women with no education (78%)¹². All public health maternity hospitals (17) provide services and 24 hour services and delivery care, free of charge regardless of health insurance status. However, opportunity costs (e.g. transport, absence from home and others) may be playing a role in the limitation of access to services for socio-economically marginalized groups.

At the facility level there is a need for the harmonisation of infrastructure conditions with the national standards (e.g. sanitary conditions, closeness of needed facilities, and others) including the standardisation of equipment and staff, according to the standardization of functions on every level of health protection (service package based on the regionalisation of services in the perinatal care).

Eighty percent of maternity hospitals are currently certified as Baby Friendly Hospitals according to UNICEF standards. However, a recent review of the certified maternities showed that some of them did not maintained the conditions and will not be recommended for re-certification if they remain in their present condition.

In terms of the quality of processes there is a general gap related to the availability of national Evidence Based Medicine EBM based guidelines and their implementation at the facility level, which needs to be addressed. The participatory development of the national guidelines (CPGs) and the inclusion in local training (CME) may be valid options. Obsolete clinical protocols need to be updated or replaced and local facility based protocols need to be developed. The implementation process itself at the facility level might need some improvements (e.g. utilisation of partogramme). In principle all obstetrics centres in Macedonia are able to perform emergency obstetric care (EmOC). However, the majority of cases are referred and treated in the University Gynaecological Clinic in Skopje, which creates an unnecessary burden for professional staff at this centre, whose basic function is to address only the high-risk pregnancies and deliveries.. The regionalisation of services needs to be improved in order to strengthen the competency and the capacity of lower level maternities, to get high quality services closer to the beneficiaries and to reduce the burden off the tertiary health protection in Skopje.

The management capacities at the facility level are generally poor, frequently leading to an inefficient usage of resources. Monitoring maternal deaths and critical clinical events is weak, partly due to the lack of a confidential inquiry system permitting an open discussion about the strengths and weaknesses

¹² Sue Newport: Desk Review on the Progress in Maternal Health Achieved in Eastern Europe and Central Asia, March 2009

of the process. Additionally, a unified and networked database at hospital level across maternities is not available. IT support is needed at the facility level and in terms of networking to improve the exchange of information between professionals of the different levels of health care and to reduce the workload on highly qualified staff in terms of preparation of reports.

A key element of improved quality of perinatal health care is the orientation of services towards client needs, which requires meeting certain preconditions for privacy and the possibility for partners and family to be present during the labour and delivery process.

Highly educated staff is sufficiently available in the country. However, there is an inappropriate allocation of this staff due to the centralised human resources management with not much managerial power at the facility level. Various national programs conduct training events for health workers but at present a CME system, which could guarantee the staff capacity is not functioning. Staff needs could be covered mainly through the reallocation of available human resources. However, financial incentives might be needed to fill open positions in the more remote areas.

It seems that the negative effects, like the intra-hospital infections, are few, except maybe the eye infections of the newborns. Preventive activities like pre and post-natal screening can have particular accent.

2.4 Post-natal care period

The obstetrician post-natal care for mothers is less formalised. Services are initiated at the hospital and are continued through the primary health care system including chosen obstetricians, the patronage nursing system, paediatricians and others if required.

The patronage system has the biggest role in the follow up of post-delivery women and infants. More than 70% of all newborns are visited during their first month of life by the patronage nursing system with on average 3 visits per newborn. However, there is a lack of resources and equipment for the patronage nursing system, which limits its functionality. There is a tendency of weakening the acceptance of breastfeeding in the population and infant formula is aggressively promoted by companies. The collaboration between experts and mass media on proper infant nutrition and breastfeeding is weak. An extension of the Baby friendly hospital initiative beyond maternities and for the immediate post-natal period is an option to improve these services.

Vertical prevention programs (MCH, Immunization, program for regular health check ups of pre-school and school children) and free of charge health protection for children up to 14 years of age (Regular health examinations (in the 3, 6, 9 months and 2 and 4 years of age) take care of infants and small children after the breastfeeding period. The long duration of maternity leave for employed women as well as the available social packages for the first child (Ministry of Labour and Social Policy) ascertain maternal protection and good infant care. The informal sector is not included, unemployed mothers have no motivation, and the initiative for support for third and fourth child is repealed due to collision with the Constitution.

Screening services for congenital anomalies as well as follow up services for high-risk newborns and newborns with disabilities are limited and only available in some referral centres (Skopje, Bitola).

There is a general concern for all groups of health professionals about the insufficiency in the area of continuous medical education (CME). Although implemented earlier, CME is currently not functional but very much needed for all health professionals. As in other parts of the continuum of care for safe motherhood there is a lack of EBM based guidelines, which are adapted to the needs of every facility (local protocols) and, of course, implemented. The re-vitalisation of the continuous education (CME) for professional staff will facilitate the implementation of these guidelines and local protocols. Another general concern is the weak health related education of the population, especially socially excluded and marginalised groups, and the insufficient communication between the health providers and the beneficiaries.

3 Strategic priorities

3.1 Key institutions for the implementation of the Strategy

The key institutions and stakeholders for the implementation of the goals and activities of the Strategy on Safe Motherhood are stated. Their role in the implementation of the Strategy is through their technical experience and their influence over the professional groups, the policies and providing resources for its implementation. Figure 3 shows the key institutions which should be engaged for the successful implementation of this Strategy.

Key processes for safe motherhood and a healthy perinatal period start before the pregnancy and are closely linked with the age group specific Sexual and Reproductive Health (SRH) concept. Hence, the need for multi-sector and multidimensional approach, aimed towards the preparation of couples at reproductive age for pregnancy, child bearing and rearing. Traditionally, the key role is with the family, however, the educational sector and NGOs have a significant role to play to inform and sensitise and amongst others motivate pregnant women to access health services in an early stage and to ascertain the early onset of antenatal care. The PHC system with its chosen physician also plays a role through the distribution of information and educational material and discussion of relevant subjects.

Figure 3: Key institutions and stakeholders

Step in the process		Actor/stakeholder
Pre-conception period, health education, health promotion		NGOs, family, community nurses, SRH training, chosen physician (paediatrician, gynecologist, family physician, mass media)
Pregnancy Antenatal care		Family, community nurse (nurse/ midwife), local government, chosen gynaecologist (PHC system),

		employer
Delivery		Hospital, professional assistance (midwives, gynaecologist, neonatologist, secondary and tertiary health care level)
Hospital care		
Postnatal and infant period postnatal care		Family, community nurses chosen paediatrician (prevention and treatment, chosen gynaecologist (primary health care), mass media)

Scientific evidence shows that access to high quality antenatal care significantly contributes to the identification of pregnancy risks and to the reduction of perinatal morbidity and mortality. The early identification of high perinatal risks leads to the reference of the case to an adequate point of care, which is prepared to respond on these risks.. The different groups (e.g. GP, patronage nurse, midwives, PHC gynaecologist) need to interact well and share information to make sure that all pregnant women profit at maximum from the free ANC services.. Health information should be with the pregnant mother to ease the use of this information on all level of health protection.

The Institute of Health Protection of Mother and Child, as well as NGOs promoting sexual and reproductive health are important mediators providing relevant information and act in social mobilisation campaigns to reach the most vulnerable groups. They engage in the monitoring and evaluation of activities in order to identify the most appropriate approaches to be implemented.

Delivery and early neonatal care is the domain of the hospital system. Hospitals and health care professionals are the key actors. A functional referral system guarantees adequate treatment for all and contributes significantly to equity in perinatal health care. The referral system is at the interface of different types and levels of services and needs special attention. The MoH in collaboration with professional associations create the legal (e.g. legislation and directives) and professional guidance (EBM based guidelines, CME) for the delivery of maternity based care. The MoH in collaboration with the Health Insurance Fund provide the necessary resources (through vertical programmes, capital investments in the health institutions, performance based funding, etc.). The Institute for Public Health and the Doctors' Chamber of Macedonia provide monitoring and evaluation, as a guarantee of the services quality, as well as follow up of the critical cases and identification of the weaknesses, which enables a feedback on the work improvement.

During the postnatal care period the transfer from the hospital level to the ambulatory care level is the key interface. Maternities induce postnatal care already during mothers' stay in the hospital but hand over to ambulatory care. Main actors in the PHC system are the chosen physicians (ObGyn and

paediatrician, to a limited extent also the family physician) to deliver preventive and curative services. Patronage services have a particular role to play, particularly for young families, which have got their first child. As for antenatal care, it is frequently the most vulnerable and marginalized groups, who have the least access to care¹³. For these groups, the patronage nurse is a very important actor to reduce early childhood morbidity. Patronage nurses target marginalized groups to ascertain that they receive the full preventive care package (e.g. vaccination, neurodevelopmental and cognitive follow up of newborns) provided by MoH.

3.2 Vision for the SM Strategy

The Macedonian SM strategy promotes a holistic and multi-sectoral vision on maternal, newborn and infant health, which strives towards making access to high quality services and providing universal through modernised services, promoting healthy lifestyles for women and newborns, and the provision of client oriented, culturally appropriate and well targeted information. Its four main targets are:

- All families including socially vulnerable groups and adolescents are knowledgeable and make use of up to date information promoting safe motherhood. All Macedonian maternities provide high quality perinatal care services in a mother-baby-friendly environment.
- All women in Macedonia use modernized, accessible, legally arranged and guaranteed high quality ante-natal health care services as recommended and standardized by MoH strategies.
- All Macedonian maternities provide high quality perinatal care services in a mother-baby-friendly environment
- All women and children use the primary health care comprehensive package of health services (basic benefit package) during the first year post-partum.

3.3 Mission of the Strategy of SM

Mission of the SM Strategy The National Committee for Safe Motherhood is authorized by the Ministry of Health to assist the Governments' efforts for improvement of the health services in the perinatal care in the Republic of Macedonia. In this frame, the Committee consists of a project team which has special tasks for preparation, implementation and monitoring of the national strategy for improvement of the health of the mothers and children, which is in accordance with the strategy for reproductive health.

The project team provides support during the development of the policies, legal solutions and quality standards. It supports the improved data management, including the introduction of the modern health – information system for perinatal care. It follows the implementation of the quality standards through the introduction of audits in the health institutions (internal self-auditing and external auditing).

The team also identifies the need and participates in the process of updating of the national clinic directions prepared on the basis of evidence based medicine, as well as in the preparation of the local protocols, and the monitoring of their implementation.

The main instrument for building of the capacities of the key segments of the perinatal health, such as the health workers, as well as the actors that deal with the health improvement and preventive care, through trainings, forums, seminars and other appropriate educational forms. The team enhances the existing system of CME with trainings for communicational and advisory skills.

¹³ UNICEF MICS survey 2006

The team develops strategy for enhancement of the role of the family physician and the patronage service in line of improvement of the coverage of pregnant women with series for antenatal care. Key elements in this attempt are: introduction of a system of instigating/stimulations and introduction of a proactive system for inviting the pregnant women who do not fulfil the necessary number of visits in the course of the pregnancy, especially in the early pregnancy.

4. Goals and Activities¹⁴

4.1 Pre-conceptual Period

The Macedonian Safe Motherhood strategy is multi-sectoral and multi-dimensional using a multi-stakeholder and continuum of care approach starting with the health education of women and men of the reproductive age group and their families with a focus on the socially excluded and marginalized groups using the principles of equity, solidarity and human rights (pre-conceptual phase). Promoting a healthy reproductive lifestyle with protection against sexually transmitted infections (STIs), family planning, and right to sexual and reproductive health based approach are corner stones in this phase.

Targets :	All families including socially vulnerable groups and adolescents make use up to date information and services promoting sexual and reproductive health and in particular safe motherhood and perinatal health		
Expected Outcomes	Indicators (data source)	Baseline	Target 2015
The general population including socially vulnerable groups and adolescents have improved access to information and are increasingly knowledgeable regarding safe sexual behaviour, family planning methods, and healthy life-styles, antenatal risk signs	<ul style="list-style-type: none"> % of adolescents and young people reporting the use of a condom the last time they had sex with a non-marital, non-cohabiting sexual partner (NIHP) 	77%	> 85%
	<ul style="list-style-type: none"> % PHC providers are trained to do counselling and education in SRH (MoH) 	to be determined	70%
	<ul style="list-style-type: none"> % of Women knowledgeable about pre-conceptual healthy life-styles (case study) 	to be determined	70%
The general population has access to high quality services regarding family planning, and prevention and management of STIs	<ul style="list-style-type: none"> Prevalence of STIs (Chlamydia, HPV and Gonorrhoea) amongst adolescents and young people decreases 	to be determined	< 25% from the determined prevalence
	<ul style="list-style-type: none"> % of women in a reproductive period which use double protection (PHI) 		75%
	<ul style="list-style-type: none"> % Primiparae who used contraceptives prior to first pregnancy (GOC) 	to be determined	50%
	<ul style="list-style-type: none"> Adolescents and young people use dual protection (hormonal contraception and condom) 	to be determined	< 2%
	<ul style="list-style-type: none"> % of pregnancies in the adolescent period (under 19 years of age) – (PHI) 	to be determined	< 2%

¹⁴ For more detailed information see Action Plan in Part 7. Annexes

Key providers of health related information are the primary and preventive health care providers (e.g. chosen doctors, patronage nurses and preventive teams, NGOs, Institute for Public Health, Centres for Public Health and Institute for Mother and Child Health). To guaranty the provision of appropriate and high quality information and counselling services, current primary level services will be complemented with a stronger focus on health education and health promotion services. Communication and counselling skills of relevant health care providers will be improved through additional training and the integration of three new topics in continuous medical education (CME) measures. Additionally, professional networking across professional groups and levels of care will be improved through the strengthening of provider teams (e.g. physician, nurse, psychologist, social worker, etc.). Referrals from the primary level to higher levels of care will be facilitated through improved communication between levels.

Beneficiaries need more information adapted to their needs. The development of educational and promotional material, with a particular focus on social groups, which have difficulties accessing adequate information, will be strengthened.

Safe motherhood starts with school based education. Comprehensive education on sexual and reproductive health (SRH) will be integrated in the curricula of primary and secondary schools. Teachers will be trained successfully used approaches like “life skills education” in order to improve their capacity to address SRH issues in school.

The present strategy focuses not only on the improvement of services through health care providers, but incorporates other societal groups and community structures. It underlines the importance of the NGO sector and strengthens their capacity to engage in the promotion of safe motherhood. Amongst others it facilitates the development of specific promotional material and campaigns for the needs of the NGO to promote these concepts.

Modern mass media play an important role in this strategy. Media workers will be trained and their access to appropriate safe motherhood information will be facilitated so that they can play an active role promoting safe motherhood values and healthy lifestyles.

Local authorities and community leaders need the capacity to respond to the SRH demand at their level where national perinatal health indicators are weak.. Socially disadvantaged and marginalized groups are in particular need for such services. Social services will be mobilised to establish a coalition between community administration and local leaders in favour of SRH and healthy lifestyles on local level.

Modern contraception and the prevention of sexually transmitted infections (STI) are cornerstones of safe motherhood. Primary healthcare providers will be trained and their capacity built to offer SRH services including family planning and promote these services to the beneficiaries including adolescents. This includes also the broadening of the existing network of youth-friendly SRH services and the introduction of essential contraceptives in the list of free drugs for marginalized and vulnerable groups¹⁵

¹⁵ See also national SRH strategy

4.2 Antenatal Care Period

Early and equal access to high quality Antenatal Care (ANC) services is a prerequisite for early risk detection for pregnancies. The patronage service and the family physicians are valuable instrument to address marginalized populations, which are generally at the highest risk.. Primary care gynaecologists play an important role in the detection of pregnancy risks and guide pregnant women to the appropriate level of care. Midwives may play an important role in the continuum of care approach through their activities during the preparation of pregnant women for delivery, assisting the delivery process and providing home based care for post-natal women and their newborns.

Targets :	All women use modernized, accessible and guaranteed high quality antenatal health care services.		
Expected Outcomes	Indicators (data source)	Baseline	Target 2015
Safe motherhood services are provided in an integrated manner (PHC and specializes services)	<ul style="list-style-type: none"> % Pregnant women with correctly filled maternal health card at delivery (GOC) 	to be determined	90%
	<ul style="list-style-type: none"> % Pregnant women with risk behaviour (tobacco, alcohol, and psychotropic substances) (GOC) 	to be determined	< 10%
	<ul style="list-style-type: none"> % Women with newly diagnosed STI at delivery (GOC) 	to be determined	< 5%
Pregnant women and their families (with a focus on marginalized groups ¹⁶) make timely and appropriate use of ante-natal care services	<ul style="list-style-type: none"> % Pregnant women that use antenatal services in the first trimester in the pregnancy (to obtain disaggregated data on the marginalized groups) 	41,7%	90%
	<ul style="list-style-type: none"> Average number of ANC per pregnant women (to obtain disaggregated data on the marginalized groups) 	2,8	4
At risk pregnancies are detected at an early stage and are referred to the appropriate level of care ¹⁷	<ul style="list-style-type: none"> % Congenital malformations are detected prior to delivery (GOC) 	to be determined	80%

¹⁶ In this strategy, the term marginalized group covers the following: with poor socio-economic status, rural population and the roma community.

¹⁷ The new clinic directions and the perinatal care standards will define the manner of referral to the appropriate level of the health care in accordance to several criteria, among which the level of risk pregnancy.

The strategy promotes a multidisciplinary and integrated approach to antenatal care with the active involvement of the patronage nursing system, the general practitioners and the primary care gynaecologist. For that purpose the benefit package for pregnant women will be updated and communication between the different levels of service provision improved in order to increase the transparency across service levels. A key element is the re-introduction of the “maternal health card” (“мајчина книшка”), which makes medical information available also to the beneficiary. To improve the capacity and quality of services, the organisational standards for each level of care will be reviewed and updated and capacity built where appropriate for the patronage system and GP (amongst others through a system of continuous medical education, CME).

Early detection of pregnancy risk is a key task for ANC services. In order to improve access, the strategy promotes the registration of all women of the reproductive age group with chosen gynaecologist, the early booking of pregnancies (first trimester) and a sufficient number of ANC visits (at least 4 per pregnancy and one ultrasound examination). Early booking will permit the early identification and registration of at risk pregnancies and facilitate their treatment at the appropriate level of care.

Preventive action plays a key role in the antenatal period. Early detection of congenital malformations and a sound monitoring of foetal growth through first trimester ultrasound examination, the identification of sexually transmitted diseases, which may influence maternal and child well-being, are other important elements. The quality assurance system will be strengthened through improved instruments for monitoring and evaluation (M&E), the identification of appropriate indicators and regular evaluation of routine data. IT solutions can play an important role.

Women and their families need to be empowered to actively care for their own health protection. This is particularly relevant for disadvantaged societal groups and the communities they live in. The strategy strengthens the role of community leaders, the capacity of NGOs, the role of local authorities and all relevant partners in order to provide key information to pregnant women and their families and to promote safe motherhood. This involves training of local authorities and community leaders, the mobilisation of social services and the involvement of NGOs in information and promotion campaigns.

4.3 Delivery Period

High quality delivery services at the maternity level and effectively functioning referral system guarantee the most appropriate care for all pregnant women and their babies. Within a regionalised health system each level of care has clearly described competences and disposes of the necessary resources and benefit from a functioning CME system to provide high quality services according to their level of competence (service package). Effective communication with all other levels of care during the delivery and with the mother and her family facilitate the continuity of care.

Targets:	All women and families use high – quality delivery services, appropriate to their risk status..		
Expected Outcomes	Indicators (data source)	Baseline	Target 2015
All maternities provide	<ul style="list-style-type: none"> all maternities are BFHI certified (Ministry of Health, Breastfeeding Committee) 	90%	100%

high quality perinatal care (according to the appropriate accreditation level)	<ul style="list-style-type: none"> % of accredited maternities (SM) according to national standards (MoH, Committee for Safe Motherhood) 	to be determined	100%
The capacity of perinatal health staff is up to date using appropriate knowledge and procedures based on the new national clinical guidelines ¹⁸	<ul style="list-style-type: none"> % of staff, last trained in CME in the last two years 	0%	100%
	<ul style="list-style-type: none"> % of maternities, which work according to locally adapted protocols based on national EBM based guidelines 	0%	100%
	<ul style="list-style-type: none"> % of cases with completed medical records according to national medical records standards (GOC, PHI) 	0%	80%
Deliveries are conducted at the appropriate level of care corresponding to the risk level of the pregnancy based on new national standards on perinatal care	<ul style="list-style-type: none"> % of at risk pregnancies, which are delivered at level III maternities (tertiary health protection) 	To define additionally after the passing of the national standards ¹⁹ for perinatal care	
	<ul style="list-style-type: none"> % of premature deliveries conducted at lower levels of health care system (delivered before the 34th gestation week) 		
	<ul style="list-style-type: none"> % of C sections conducted in every maternity, disaggregated upon indications of Cesarean section (GOC) 		
	<ul style="list-style-type: none"> Percent of newborns with Agpar result less than 7 in the 5th minute after the delivery 	to be determined	to be determined

The quality of service depends on several factors: structural, process and outcome quality.

Health workers need working conditions, which permit them to provide the high quality of services expected from them (structural quality). The strategy will develop criteria and standards for the infrastructure and equipment for safe motherhood services and develop an accreditation scheme to quality control institutions providing such services. The existing Baby friendly hospital initiative (BFHI), which is already implemented in the majority of Macedonian hospitals will be harmonised with the planned safe motherhood (SM) accreditation scheme. Safe motherhood services will be provided in a “family friendly environment” ascertaining amongst others adequate privacy for mothers and their families, the participation of partners and family and adequate psychological support.

National norms and regulations will be updated so that they follow national and international guidelines for evidence based medicine. Respective guidelines (based on evidence based medicine (EBM) will be developed and updated through professional associations and other relevant actors (process quality). Implementation of national clinical guidelines will be facilitated through the development of institutional protocols based on development of evaluation mechanisms related to the application of these protocols and guidelines and their effect on patient care. This also requires an update of the modalities of record

¹⁸ Refers to the new national clinical guidelines that will be passed in the course of 2010

¹⁹ The new clinic directions and the perinatal care standards will define the manner of referral to the appropriate level of the health care in accordance with several criteria, among which the level of risk pregnancy and the pregnancy stages for particular risk

keeping and data collection, which will be facilitated by the application of modern information and communication technology (ICT).

Professional capacity plays an important role in quality assurance. Continuous medical education (CME) measures will be updated on a national as well as institutional levels ascertaining that facility based staff receives regular knowledge updates (amongst others, accredited training sessions but also in house informal training). Training happens not only in academic settings for the upgrade of theoretical knowledge. Emphasis will be put on the acquisition of practical skills and may include internships in specialised centres, exchange visits and others.

Providing high quality services within the context of a system of regionalised perinatal health care requires the definition of services to be delivered and the level of competence required for each level of care (service package). Referral mechanisms ascertain access to the appropriate level of care for each specific case. The strategy foresees the development of appropriate clinical referral guidelines of the beneficiaries from one to another level of health protection, as well as monitoring instruments in order to ascertain the safe transition from one level of care to the other and facilitate appropriate decision making for professional staff. Ascertaining appropriate communication strategies (referral –counter referral mechanisms) and monitoring of referrals is part of the strategy.

The strategy includes the development and updating of national clinical guidelines and preparation of methodology for auditing of the maternal and perinatal deaths and training for application of the methodology in case of maternal and perinatal deaths. The system will be complemented by the anonymous registration of critical cases (near miss assessment) in order to identify weaknesses of the system of health care. The analysis of these events permits to identify areas for improvement in the system. .

Although health professionals are most suited for the assessment of professional quality, the client view (patients) is an important criterion for assessing service quality in a women and family centred SM strategy, that focuses on the women and their families. Client satisfaction assessment will be part of the monitoring and evaluation activities needed for the continuous improvement and adaptation of services to beneficiaries' needs.

4.4 Post-natal Care

Postnatal care is introduced at the delivery ward immediately after delivery (e.g. introduction of exclusive breastfeeding, vaccination, postnatal care for mothers including family planning, etc.). Information sharing across disciplines related to the safe motherhood and professional levels, including the patronage nurses helps to maintain the continuum of care.

Targets:	All women and children use the primary health care comprehensive package of health services (basic benefit package) during the first year post-partum/birth		
Expected Outcomes	Indicators (data source)	Baseline	Target 2015
Post-natal women practice exclusive breastfeeding at least for the first 6 months (UNICEF/WHO recommendation)	<ul style="list-style-type: none"> % Infants exclusively breastfed for the first 6 months of life 	16%	60%
All infants benefit from a comprehensive package of health services according to national standards	<ul style="list-style-type: none"> % of infants with completed vaccination by 24 months (who have received DTP3, OPV3, BCG, HiB, HepB and MPR) (PHI) 	90-95%	95%
	<ul style="list-style-type: none"> % of primary and preventive care institutions fulfilling the newly developed criteria from the baby-friendliness program (MoH, Breastfeeding Committee) 	0%	70%
Infants with special needs (pre-mature births, congenital malformations, others) have access to appropriate care ²⁰	<ul style="list-style-type: none"> % of infants with special needs benefiting from appropriate services 	to be determined	95%
All newborns are screened for specific risks (hypothyroidism, phenylketonuria and others) according to national standards for neonatal screening	<ul style="list-style-type: none"> % of newborns screened according to national standards²¹ (note: TSH screening at the moment is performed for all the newborns) 	to be determined	100%

Post-natal services are initiated in the delivery hospital and after their discharge involve the entire primary health care network. They require a strong collaboration between the hospital and primary health care providers including the patronage nurses system, preventive teams, family doctors, chosen gynaecologists, paediatricians, orthopaedists and potentially other specialists. The strategy raises awareness amongst all relevant actors and includes training activities to update the capacities of service providers. As in the other components it entails the update of guidelines, service definitions, defining the standards for infrastructure and staff, as well as reintroduction of a CME system, which continuously

²⁰ Classification of newborns with special needs will be defined additionally, and accordingly standards and guidelines for health services will be prepared for this group

²¹ The national standards for screening of newborns will be defined additionally

adapts staff capacity to the required standards. The strategy also reinforces record keeping and health statistics, i.e. data collection for monitoring, evaluation and continuous improvement of services. Appropriate use of ICT (computerised files, patient card, networking, others) supports these functions.

The BHFI strengthens breastfeeding practices, sensitises women towards newborn care and trains them to recognise danger signs for their newborns through training of health professionals and mothers as well as through the provision of promotional material. The SM strategy extends “baby friendliness” into post-natal services including primary and preventive care settings.

Post-natal screening programs ascertain the early detection of congenital metabolic diseases according to standard protocols..

The social package for families with newborn children will be updated and implemented following the legislation on child protection with a focus on marginalized families and newborns. Particularly children born with certain risks need better access to specialised care. Additional to the existing centres in Skopje and Bitola, the provision of these services will be established in major towns and regional medical centres (e.g. Stip, Ohrid, Tetovo, Kumanovo, and Veles).

5. Controlling - M&E approach

5.1 Roles and responsibilities for the implementation of the strategy

The National Safe Motherhood Committee (SMC) is the steering body for the implementation of the safe motherhood strategy (SMS). It identifies all relevant stakeholders and key actors through which the strategy will be implemented. Additionally it follows the implementation of the strategy through monitoring and evaluation activities, supervision and the provision of technical expertise. The SMC will conduct quarterly coordination meetings with the key institutions in order to coordinate the activities related to the strategy and will review the strategy at least once a year. The reviews will analyse the effects of the strategy on the capacity of the institutions and the quality of services provided as well as the outcomes for the final beneficiaries. For the implementation and the coordination of the activities of the key institutions the SMC assigns appropriate coordinators. Together with boundary partners and service providers, the coordinator will develop a annual action plans.

5.2 Monitoring

A system of Monitoring and Evaluation (M&E) is crucial to follow up the implementation of the strategy. The M&E system will monitor several aspects of implementation:

- **Activities monitoring:** SMC monitors the timely start of processes and fulfilment of activities in accordance to Action plans..
- **Effect and indicators monitoring:** SMC together with the key institutions monitors the effects and the indicators, and if necessary proposes appropriate modification of the action plans and the indicators.

Methodologically, the monitoring activity will include:

Key data related to the selected indicators will be collected and entered into a monitoring database. The database should be set up in a way that it permits easy analysis so that the collected information could be used also for managerial decision making

- Collection of qualitative data from the regular health statistics;
- Collection of data trough case studies and surveys; Collection of data trough performed field visits.

5.3 Evaluation

The evaluation of implementation activities will be done in the form of reviews:

- by the end of each year the **annual review** of activities will be carried out. They will assess implementation progress followed by planning meetings to develop subsequent yearly action plans. The reviews will also monitor whether the project is still in the targeted corridor towards achieving its outcomes and impact.
- **an external review** of the project might be done at mid term to assess project impact and suggest subsequent strategies.

5.4 Reporting

The SMC is the lead implementation body for the Strategy, therefore it will be accountable to the Minister of Health of RM and the appropriate sectors in the Ministry of Health of RM.

6. Bibliography:

- Improving maternal and perinatal health: European strategic approach for making pregnancy safer, WHO Europe 2007
- Making Pregnancy Safer: Assessment tool for the quality of hospital care for mothers and newborn babies, WHO Europe 2009,
- Making Pregnancy Safe, Promoting Effective Perinatal Care (MPS/PEPC); Essential Obstetric and Newborn Care and Promotion of Breastfeeding; Assessment and Follow-up after Training; Manual and interview forms; February 2006; Moldova
- HEATHER JEFFERY, PhD, MPH, FRACP, MRCP(UK); REPORT ON PERINATAL HEALTH SERVICES IN MACEDONIA, Health Sector Transition Project; September 1999, Department Neonatal Medicine, Royal Prince Alfred Hospital, The University of Sydney, Australia
- Situation analysis: the concept of situation analysis for UNICEF:
http://www.unicef.org/sitan/index_43340.html; short examples:
<http://www.ncbi.nlm.nih.gov/pubmed/11235057>,
http://www.paho.org/english/dd/ais/cp_254.htm,
<http://www.pulsus.com/CAHR2003/abs/abs323P.htm>
- The State of the World's Children 2008: Child Survival, provided by UNICEF:
http://www.unicef.org/publications/index_42623.html
- ICPD and ICPD+5 reproductive health goals and 17 indicators http://who.int/reproductive-health/publications/rhr_01_19/01_19_ax1.html
- European PERISTAT system of perinatal health indicators
<http://europeristat.aphp.fr/en/index.html>
- Macedonia HIT 2006, The European Observatory on Health Systems and Policies
- Health Strategy Of The Republic Of Macedonia 2006-2015, draft of 24 February 2006 by international consultant Kees Schaapveld, national consultant Vladimir Kendrovski, and the Health Strategy Working Group
- Safe Motherhood Needs Assessment, report 2005 by Gianfranco Gori MD Professor a.c. Evidence Based Obstetrics – University of Bologna – Italy, Head Dept. Obst./Gyn. AUSL Forlì – Italy, Consultant CeVEAS (Centre for evaluation of effectiveness of health care), Modena – Italy
- Program for Active Health Protection of Mothers and Children in The Republic of Macedonia, 2008, by MoH (Official Gazette of the Republic of Macedonia No. XX)
- Strategic Assessment of Policy, Quality And Access to Contraception and Abortion in The Republic of Macedonia, 2008, by Tozija F et al., Ministry Of Health, Republic Institute For Health Protection and United Nations Population Fund – UNFPA

7. Annexes

7.1 Action Plan for the 2010-2013 Safe Motherhood Strategy²²

Vision	<ul style="list-style-type: none"> • All families including socially vulnerable groups and adolescents are knowledgeable and make use up to date information promoting safe motherhood. • All women in Macedonia use modernized, accessible, legally arranged and guaranteed high quality ante-natal health care services as recommended by MoH strategies. • All Macedonian maternities provide high quality perinatal care services in a mother-baby-friendly environment. • All women and children use the primary health care comprehensive package of health services (basic benefit package) during the first year post-partum.
Mission SMC	<p>The national safe motherhood committee (SMC) is mandated by the MoH to facilitate governmental efforts to improve perinatal health services in Macedonia. Within this framework they constitute a project team with specific tasks to design, implement and monitor a national strategy towards the improvement of maternal and infant health, which is in line with the national reproductive health strategy. The project team supports the development of policies, legal frameworks and quality standards. It facilitates the development of improved data management including the establishment of a modern ICT based health information system for perinatal care. It monitors the application of quality standards by introducing health facility based audits (self assessment and external audit), It identifies the need and facilitates the development of EBM based clinical practice guidelines and local protocols within a basic benefit package and monitors its use. A major instruments are: human resources capacity building and health promotion The team strengthens the existing continuous medical education (CME) system including training on communication and counselling skills. The team develops a strategy to strengthen the role of the family doctor and the patronage service for the improvement of the coverage of pregnant women with ANC services. Key elements are the establishment of an incentive system and a proactive invitation procedure for non-compliant pregnant women.</p>

^{22 22} A review of the Safe Motherhood Strategy will be conducted in 2013, defining an Action plan for the following 3 year period.

Pre-conceptual Period

Target 1 : All families including socially vulnerable groups and adolescents make use up to date information promoting sexual and reproductive health and in particular safe motherhood and perinatal health.

Expected outcomes:

1.1. The general population including socially vulnerable groups and adolescents have improved access to information and are increasingly knowledgeable regarding safe sexual behaviour, family planning methods and healthy life-styles

1.2. The general population has access to high quality services regarding family planning, and prevention and management of STIs

Indicators :

- % of adolescents and young people who reported that they used a condom during their last sexual intercourse with a partner who is not their spouse or common law partner.
 - PHC providers are trained to do counselling and education (in SRH)
 - Women are knowledgeable about pre-conceptual healthy life-styles
 - Prevalence of STIs (Chlamydia Trachomatis, HPV and Gonorrhoea) amongst adolescents and young people decreases
 - % of women in their reproductive period who use dual protection (hormonal contraception and condom)
 - % of primiparae who used contraceptives prior to first pregnancy
 - % of pregnancies in adolescents (prior to turning 19 years of age)

Specific Objective	Activities	Institutions	Deadline	Budget
Strengthening capacities for sexual and reproductive education for the medical staff	Training for counseling and communication skills for medical service providers in primary and preventive health care	Public Health Institute and Public Health Centers	Ongoing	600,000 MKD per annum (from the funding for the Preventive Programs of the MoH and foreign donations)
	Joint training to enhance the networking among different health care levels	Public Health Institute and Public Health Centers in cooperation with professional associations	Ongoing	600,000 MKD per annum (from the funding for the Preventive Programs of the MoH and foreign donations)
Improving quality and access to SRH services	Maintaining the current network of 12 SRH Centers for Young People and	Public Health Institute and Public Health Centers in cooperation with civil society	2010-2011	600,000 MKD x 12 centers x 2 years =

	introducing 10 new SRH Centers for Young People	sector		14,400,000 MKD (UNFPA and PHI/CsPH) 900,000 MKD x 10 centers x 1 year = 9,000,000 MKD UNFPA and PHI/CsPH)
	Review the preventive objectives in Primary HC in order to integrate SRH training for young people and other target groups	Health Insurance Fund, Ministry of Health in collaboration with the Macedonian Chamber of Medicine and primary health care medical doctors' association	2011	No financial implications
	Review the existing and introduce new necessary contraceptives on the List of Drugs covered by the insurance coverage	Health Insurance Fund, Ministry of Health in collaboration with the Macedonian Chamber of Medicine and professional associations	2011	Financial implications to the Health Insurance Fund will be established in 2011
	Train Social Work Centers' staff for SRH sensitive information for marginalized groups	PHI/CsPH in collaboration with civil society organizations	Ongoing	600,000 MKD per annum (from the funding for the Preventive Programs of the MoH and foreign donations)
Enhancing the public school SRH curricula	Introducing comprehensive sexual education in public school curricula at elementary and high school level	Bureau for Education Development in collaboration with the PHI and civil society	By the end of 2011	300,000 MKD (one-off payment)
	Train the teachers in elementary and high schools	Bureau for Education Development in collaboration with	2012-2013	1,250,000 MKD x 2 = 2,500,000 MKD
Increasing local level capacities in order to address the SRH needs of the marginalized groups	Develop local SRH Action Plans (LAP)	Units of Local Government in collaboration with CPH and civil society	2010-2012	2,000,000 MKD x 3 = 6,000,000 MKD
	Support the implementation of LAPs (design training advocacy materials, focused on the needs of the marginalized groups)	CPH in collaboration with civil society and local government	2011-2013	2,000,000 MKD x 3 = 6,000,000 MKD
	Strengthen the capacities of local NGOs and media outlets in order to promote SRH and safe motherhood	CPH in collaboration with civil society and local government	2010-2012	1,000,000 MKD x 3 = 3,000,000 MKD

Antenatal Care

Target 2: All women have access to and use modernized, quality ante-natal health care services.				
Expected outcomes :				
<ul style="list-style-type: none"> • 2.1. Safe motherhood services are provided in an integrated manner including , primary health care and secondary and tertiary level services • 2.2. Pregnant women and their families (with a focus on marginalized groups) make timely and appropriate use of ante-natal care services • 2.3. At risk pregnancies are detected at an early stage and are referred to the appropriate level of care 				
Indicators :				
<ul style="list-style-type: none"> • % of pregnant women with a filled maternal health card at delivery • % of pregnant women at risk with tobacco and alcohol consumption and drug use • % of women with newly diagnosed STI at delivery • % of pregnant women who use antenatal services in the first trimester of pregnancy (dis-aggregated data on marginalized groups must be provided) • Average number of ANC visits (dis-aggregated data on marginalized groups must be provided) • % of congenital malformations detected prior to delivery 				
Specific Objective	Activities	Institutions	Deadline	Budget
Strengthening the capacities of health professionals (patronage service, family doctors and gynecologist in the primary health care)	Update national ANC clinical guidelines	University Clinic for Gynecology and Obstetrics in collaboration with the National Safe Motherhood Committee and professional associations	2010	250,000 MKD (UNICEF and MoH programs)
	Update the medical undergraduate studies curricula in the state-run medical faculties and medical nurse colleges according to the national ANC clinical guidelines	Medical Faculties and Medical Colleges in collaboration with professional associations	2011-2012	400,000 MKD

	Draft a ANC curriculum for CME based on the National ANC Clinical Guidelines	Macedonian Chamber of Medicine, Macedonian Medical Society in collaboration with professional associations	2010-2011	200,000 MKD (UNICEF and MoH programs)
	Perform CME training for ANC for the patronage service and gynecologists of PHC	Macedonian Medical Society in collaboration with professional associations	Ongoing	2,400,000 MKD per annum (funding for 2010 provided in part by UNICEF)
Improving the quality of and access to ANC medical services	Review and update ANC package of services (draft standards for screening, including screening for STIs during the first trimester)	MoH and Health Insurance Fund in collaboration with the University Clinic for Gynecology and Obstetrics and the National Safe Motherhood Committee	2011	Financial implications to the Health Insurance Fund and the preventive programs of the MoH will be set in 2011
	Mapping the needs of the staff and nessecery equipment for ANC in order to improve access to ANC services	MoH, PHI, National Safe Motherhood Committee, University Clinic for Gynecology and Obstetrics	2010	No financial implications
	Procurement of equipment for the patronage service according to the National ANC clinical guidelines	MoH, Health Centres	2011-2013	6,000,000 MKD (foreign donations)
	Increase the number of registered women in their reproductive period via family gynecologists and information campaigns	Centers for Social Work, local NGOs, patronage service	Ongoing	1,000,0000 MKD per annum for information campaigns (MoH programs)
Improving the level of ANC awareness in marginalized groups and the scope of such groups	Implement ANC education cmapsigns for reproductive women including healthy lifestyles before and during pregnancy (focusing primaeraly on communities showing worse indicators in relation to the national average and the national targets)	Centers for Social Work, local NGOs, patronage service	Ongoing	1,000,0000 MKD per annum for information campaigns (MoH programs)
Monitoring and evaluation of the quality of ANC	Introduce maternal health card as means of communication between the different levels of health care provision (primary, secondary, tertiary)	MoH, the Health Insurance Fund, PHI and primary health care gynecologists	2010-2011	Printing the maternal health cards 1,500,000 MKD (MoH programs)

Devising monitoring and evaluation tools for the preventive programmatic measures for ANC (Quality indicators, data collection, responsibilities for performing evaluation)	MoH, the Health Insurance Fund, Gynecology Clinic, PHI and primary health care gynecologists	2010-2011	200,000 MKD by the Health Insurance Fund, within its regular Program
Capacity building for the staff, including those working in the field of monitoring and evaluation	MoH, the Health Insurance Fund, Gynecology Clinic, PHI and primary health care gynecologists	Ongoing	1,500,000 MKD per annum by the Health Insurance Fund, within its regular Program

Delivery Period

Target 3 : All women and families use high quality prenatal services, which are appropriate to their evaluated risk status during pregnancy or their health, in general				
Expected outcomes : 3.1. All maternities provide high quality perinatal care services in a mother-baby-friendly environment 3.2. The capacity of perinatal health staff is up to date using appropriate knowledge and procedures based on international evidence and national guidelines 3.3. Deliveries are conducted at the appropriate level of care corresponding to the risk level of the pregnancy based on a regionalised perinatal health system 3.4. An audit system for perinatal and maternal mortality is established according to a predefined methodology which contributes to the improvement of the quality of services				
Indicators : <ul style="list-style-type: none"> • Each maternity is certified within the framework of the Baby Friendly Hospital Program • % of accredited maternities according to national standards³ • % of staff, whose last CME training is not older than 2 years • % of maternities, which work according to the newly adopted National Clinical Guidelines • % of patients with completed medical records according to national methodology for maintaining medical records • % of at risk pregnancies, which are delivered at level III maternities (tertiary health care) • % of premature deliveries conducted at lower levels of care (prior to 34th week of pregnancy) • % of newborns with an Apgar Scale Result of less than 7 in the 5th minute after birth • % of mothers practising breastfeeding on discharge 				
Specific Objective	Activities	Institutions	Deadline	Budget

³ This refers to those new ANC national standards which will be defined during the course of 2010-2011.

Strengthening the capacities of the prenatal medical staff	Update the National Clinical Guidelines for Prenatal Care (Gynecology, Obstetrics and Neonatology)	University Clinic for Gynecology and Obstetrics in collaboration with the National Safe Motherhood Committee and professional associations	2010	250,000 MKD (UNICEF and MoH programs)
	Update the medical undergraduate studies curricula in the state-run medical faculties and medical nurse colleges according to the national ANC clinical guidelines	Medical Faculties and Medical Colleges in collaboration with professional associations	2011-2012	400,000 MKD (UNICEF and MoH Programs)
	Drafting a CME curriculum for perinatal care based on the National Clinical Guidelines	Macedonian Chamber of Medicine, Macedonian Medical Association in collaboration with professional associations	2010-2011	200,000 MKD (UNICEF and MoH Programs)
	Performing CME training for perinatal care for gynecologists, obstetricians and neonatologists	Macedonian Medical Association in collaboration with professional associations	Ongoing	2,400,000 MKD per annum (The funding will be provided by UNICEF in part, the rest of the funding by MoH programs)
Improving the quality and access to perinatal care services	Mapping the needs of the staff and necessary equipment for ANC in order to improve access to perinatal care services	MoH, PHI, National Safe Motherhood Committee, University Clinic for Gynecology and Obstetrics	2010	No financial implications
	Drafting organizational standards for regionalization of perinatal care at all levels of health care (primary, secondary, tertiary)	MoH, PHI, National Safe Motherhood Committee,	2010	1,000,000 MKD (foreign donations)
	Procurement of equipment for perinatal care in the secondary and tertiary health care system according to the National clinical guidelines and the standards for the regionalization of perinatal care	MoH, National Safe Motherhood Committee,	Ongoing	1,000,000 MKD per annum (foreign donations and Budget of the RoM)
Monitoring and assessing the quality of perinatal care and	Introduce a Center for Medical Statistics, based within the University Clinic for Gynecology and Obstetrics, for the purpose of collection, processing and analysis of perinatal care data	MoH, PHI, University Clinic for Gynecology and Obstetrics	2011-2012	1,500,000 MKD (foreign country donations)

indicators of perinatal health	(QoS, indicators of perinatal health within the primary, secondary and tertiary health care)			
	Draft auditing methodology for perinatal and maternal mortality	MoH, National Safe Motherhood Committee, University Clinic for Gynecology and Obstetrics	2010	200,000 MKD (UNICEF and MoH programs)
	Training for implementation of the auditing methodology for perinatal and maternal mortality	MoH, PHI, National Safe Motherhood Committee, University Clinic for Gynecology and Obstetrics	2010-2011	200,000 MKD (UNICEF and MoH programs)

Post-natal Period⁴

Target 4 : All women and children use the primary health care comprehensive package of health services (basic benefit package) during the first year post-partum

Expected outcomes :

- 4.1. post-natal women practice exclusive breastfeeding at least for the 6 months
- 4.2. all infants benefit from a comprehensive package of health services according to national standards (including services from the patronage nursing system where applicable)
- 4.3. mothers and infants living in a marginalized environment benefit from appropriate special services (home visits, social services, nutritional support, others)
- 4.4. infants with special needs (pre-mature births, congenital malformations, others) have access to appropriate care
- 4.5. all newborns are screened for specific risks (hypothyroidism, phenylketonuria and others) according to national standards

⁴ This chapter of this Action Plan will be harmonized and supplemented with the Action plan forming part of the Multi-year Immunization Plan (Strategy)

Indicators :

- % of infants exclusively breastfed in the first 6 months of life
- % of infants with completed vaccination
- % of primary and preventive care institutions fulfilling the newly developed criteria for baby-friendliness
- % of infants with special needs benefiting from appropriate services
- % of newborns screened according to national standards

Specific Objective	Activities	Institutions	Deadline	Budget
Strengthening capacities of the postnatal medical staff (patronage service)	Drafting a CME curriculum for postnatal care based on National Clinical Guidelines	Macedonian Chamber of Medicine, Macedonian Medical Association in collaboration with professional associations	2010-2011	200,000 MKD (by MoH programs and UNICEF)
	Performing CME training for postnatal care for the patronage service	Macedonian Medical Association in collaboration with professional associations	Ongoing	1,400,000 MKD (by MoH programs and UNICEF)
	Изработка на наставна програма за специјализирана обука по превентивна медицина и воведување на специјализирана обука по превентивна медицина	MoH, Medical Faculty, the University Gynecology and Obstetrics Clinic, Macedonian Medical Association in collaboration with professional associations	2010-2011	No financial implications
Improving the quality and access to postnatal medical services	Assess the needs for staff and equipment for the patronage service in order to improve access to postnatal care services	MoH, IPH, the National Safe Motherhood Committee, , the University Gynecology and Obstetrics Clinic	2010	No financial implications
	Procure equipment for postnatal care for the patronage service and Preventive Teams for Vaccination and Regular Medical Checkups, according to National Clinical Guidelines for Postnatal Care	MoH, National Safe Motherhood Committee,	Ongoing	30,000,000 MKD (foreign country donations and Annual Budget of the RoM)

Monitoring and assessing the quality of postnatal care and indicators of perinatal health	Design a database regarding the situation of the mandatory vaccination of children and set up a network, for its use, among institutions for preventive health care	MoH, IPH, the University Gynecology and Obstetrics Clinic	2011-2012	4,500,000 MKD (foreign donations and annual budgets of the RoM)
	Increase the number of outreach visits in order to cover those children who have been irregularly or failed to be vaccinated according to the Program for mandatory Immunization	MoH, Patronage service, Preventive Teams.	Ongoing	(MoH Programs)
	Improve the invitation system for immunization of children	MoH, Patronage service, Preventive Teams.	Ongoing	(MoH Programs)