



Association for emancipation, solidarity and equality of women of RM (ECE)

Findings of the monitoring of implementation and budget of the Programme for early detection of malignant diseases, particularly activities regarding cervical cancer and breast cancer at national level in 2011

The right to preventive health care of each citizen is guaranteed by the Constitution and the laws of the Republic of Macedonia. The type and manner of implementation of preventive health care measures have been regulated by the Programmes for Preventive Health Care for the population. These programmes are adopted by the Government of RM each year and are implemented by the Ministry of Health. These programmes include the Programme on Early Detection of Malignant Diseases, which anticipates, through its three components a series of preventive health services for early detection of cervical cancer, breast cancer and colon cancer.

Cancer is the second leading cause of death of the population in Macedonia. Breast cancer is first and cervical cancer is second malignant disease in women.

Implementation of preventive measures and activities for early detection of the two most frequent malignant diseases in the female population has a goal of decreasing the mortality rate in women. Data at global level demonstrate that countries with organized screening for cervical cancer have a lower incidence of this disease. Also data show that mortality of such malignant diseases may be prevented in 40% of the cases, by reducing risk factors, early detection – screening and appropriate treatment.

Hence, correct planning and proper implementation of activities for early detection of malignant diseases of female reproductive organs as part of the Programme for Early Detection of Malignant Diseases is of great importance. In addition to this, planned health services for screening are free of charge for women in Macedonia.

Driven by the long term mission of the ECE Association to promote women's health and improve transparency and accountability of government institutions, ECE carried out an analysis of the degree of implementation of planned programme activities and funds planned in the Programme for Early Detection of Malignant Diseases in Macedonia for 2011 (01.01.2011 to 31.12.2011). The subject matter of analysis were activities planned within the framework of two programme components – component for early detection and prevention of diseases of female reproductive organs (pilot screening of cervical cancer) and component for organized screening of breast cancer. Findings of the analysis are presented in the same order, including first part on findings on activities related to cervical cancer and second part on activities related to breast cancer.

The analysis is based on data obtained from the Ministry of Health/Department for Preventive Health Care in reply to requests¹ for access public information².

¹ Six requests have been submitted to obtain public information containing 29 inquiries about the programme and financial implementation of the Programme for Early Detection of Malignant Diseases (component for early detection of breast cancer and cervical cancer)

The starting point of this analysis of the implementation of activities of both programme components, were activities planned in the 2011 programme (planned scope of implementation and planned budget), as well as amendments to the programme made on 18 May and 12 October 2011. The analysis uses the method of comparison of planned programme activities and funds for their implementation and of implemented programme activities and funds spent on their implementation.³

The goal of this analysis is to identify whether the activities were carried out as planned regarding type and scope, as well as to identify whether budget funds intended for the programme were spent for the purpose they were planned to or there are funds that remain unspent.

Apart from this, the analysis provides an overview of the movement trend of budget funds planned for the Programme for Early Detection of Malignant Diseases for the period between 2008 and 2012, as well as the share of the funds in the Central Budget, the MoH budget and the budget on health care for prevention in the same period. Also, using the same approach, we give a detailed overview of movement of funds to carry out activities on screening cervical cancer and breast cancer.

² Annex 1 of this analysis contains data obtained by the Ministry of Health which served as grounds for this analysis.

³ Annex 2 of this analysis contains the Programme for Early Detection of Malignant Diseases for 2011 and the Programmes for amending and modifying the early detection Programme for 2011.

FIRST PART – ACTIVITIES FOR EARLY DETECTION AND PREVENTION OF DISEASES OF FEMALE REPRODUCTIVE ORGANS FOR 2011

Conclusions

- the programme fails to promote a universal preventive health care and fails to note that gynaecological exams with PAP tests and cytological analysis of PAP test smears are free of charge for the targeted category of women.
- in 2011, planned screening for cervical cancer was not fully carried out, with 43% implementation of activities, in particular, only 11% of the programme budget.
- the Programme for Early Detection and Prevention of Diseases of Female Reproductive Organs in four pilot municipalities in RM for 2011, was modified twice, and the budget was reduced by 48%.
- apart from reducing funds by rebalancing the budget close to the end of the year, 89% programme budget was not spend for 2011 and there is no information about the reallocation of the programme funds.
- annual and quarterly reports of implementation of activities and funds of the 2011 programme have not been published, nor are available upon request for access to public information.

Recommendations

- the Ministry of Health should ensure universal application of programme measures, without limitations of the scope of users by age; it should cut down the period for repeated screening to 3 years; it should increase the number of PAP tests and cytological analysis to be carried out as part of the programme by taking into account the needs of certain vulnerable categories of women.
- the Ministry of Health should undertake measures to promote programme planned measures and to emphasise they are free of charge.
- the Ministry of Health should undertake measures for full implementation of measures and activities for early detection and prevention of cervical cancer.
- the Ministry of Health should increase the degree of efficiency in implementing programme activities by regularly meeting its liabilities towards the programme implementers (since the budget approved for 2011 was not spent, liabilities were transferred in 2012)
- the Ministry of Health should introduce a practice of regular and public reporting on implementation of planned activities, including explanation about unspent funds.
- the Ministry of Health should ensure that quarterly and final annual reports on programme implementation are available to the public, as well as to provide correct and precise presentation of the results from the programme implementation.
- the Ministry of Health, when adopting a Draft Programme for each of the health institutions that participate in its implementation, should set up a budget divided into categories and items, by harmonizing activities and funds for each participant separately.
- the Ministry of Health should harmonise the scope of activities and the funds available after each budget rebalance, by revising the whole programme and not only the financing part.

Findings of the analysis of implementation of activities for early detection of cervical cancer for 2011

The following measures and activities were planned and budgeted in the framework of this component of the Programme for Early Detection of Malignant Diseases for 2011:

- 1. Coordination of activities with other implementers, promotion of screening and organization of invitation for women to undergo screening,*
- 2. Additional gynaecological examinations with PAP tests at family gynaecologists (for women who have selected their family gynaecologist) and in hospitals (for women who have not selected family gynaecologist),*
- 3. Additional cytological analysis (overtime engagement, reagents and analysis in other laboratories),*
- 4. Data entry in installed software, invitation, analysis, reports and linking with hospitals.*
- 5. Coordination, data entry in the Register on Cervical Cancer, data analysis and reports on screening,*
- 6. Education for cytoscreeners throughout RM.*

The preventive programmes, including the Programme on implementation of activities for early detection and prevention of diseases of female reproductive organs – pilot screening for cervical cancer (Programme for Early Detection of Malignant Diseases), drafted by the Ministry of Health and approved by the Government of RM, have a purpose to reduce risks of diseases in certain vulnerable population groups, and prevention measures and activities should be free and universal. Measures planned in the 2011 Programme are intended only for women between 30 and 55, who live in four municipalities in Macedonia (Prilep, Gostivar, Sveti Nikole and Stip). Hence, measures should cover 30%⁴ of the total number of women of this age who live in the area of the four municipalities, i.e. 3%⁵ of the total number of women aged 30-55 living in Macedonia. The Programme on implementation of pilot screening for cervical cancer does not state that planned screening activities (PAP test and cytological analysis) for women aged 30-35 who have failed to have a PAP test in the past five years, are free of charge. On the other hand, if WHO recommendations are taken into account, according to which screening for cervical cancer is implemented within an interval of 3.4 to 5 years and to cover all women aged 19 to 65, the analysis demonstrates that in Macedonia, the maximum time interval has been taken as most appropriate to implement repeated screening of cervical cancer. This limits the access to planned services and preventive measures for both women aged 19-26 and 56-65, as well as to women who live in other parts of Macedonia. This situation is concerning if we take into account that measures for cervical cancer screening in the 2008 and 2009 programmes were universal for all women in RM aged between 19 and 65. A most prominent weakness of this programme is the failure to make a difference between women who have health insurance and those who do not, so the programme focuses on women who have or have not selected a family gynaecologist. Also the programme fails to take into account the needs of different categories of women (for e.g. rural women, women who live in unfavourable social and economic circumstances, Roma women, etc.). This programme, as well as other preventive programmes, should allow for measures and services to individuals who have restricted access, which is not the case here (the programme plans to implement additional PAP tests and cytological analysis for 30% of women

⁴ 11.000 women of total 35.610 women aged between 30 and 55 in four municipalities

⁵ 11.000 women of total 35.610 women aged between 30 and 55 – Census of the population, households and residences in the Republic of Macedonia, 2002.

aged 30-55 in the four municipalities, but it fails to define which group of women would benefit the most from the free of charge services).

Before we continue to present findings of this analysis of anticipated in comparison to implemented programme activities, it is of significance to mention certain conclusions regarding contents and structure of the programme we think need to be further improved for the purpose of correct and comprehensive understanding of the goal and the results expected from this programme.

Namely, the Programme for implementation of pilot screening for cervical cancer has uncovered a series of priority problems⁶ (organizational, systemic and other) to be overcome by proposing programme measures and continuous implementation. However, the 2011 programme allows for overcoming only several of the 11 priority problems (for e.g. timely detection of cervical cancer, decrease of the incidence of and death caused by cervical cancer, increased awareness of women about measures planned in the programme and prioritizing cervical cancer as a public health problem). Other priorities such as lack of funds for organized screening, lack of equipment and space, insufficient involvement of local self government in promoting female health, and so on, have not been covered in the 2011 programme and measures to overcome such problems have not been anticipated. In addition, some of the indicators to measure the degree of implementation of activities are actually not monitored in practice. For example, such indicators are the percentage of women who picked up their findings and the percentage of letters returned.

The financial part and the programme part contain no data for certain programme activities in terms of the planned scope for their implementation. For instance, the programme anticipates costs for individuals hired to enter data into the software, as well as for invitations, analysis, reports and linking with hospitals, but nowhere in the programme data can be found on how many individuals will be engaged to implement such activities or what would be the cost to hire them. Also the programme part anticipates training of 30 cytoscreeners (hospital employees with secondary medical degree – medical technicians), including matching budget in the financial part for implementation of trainings, however there is a failure to mention how many trainings have been planned or what would it cost to organize and implement a single training. The narrative part provides for organization and implementation of a media campaign to promote cervical cancer screening (item 9), but in the financial description, this component is not covered (the modifications in March 2011 saw this item removed and it is no longer existing in the narrative part).

In the course of 2011, this programme was modified twice (18 May and 12 October). Each modification of the programme brought about reduction of the degree of preciseness and clearness. Namely, upon the first intervention, the previously appointed task to the Public Health Institute to be a coordinator of the screening responsible for drafting quarterly and annual reports on implementation of the cervical cancer screening and on payment of funds for activities implemented by appointed Public Health Centres, was withdrawn in terms of drafting summary reports and payment of funds for the implementers. In addition the previously set procedure and mechanism for programme implementation became confusing and ambiguous. Also the modifications of October 2011 failed to present the planned number of PAP tests and cytological analysis to be carried out by the end of the year.

The analysis or the comparison of planned and implemented activities for 2011, according to data obtained from the Ministry of Health as a reply to requests for access to public information,

⁶ Component I – Activities for early detection and prevention of diseases of female reproductive organs in the Republic of Macedonia, including pilot screening for cervical cancer in four municipalities in RM for 2011, item 4.

point out to the fact that a large number of planned programme measures have not been fully implemented in 2011.

Analysis of planning and implementation of activities to carry out pilot screening for cervical cancer

Findings of the analysis of implementation of activities for pilot screening for cervical cancer will be presented according to the order they are listed in the 2011 programme as follows:

1) Coordination of activities with other implementers, promotion of screening and organization of invitation for screening⁷

The financial plan of the Programme on implementation of activities for early detection and prevention of diseases of female reproductive organs for 2011 anticipates for Public Health Centres, which have authority over the four pilot municipalities, to undertake the activities for coordination with other screening implementers, for promotion of the screening and for inviting women aged 30 to 55 living in the area they cover. This item contains three different sub-activities the programme fails to describe in terms of information on the planned scope of implementation, therefore it is not possible to determine the degree of the actual implementation of each activity and the funds spent for each implementation. Data provided by the Ministry of Health in reply to the requests for access to public information, regarding this item, cover only the number of invitations submitted in each pilot municipality separately, without specific indication of the amounts spent for the implementation of this activity under the same item. Another significant oversight in programme planning is the failure to anticipate the percentage of total number of women aged 30 to 55 in the pilot municipalities who would be invited for cervical cancer screening, leaving an impression that all women would be invited. If we compare the number of women who should have been invited with the adopted programme (table 1, column 2) with reference to women aged 30 to 55 living on the territory of the pilot municipalities, we may conclude that the programme was planned to cover only 30% of the women.

In 2011, 57% of the total number of women of the targeted age living in the four municipalities (table 1, column 6) were invited, by sending 63% more invitations compared to the number of women that was planned to be covered by the organized screening (table 1, column 4-3).

⁷ Public Health Centres (PHC) have been assigned with implementation of this activity, authorized for the areas of the Municipality of Prilep (PHC Prilep), Gostivar (PHC Tetovo, HCO Gostivar), Stip (PHC Stip) and Sveti Nikole (PHC Sveti Nikole).

Table 1 – Overview of number of women aged 30-55 living in the four municipalities, number of women planned to be covered by the screening and number of invited women

| Pilot municipality | Total number of women aged 30-55 (1) | Number of women planned to be covered by pilot screening | | Number of sent invitations (4) | Percentage of invited women of the total number of women aged 30-55 (6) | Difference in percentage between sent invitations and women to be covered by the screening according to latest changes (4-3) |
|--------------------|---|--|-----------------------------|---------------------------------------|--|---|
| | | Adopted budget (2) | Budget rebalance (3) | | | |
| Prilep | 12.000 | 4.000 | 3.014 | 12.000 | 100% | + 75% |
| Gostivar | 12.000 | 4.000 | 2.286 | 5.695 | 47% | +60% |
| Stip | 8.750 | 2.000 | 1.429 | 1.896 | 22% | +25% |
| Sveti Nikole | 2.860 | 1.000 | 800 | 787 | 28% | -2% |
| Total: | 35.610 | 11.000 | 7.529 | 20.378 | 57% | +63% |

According to data of the Ministry of Health provided in reply to the requests for access to public information, only 6.050 or 29% of women answered to the invitation for cervical cancer screening out of the total number of sent invitations (20.378).

In October 2011, total funds for implementation of this activity in the four municipalities were reduced by 31%⁸ due to the modifications and amendments to the programme. The Ministry of Health failed to provide information on the amount spent on this item during 2011.

For the purpose of identifying the continuity in the commitments of the Ministry of Health on implementing activities of the Programme for Early Detection and Prevention of Disease of Female Reproductive Organs for 2011, we monitored the trend of planning the funds for coordination with other screening implementers, for promotion of screening and for inviting women as stated in the 2012 Programme.

In 2012, programme activities again have a universal character, and are available to all women living in RM aged 24 to 60. This programme shall be implemented during a period of three years, so in 2012, it will cover women aged 24 to 35 years who have not undergone screening for cervical cancer in the past three years, but the difference now is that instead of the PHCs, this activity will be implemented by family gynaecologists. It is important to point out that the programme underwent three changes in 2012, so the budget for implementation of this item was reduced by 73% on average compared to 2011.

Planning of programme activities by the Ministry of Health in 2012 has pointed to variations in the scope of invitations and in the costs for sending them. Therefore, upon adoption of the programme, a budget of 500.000,00 Denars was anticipated, to invite 100.000 women for the cost of 50 Denars per invitation. With the third modification, a budget of 780.000,00 Denars was anticipated to invite 26.000 women for the cost of 30 Denars per invitation. This is an additional

⁸ By adopting the programme the Ministry of Health allocated a total of 2.850.000,00 Denars, which were reduced to 1.950.000,00 Denars with the modifications and amendments to the programme.

proof that planning of costs/funds for implementation of certain activities of the Ministry of Health fails to follow the proportional increase of the scope of planned activities. For instance, it is expected for the cost per invitation to increase if the general increase in prices is taken into account. Also planned funds for implementation of this activity are expected to be proportionate to the planned scope and planned costs.

2) Additional gynaecological exams with PAP tests at family gynaecologists for women who selected a family gynaecologist and hospitals for women who have not selected a family gynaecologist

The Programme for implementation of pilot screening for cervical cancer in four cities in 2011 anticipated having a total of 11.000 gynaecological exams with PAP tests⁹, but with the rebalance in October 2011, his number was reduced to 7.529 gynaecological exams with PAP tests¹⁰. This has reduced the number of women who will be able to receive free gynaecological PAP test by 32%¹¹.

According to data from the Ministry of Health provided as a reply to requests for access to public information, in 2011 there was a total of 6.050 gynaecological examinations with PAP tests in all four pilot municipalities. So, in 2011 there was a failure to carry out 45% of gynaecological examinations with PAP tests according to the initial plan or 20% gynaecological examinations with PAP test according to modifications of the initial plan.

The programme budget has anticipated 3.850.000,00 Denars for implementation of the planned number of gynaecological examinations with PAP tests (11.000 tests according to the initial implementation plan or 7.529 tests according to the modifications of the programme made in October 2011) for the price of 350,00 Denars per exam, or 32% less with the amendments and modifications of the budget programme. However even with the reduction of the scope of this activity and funds for its implementation, at the end 2011 funds that were not spent amounted to a total of 20% (table 2, column 2-3).

Table 2. Overview of planned and spent funds for implementation of gynaecological examinations with PAP tests

| Pilot Municipality | Budget adopted (1) | Budget rebalance (2) | Budget implemented (3) | Difference between the latest modifications of budget and funds spent (2-3) |
|---------------------------|---------------------------|-----------------------------|-------------------------------|--|
| Prilep | 1.400.000,00 | 1.055.000,00 | | |
| Gostivar | 1.400.000,00 | 800.000,00 | | |
| Stip | 700.000,00 | 500.000,00 | | |
| Sveti Nikole | 350.000,00 | 280.000,00 | | |
| Total: | 3.850.000,00 | 2.635.000,00 | 2.117.500,00 | 517.500,00 (20%) |

In only two months after the latest modifications of this programme in 2011, the 2012 budget for gynaecological exams with PAP tests was increased by 63%¹², with the number of exams

⁹ **Prilep** – 4.000; **Gostivar** – 4.000; **Stip** – 2.000 and **Sveti Nikole**– 1.000

¹⁰ **Prilep** – 3.014; **Gostivar** – 2.286; **Stip** – 1.429 and **Sveti Nikole** – 800

¹¹ **Prilep** – 25%; **Gostivar** – 43%; **Stip** – 29% and **Sveti Nikole** – 20%

¹² The budget of the Programme for implementation of screening for cervical cancer has been increased from 2.635.000,00 to 7.000.000,00 Denars

increased by 56%¹³, while the price for one gynaecological exam with PAP test was reduced by 20%¹⁴.

This is not a significant increase taking into account the fact that programme activities for 2012 are intended for women aged 24 to 35(148.198)¹⁵ living in 84 municipalities in Macedonia and the City of Skopje, i.e. 80 municipalities more in comparison to 2011, so it is recommended that the period for repeated PAP test is shortened (from 5 to 3 years). In the course of 2012, the programme was changed three times, with the last change bringing about reduction of 20% of the number of gynaecological exams with PAP test in comparison to the planned scope from the beginning of the year, reduction of the budget by 43% and lowering of the price of an exam by 29%.¹⁶

3) Additional cytological analysis (temporary engagement, reagents and analysis in a different laboratory)

The programme has anticipated implementation of 11.000¹⁷ additional free cytological analysis of smears taken during the PAP test for women aged 30 to 55 in the four pilot municipalities, who have not had gynaecological exams with PAP tests in the past five years. One can notice here that the number of implemented cytological analysis +/- failed tests, broken lab glasses, etc. – which is insignificant number, is assumed to be equal. This balance or equality of the number of PAP tests and the number of cytological analysis is disturbed by the modifications of the programme in October 2011.

Namely, the modifications of the programme in October 2011 anticipate 9%¹⁸ more PAP tests in comparison to cytological analysis planned for all four cities.

The modifications and amendments from October 2011 reduce the number of cytological analysis for all four pilot municipalities by 38% in comparison to the initially planned number when the programme was adopted.

¹³ In 2012, 25.000 gynaecological exams with PAP tests are planned, in comparison to 11.000 in 2011.

¹⁴ The cost of a gynaecological exam with PAP test has been reduced from 350,00 Denars in 2011 to 280 Denars in 2012

¹⁵ Census of the population, households and residences in RM, 2002

¹⁶ **January 2012:** 25.000 women, budget of 7.000.000,00 Denars and cost of 280 Denars per exam; **March 2012:** 25.000 women, budget of 5.000.000,00 Denars and cost of 200 Denars per exam; **July 2012:** 25.000 women, budget of 5.000.000,00 Denars and cost of 200 Denars per exam and **December 2012:** 20.200 women, budget of 4.040.000,00 and Denars and cost of 200 Denars per exam.

¹⁷ **Prilep** – 4.000; **Gostivar** - 4.000; **Stip** – 2.000 and **Sveti Nikole** - 1.000; cytological analysis.

¹⁸ **Prilep** – 3.014 PAP tests and 2.363 cytological analysis; **Gostivar** – 2.286 PAP tests and 2.250 cytological analysis; **Stip** – 1.429 PAP tests and 1.500 cytological analysis и **Sveti Nikole**– 800 PAP tests and cytological analysis.

Table 3. Overview of planned and implemented cytological analysis for 2011

| Pilot municipality | Number of cytological analysis in the adopted budget (1) | Number of cytological analysis according to budget rebalance (2) | Number of implemented cytological analysis (3) | Difference between the number of cytological analysis in the last budget modifications and the number of implemented cytological analysis (2-3) |
|---------------------------|---|---|---|--|
| Prilep | 4.000 | 2.363 | 3.274 | +911 |
| Gostivar | 4.000 | 2.250 | 489 | -1.761 |
| Stip | 2.000 | 1.500 | 1.510 | +10 |
| Sveti Nikole | 1.000 | 800 | 685 | -115 |
| Total: | 11.000 | 6.913 | 5.985 | - 928 (- 14%) |

In the course of 2011, a total of 14% of cytological analysis were failed to be implemented in comparison to the planned scope allowed by the modifications and amendments to the programme for all four municipalities. According to data from the Ministry of Health obtained in reply to the request for access to public information, presented in Table 3, some pilot municipalities saw an implementation of more cytological analysis in comparison to the planned scope. So, 911 cytological analysis more than the planned number were made in Prilep and 10 in Sveti Nikole.

If we compare the total number of PAP tests (6.050) and the total number of cytological analysis (5.985) in the course of 2011, we can conclude that a total of 2% (65) cytological analysis were made less in comparison to PAP tests.

In the course of 2011, of a total of 5.985 cytological analysis made, in 571 cases epithelial cell abnormalities (precancerous changes) were discovered. More precisely, in Prilep out of 3.274 cytological analysis, 252 (7.7%) cases had precancerous changes; in Gostivar out of 489 cytological analysis, 30 (6.1%) cases had precancerous changes; in Stip out of 1.510 cytological analysis, 186 (12,3%) cases had precancerous changes and in Sveti Nikole out of 685 cytological analysis, 103 (15%) cases had precancerous changes.

The above stated findings related to the planned scope of this activity inevitably reflect over the circumstances of the programme budget. Namely, modifications and amendments to the programme made in October 2011, planned 37% less funds in comparison to the initially planned amounts. However, even after budget reduction for this item, there still remained 14 % of unspent funds. In Gostivar this amounts to 79%, in Sveti Nikole 15%, whereas in Prilep and in Stip, expenditures were larger than funds planned in the budget (28% excess in Prilep and 10% in Stip)

Table 4. Overview of planned and implemented amount for cytological analysis

| Pilot municipality | Adopted budget (1) | Budget rebalance (2) | Budget implemented (3) | Difference between latest budget modifications and funds implemented (2-3) |
|---------------------|---------------------|----------------------|------------------------|--|
| Prilep | 1.600.000,00 | 945.000,00 | 1.309.600,00 | +28% |
| Gostivar | 1.600.000,00 | 900.000,00 | 195.600,00 | -79% |
| Stip | 800.000,00 | 600.000,00 | 604.000,00 | +1% |
| Sveti Nikole | 400.000,00 | 320.000,00 | 274.000,00 | -15% |
| Total: | 4.400.000,00 | 2.765.000,00 | 2.383.200,00 | -14% |

In only two months after the latest modifications and amendments of the programme in 2011, 46% less funds are planned for additional cytological analysis in 2012, despite the fact that the planned number of cytological analysis has increased by 73% in comparison to 2011. The cost for a single cytological analysis in two months has been reduced from 400 to 60 Denars.

4) Data entry into installed software, invitation, analysis, reports and linking with hospitals

The financial plan for the Programme for implementation of activities for early detection and prevention of diseases of female reproductive organs for 2011 anticipates activities for data entry into installed software, invitation, analysis, reports on screening implementation and linking with hospitals. This item contains five different sub-activities lacking information regarding the planned scope of their implementation, therefore making it impossible to identify the level of implementation of and funds spent on each activity. Also neither the narrative nor the financial parts of the programme contain any data about the entity responsible for implementation of these programme activities.

The Programme for implementation of activities for early detection and prevention of diseases of female reproductive organs in RM for 2011 anticipates an item for implementation of the activities for all four municipalities in a total budget amounting to 2.900.000,00 Denars¹⁹, which was reduced by 37% with the last modification in October 2011.

Data from the Ministry of Health, provided in the reply to requests for access to public information, contain no information about the degree of implementation of this activity or about the amounts spent for their implementation in the course of 2011.

These activities are no longer part of the 2012 programme. Instead, the 2012 programme anticipates activities on collection of findings from cytological laboratories, result analysis and result submission to the Public Health Institute of RM. Entities assigned for implementation of this activity are the ten Public Health Centres (PHCs) in RM, with funds planned for this purpose amounting to 40.000,00 Denars for each PHC (a total of 400.000,00 Denars). The first modification of the programme in March 2012 saw a reduction of funds by 75%, which on the other hand, in only three months (July 2012) increased by 67%.

¹⁹ **Prilep** – 1.000.000,00 Denars; **Gostivar** – 1.000.000,00 Denars; **Stip** – 500.000,00 Denars and **Sveti Nikole**– 400.000,00 Denars

5) Coordination, data entry into a Registry of cervical cancer, data analysis and reporting on the screening

The 2011 Programme assigns the task of screening coordination, data entry into a Registry of cervical cancer, data analysis and reporting about the course of screening to the Public Health Institute (PHI). Therefore the Ministry of Health planned funds in the amount of 500.000,00 Denars, or 100.000,00 Denars (80% less by modifying and amending the programme in October 2011).

The narrative part of this programme component (item 8.1) states that the PHI should provide a software, already provided for PHCs in the pilot municipalities where activities of this programme component were to be implemented for 2011, but the financial part of the programme contains no data on planned funds for software procurement.

According to data provided by the Ministry of Health as a reply to requests for access to public information, in the course of 2011, a total of 100.000,00 Denars were spent or 100% of planned funds according to programme modifications.

Responsibility for implementation of this activity, according to the 2012 programme, has been divided between the PHI and the Clinic for Gynaecology and Obstetrics, with a budget amounting to 500.000,00 Denars (250.000,00 Denars for each implementer). However, the subsequent modification of the programme in March 2012 saw cancelation of this activity and the budget reduced to only software procurement. 160.000,00 Denars were allocated for this purpose.

The Programme for 2012 adopted in January failed to anticipate funds for software procurement for the PHC. This jeopardizes the implementation of this activity in 2012 having in mind that only the four PHC have this software. This oversight was acknowledged and overcome in the modifications and amendments of the programme made in March 2012, by planning 720.000,00 Denars for software procurement (120.000,00 Denars for each of the remaining 6 PHCs).

The modifications and amendments made in July 2012 removed the funds for software procurement for the six PHCs in RM from the programme budget, but software procurement funds for the PHI have increased by 47% (from 160.000,00 Denars to 300.000,00 Denars).

6) Education for cytoscreeners throughout Macedonia

The 2011 Programme planned for training and education of cytoscreeners, however data presented in the narrative and in the financial part are not harmonized. The narrative part (item 10) plans for the cytological laboratory at the Clinic for Gynaecology in Skopje to be a training centre for 30 individuals with a degree from a secondary medical school – medical technicians, employed in the general hospitals in RM equipped with cytological laboratories (in the four pilot municipalities there are a total of 2 cytopathologists²⁰ and 3 cytologists²¹). Training would be carried out by national experts in the given area and one consultant from a reference laboratory from an EU country. For this purpose an item titled 'Education of cytoscreeners throughout Macedonia, organization of training, providing staff, trainers, space (reference laboratory) and supervision of other laboratories involved in screening and hiring foreign consultant' has been included in the financial part of the 2011 Programme (table 6), in the amount of 5.000.000,00 Denars, or 1.000.000,00 Denars according to amendments and modifications made in October 2011. The Ministry of Health briefly presented implementation of five separate sub-activities

²⁰ General Hospital Prilep

²¹ One in each GH Veles, GH Gostivar and GH Stip

within this item, failing to provide data about the cost of each activity and budget planned for their implementation.

In the course of 2011, the Ministry of Health prioritized the activities of the programme and having decided that training is not priority, this activity was postponed for 2012. This means that the previous budget planned was not fully implemented, and there was an excess of 1.000.000,00 Denars unspent.

This activity has not been planned at all for 2012.

Analysis of the financial implementation of activities for early detection and prevention of diseases of the female reproductive organs in Macedonia for 2011

The Ministry of Health, as a reply to requests for access to public information, provided specific data only regarding the total amount of funds spent out of the total budget of the individual pilot municipalities.

The data from total funds implemented for separate activities, presented above in the tables, have derived from data provided by the Ministry of Health regarding the scope of implementation in 2011, for individual activities in individual pilot municipalities and the cost per service provided for some activities. Specific data for funds spent for implementation of individual planned activities were not provided by the Ministry of Health.

In 2011, modifications and amendments of the programme made in October reduced the budget for implementation of activities for early detection and prevention of cervical cancer in women in RM by 48%.

So, in the course of 2011, the Ministry of Health paid only 43% of the total budget funds intended for pilot screening for cervical cancer, that is, the assigned programme implementers (PHCs, PHI, family gynaecologists and the Clinic for Gynaecology and Obstetrics) implemented less than half of the funds and activities planned. Hence, 57% of the budget for this programme component was not spent.

Table 5. Overview of total planned and implemented funds per implementer

| Implementer | Adopted budget (1) | Budget rebalance (2) | Implemented budget (3) | Difference between latest budget modifications and funds implemented (2-3) |
|--|---------------------------|-----------------------------|-------------------------------|---|
| Prilep | 5.100.000,00 | 4.000.000,00 | 2.424.350,00 | 1.575.650,00 (39%) |
| Gostivar | 5.000.000,00 | 2.500.000,00 | 657.900,00 | 1.842.100,00 (73%) |
| Stip | 2.500.000,00 | 1.700.000,00 | 710.500,00 | 989.500,00 (58%) |
| Sveti Nikole | 1.400.000,00 | 1.000.000,00 | 515.250,00 | 484.750,00 (48%) |
| Public Health Institute | 500.000,00 | 100.000,00 | 100.000,00 | 0,00 (0%) |
| Ministry of Health in cooperation with the Clinic for Gynaecology and Obstetrics and other PHOs | 5.000.000,00 | 1.000.000,00 | 0,00 | 1.000.000,00 (100%) |
| Total: | 19.500.000,00 | 10.300.000,00 | 4.407.500,00 | 5.892.000,00 (57%) |

There is interesting data in the budget, according to the first modification and amendment of the programme for 2012 (March), which anticipates funds for payment of liabilities from the previous year (2011) in the amount of 3.252.000,00 Denars. In July 2012, this item was reduced to 100.000,00 Denars. Liabilities towards the PHI appear also in the third rebalance of the programme made in December 2012.

With reference to this data, it may be concluded that in 2011 the Ministry of Health spent only 1.155.500,00 Denars or 11% of the budget programme. This implies that 89% of the budget funds planned for 2011 were not spent.

SECOND PART - ACTIVITIES FOR EARLY DETECTION AND PREVENTION OF BREAST CANCER IN WOMEN FOR 2011

Conclusions

- the programme fails to promote universal preventive health care and fails to state that mammographic exams were free of charge for a certain category of women
- the planned organized screening for breast cancer was not implemented in 2011 due to lack of trained staff to carry out the screening, but material for mammographic exams was procured
- the programme for organized screening for breast cancer was modified twice in the course of the year, reducing the budget by 34%
- in addition to reduction of funds caused by the rebalances at the end of the year, there were still 54% of programme budget that was not spent
- there is no information about the activities the budget funds were reallocated from the 2011 Programme
- annual and quarterly reports on implementation of activities and funds of the 2011 Programme are not published, nor are they available upon request for access to public information
- Ministry of Health data contained in the replies of the requests for access to public information, regarding activities and budget implemented, used in this analysis, differed from data on liabilities paid and budget implemented presented in the 2012 programme (visible from items on unpaid liabilities for 2011)

Recommendations

- the Ministry of Health should ensure universal application of programme measures, without restricting the scope of users by age; number of mammographic exams in the last two years, and taking into account the needs of different vulnerable categories of women
- the Ministry of Health should undertake measures for promotion of programme anticipated measures and to emphasise they are free of charge
- the Ministry of Health should undertake measures to fully implemented planned activities and measures for early detection and prevention of breast cancer
- the Ministry of Health should increase the degree of efficiency in implementing programme activities, that is to regularly pay liabilities to programme implementers (since the approved budget for 2011 was not spent, but unpaid liabilities were transferred in 2012)
- the Ministry of Health should introduce a practice of regular and public reporting about implementation of planned activities, including explanation about funds not spent
- the Ministry of Health should ensure public access to quarterly and final annual reports on Programme implementation, as well as provide correct and precise presentation of results from implementation of activities
- the Ministry of Health upon adoption of a draft Programme for each health institution involved in the implementation should set up a budget by categories and items, by harmonizing the activities and funds for each involved party separately

- the Ministry of Health after each budget rebalance, should harmonise the scope of activities and funds available, which means it should revise the whole programme and not only the financial part

Findings of the analysis of implementation of activities for breast cancer for 2011

The following measures and activities have been planned within the framework of this component in the Programme for Early Detection of Malignant Diseases for 2011:

- 1. Procurement of material for mammographic exams (Rtg films, fixer and developer),*
- 2. Identifying and levelling the quality of mammographic picture of a breast,*
- 3. Processing and analysis of data,*
- 4. Training of 12 specialists radiologists and 12 radiology technologist for breast screening,*
- 5. Organization and invitation of women to be covered by the screening and analysis of findings,*
- 6. Costs for histopathological diagnosis,*
- 7. Costs for covering participation costs for surgical intervention.*

Preventive programmes, including the Programme on Early Detection of Malignant Diseases, drafted by the Ministry of Health and adopted by the Government of RM, have an objective to reduce the risk of disease in certain vulnerable population groups, with free and universal planned measures and activities. The 2011 Programme is intended for 35.000 -40.000 women, which is identical with the number of women who underwent screening in 2009. The Programme for organized screening for breast cancer fails to emphasise that mammographic exams for women aged 50 to 70, who have not undergone mammographic tests in the past two years, are free of charge. On the other hand, criteria that should be met by women in order to be eligible to use this programme service are limiting, hence the preventive measures do not have a universal character. It is not clear why women from other age groups are not covered by the 2011 Programme, including why the programme services may be used only by women who have not undergone mammographic tests in the past two years. This is particularly significant since standard rules for mammography state that women aged 50 to 70 should have a mammography every year. Apart the limitations in terms of age groups and the number of mammographic tests for the past two years, users of this programme are limited in using preventive measures in terms of the number of mammographic facilities stated as implementers of this measure.

Namely, the Programme anticipates screening in only 10²² of the total of 17 mammography facilities²³ in our country. This programme fails to take into account the needs of different categories of women (for instance, rural women, women living in unfavourable socio-economic

²² PHI GH Strumica, PHI GH Veles, PHI GH Vevcani, PHI GH Struga, PHI GH Stip, PHI GH Prilep, PHI GH Kratovo, PHI GH Kicevo, PHI Health Office Zelezara and PHI CGH 8th September.

²³ Polyclinic Cair, Polyclinic Bukurest, HO Vevcani, HO Resen, Health Office Zelezara – Skopje, Polyclinic Jane Sandanski – Skopje, HO Kratovo, GH Strumica, GH Stip, GH Veles, GH Prilep, CH Bitola, UC on Radiology – Skopje, HO Berovo, HO Pehcevo, GH Kicevo, GH Gostivar, CH Tetovo, GH Kumanovo and GH Gevgelija.

circumstances, Roma women, etc.). Consequently, it fails to set specific measures to guarantee access to services of all women.

Before we turn to presenting the findings of the analysis of anticipated programme activities in comparison to implemented activities, certain conclusions should be mentioned regarding content and structure of the programme we consider to be necessary to further promote for the purpose of correct and comprehensive understanding of the goal and results expected from this programme.

Namely, the Programme on organized screening for breast cancer lacks information to justify proposed measures and the intensity of implementation of activities, that is, there is no information related to the risk factors for breast cancer, explanation about the frequency of this disease in RM, the basic methods of diagnostic procedure and types of methods to be applied for women of different age groups, the intensity recommended for mammographic tests according to their age, vulnerable categories of women related to breast cancer, etc. It also lacks information regarding the manner and the procedure to implement the breast cancer screening, i.e. there is no description of the screening methodology.

The Programme on breast cancer screening for 2011 contains no information about the general and specific goals to be achieved by implementation of planned activities. It fails to define indicators to measure the degree of implementation of activities as set in the Programme.

Measures and activities anticipated in the Programme's two parts, the programming part and the budget part differ. For instance, the programme budget includes an implementer of a programme activity under the title *Commission on Evaluation of the Quality of Work of Breast Centres*, which was established by the Ministry of Health in 2009, however, the Programme contains no information in any of its sections about the authority, the operations and the method of work of this commission.

Neither the programming nor the financial part of the Programme contains data to refer to the planned scope of each anticipated measure. For instance, the programme has planned for procurement of materials – Rtg films, fixers and developers, but quantities of each type of material or the planned unit price of the materials is nowhere stated in the Programme. The same goes for all other measures planned in the programme budget.

Each modification of the Programme contributes to reduction of preciseness and clarity. In 2011 the programme was changed twice. When introducing modifications and amendments to the Programme, only the financial part was changed, without them being reflected in the narrative part, so the narrative part of the initial programme adopted was not changed and remains valid.

The analysis or the comparison of planned and implemented activities for 2011, according to data obtained by the Ministry of Health in a reply to requests for access to public information, point out to the fact that measures for breast cancer screening have not been implemented for 2011. The following activities were not implemented at all (activities listed according to their order in the programme):

2. *Identifying and levelling the quality of mammographic picture of a breast,*
3. *Processing and analysis of data,*
4. *Training of 12 specialists radiologists and 12 radiology technologist for breast screening,*
5. *Organization and invitation of women to be covered by the screening and analysis of findings,*
6. *Costs for histopathological diagnosis,*
7. *Costs for covering participation costs for surgical intervention.*

Hence, funds planned in the budget to implement the above mentioned activities were not spent due to failure to implement them (see table 1, column 3). The issue is raised why participation costs were not reimbursed for surgical intervention for breast cancer treatment, in cases when according to the HIFM report on treatment per Diagnostically related groups in Macedonia, there were 513 large procedures for malignant breast conditions in 2011.

In 2011, according to the replies provided by the Ministry of Health, only one activity was carried out. This is procurement of material for mammographic exams – Rtg films, fixers and developers, which has been distributed in 17 mammographic facilities in Macedonia. The reply of the Ministry contains no data on the quantity and the cost of the procured material.

The analysis of the degree of implementation of anticipated funds for measures and activities planned in this Programme for 2011, point out to several conclusions. A budget amounting to 14.720.000,00 Denars has been planned for implementation of the screening as described in the 2011 Programme, but as a result of modifications and amendments, it was reduced in the course of the year by 34% falling to an amount of 9.720.000,00 Denars (table 1, column 2). In addition to this reduction, more than 54% of the rebalanced budget was not spent by the end of the year. If a comparison is made between the initially adopted budget of the Programme and the funds spent by the end of the year (column 1 and column 3), one may conclude that 68% of the initial budget were not spent, which on the other hand, may point out to inappropriate financial and/or organizational planning of implementation of anticipated measures and activities. In the course of 2011, only 4.495.752,00 were spent for procurement of material for mammographic tests – Rtg films, fixer and developer (see table 1, column 3), which is 99% of budgeted funds for this purpose. There is no reply/explanation about the reallocation of the remaining funds planned for this Programme.

The adopted modification and the rebalance of the Programme in October 2011, fully removed the activity under item 5 reading organisation and invitation of women to be covered by the screening and analysis of results obtained. This points out that in October it was officially decided not to carry out a screening in the course of 2011.

Findings of the analysis of implementation of planned measures and funds of the Programme in comparison with those actually implemented, point out to a disruption in the implementation of the activities for breast cancer screening in the course of 2011, contrary to the continuous implementation seen from 2007 until 2010. This situation of disruption of this preventive measure has been explained by the need of training for radiology technologists and specialists radiologists employed in the public health institutions to carry out the screening, or the lack of trained staff to carry out breast cancer screening. Therefore the Ministry of Health announced that screening would continue in 2012 after the necessary training is implemented. In this case the issue is raised of who were and to what extend were the individuals trained for the screening in the period between 2007 and 2010.

Failure to implement the budget and matching programme activities directly impacts health of women in Macedonia, since it prevents application of the guaranteed right to preventive health services for early breast cancer detection. This practically implies that women, who were intended to use the measures, failed to be screened or had the exam which they paid themselves for. Therefore if the anticipated number for 2011 was 35-40.000 (who should have undergone free mammography test) actually paid for the service, it means that the HIFM generated revenues in the amount up to 12.250.000,00 Denars (35.000 women) or 14.000.000,00 Denars (40.000 women). Since organized screening was not carried out in 2011, it points out to the conclusion that the material procured is stored in the 17 mammography facilities or was used for commercial mammography tests.

Table 1. Overview of planned and spent funds of the budget of the Programme for Implementation of Organised Breast Cancer Screening for 2011 per items

| Number | Name of item/Preventive measure | Adopted budget (1) | Budget rebalance (2) | Implemented budget (3) | Difference between latest budget modifications and implemented funds (2-3) |
|---------------|---|-------------------------------|---------------------------------|-----------------------------------|---|
| 1. | Procurement of material for mammographic tests (Rtg films, fixer and developer) | 6.000.000,00 | 4.500.000,00 | 4.495.752,00 | 4.248,00 |
| 2. | Identifying and levelling quality of mammographic picture of breast | 100.000,00 | 100.000,00 | 0,00 | 100.000,00 |
| 3. | Data processing and analysis | 250.000,00 | 250.000,00 | 0,00 | 250.000,00 |
| 4. | Training of 12 specialists radiologists and 12 breast screening technologists | 5.000.000,00 | 2.500.000,00 | 0,00 | 2.500.000,00 |
| 5. | Organization and invitation of women to be covered by the screening and analysis of findings | 1.000.000,00 | 0,00 | 0,00 | 0,00 |
| 6. | Costs for histopathological diagnosis Setting 700 histopathological diagnosis (biopsy with finding = 600,00 Denars) | 420.000,00 | 420.000,00 | 0,00 | 420.000,00 |
| 7. | Costs to cover participation in payment of surgical interventions 150 surgical interventions for the price of 13.000,00 Denars | 1.950.000,00 | 1.950.000,00 | 0,00 | 1.950.000,00 |
| 8. | Total: | 14.720.000,00 | 9.720.000,00 (100%) | 4.495.752,00 (46%) | 5.224.248,00 (54%) |

Driven by the desire to identify the commitment to and the continuity in implementation of this type of activities by the Ministry of Health, we analysed activities planned in the 2012 Programme. It covers the same seven activities as the 2011 Programme, but at a lesser degree. This programme and the activities related to breast cancer underwent two changes in the course of 2012 (March and July 2012) or two rebalances which practically modified the contents of the 2012 Programme. Instead of the initial seven activities, this programme was reduced to covering liabilities for activities implemented before 2012.

Namely, modifications and amendments of the programme made in March 2012 anticipated items to cover unpaid liabilities for activities implemented in 2011 such as unpaid liabilities for procured materials for mammographic screening in 2011 in the amount of 4.495.753,00 Denars; liabilities towards UC of Radiology and Oncology for histopathological analysis in the

amount of 420.000,00 Denars; and liabilities towards UC of Thoracic and Vascular Surgery for surgical intervention to remove breast tumours in the amount of 1.950.000,00 Denars. The second rebalance of this programme in July 2012 also anticipated unpaid liabilities for activities in 2011 such as unpaid liabilities for materials procured for mammographic screening in 2011 in the amount of 2.132.000,00 Denars and liabilities towards the Public Health Institute of RM for implementation of the screening in the amount of 250.000,00 Denars.

These findings give the impression that in 2011 the Ministry of Health carried out the planned activities for 2011, but could not pay for them in the current year. This is completely contrary to the reply we received from the Ministry of Health regarding the 2011 Programme implementation, which states that in 2011, only procurement of materials for mammographic exams was completed (see table 2).

Table 2. Comparative overview of data on budget implemented for 2011 (source: Ministry of Health) and unpaid liabilities for 2011 presented in the 2012 Programme

| Number | Name of item/Preventive measure | Activities implemented in 2011 according to data obtained from the MoH | Activities implemented in 2011 according to data presented in the 2012 Programme |
|--------|--|--|--|
| 1. | Procurement of material for mammographic tests (Rtg films, fixer and developer) | 4.495.752,00 | 4.495.753,00/2.132.000,00 |
| 2. | Identifying and levelling quality of mammographic picture of breast | 0,00 | 0,00 |
| 3. | Data processing and analysis | 0,00 | 250.000,00 |
| 4. | Training of 12 specialists radiologists and 12 breast screening technologists | 0,00 | 0,00 |
| 5. | Organization and invitation of women to be covered by the screening and analysis of findings | 0,00 | 0,00 |
| 6. | Costs for histopathological diagnosis | 0,00 | 420.000,00 |
| 7. | Costs to cover participation in payment of surgical interventions | 0,00 | 1.950.000,00 |

If the stated unpaid liabilities for activities implemented in 2011 are paid for, it would mean that the 2011 programme was almost fully implemented (95% in reference to funds planned with the rebalance in October 2011). However, on the other hand, this would mean that the 2012 Programme covers no budgeted funds for implementation of this preventive measure for 2012. This is particularly important if we take into an account that in 2012 the training for expert screening staff has not been budgeted, although it was stated by the Ministry of Health to be a prerequisite to start this programme.

THIRD PART – ACTIVITIES TO IMPLEMENT A MEDIA CAMPAIGN, PROMOTION OF ORGANIZED SCREENING AND COOPERATION WITH THE NONGOVERNMENTAL SECTOR

Conclusions

- the Ministry of Health and the assigned implementers of the Programme for Early Detection of Malignant Diseases in 2011 failed to implement activities to promote the Programme

Recommendations

- the Ministry of Health should fully organise and implement activities planned for promotion of the Programme for early detection of malignant diseases, in order to inform the population on their rights and opportunities to use free programme measures and to raise the awareness of the public about the significance of the measures.

Findings of the analysis of planned and implemented activities and budget to promote the Programme for Early Detection of Malignant Diseases

The Programme for Early Detection of Malignant Diseases planned measures and activities to inform the population about programme activities and to raise the awareness of the public about the significance of the three types of screening planned in the programme (screening for cervical cancer, colon cancer and breast cancer).

The following has been planned:

- Activities for media promotion and education of the population about the needs for preventive exams for early detection and prevention of malignant diseases;
- Screening promotion by developing and distributing information flyers and education brochures for education of the population about the needs for preventive exams for early detection and prevention of malignant diseases; and
- Campaign to raise the awareness of the population, organization of workshops in rural areas about the needs for preventive exams (PAP tests, mammography and FOB tests).

The Ministry of Health, planned 1.780.000,00 Denars in the programme budget for promotion activities (1.280.000,00 Denars for PHI which will implement the first two activities and 500.000,00 for nongovernmental organizations which will implement the third activity). The funds dropped to 500.000,00 Denars when the programme was modified and amended in October 2011. Only the second activity remained in the programme to be implemented, whereas the other two were removed.

According to data provided by the Ministry of Health as a reply to the requests for access to public information, promotional activities were not implemented in the course of 2011 and the planned funds in the amount of 500.000,00 were not spent.

For 2012, promotional activities were only planned in the initial version of the programme on screening of cervical cancer. The budget of this component contained a planned amount of 100.000,00 Denars for a campaign to be implemented by the PHI to raise the awareness of the public about the need for preventive PAP tests to be performed by family gynaecologists. The first subsequent modification of the programme for 2012 fully removed promotional activities from the programme.

Fourth part – analysis of the financial planning in the Programme for Early Detection of Malignant Diseases in the period between 2008 and 2012

This part of the analysis provides a detailed review of the financial planning and movements of funds in the budgets of the Ministry of Health, Preventive Health Care, the Programme of Early Detection of Malignant Diseases, funds for implementation of activities for early detection and prevention of diseases of female reproductive organs (cervical cancer) and for implementation of organized breast cancer screening for the period between 2008 and 2012. The analysis gives a view of the trend of movement of funds in individual budgets; it presents their average share in the Central Budget and the MoH budget, as well as the budget for health care for prevention, and it presents the average share of funds in the total gross domestic product in the period between 2008 and 2012.

This analysis compares budgets by using data of the annual account of the Central Budget and data on the implemented budget of the Ministry of Health.

In the analysis we also provide a presentation of the sources for financing the Programme for Early Detection of Malignant Diseases.

Conclusions

- expenditures in the budget of the Ministry of Health increase continuously, but amounts of funds to be implemented have been dropping from year to year in the period between 2008 and 2012
- the budget for preventive health care has an average of 0.35% share in the Central Budget and 23.63% share in the Ministry of Health budget in the period between 2008 and 2012
- in contrast to the growing trend of the Ministry of Health budget, preventive health care has seen a downward trend of annual decline of 7%
- funds for preventive health care in the period between 2008 and 2012 have dropped by 32,44%
- the Programme for Early Detection of Malignant Diseases has undergone frequent modifications and amendments (it has been changed for nine times since 2008 until 2012), which is more than the modifications made to the MoH budget (it has been changed for five times since 2008 until 2012)
- funds for implementation of organized breast cancer screening are constantly dropping (in 2012 they were reduced by 27% in comparison to 2008), yet funds for organized cervical cancer screening in 2012 are increased by 0,85% in comparison to 2008 and show a trend of frequent changes
- the annual accounts of the Ministry of Health contain general data on the budget implementation but lack data on budget implemented per individual budget user (except the annual account for 2010)

Recommendations

- the Ministry of Health should follow the principle of progressive planning of funds both in the total budget of the Ministry of Health as well as in the budgets of Programmes for health care for prevention, having minimal difference between revenues and expenditures (to avoid cumulative budget deficit)

- the Ministry of Health should increase transparency and accountability regarding financial operations, by publishing the budget of the Ministry including data about its implementation in monthly, quarterly, 6-months and annual reports.

- the Ministry of Health should develop a detailed annual account for the budget, including presentation of implemented amounts for each budget user and for each item of the budgets of budget users (in all parts of the budget – general, individual and development part). This is of particular importance for all sub-programmes in the budget of the Ministry of Health.

Findings of the Analysis of the Financial Planning for the Programme

a) Estimated Revenue and Expenditure of the Ministry of Health

The expenditure of the Ministry of Health for the period 2008-2012 (taking into consideration the amounts of each of the budgets adopted and amended during this period) feature an average nominal increase of 9,82%²⁴. Contrary to the increasing trend of budget expenditure for the MoH, the revenue has experienced a downward trend. Namely, the estimated revenue has nominally decreased and is estimated to be an average of 2.31%²⁵. Therefore, the continuous gaps between revenue and expenditure in the annual budgets for the MoH and the planning of activities whose funding exceeds available resources, is a conscious effort leading to the creation of an ongoing cumulative deficit, creating an ever wider gap between the revenue and the expenditure in the Budget of the Ministry of Health.

The estimated expenditure in the MoH Budget for the 2008-2012 period equals an average of 0.52% of Macedonia's GDP. On the other hand, the MoH Budget's deficit during the same period of time was 0.37% of the total GDP for the Republic of Macedonia.

If we take into consideration the general increase in prices and the decrease in the value of the Macedonian Denar, i.e. the inflation rate, the above circumstances will prove different. While expenditures in the 2008-2012 MoH Budgets, show an average real growth of 10,44%²⁶, the revenues, on average, have been reduced by -1,61%²⁷ or 0,63 percentile points more than the

²⁴ Nominal increase of the MoH Budget according to years: **2008 Budget Rebalance /2008 adopted budget – (+10,22%); 2009 adopted budget/2008 Budget Rebalance – (-1,9 %); 2009 First Budget Rebalance/2009 adopted budget – (+5,51%); 2009 Second Budget Rebalance /2009 First Budget Rebalance – (-16,56%); 2010 adopted budget/2009 Second Budget Rebalance – (+42,09%); 2010 Budget Rebalance/2010 adopted budget – (-13,96%); 2011 adopted budget/2010 Budget Rebalance – (+21,97%); 2012 adopted budget/2011 adopted budget – (+43,42%); 2012 Budget Rebalance/2012 adopted budget – (-2,44%)**

²⁵ Nominal increase of the revenue of the MoH Budget for the following years: **2008 Budget Rebalance/2008 adopted budget – (+25,44%); 2009 adopted budget/2008 Budget Rebalance – (-40,79%); 2009 First Budget Rebalance/2009 adopted budget – (+13,74%); 2009 Second Budget Rebalance/2009 First Budget Rebalance – (-9,71%); 2010 adopted budget/2009 Second Budget Rebalance – (+1,14%); 2010 Budget Rebalance /2010adopted budget– (+10,52%); 2011 adopted budget/2010 Budget Rebalance – (-52,16%); 2012 adopted budget/2011 adopted budget – (+33,45%); 2012 Budget Rebalance /2012 adopted budget – (-2,43%)**

²⁶ Real growth of expenditure of the MoH Budgets for the following years: **2008 Budget Rebalance/2008 adopted budget– (+10,22%); 2009 adopted budget/2008 Budget Rebalance – (+6,66%); 2009 First Budget Rebalance /2009 adopted budget – (+5,51%); 2009 Second Budget Rebalance/2009 First Budget Rebalance – (-16,56%); 2010 adopted budget/2009 Second Budget Rebalance– (+40,69%); 2010 Budget Rebalance/2010adopted budget – (-13,96%); 2011 adopted budget/2010 Budget Rebalance – (+20,21%); 2012 adopted budget/2011 adopted budget – (+43,69%); 2012 Budget Rebalance/2012 adopted budget – (-2,44%)**

²⁷ Real increase in revenue in the MoH budgets for the following years: **2008 Budget Rebalance/2008 adopted budget – (+25,44%); 2009 adopted budget/2008 Budget Rebalance – (-28,96%); 2009 First Budget Rebalance /2009 adopted budget – (-13,74%); 2009 Second Budget Rebalance/2009 First Budget Rebalance – (-9,71%); 2010 adopted budget/2009 Second Budget Rebalance – (-1,26%); 2010 Budget Rebalance/2010 adopted budget – (+10,54%); 2011 adopted budget/2010 Budget Rebalance – (-55,61%); 2012 adopted budget/2011 adopted budget – (+33,77%); 2012 Budget Rebalance /2012 adopted budget – (-2,43%)**

nominal growth of the expenditures, which are set to 0,70 percentile points less, compared to the nominal reduction in the revenues.²⁸

While the Central Budget shows increasing trends in the allocation of the funding (revenue plus expenditure), the share of MoH Budget funds within the Central Budget seems insignificant, i.e. amounting to 0.44% in 2008 and 0.42% in 2012 (with the Budget Rebalance) in terms of revenue, and 1.21% in 2008 and 3.34% in 2012 (with the Budget Rebalance) in terms of expenditure.

Graph 1. Trends of total estimated revenue and expenditure in the MoH Budget



According to the final balance sheet data for the 2011 Central Budget,²⁹ 26%³⁰ less revenue and 15%³¹ less expenditure was incurred compared to the allocations forecasted in the budget for Ministry of Health. While, according to the data in the 2010 Central Budget balance sheet³² there was less than 35%³³ revenue and less than 13%³⁴ expenditure in comparison to the allocations projected during the Budget submission.

b) Preventive Health Care Budget

Preventive health care forms separate component within the budget of the Ministry of Health, covering 9 other subcomponents for primary and secondary prevention which target different population groups. Along these lines, the Programme for Early Detection of Malignant Diseases is a subcomponent to the Budget for preventive health care. If we consider the budget allocations intended for preventive medical care we can conclude that such funding forms an insignificant part in the total funding provided by the State in its Central Budget (on average a

²⁸ The data clarified in this paragraph are calculated according to the inflation rate for 2012 as provided by the National Bank of Macedonia statistics. It must be emphasized that such rate is unrealistic in a period featuring general and ongoing increase in the prices of commodities. The data is adopted as such since there are no other publicly available data for 2012, in terms of the monthly inflation rates.

²⁹ The 2011 balance sheet only provides items regarding total incurred revenue and expenditure for the MoH Budget and no data exist regarding execution of individual MoH Budget items.

³⁰ Estimated revenue - 424.521.000 MKD, Incurred revenue - 315.110.848 MKD

³¹ Estimated expenditure - 3.104.708.000,00 MKD, Incurred expenditure - 2.648.433.292,00 MKD

³² The 2011 balance sheet only provides items regarding total incurred revenue and expenditure for the MoH Budget and no data exist regarding execution of individual MoH Budget items.

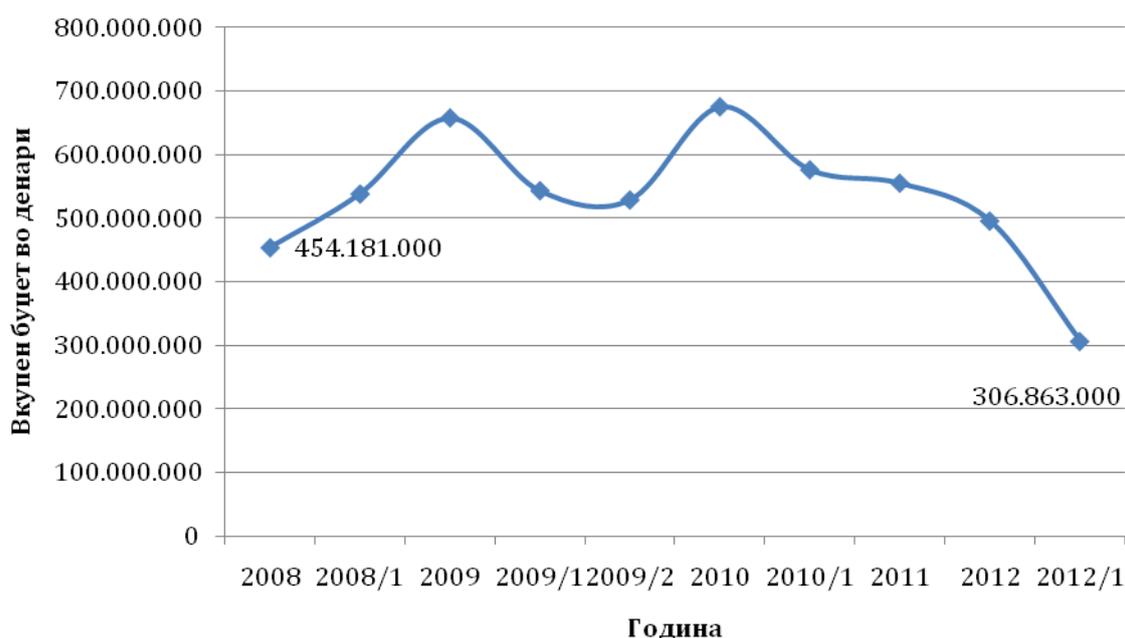
³³ Estimated revenue - 424.521.000 MKD, Incurred revenue - 315.110.848 MKD

³⁴ Estimated expenditure - 3.104.708.000,00 MKD, Incurred expenditure - 2.648.433.292,00 MKD

share of 0,35% for the 2008-2012 period) and it is approximately one quarter of the total budget for the MoH (23,63%). The preventive health care budget for the 2008-2011 period³⁵ is calculated at an average of 0.14% of the total GDP of the Republic of Macedonia.

During the course of 2008 to 2012, the practice of increasing the total available funding for spending in the Ministry of Health, as well as the increase in the volume of its activities, refers only to the total budget for the MoH and it does not appear as a trend in the individual sub-items (Programmes) of this Budget. This means that the funding from the Preventive Medicine Budget (in addition to the nine³⁶ Programmes contained therein) during the period of our analysis, has been estimated to have decreased at an annual average rate of 7%³⁷. Thus the preventive health care funding for 2012 (with the final Central Budget Rebalance) appears to have decreased by 32.44% in comparison to funds provided in the 2008 Budget (as adopted in 2008).

Graph 2. 2008-2012 Distribution of Preventive Medical Care funds



According to the data published in the Balance Sheet for the 2010 Central Budget³⁸ out of all allocated funds for implementation of preventive health care tasks, 15% remain unspent when compared to the total allocated funds provided in the 2010 Budget Rebalance, or 27% when compared to the 2010 Budget as adopted in Parliament.

³⁵ 2011 is considered as the ultimate year since the State Statistical Office only provides GDP estimates until 2011.

³⁶ The greatest share in the total Preventive Medicine Budget of the Ministry of Health for the 2008-2012 period is given to the Programme for Compulsory Immunization of the Population, amounting to approximately 42%.

³⁷ This percentage is a simple arithmetic mean calculated on the basis of the nominal growth rate out of the total available funding for preventive care in the Budget of the MoH, including those Budgets as initially adopted and those budget rebalances performed each year between 2008 and 2012.

³⁸ This finding is based merely on the data contained in the 2012 Central Budget balance sheet, since the rest of the balance sheets (2008, 2009 and 2011) do not differentiate between State Budget Beneficiaries and their respective functions, providing only information referring only to the totality of the execution of the funds, divided among individual Budget Beneficiaries.

c) Budget for the Programme for Early Detection of Malignant Diseases

When considering the share of funds provided for the Programme for the Early Detection of Malignant Disease within the Budget for preventive health care, i.e. comparing the budget allocations for the MoH and the Central Budget, two trends became apparent. Firstly, the share of this Programme in each of the above mentioned annual budgets seems minimal, and secondly, in addition to the insignificant share, the funding for this Programme is continuously dropping.

The average share of the funding for the Programme for the Early Detection of Malignant Diseases in the total expenditure of the 2008-2012 Central Budgets is equal to 0.02% (also taking into consideration the share of this Programme in terms of adopted and rebalanced budgets), and this share in the total expenditure incurred by the Ministry of Health is estimated at 1.04%. The funding for preventive medicine only allocates an average of 4.77% for spending on this Programme. The funding for the Programme for the Early Detection of Malignant Diseases is estimated at 0,006% of the total GDP for Macedonia during the period of our analysis.

Most of the funds for performing the activities of the 2008-2012 Programme for the Early Detection of Malignant Diseases were allocated by the MoH in 2011 (see Graph 3). Therefore, in 2011 this Programme achieved its peak level in terms of the share in the preventive medicine budget, amounting to 9%. Such an increased observed in 2011 amounting to 17.000.000,00³⁹ MKD, when compared to the final 2010 Budget Rebalance is due to the introduction of activities for performing organized screening for Colorectal Carcinoma⁴⁰.

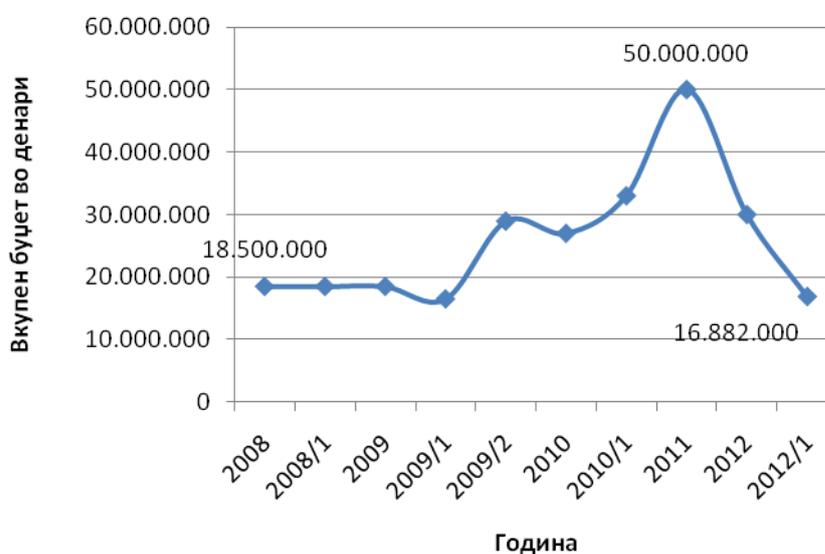
The trend of allocation funds necessary for the Programme for the Early Detection of Malignant Diseases during the 2008-2012 period varies significantly, thus there is an increasing trend from 2009 (after the Second Rebalance for the MoH Budget) to 2011, and in 2012 decreasing trend became obvious. For example, there is 9,6%⁴¹ available funding in 2012 in comparison to the ones made available in 2008.

³⁹ In 2011 a Budget amounting to 50.000.000,00 MKD was allocated to this Programme, while in 2010 with the Final Budget Rebalance only 33.000.000,00 MKD, were made available.

⁴⁰ It is crucial to stress the activities for performing organized screening for colorectal carcinoma have been introduced for the first time since 2010, however with the Budget Rebalance performed 17 August, this component and the other for screening for cervical cancer have been completely eliminated from the Programme.

⁴¹ As means for comparison those funds in the adopted budget for 2008 and the amendments introduced in the 2012 MoH Budget, are taken into consideration. It is important to emphasize the fact that in 2008 and 2009 there has not been a single Programme for the Early Detection of Malignant Disease, or the Preventive Medicine budget did not contain any activities for performing organized screening for colorectal carcinoma, thus the total budget in 2008 and 2009 as depicted in the Graph is an estimated by mathematical addition of then ongoing Programmes for breast cancer and cervical cancer.

Graph 3. Allocation of funds intended for the 2008-2012 Programme for Early Detection of Malignant Diseases, according to data obtained from the Budgets of the Ministry of Health



According to the data published in the 2010 Central Budget Balance Sheet, out of the total planned funds for implementing the Programme for the Early Detection of Malignant Diseases, in 2010, 39% of the funds appear to have been unspent or 50% of the funds after the Rebalancing exercise.

d) Budgets for Screening for Cervical Cancer and Breast Cancer

When analyzing the distribution of funds for implementation of these two components of the Programme for the Early Detection of Malignant Diseases in relation to the Preventive Medicine Budget, the MoH Budget and the Central Budget, two trends become apparent. Firstly, the allocation of both components in each of the mentioned budgets seems minimal and secondly, in the budgets featuring these components have undergone frequent changes. The funds for implementation of the activities contained in both components frequently fluctuate and no trend of continuous growth or maintaining the level of funding, has been observed, and contrary to this, the level of funds is changed without any logical sequence of events (a practice of performing at least two Budget Rebalances in terms of the Programme was observed over a one year period).

The average share of the Budget for implementation of a Screening programme for cervical cancer within the total expenditure of the Central Budget covering the 2008-2012 period was assessed at 0,004% (while taking into consideration the share of this component in the adopted budgets and those who have been rebalanced), while as a share in the total expenditure of the Ministry of Health, this was estimated at 0,25%. The Preventive Medicine budget allocates an average of 1,33% to the activities for this Programme.

The average share of the Budget for implementation of a Screening programme for breast cancer within the total expenditure of the Central Budget covering the 2008-2012 period was assessed at 0,005% (also taking into consideration the share of this component in the adopted budgets and those who have been rebalanced), while as a share in the total expenditure of the Ministry of Health, this was estimated at 0,33%. The Preventive Medicine budget allocates an average funding of 1,66% to the activities for this Programme.

The bulk of the funds for implementation of screening activities for cervical cancer and breast cancer in the 2008-2012 period was allocated by the Ministry of Health in 2011 (see Graph 5). The funds for these two components have been reduced by half in 2012.

The trend of allocation of funding for screening for cervical cancer and breast cancer varies throughout the 2008-2012 period. Hence, the budget for such screening for instances of cervical cancer features a decreasing trend between 2009 and 2010, while with the amendments introduced in 2010 the funds for implementation of this component have ceased to exist. During this period the budget for implementation of this component seems to feature a single increase only in 2011, which was discontinued in the next rebalance round for this Programme. The funding for breast cancer screening has been kept almost equivalent without further fluctuation during the 2008-2010 period. Only the 2011 budget regarding this component seems to show significant increase in 2011, which is maintained until the first amendments introduced in this Programme in the same year. Those funds intended for the implementation of organized screening for breast cancer, according to the most recent changes introduced in 2012 are as much as 27% less than such funding provided in the 2008 Programme. The 2012 funding of organized screening for cervical cancer is by 0,85% higher than the funding in 2008 (with the most recent amendments of the Budget in its programmatic components). This has been the case in addition to the 2012 requirement providing for organized screening for cervical cancer activities as a compulsory and universal medical health objective throughout Macedonia, and in comparison with the 2011 Pilot Programme.

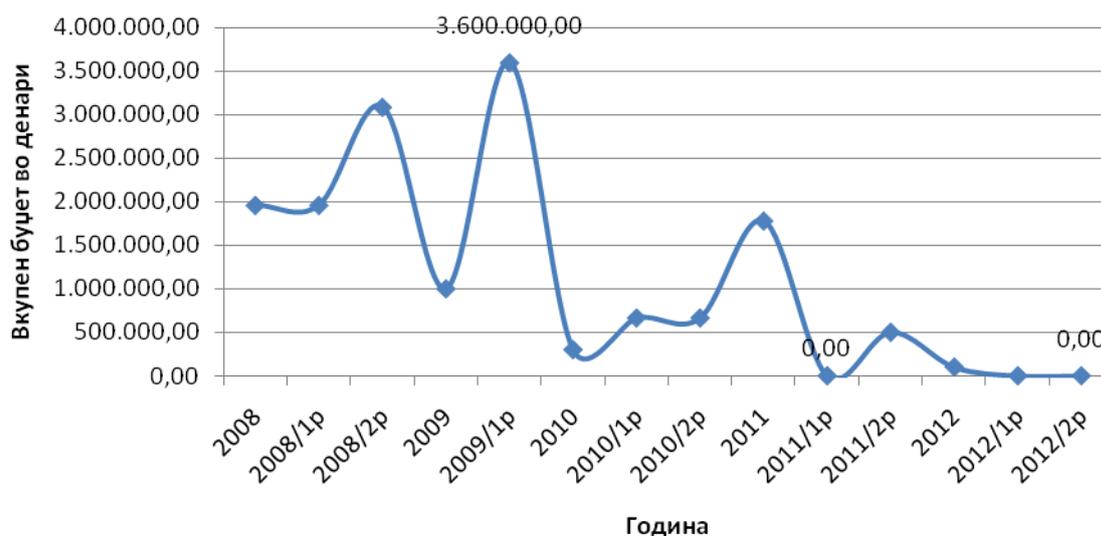
The average allocated funding during the 2008-2012 period intended for organized screening exercises for cervical cancer amounts to 8.397.142,86 MKD.

Graph 5. 2008-2012 Allocation of draft budget for performing activities for early detection and prevention of diseases of female reproductive organs (cervical and breast cancer)



The Programme for the Early Detection of Malignant Disease, in addition to the allocations drafted for the implementation of activities for organized screening exercises for the detection of breast, cervical and colorectal cancers, also covers funding for awareness raising regarding the Programme and the planned activities.

Graph 6. Allocation of funds for performing awareness raising activities relating to Programme for the Early Detection of Malignant Diseases



During the 2008 and late 2012 period, most of the funding of the Ministry of Health for performing awarenessraising activities related to the Programme for the Early Detection of Malignant Diseases have been observed to be allocated with the ammendments introduced to the Central Budget ammounting to 3.600.000,00 MKD. During the next period such funding has significantly decreased including with the most recent ammendements in the 2012 Programme where no funding for promotinal or awareness raising activities have been planned.

e) Sources for funding the Programme

The funding for the implementation of the activities under the Programme for Early Detection of Malignant Diseases has been entirely raised from the Central Budget of the Republic of Macedonia.