

« Policies for Enhancing Access to Health Services in Deprived Areas »

(“Πολιτικές για την ενίσχυση της πρόσβασης σε υπηρεσίες υγείας σε υποβαθμισμένες περιοχές”)

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Synthesis report and results from the implementation of the pilot applications in the cross-border area (problems and good practices)



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PREFACE

The present deliverable has been prepared by the Regional Development Agency of Rodopi S.A. - Lead Beneficiary of the Healthy Municipality Project, and more specifically by its subcontractor Infodim, in the context of the project **“Policies for Enhancing Access to Health Services in Deprived Areas - The Healthy Municipality”** implemented under the INTERREG V-A Greece – Bulgaria 2014 – 2020 Cooperation Programme, with the MIS Code 5011021.

Aim of this project is the design of prevention policies in the health sector as well as their pilot implementation at the level of the local government of first degree, especially in remote areas, thus contributing to the upgrading of the health services provided to the residents of these areas and to the improvement of their quality of life.

The following organizations participate as beneficiaries in the Healthy Municipality project:

- Development Agency of Rodopi S.A. (GR), Lead Beneficiary
- Aristotle University of Thessaloniki - Special Account for Research Funds - Department of Economics (GR)
- Municipality of Arriana (GR)
- Municipality of Iasmos (GR)
- Agency for Transnational Training and Development (GR)
- Regional Health Inspectorate / Haskovo (BG)
- Association of Rhodope Municipalities (BG)
- Municipality of Krumovgrad (BG) and
- Municipality of Momchilgrad (BG).

The present deliverable regards the preparation of a synthetic report, where the results obtained within the pilot application of local Prevention Plans in the project Cross Border areas are presented along with problems faced and good practices identified.



INTRODUCTION

Within the context of the Healthy Municipality project involved Local Authorities were called to design Local Health Policy Plans with focus on prevention and on the basis of the modern approaches to prevention as formulated in basic policy documents of major international organizations and schemes.

As evident, the implementation of these policies requires time and effort to be put on the ground, conditions not available within the framework of innovative and pilot projects. Projects of this type allocate their resources on designing methodologies and developing appropriate tools, along with preparing the ground for mainstreaming in the future.

In the context of the Healthy Municipality project a pilot testing of the designed policies was foreseen, so as to locate problems and difficulties in the implementation of the specific policies along with the identification of good practices occurred from the PBs' practice. The results from this pilot testing process should be then incorporated in the local policies so as to help involved Local Authorities, and project partners to better understand the real conditions for applying prevention policies in the health sector and improve their approach.

At practical level and with the purpose of better monitoring the application of the pilot interventions, a common (Cross Border) approach had to be designed and local plans should be guided by this approach. Latter was expected to contribute to exporting comparable results and formulating conclusions – recommendations towards the involved Municipalities and beyond.

The present document aims at making the synthesis of the findings derived within this process and to provide them to the Local Authorities so as for them to take them into consideration in their policy plans and in their application on the ground.

Nonetheless a Cross Border Network (Cross Border Lab) planned to operate in the project aftermath should assist involved Local Authorities in this “integration procedure” and in applying their Local Health Plans in practice.

Last and not least, identified findings are of significant importance not only to the organizations involved in the Healthy Municipality project, but also to Health Policy planners in general, as they reflect problems and difficulties drawn from practical experience.



THE PILOT APPLICATION OF THE CB PREVENTION PLAN

General

As already indicated in the introductory note, the pilot application of the (CB) Cross Border Policy Prevention Plan (D. 5.2) in each project area, intended to test the transfer of the designed Local Health Policy Plans (D.5.1) of the involved in the project Municipalities on the ground. As such, and taking account of the limiting conditions of the project implementation as well as the parameters linked to the application of a policy (long periods of time, need for institutional arrangements, resources' allocation etc.), a small number of critical interventions should have to be selected and applied in the field. These interventions should become then subject to monitoring and evaluation and the conclusions from this procedure should be provided for further valorization by the project Municipalities and the health community.

The focus of the Healthy Municipality project lies on prevention. Prevention is viewed as the main instrument for local health policy planners and health service providers to avoiding urgent incidents, which may seriously affect the life of the local residents. Besides, prevention is a crucial means for overloaded and challenged local health service structures to overcome shortages and improve their operation. As a result prevention should be placed in the core of the pilot interventions.

Prevention in the context of the Healthy Municipality Project

Following the design and evolvement of the Healthy Municipality project, prevention policies should be applied upon short termed and mid/long termed interventions. Short termed actions encompass the recording of the nosological profile of each project area. Desk analyses have been carried out to this purpose along with local field researches and medical examinations to part of the areas' population.

Mid termed actions refer to setting up the health profile of individuals from vulnerable groups in each project area along with the completion of personal digital cards with the health data of each individual. The development of a data base with the patient cards of the vulnerable citizens and the operation of a monitoring structure, equipped with an appropriate alert mechanism, should help local health policy operators to timely inform and empower ailing and vulnerable persons to comply with medical instructions. Hence the possibility of reducing the occurrence of urgent incidents and preserving the health condition of the residents should be achieved. Moreover interventions aiming to adapting lifestyle of the local residents to healthier standards should help to minimize the risk factors



for the population. Information and awareness raising actions, initiatives towards mild physical exercise, healthy nutrition etc. should be the subject of the specific interventions.

Apart from the above two groups of interventions, long termed action with focus on policy development should be considered. Elaboration of data and uploading them on the respective digital policy planning platform of the project, institutional arrangements, decision making at **management** level, organizational arrangements, disposition of staff and resources, networking and coordination with external to the Municipality administrative and social structures etc. make up the specific action and should help to applying the Local Health Policy plans.

The action of the Health Municipality project aimed at covering all levels of intervention (short-, mid- and long – termed), so as to prepare the conditions for the application of a preventive local health policy in the project area. However the Prevention Plan to be tested on the ground (pilot plan) selected certain activities to testing.

The Pilot Application of the Prevention Plan

In the framework of the Healthy Municipality project, and aiming at valorizing the Cross Border aspect of the initiative, **a common prevention plan** for the entire project area should be elaborated, so as to enable cooperation between the project partners and facilitate comparison of results in the pilot testing phase. Common aspects of the local health policies should be integrated in the specific plan and its application in the participating in Healthy Municipality areas should contribute to improving the health care provision in the CB area.

Considering the common challenges in the health sector of the four Municipalities and despite the local specificities of each area a common prevention plan was formulated with the aim to coordinate action and improve efficiency of response to local needs.

In this context the **vision** of the prevention plan refers to limiting and preventing the risk factors of the Non Communicable Diseases (NCD), the main morbidity factor in the project area, through the creation of a strong policy base as well as of a commitment to work with local actors.

Two priorities were set within this plan:

- Promoting the early detection of these significant diseases
- Promoting the change in the behavior of individuals and groups to reducing morbidity from non-communicable diseases through prevention and promoting the health of the population.

The Prevention Plan distinguishes two groups of interventions: The first group encompasses actions regarding the conducting of preventive examinations and diagnostics, the provision



of relevant information material, actions aiming at changing the lifestyle of the population and actions aiming at diminishing the health illiteracy of the people.

The second group targets the improvement of the provision of health services in the project areas: enriching the deployed medical specializations in the local health structures, valorization of telemedicine, and appropriate shaping of the living and working conditions, as the social determinants of health are the three actions encompassed within this group of interventions.

The pilot testing of that Prevention Plan in each of the project areas on the other hand, aimed at identifying problems and good practices in the application of the particular policy as occurring from the practical experience. More in particular, and as both the policy concept as well as its specific components were novel to the project Municipalities, a pilot application of the particular policy was expected to render problems and good practices associated with the implementation of the policy. Their subsequent integration into the local health policies designed by the individual Municipalities should facilitate their implementation and increase their efficiency.

In this vein, PBs were called to deploy elements of the CB Prevention Plan so as to record success and failure factors. **Medical exams to vulnerable individuals along with interventions addressed to changing the people's lifestyle were the two main groups of action (axes) to carry out.**

More in particular, following the structure of the Common Prevention Plan the Prevention Plan for Pilot testing is unfolded on two axes: the first axis **concerns the conduction of diagnostic medical exams to vulnerable to NCD individuals**, so as to prevent occurrence of urgent incidents. 600 vulnerable individuals should be examined in each area and their health profile should become subject to a monitoring process. Digital patient cards should be filled in for each individual, patients should be supported in complying with the medical instructions upon a digital alert system, health data of the patient should be uploaded on a digital data base so as to facilitate monitoring and planning purposes in the health sector.

The second intervention axis regarded **initiatives to enriching the health perception of the residents** and to helping them adopt a healthier life style. Awareness raising actions and information seminars should be organized, along with actions related to mild sports activity.

The implementation of the pilot prevention plans should be carried out by subcontractors as the Municipalities do not provide the necessary capacities to executing services of this type.

Besides, a number of factors had to be monitored across the piloting procedure in order to record the applicability of the policy measures. The level of activation of the local communities to joining the activities, socio cultural aspects of the local populations, the active involvement of the local government in the action, the usefulness of the tools



prepared by the project, the involvement of the local health structures etc., along with other components had to be observed.

In this context the pilot actions should run across all levels of interventions, highlighting focus areas, where conclusions on the applicability of the prevention plans should be examined.

The Areas Involved – The Common Challenges

The Healthy Municipality project is implemented in the Greece Bulgaria CB area and more specifically in the four Municipalities Arriana (GR – PB3), Iasmos (GR– PB4), Krumovgrad (BG– PB8) and Momchilgrad (BG– PB9).

All municipalities present major structural deficiencies. They are all rural areas with less than 20,000inh. each, with an aging population and a population decrease, with a low income level, low educational level, high unemployment rates, significant illiteracy. All municipalities display a large share of a Muslim minority, reaching in Arriana some 85% of the total, with an apparent impact on a local cultural specificity. The settlements of the Municipalities are dispersed in a large number of small villages spread on a mountainous and semi mountainous terrain, amounting in the case of Krumovgrad to 80 settlements. Further infra structural problems, as the quality of potable water in some cases, challenge the residents' life in the specific Municipalities.

The mortality profile of the local population reflects to a certain extent the respective profile of the two countries, as the reasons of death are the diseases of the circulatory and the respiratory system along with neoplasms. The sub-diseases of the circulatory system as hypertension, high blood pressure, along with diabetes are the main common diseases in the area. Besides, diseases of the musculoskeletal system, of the thyroid, thalassemia, elevated liver enzymes and depression display a high frequency in the various project municipalities reflecting the living conditions in each area.

With regard to the local health systems they are all confronted with serious shortages in staff and equipment, thus not being able to cover the population needs. Lack of specialized personnel, long distances to accessing the primary health service structures lead the residents to external physicians or the secondary level health establishments.

Monitoring Parameters

The application of the Pilot Prevention Plans was expected to provide results with relation to a number of parameters influencing the applicability of the Prevention Plans of the Municipalities as well as of the Local Health Policy Plans designed by the Municipalities.



In this context a number of parameters should be followed in the pilot testing period. These parameters were:

- The degree of cooperation with the Local Government and the local health structures
- The response level of the local community and their participation in the pilot actions
- The effectiveness of the deployed means to activating the local population
- The functionality of the developed tools by the project (patient cards, digital platform)
- The response of the local communities to the information and awareness raising actions.

Expectations from the Results

The pilot application of the prevention plan was expected to provide feed-back on the following subjects:

- A. The early diagnosis of the diseases, as to conclude from the medical examinations.
- B. The arrangement of the follow-up action of the patients mainly upon the alert system developed to informing the patient on subsequent examinations.
- C. The **activation of the local municipal structures, the local healthcare/social services** in order to improve primary medical care.
- D. The increased awareness of the citizens through:
 - enriching knowledge on personal health
 - enhancing responsible attitude towards health
 - promoting a healthy lifestyle
 - enhancing health literacy.
- E. The increased awareness on the use of digital tools in health.

The Activities Carried Out

Axis one: Conducting diagnostic medical exams to vulnerable to NCD individuals

PBs had to engage subcontractors to carry out medical exams to vulnerable on NCD individuals, so as to build up their health profile along with a roadmap for monitoring their health condition. Digital tools prepared by the project (patient card, digital data base and alert mechanism) should be deployed. The implementation of a communication plan should help to inform and activate the local population to joining the action.



All four Municipalities were challenged in implementing the specific action. The two Greek Municipalities (Arriana and Iasmos) proceeded two times to tendering the action without any positive result. No candidates expressed their interest in participating in the procurement. Possible reasons might be the Covid Sars 2 pandemic, the capacities of the local health service providers as well as the complicated subject of the tendered action. This led the Municipality of Arriana to give up the further implementation of project activities. The Municipality of Iasmos however proceeded to a negotiation procedure (upon Law 4412/2016) with a potential subcontractor, who then undertook the implementation of the action.

It should be noted in the specific case that the subject of the tender regarded the conducting of medical tests within both Deliverable 3.3 as well as Deliverable 5.4 besides the organization of events, thus significantly increasing the number of tests to carry out in a short period of time. The activity was implemented in the period between 15. March and 12. May 2022 and some 500 (492) residents of Iasmos were examined.

Persons detected with abnormalities in the diagnostic tests were referred to a specialist for further tests and consultation. Cardiologists, Endocrinologists, Pathologists, Pulmonologists, Gastroenterologists, and Orthopedics participated in this activity.

During the examinations the patients were consulted on healthy eating habits and were provided (if it was the case) with a hygienic-dietetic regimen so as to prevent the risk of cardiovascular diseases and metabolism disorders.

The two Bulgarian Municipalities did not proceed to tendering the medical tests within Deliverable 5.4, as they considered difficult their implementation due to lack of required specialized physicians and the specificities of the area. However 500 people in each Municipality had already been tested within activity 3.3 (period 26 August - 10 September 2019) providing data for further valorization by the project.

Under this aspect some 1500 people participated in the initiative on Medical and Diagnostic Exams for Patients in the entire project area thus providing data to shaping the morbidity profile of each area as well as identifying persons at risk and in need for further monitoring and support.

Digital Health Platform

Patient cards for the examined individuals were filled in and have been uploaded to the digital health platform of each area (one platform for the Greek Municipalities, one platform for the Bulgarian Municipalities).



Within the context of **Axis 2 interventions to enriching the health perception of residents and helping them adopt a healthier lifestyle** a large number of various actions were carried out in the Municipalities Iasmos, Krumovgrad and Momchilgrad.

In the Municipality of Iasmos 24 group sessions were carried out in the period between April and May 2022: 6 sessions (2 sessions in each of the 3 Municipal Districts of the Municipality of Iasmos) on 4 thematic subjects.

The 4 subjects of the sessions:

1. First Aid Instructions (presented by a Professor of Medicine)
2. Healthy nutrition as a life style and a means for preventing diseases (presented by a Nutritionist)
3. Cardiovascular diseases (presented by a Cardiologist)
4. Prevention and treatment of diabetes mellitus (presented by a GP).

Attendance at the sessions in the Municipality of Iasmos reached 474 participations (64% women – 36% men, 52% older than 60 years – 48% between 40 and 60 years of age)

The **Municipality of Krumovgrad and the Municipality of Momchilgrad** have organized and conducted training seminars within a campaign entitled "**Learn more about health, share and educate**" for students. **Students in groups 5-8 and 9-11 grade participated in the seminars. The total number of participants in the seminars amounted to 204 participants**, out of which 100 were from Krumovgrad Municipality and 104 from Momchilgrad. The training sessions were realized by means of interactive methods and techniques - information films¹.

Sports' competitions organized by school managements were carried out in both municipalities.

A small football tournament was organized in Krumovgrad. 4 teams of 14 sportspersons each participated (**in total 56 athletes**), from 2 schools.

A day of sports was organized in Momchilgrad with the participation in various sports games **of 43 students** from 2 schools.

During the sport competitions and training seminars **400 printed brochures have been distributed** in the schools of the two municipalities, containing educational material on the main risk factors for health from chronic non-communicable diseases.

¹ Deliverable 6.7.1



A pilot training action of the adult population of the municipalities Krumovgrad and Momchilgrad was carried out. In the seminar participated medical staff of representatives of the municipal administration from the educational and social sectors, NGOs, local journalists as well as teachers / school principals. The seminar was carried out under the slogan *“PREVENTION IS BETTER THAN TREATMENT”* in two sessions, **with 204 participants in total** (104 participants from Momchilgrad and 100 from Krumovgrad).

Beside the topics of healthy eating and health benefits of physical activity, significant attention was paid to the causes and prevention of cardiovascular, oncological and pulmonary diseases. Significant emphasis in the lectures was put on the topics of diabetes and mental health.

In both municipalities, the **World Days of Combating Smoking, Diabetes and Hypertension** have been celebrated and **300 pieces of health and educational material were distributed**.

Municipality of Krumovgrad implemented **4 two-day sessions** with doctors addressed to the population of the municipality².

The subject of the sessions was the following:

- **Session 1 - Recommendations on lifestyle habits as a means for preventing cerebrovascular diseases.** Rehabilitation for stroke and myocardial infarction. Hygienic dietary regimen and physical activity.
- **Session 2 - Balanced nutrition for healthy people.** Dietary regimen for diseases of the gastrointestinal tract - reflux disease and gastritis. Dietary regime in diseases of the gastrointestinal tract. Gastric ulcer, duodenal ulcer and colitis. Clinical features and early diagnosis in gastric and colon cancer.
- **Session 3 - Step by step for healthy eating.** Programs for the prevention and treatment of diabetes mellitus. Combining a hygienic-diet regime and physical activity. Thyroid. First aid.
- **Session 4 - Guidelines for prevention - early detection of breast and cervical cancer.** Guidelines for the prevention and for the early diagnosis of certain types of cancer. Recommendations on lifestyle habits as a means of preventing cardiovascular diseases. Smoking and diseases. Prevention of arterial hypertension.

² Deliverable 5.8.4



Municipality of Momchilgrad implemented **4 sessions** with doctors addressed to the population of the municipality³.

The subject of the sessions was the following:

Session 1 – The prevention of chronic non-communicable diseases. (cardiovascular diseases, malignant diseases, diabetes). Hypertension and etc. (25 participants)

Session 2 – Osteoporosis. Physical activity. Healthy lifestyle and healthy eating basics and etc. (25 participants)

Session 3 - Therapeutic nutrition in diabetes mellitus. Therapeutic nutrition for obesity. Nutrition in kidney diseases and etc. (50 participants)

Session 4 – Nutrition and age. (25 participants)

Attendance at the initiatives in the Municipalities of **Momchilgrad and Krumovgrad** exceeded the 500 participants. In addition 700 copies of **health and educational material** have been distributed.

RESULTS

Problems Encountered

The Covid Sars2 pandemic

Undoubtedly the prevalence of the Covid Sars 2 pandemic during almost the entire life time of the Healthy Municipality project obstructed the proper implementation of certain activities also within the application of the pilot phase of the prevention plan.

People were hesitant to proceed for the medical tests.

Municipalities felt unsecure to inviting the residents to places with a high density of visitors.

The operation of the Health Center of Iasmos and its local clinics as vaccination centers with a high attendance and work pressure prevented the medical exams from being carried out at these specific facilities, as originally planned, thus adding transportation work to those interested in taking the tests.

The low level of health awareness at the population

³ Deliverable 5.9.4



Although the integrated medical exams were provided for free to the vulnerable groups in the project areas and as such they were an opportunity for the residents to check their health status and prevent serious health incidents, the response did not match the expectations.

Latter was recorded on both sides of the Cross Border area indicating a low awareness level of the importance of health at the population.

This should be viewed as a major finding of the project, pointing out the need for actions towards developing a health culture under the population.

Difficulties in finding specialized physicians

In the area of Iasmos, but also in the wider area of the Municipality, it was difficult to find specialized physicians, who could carry out the exams. Physicians from other areas, outside the Municipality, had to be invited to carrying out specific medical exams.

However, also in this case it was difficult to hire specialized staff, as the foreseen by the Government remuneration rates were significantly lower than the fees normally paid by the local people to the physicians. Moreover the engagement of physicians outside the area of the Municipality of Iasmos prevented the people from visiting the doctor, despite the fact that the transportation by taxi was offered by the project.

The specific problem was the main reason for the Municipalities of Krumovgrad and Momchilgrad not to carry out additional medical examinations.

The lower participation of men

The recorded interest of the male population having expressed interest to participating in the project activities was significantly lower than that of the female population.

Difficulties in the communication

As expected, in Iasmos the presence of a Turkish speaking person as interpreter during the exams has proven very helpful for the proper communication during the medical exams in the area.

Good Practices Identified

Despite the difficulties faced in the implementation of the pilot cases a series of particular findings highlight the importance of local preventive interventions and emphasize the need for urgent actions.



A. The great number of the newly detected cases as derived from the medical – diagnostic exams proves the importance of preventive tests

From the medical-diagnostic exams very important results emerged related to **the great number of new detected cases.**

In the Municipality of Momchilgrad

In the conducted clinical and laboratory tests and examinations **306 new detected cases of diseases or deviations in blood tests have been identified.**

In the municipality of Momchilgrad a percentage of 43% of cases of diseases has been new detected, as follows:

- **From the 497 cases of Diseases of the circulatory system: 166 were new detected (a percentage of 33%).**
- **From the 182 cases of Diseases of the endocrine system, eating and metabolism disorders: 85 were new detected (a percentage of 47%)**
- **From 107 cases of thyroid diseases: 81 were new detected (a percentage of 76%)**
- **From the 16 cases of Diseases of the thyroid gland: 14 were new detected (a percentage of 87.5%)**
- **From the 10 cases of other thyroid diseases, unspecified: 8 were new detected (a percentage of 80%)**
- **From the 53 cases of non-insulin dependent diabetes mellitus 3 new identified (a percentage of 5.7%)**
- **In the conducted laboratory blood tests there were 34 cases (8 male and 26 female) of Anemic Syndrome identified, out of which 33 newly detected (a percentage of 97%)**
- **21 new detected cases of elevated level of liver enzymes have been identified - ASAT, ALAT, out of which 11 women and 10 men.**

In the Municipality of Iasmos, the medical diagnoses and examinations, from 492 in total, recorded:

- **5% with uncontrolled heart failure**
- **5% with undiagnosed valvular diseases**
- **5% new diagnosed diabetes incidents**



- 10% had previously been infected with Hepatitis B and did not know that
- 2% with active chronic Hepatitis B, not aware of that
- 5% with iron deficiency anemia
- 5% with vitamin B12 deficiency anemia
- 0,5% with undiagnosed previously rheumatic disease
- 5% with new diagnosed pathological respiratory condition

However, the most impressive results of the medical examinations in the Municipality of Iasmos concern the following:

- 40% of the cases have been identified with unregulated hypertension
- 60% cases have been identified with dyslipidemia
- 30% with already known but unregulated diabetes
- 23% with vitamin D3 deficiency.

The results of the medical examinations confirm the necessity and purposefulness of conducting preventive screening medical examinations and tests with the aim of the early identification of significant diseases and risk factors for the public health.

The above data raise the importance of the preventive medical examinations in the population as well as highlight their significance as a very important intervention within the Healthy Municipality project.

Periodic screening prophylactic tests and examinations are necessary for the early detection of significant diseases and risk factors for the health of the population.

B. The Content, the Participants and the positive impact of the Sessions

The introduction of health education programs at kindergartens and schools in the Municipalities of **Krumovgrad and Momchilgrad was an interesting idea.**

The accent was placed on the benefits from healthy eating and physical activity. Besides, all participants were trained on how to provide first aid if necessary. Also, subjects related to personal hygiene, food and healthy diet, harmful for health personal habits, environmental risk factors for health, protection from domestic and transport injuries, mental health, contributed to cultivating positive health habits to children.



In addition the practical exercise for cardiac massage and artificial respiration invoked considerable interest among the students⁴ and is appreciated as a good practice of the sessions.

A significant number of participants joined the sessions organized in all 3 Municipalities.

The impressions of the participants were very positive. Many of the participants experienced health sessions for the first time.

100% of the **students** taken part at the sessions held by the Municipalities of **Krumovgrad and Momchilgrad** answered that they were satisfied with the topics discussed and described the method of the presentation as accessible and understandable.

More than half of the students (74%) from the Municipality of Krumovgrad reported that they had no prior knowledge on the topics presented. For the Municipality of Momchilgrad the respective percentage was significantly less (36.5%).

The share of participants in the training seminars for students from both municipalities that did not have prior knowledge on the topics presented was 54.9%, which justifies the necessity for providing new knowledge to young people in an accessible and comprehensible manner.

The significant share of positive responses (94.6% of the participants) to the question “*Have you gained any new knowledge?*” is an indicator of the benefit of conducting the training seminars with respect to providing new knowledge to young people.

Besides, with regard to the **sessions for adults** organized by the Municipalities of **Krumovgrad and Momchilgrad**, all participants from both municipalities declared that they were satisfied with the discussed topics and the manner of presenting them. More than a half (64.2%) of the respondents did not provide any comments or suggestions about the training seminars conducted. A fourth (**24.2%**) of them expressed interest in more similar meetings that provide them with information on health, while **11.6%** requested more training sessions to be performed by physicians from different medical fields.

Finally, as it came out from the questionnaire that was completed by the Contractor for the implementation of the medical examinations and sessions for the Municipality of Iasmos and by the Municipality officials, **the participants of the sessions were very interested and satisfied with the sessions**, they asked many questions during the sessions, they expressed their interest in new seminars on health issues.

⁴ Deliverable 6.6.3



C. The Important Role of the Digital Patient Health Card & the Digital Health Platform

Details on the patients who participated at the medical examinations have been recorded in the patient's digital health card and then uploaded on the digital health platform both created by the Healthy Municipality project.

The digital health card contains the patient's medical history, the tests' diagnoses, the medications taken, the treatment plans, potential allergies of the patient, etc. Apparently allowing access to this information for health care providers renders the decision taking process about the patient's care much easier, while saves time and resources for repeating medical exams, thus drastically improving the local health system's operation. Moreover these results improve the health system performance as they contribute to automating and simplifying the workflow of doctors and healthcare providers. Besides, considering that the recorded information refer to personal data of the residents taken part at the project activities, participants had to fill in a declaration of consent for providing and saving their personal data.

The digital health card can also have a catalyst role in the development of Primary Health Care (PHC). The application of the digital health card in the primary care provides better information to physicians about their patients, and this has the effect of improving the prevention and diagnostic of chronic diseases, of diminishing medication errors, of reducing unnecessary examinations, which brings a reduction in costs, as well as an improvement in the communication and the interaction between PHC providers, patients and other providers involved in health care.

Also, the structured data offered by the digital health card gives the possibility to carry out research work, which can provide reliable data to the competent bodies, to implementing the appropriate health policies.

It becomes apparent, therefore, that the digital health card strengthens the operation of the Primary Health Care, thus improving its operation and mainly contributing to the decongestion of the hospitals.

Finally, the digital health card is also necessary in telemedicine to serve patients from a distance. Telemedicine is a very useful tool (necessary tool) for remote locations that are difficult to access and have a shortage of medical professionals, such as the municipalities of the project area.



D. The Adoption of Pilot Initiatives

By the Local Authorities

Significant success has been recorded through the inclusion of measures of the Prevention Plan in the Integrated Development Plan of the municipalities of Momchilgrad and Krumovgrad for the period 2021-2027, and efforts can be focused on other municipalities from the same district, as well as to the municipalities from Smolyan and Haskovo districts.

Besides, the inclusion of measures in the Integrated Development Plan of the Municipality of Iasmos is under discussion.

In the Bulgarian project area, the municipal authorities and institutions direct active measures towards creating conditions for guaranteed access of the population to healthcare, through opening up new practices for general practitioners and/or attracting medical professionals to vacant practices in remote places. The policy for attracting medical personnel, incl. specialists for work in outpatient medical establishments, includes the free-of-charge provision of premises for carrying out their activity and other incentives.

In the Greek project area a special interest was expressed by the Regional Authority of Eastern Macedonia and Thrace (by the Deputy Regional Governor responsible for health issues) for the continuation of the project and a relevant event is planned to be organized, where officials of the Greek Ministry of Health are invited.

By Other Local Actors

An example of good practice is the annually held sports events in schools, which aim to improve the physical condition and to strengthening the health of the participants in sports tournaments.

With the assistance of pharmaceutical companies and in partnership with university and local hospitals in both municipalities of the project area in Bulgaria, screening prophylactic medical examinations are to be organized for early diagnosis of socially significant diseases - arterial hypertension, diabetes mellitus, malignancies, etc.



THE RESULTS vs THE EXPECTATIONS FROM THE PILOT APPLICATION

Following the expectations from the pilot application of the Common Prevention Plan as referred to in Deliverable 5.1.2, the feed-back received is per thematic unit the following:

A. The early diagnosis of the diseases, as to conclude from the medical examinations.

The conducting of medical diagnostic exams, as already reported, was only partially implemented during the pilot testing phase due to a series of challenges that the action was confronted with. However the data collected under Deliverables 3.3, besides reflecting the morbidity profile of the project areas, also provide useful information with regard to the health status of the residents and were drawn into consideration into the particular present intervention. Besides, both the data collected within Deliverables 3.3 as well the difficulties faced in the pilot application are useful input for applying Local Health policies in the area.

In particular, the data collected on the health status of the examined persons could be marked as particularly alarming. A large part of the sample tested is sick, either being conscious of that or not, and the majority of them do not apply any treatment. The risk of emergence of unexpected incidents is high, the importance of the implementation of diagnostic tests, in order to adequately instruct and treat the patient, very high.

As such the action could be considered very important.

On the other hand the difficulties in conducting the medical tests are also of significant importance. The lack of the necessary medical specializations in the area and the difficulties to activate the people to take diagnostic tests are tangible proofs calling for sophisticated policies on the application of diagnostic exams. Health illiteracy is a key word in this context. Latter is being further raised by the findings in Iasmos, where the subcontractor was able to provide the necessary medical specializations and offered transportation by taxi, the local community responded only partly.

The diagnostic tests could save lives and they could substantially contribute to the better operation of the local health structures, while decongesting them.

As to B. The arrangement of the follow-up action of the patients mainly upon the alert system developed to informing the patient on subsequent examinations.

The planned follow up action of the patients was based on several elements: The filling in of the digital patient card, the uploading of the card and of the data on the local health platform and the operation of a monitoring structure to informing and instructing the



patients. In addition the awareness of the local medical community of the existence of the specific system, so as for them to deploy it is also of great importance.

The challenges faced at this stage are also of great importance. The physicians are under time pressure when examining a patient. It is a challenge for them to filling in digital forms which they are not familiar with. Especially when external physicians are deployed to carry out examinations, they have to be definitely acquainted with the operation of the system and its components. This requires either a wide and effective awareness raising campaign along with certain training seminars and is linked to administrative decisions by the respective health directorates. The procedure foreseen by the project and applied in all 3 Municipalities, namely the support of the involved physicians by staff of the municipality or the subcontractor cannot be viewed as a model generally acceptable by the local medical community.

However the importance of the digital card and the digital platform developed by the Healthy Municipality project is a particularly useful tool and can substantially contribute to improving the treatment of the patients, the great reduction of costs in the health sector, and the better operation of the local health structures. Nonetheless the collecting and digital processing of the health data by the Municipality is expected to help the local health planners to designing local policies and to customizing measures and interventions in the sector.

As to C. The **activation of the local municipal structures, the local healthcare/social services** in order to improve primary medical care.

In all three Municipalities, which implemented interventions in the framework of testing the prevention plan, the local authorities were fully involved in the action. They supported the implementation and took initiatives to activating the local people. Formal and informal communication channels were deployed, the municipal counselors were activated, activities were propagated on the local TV, the radio, the press. However this is not enough for applying a policy, let alone a new policy, where competences and responsibilities are not clearly defined.

However, and considering the importance of the health sector along with the critical data on the health status of the residents derived from the project application, latter should be considered not sufficient. More effort and commitment is needed also combined with structural changes. Political decisions have to be made at the highest level of the Municipalities (Municipal Councils), structures to be built up, staff and resources to be disposed. Strengthening organizational health literacy actions so as to shape the ground and set up the appropriate conditions for raising commitment in the sector is necessary. The active participation of the mayors/heads of the municipalities in networks dealing with the



improvement of the local health systems (e.g. Network of Healthy Cities in GR etc.) should contribute to awareness raising and to increasing engagement for the sector.

With regard to the local health structures the challenges are similar. Local health structures to a great extent belong to the Ministry of Health, hence not being attached to the Local Authorities. Cooperation between the Local Government and the local Health Centers/Structures is in place, however the local Health structures are not subordinated to the Municipalities and cannot follow their instructions. Moreover shortages and workload in the local health structures do not leave much scope for great initiatives. Similarly, also here are organizational health literacy actions needed, so as to raise the importance of the role of the Municipalities.

The social services of the Municipalities, and beyond, could significantly contribute to improving services in the health sector at local level. The paradigm of the “Help at Home” programme is already a useful tool for monitoring the health of the residents. Further initiatives, as training on diagnosis of common in the area diseases, first aid programs etc. should increase the efficiency of the municipal action and provide great services to the residents.

Moreover initiatives to coordination of the various social services and NGOs which act in the area could contribute to increasing the efficiency of interventions and to improving their results.

As to F. The increased awareness of the citizens of:

- enriching knowledge on personal health
- enhancing responsible attitude towards health
- promoting a healthy lifestyle
- enhancing health literacy.

The specific topic is of fundamental importance. Despite the great efforts made by the Healthy Municipality project, although important services and means were offered for free to the residents of the project areas, the response did not correspond to the initially expected. Residents in the project areas suffer to a great extent from diseases, they are at risk, however they don't make full use of the help offered by the project. As above mentioned, health illiteracy is the key word. And actions to combatting this specific situation are required.

The pilot application raised a number of interesting initiatives. Several age groups were targeted, also the children and the youth, in order to timely build up an appropriate consciousness.

However the vulnerable groups of possibly having an urgent incident are the adults. Hence it is necessary to design and apply actions attracting these groups. Sophisticated



communication campaigns should be designed to attract people to changing their lifestyle. Plain language information events combined with activities involving the participants should contribute to enriching perceptions and to changing the residents' behavior.

As to E. The increased awareness on the use of digital tools in health.

The importance of the digital tools developed by the project has been explained above along with the problems associated with their valorization. However, the situation analysis in the areas and the identification of their specificities raised the need for different approaches in the health sector. Considering the common characteristic of the areas – remoteness- along with the dispersion of the population in large numbers of settlement the need for the use of digital tools becomes crucial. Telemedicine applications to supporting the employed GPs in the area, but also telecommunication via internet platforms between the physicians and the patients should drastically improve the efficiency of the local health systems.

POLICY PROPOSALS ON HEALTH PREVENTION FOR THE LOCAL AUTHORITIES

The frequent medical and diagnostic exams for Patients are undoubtedly a very important tool of a health prevention policy which the Municipalities should make use of. It is a tool that saves lives!

Medical and diagnostic exams serve for the development of Programs for integrated prevention of chronic non-infectious diseases (Cardiovascular diseases, Endocrine diseases, Malignant diseases, etc.), the identification of vulnerable groups and the implementation of specific measures for the reduction of morbidity and the development of local health policy plans, incl. preventive healthcare.

However, there are some other tools where local authorities could have a significant role: These tools are related to the **health literacy**.

The definition of health literacy was updated in August 2020 with the release of the U.S. government's **Healthy People 2030 initiative**. The update addresses personal health literacy and organizational health literacy and provides the following definitions:



- **Personal health literacy** is the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others.
- **Organizational health literacy** is the degree to which organizations equitably enable individuals to find, understand, and use information and services to inform health-related decisions and actions for themselves and others.

These definitions are a change from the health literacy definition used in Healthy People 2010 and Healthy People 2020: “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.”

The new definitions:

- Emphasize people’s ability to use health information rather than just understand it
- Focus on the ability to make “well-informed” decisions rather than “appropriate” ones
- Acknowledge that organizations have a responsibility to address health literacy
- Incorporate a public health perspective.

From a public health perspective, the organizational definition acknowledges that health literacy is connected to health equity. Health equity is the attainment of the highest level of health for all people. We will achieve health equity when everyone has the opportunity to be as healthy as possible⁵.

1.1.1.1 Implications for Policy & Practice

- The expanded definition can increase awareness of the role various organizations hold in ensuring that individuals can access, understand, and take action on the health information and services they provide.
- With consensus on the Healthy People 2030 definition, public and private partners across sectors, including public health, health care, business, and education, can expand upon their approaches toward increasing health literacy for all.
- The updated definition may also help support efforts to integrate health literacy principles into policy⁶.

⁵ <https://www.cdc.gov/healthliteracy/learn/index.html>

⁶ https://journals.lww.com/jphmp/Fulltext/2021/11001/Updating_Health_Literacy_for_Healthy_People_2030.10.aspx



For Communities

- Start a health column in the local newspaper or create a health program on local radio or cable access television. Invite local doctors, public health officials, educators, and community members to participate.
- Work with sponsors of local health care events (e.g. health fairs, public workshops, or free screenings) to spread the word about improving health literacy.
- Organize health education programs and sponsor presentations and meetings at your local public or hospital library, community centers, or faith-based organizations.
- Work with your local public health officer and city officials to ensure that important public health and safety information is communicated in plain language.
- Review the health education curriculum used in local schools. If there is no health education component, advocate for its inclusion.
- Encourage your public libraries to include current and reliable health information resources as part of their collections.
- Provide classes to build health literacy skills.
- Form a health literacy coalition.
- Organize a town hall meeting around issues of health literacy.
- Use local and community media to raise community awareness about the effects of limited health literacy and community needs for better health information and services.

For Educators

- Organize a trip to a local hospital, clinic, library, or adult education center.
- Invite health care professionals and health educators and communicators to make presentations to your students.
- Involve parents in health education homework.
- Share health literacy information and resources with your colleagues.
- Start a health literacy club so that students become involved.
- Find ways to integrate health literacy skills into other subject areas.



