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# ROMANIAN HEALTH CARE REFORM PROGRAM FINAL REPORT



**FY 2006–2007**

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## List of Acronyms

AG	Advisory group
AIDS	Acquired Immune Deficiency Syndrome
CCHCS	Cluj Center for Health Care Services
CHPS	National Center of Health Statistics
CoPH	College of Physicians
CTO	Cognizant technical officer
DHHS	Department of Health and Human Services
DRG	Diagnosis-related grouping
EU	European Union
Phare	EU Program assisting Romania with preparations to join European Union
FP	Family planning
FPA	Family Planning Association
FPP	Family Practice Physicians
GDP	Gross domestic product
GP	General Practitioner
HIV	Human Immune Deficiency Virus
HSI	Health Strategies International, LLC
IPWG	Inter-sectoral policy working group
IR	Intermediate Result
ISC	Insurance supervisory committee
MATRA	Dutch Program for Primary Health Care
MCH	Maternal and child health care
MoPH	Ministry of Public Health
MOPF	Ministry of Public Finance
MOU	Memorandum of understanding
NCSFM	National Center for Studies in Family Medicine
NGO	Non-governmental organization
NHIH	National Health Insurance House
PES	Policy environment score
PHC	Primary health care
PHRplus	Partners for Health Reform
PMU	Program Management Unit
QA	Quality assurance
RA	Risk Assessment
RHCRP	Romanian Health Care Reform Program
SO	Strategic Objective
STTA	Short Term Technical Assistance
STG	Standard treatment guideline

TA	Technical assistance
TB	Tuberculosis
TOR	Terms of reference
TOT	Training of trainers
UK	United Kingdom
URC	University Research Co., LLC
USP	United States Pharmacopeia
USAID	United States Agency for International Development
VAT	Value-added tax
VHI	Voluntary (private) health insurance
WB	World Bank
WG	Working Group
WHO	World Health Organization

## I. EXECUTIVE SUMMARY

The final report of the Romanian Health Care Reform Program (RHCRP) highlights the main accomplishments achieved during the brief eighteen month period of the project. This technical proposal, initially awarded for a period of thirty months, was funded by the United States Agency for International Development (USAID). The project was shortened a few months into the contract due to EU accession and resulting USAID/Romania budget cuts, requiring a reassessment of the planned activities for reforming the health care system.

Amidst all of these changes in timeline and funding, the team worked tirelessly to successfully achieve a highly integrated approach to health reforms, at both the national and county levels. Through collaborations and integrated efforts in the implementation of the health reforms, a greater sense of community responsibility for public health has evolved in the primary health care (PHC) pilot counties which must be attributed to the stakeholders' commitment. The relationships for regular collaboration and coordination of resources between many of the stakeholder institutions did not exist prior to our introduction of local resource assessments and focus on better utilization of available resources, both of which were instrumental in launching an integrated approach for improvement of quality patient care.

Key exemplary accomplishments for each project component were:

- *Component 1, Support for Health Policy Reform and Implementation* contributed to the attainment of IR 3.4.1; Improved legal, regulatory, and policy framework by developing the secondary legislation to support new primary health care reform laws passed by parliament identifying and building consensus for the approval of legal, regulatory and policy changes necessary to implement health system reforms. Strengthening decentralized policy development and implementation capacity, and bridging local and central policymaking processes.
- *Component 2, Strengthening the Quality of Primary Health Care*; Increased the capacity of primary health care providers in direct linkage to IR 3.4.3, and improved access to integrated quality services, through a PHC program designed to specifically increase the competencies of general practitioners through training on standardized protocols for preventive care and chronic disease treatments.
- *Component 3: Reforming Pharmaceutical Management* supported IR 3.4.2; Improved mobilization, allocation, and use of social sector resources through the rationalization of pharmaceutical procurement in the hospitals of Romania through the development of the Pharmacy and Therapeutics Committee and Formulary system whereby the hospitals would be allowed to budget their funding and control procurement.

One of the initial successes of RHCRP was our close collaboration with the various departments in the Ministry of Public Health (MoPH) to support the reform laws that had been proposed by the current Minister of Public Health and passed by the Romanian Government and the Parliament. We supported Minister Nicolaescu's efforts on the health reforms through the provision of technical assistance primarily to the working groups for the various departments. Through the organization of workshops and the provision of appropriate expertise, focused on priority activities identified by the Minister of Public Health, the RHCRP team empowered stakeholders and promoted sustainable and strong collaboration at the district and local levels. The training workshops as well as multiple expert working sessions culminated in the development of a Health Policy Toolkit, developed to support health policy capacity building of key stakeholders at all levels.

The development of secondary legislation supporting the new reform laws resulted in significant contributions that were formulated and developed through workshops conducted at the national level, especially in the areas of private health insurance, primary health care, and hospital

accreditation. Most of the activities related to the secondary legislation have been drafted and published on the Ministry of Public Health web site.

One of the main objectives of the RHCRP was to implement programs that would improve the quality of care by strengthening the primary health care system. By providing trainings for the General Practitioners on good practice models using internationally accepted, standardized protocols the practitioners are able to establish a more organized approach to providing patient care and to develop a better data management system. The models were developed at three pilot sites for preventive care services and treatment of the chronic diseases, hypertension and diabetes mellitus type 2. A software program to support some of the basic PHC services was available to the participating implementers who contributed to enhancements that will improve its usefulness.

Each of the three pilot sites have differed due to various political and socio-economic factors, however each group of officials under the direction of the public health authority has been extremely supportive and has demonstrated their commitment as stated in the partnership agreement. The partnership for capacity building has initiated a process for health care improvement in our pilot sites and allowed us to target many of the reform issues in accordance with the Minister of Public Health's agenda of high priority reforms. The county level stakeholders have continued to function in a cooperative manner at the county level to prioritize the most critical health conditions of the public in the three pilot sites of Bistrita-Nasaud, Suceava and Brasov counties.

We provided technical assistance to the Ministry of Public Health on addressing and implementing the primary health activities deemed appropriate for the reform. Through our efforts to address the health needs of the population, we were successful in achieving the ambitious goals of the project as stated in the USAID Strategic Objective (SO) 3.4: "Increased Effectiveness of Selected Social and Primary Health Care Services for Targeted Vulnerable Populations". Upon conclusion of the operational component of the program, we involved other organizations and agencies to ensure continued momentum of the activities that have been implemented to date but will need continual reinforcement to ensure sustainability.

This report summarizes the approaches, activities and results obtained by the Romanian Health Care Reform program during the less than 18 months of implementation. With the implementation phase shortened, the data compiled comes from a limited number of sites that completed the steps in the process. We focused on those activities which could be implemented in a number of physician practices with a reasonable degree of assurance for sustainability. The document highlights major achievements obtained under each of the project components with emphasis on results produced during the final quarter of the project. Also presented are challenges encountered during implementation of the project, lessons learned, and suggestions to resolve these obstacles. The report concludes by defining actions for institutionalization of these approaches and actions needed for follow-up. It is critical that the leaders from these pilot sites be encouraged to maintain the changes implemented in the system and that the Ministry of Public Health and the NHIH promote these improvements for better quality care through the development of incentives for all providers.

## II. INTRODUCTION, BACKGROUND and VISION

This project was designed to develop and implement processes for three components that would prepare the health care system in Romania to be more consistent with that of the EU member states. The Romanian government realized that they will be required to accept the quality standards for health care that are utilized in Western European countries such as England and France, and make their systems more transparent. To accomplish this, Romania is implementing comprehensive health reform activities that have a major focus on decentralization and strengthening the decentralized levels. The reform is addressing long-standing management and service delivery problems/customs that have been in place for a long time. Examples include:

- The system of unofficial payments for services that is still widely practiced and accepted as the custom for patient care services. It is widely discussed that surgeries or urgent care to treat a patient is postponed until the patient has the funds required by the medical practitioner. The level of service and schedule are dependent on the amount of money people are willing or able to pay. The typical consumer is accustomed to this practice and does not realize that he or she have a right to health care services without unofficial pay. The private health clinics that have developed in Bucharest are based on a more organized, western style medical service. Those patients who can afford it prefer to receive care from such clinics where all payments are announced and known by the patient without negotiation.
- Many patients being admitted to the hospital for a procedure must bring their medications with them because they are not available through the hospital pharmacy. This includes medical supplies such as catheters and medical devices. Often these are available only through select pharmacies. Pharmaceuticals account for nearly 50% of the hospitals' budget. Pharmaceutical sales have grown at an average rate of 30% per year over the past five years.
- The pharmaceutical industry has been very lucrative in Romania due to strategic marketing and extensive lobbying to the medical professionals and the politicians. A pharmacy law was drafted in the fall of 2005 to limit the number of pharmacies any one pharmacist could own to four, however this presented a problem for the chains who may own more than 200 facilities. As a result of lobbying by the pharmaceutical companies and chain store owners, the law was never passed, being the only one of seventeen proposed at that time.

As part of an agreement between the Governments of Romania and the United States of America, the Romanian Health Care Reform Program (RHCRP), in support of the Ministry of Health was designed to actively address and implement activities for health care reform, reallocating resources to the primary health care (PHC) system and to strengthen and improve services.

The contract, initially awarded for 30 months, was cut back in early January resulting in a significant reduction in funding and project length. Originally framed by four key health reform approaches, this shortened timeline and budget, subsequently, resulted in a reduction in scope of work, with component 4, Giving Citizens a Voice, taken out. Other minor adjustments were made to illustrative activities and indicators for the three other project components. Even with these modifications, however, the focus of the project and the expected results for each of the remaining components remained relatively unchanged. As a result, the implementation phase of the project required a dramatic shift in planned activities to realistically make measurable change and demonstrate results.

Amidst all of these changes, the team worked tirelessly to successfully achieve a highly integrated approach to health reforms, at both the national and county levels through the three main Project Components:

- 1) Health Policy Reform and Implementation;
- 2) Strengthening the Quality of Primary Health care and;
- 3) Rationalizing Pharmaceutical Management.

While the primary objective of the Romanian Health Care Reform Program focused on the provision of technical assistance to the Ministry of Health (MoPH) to achieve the objectives of USAID SO 3.4.: “Increased Effectiveness of Selected Social and Primary Health Care Services for Targeted Vulnerable Populations”, every effort was also made to ensure the accomplishment of the objectives for each of the three project components directly contributing to the Intermediate Results (IR) that support this SO:

### **Component 1: Health Policy Reform**

Through the health policy component, the project provided technical assistance to support the Ministry of Public Health in the implementation of selected key health system reforms required to increase the effectiveness of health care services and advance the health care reform agenda. The project worked with the department leaders in the Ministry to ensure that an integrated, evidence-based policy process was functioning with the commitment for implementation. With the proposed seventeen new health care reform laws, the agenda was established by the Minister which identified the priority health reforms for implementation.

We involved key stakeholders in the health reform process from the beginning in order to build capacity within the Ministry of Public Health and with other institutions involved in managing the reform process.

### **Component 2: Primary Health Care**

The Primary care component, a major focus of the RHCRP, strengthened the capacity of primary care physicians to provide quality health care and serve in their designated role as a gatekeeper in the reformed system that will be the center of the success of the reforms. The Family Practice Physicians (FPP) have not been supported in the past, have very low wages and were not provided with the tools to perform their work at the level required for any measure of quality. They provide low quality care due to a lack of confidence and training that would enable them to provide better patient care and to know when to refer patients to a specialist. Given the importance of having a well trained health provider who receives remuneration appropriate for the services he is expected to provide, the challenge was to enhance the capacity and scope of practice of these providers and motivate them to want to acquire additional skills so they can function at the level of a true primary care physician. It is essential to continue to encourage the reallocation of resources to primary care.

### **Component 3: Pharmaceutical Management**

The focus of the pharmaceutical management component was to rationalize pharmaceutical management for improving pharmaceutical product selection and appropriate use. Hospitals account for 50 per cent of all pharmaceutical expenditures and yet do not have the essential products available for many patients during their hospitalization. The products used in the hospitals are often more expensive than those prescribed for the ambulatory patient, however, there is a great lack of transparency in the selection and procurement process. Decisions made regarding selection of products for reimbursement by the MPH and the NHIH are made by a Committee on Therapeutics comprised of approximately twenty managers of the larger hospitals who typically are physicians involved in clinical practice and teaching as well and who are prescribing or influencing the prescribing habits of the hospital medical staff. This obviously creates a defined target for the pharmaceutical companies to influence for decisions to be made in their favor.

Hospitals lack the Pharmacy and Therapeutics Committee and Formulary system that are a requirement for accreditation in all US hospitals to monitor and promote ethical and rational use of medications. A hospital procurement system that utilizes evidenced-based medicine and objective criteria can reduce costs by eliminating duplication and buying the most cost effective drugs of high quality without the personal preference of a high level person. It is essential for hospital pharmacies to maintain an adequate inventory of the most necessary products to provide quality patient care. The present system of central procurement does not allow the individual hospital to negotiate prices and select suppliers for drug procurement through a competitive bid process. Branded products are heavily marketed at the national level to members of the MPH Committee on Therapeutics in order to influence their decisions. The President of the American Chamber of Commerce is the Country Manager for one of the largest international pharmaceutical companies.

A National Drug Policy was developed in the year 2000 but was never implemented and is now out of date. The organization of the system and the data utilized for pharmaceutical procurement has been impossible to obtain but is available at the NHIH since each pharmacy submits the medications and quantities dispensed on a monthly basis for which they receive reimbursement. There is a lack of transparency regarding the criteria for products on the auction procurement system and the data compiled related to the entire procurement process.

### **RHCRP Vision**

The RHCRP vision was to provide the technical assistance for high quality, integrated services that focus on the individual, the community or county level, health providers, and the central level. At the individual level, the focus was on informing patients to seek access to health care services and utilize them when needed. At the community level, the emphasis was on assisting leaders both professional and political to address access to health care, and to ensure a truly stakeholder participatory policy making process. Support for health providers focused on training on standardized protocols and improved documentation. At the central level, supportive activities focused on building policy development skills, and commitment to collaborate with other ministries and government levels.

The vision for impacting changes that will improve health services provided to individuals was to increase access to medical services and pharmaceuticals for treatment of their medical conditions. Access refers to availability of services at the local level with additional facilities or establishing a mechanism to bring services to the rural areas on a regular basis. One challenge was to offer the services and have citizens utilize them appropriately. For example, when an emergency ambulance service was initiated in Targu Mures, one of the problems was inappropriate and over use of the services for minor accidents, etc. which did not require an emergency response. Citizens must be educated to be responsible and held accountable for appropriate utilization of such benefits.

The vision for improving health care at the community level was to build local capacity while challenging leaders to accept responsibility for identifying and addressing health sector problems at the grass roots. This included building capacity to project resource shortfall and to effectively mobilize required finances. Lastly, the project challenged community stakeholders to bring together the leaders and assist them to identify and evaluate priorities and resolve their problems by working together in a cooperative manner to address public health needs including both medical and social. Key to bringing the leaders together was the development of a Memorandum of Understanding that resulted in communication among the leaders on their health related issues and acceptance of a level of responsibility for finding strategies and solutions.

The vision at the health provider level was focused on increasing the competency of the general practice physicians by training them in a more structured approach to assessment of patients and documenting the care given. Introducing new assessment and diagnostic tools into their practices improves the quality of care provided through preventive care assessment and earlier disease treatment.

The vision at the central level was to assist the MoPH to establish clear policies with the appropriate norms to implement the integration of the patient services into a system that serves the entire population. The Ministry of Public Health at the central level provides direction and should distribute the budget to the counties to implement the programs based on the priorities established at the community level. The Ministry needs to support health providers with the tools and facilities that are necessary to offer basic services to all citizens. The allocation of health funds should begin with more emphasis on preventive care and media campaigns to better educate the patient to accept greater responsibility for their own health care.

### **III. KEY IMPLEMENTATION STRATEGIES**

Health care in Romania involves a highly complex system and requires a multifaceted approach to integrate key elements comprising high quality health care services to be implemented within the healthcare reform process. RHCRP strategic activities, implemented with a partnership led by the prime contractor, University Research Co., LLC in collaboration with Health Strategies International, LLC, emphasized ongoing integration of project components through several cross-cutting activities to maximize efficiency in project resource utilization, promote activity institutionalization and sustainability, and to ensure that each component mutually supports each other in effectively impacting project outcomes.

The key implementation strategies utilized by the project included:

1. Formation of Advisory Groups: To ensure ownership and sustainability of project outputs and results, achieved as part of the implementation of policies and reforms, project strategies were conveyed through a participatory approach at all levels, with oversight and guidance provided through Advisory Groups backed up with significant technical support, training and other capacity building activity. The groups established in collaboration with the MoPH, consist of major stakeholders involved in health care reform, collaborating on a regular basis to assess the status of implementation.
2. Quality Assurance: RHCRP introduced quality assurance systems in primary health care facilities related to local clinical and administrative management interventions, standardized treatment guidelines and other prevention guidelines, and developed corresponding tools to monitor compliance of PHC guidelines to reflect improved continuity and quality of care.
3. Capacity Building: The project designed a program for capacity building that enabled the MoPH at the local and central level to design, implement and monitor performance of health policy reform implementation and also increased clinical capacity of primary health care providers. A key principle was also to invite participation from other sectors at all levels.
4. Partnerships and Collaboration: In order to achieve measurable results in a short period of time, the team developed partnerships with key stakeholders focused on complementary and synergistic values, as well as specific expertise and capabilities of the participants relevant to the project objectives. Key relationships were established with institutional clients (the MoPH and INA) in the development of a collaborative system that would sustain results.
5. Improved Access to Health Services: A system was designed to help meet the needs of patients in rural and remote communities through reallocation and administration of resources, including supplies, within the current system.

## **IV. FINDINGS, RESULTS & RECOMMENDATIONS**

### **COMPONENT I: SUPPORT FOR HEALTH POLICY REFORM AND IMPLEMENTATION**

The Romanian Health Care Reform team's success in health policy reform and implementation can be attributed largely to their close working relationship with the Ministry of Public Health and the provision of hands-on support to policy implementation and facilitating a negotiation process to reach consensus. Throughout the course of the project, the team continuously promoted and facilitated inter-sectoral and stakeholder collaboration at the national and county levels, to enable the development of health strategies and policies according to health reform priorities, applying a bottom-up policy development model.

#### ***Participatory IPWG's Established and Functioning***

At the onset of the project, new health reform laws were passed by the Romanian Parliament and required the subsequent development of secondary legislation to support this broader mandate. The project worked to develop Inter-sectoral policy working groups to support the MOPH in development of a legal framework for health policy implementation.

A strong collaborative relationship with the Ministry of Health and other key stakeholders led to the organization these highly effective IPWGs, which made significant contributions to the completion of the Secondary Legislation in several areas of health policy reform within very tight deadlines. These areas included national health programs, hospital management, primary health care, and voluntary or private health insurance. These highly participatory IPWGs, well represented by stakeholders from all sectors at both the national and community levels, brought together key professionals charged with implementing reforms with strategic and policy oriented MOPH experts, who successfully reached consensus over key strategies and policies through numerous workshops and meeting held and supported by the RHCRP.

The RHCRP provided timely, effective information and technical assistance to each IPWG, including the provision of "sample" policies, assistance with methods for policy implementation, and the facilitation of a negotiation process. Key recommendations and strategies established through the work of the IPWG were incorporated into the approved regulations.

In the finalization of the voluntary health insurance law, RHCRP provided hands-on support to this controversial legislation, essentially guiding the process and facilitating a transparent and open course of development. Meetings were held with major private insurance companies and insurance brokers, along with the Ministry of Public Health. The result of this work culminated in the agreement on the final legislation – a remarkable achievement reached with input from all sides.

#### ***Health Policy, Program Design and Advocacy Promoted in Pilot Sites***

The project worked to empower shared policy inputs from the local level in 3 pilot Counties – Bistrita-Nasaud, Suceava and Brasov, through relevant stakeholders. In collaboration with the MOPH and its administrative units in the pilot sites, 3 inter-sectoral partnerships (MOUs) were developed and signed at county level. The groups comprised representatives of the MOPH county administrative units, GP's, community nurses, local authorities (such as Prefectura, Mayor's House), Ministry of Labor representatives, district health insurance houses and other stakeholders involved in the health reform process (such as Bucovina Ladies of Suceava). The groups were used as a mechanism to facilitate the identification of priority health reforms and as a forum for developing a proactive understanding and consensus on health reform policy implementation.

#### ***Capacity in health policy design, implementation and monitoring developed;***

Following the signing of the MOUs, training workshops were implemented for representatives of the pilot counties key partner institutions and our key MOPH counterparts. This capacity-building

program for health policies and programs developed by the project became an important tool in identifying key health issues and enabled local authorities and other key institutions involved in the health reform implementation to design, implement and monitor health reform policies.

The design of the capacity building program included the input of various experts and professionals and the content was based on the identified health needs in the three pilot sites. The processes included integrated contributions of specialists from various administrative, educational and health institutions with competence in policy design and implementation, e.g. University of Bucharest, Institute of Public Health Bucharest and the National Institute of Administration, in order to ensure sustainability and further capacity building. The institutions with key competence in policy design, implementation and evaluation were identified and a strategic partnership was created to ensure further capacity building in health policy development. Institutions such as Public Health Department from Medical University and National Institute of Administration were invited to join the program.

Following the training workshops a health policy toolkit manual was developed which targets a key challenge to health sector reform - insufficiently developed institutional capacity at the local level. It provides an instrument to all county authorities to support health policy capacity building for key stakeholders in order to ensure health sector reform implementation and health care improvement.

The key driving principle in development of the Toolkit was the team's commitment to a truly integrated policy making process that empowers actors from all sectors and levels. The Toolkit is a culmination of two years of training programs and pilot policymaking processes in the pilot counties. Throughout, the Toolkit has evolved, been refined and adapted at all levels. Along with training curricula, it represents a unique step toward empowering local stakeholders to meet a primary goal of health sector reform and to ensuring the decentralization of the health system by empowering local authorities and communities with attributions and roles in health care. Being a user-friendly guide that incorporates real-life examples, and offers a step-by-step description of the formulation and implementation of health policies and programs, it can be used as a practical text or self training instrument.

### ***Enabling legal framework for health policy implementation designed***

We insured the networking of county level groups with national groups, bringing a more accurate picture of the real needs within the system. We supported the MOPH in developing health strategies and policies in other relevant areas of health reform implementation, such as developing a national primary health care prevention program, improving rural health care delivery, and decentralization of the health care system. Our support to the MOPH has ranged from organizing a start up Policy Workshop to facilitating other specific work sessions/stakeholders meetings in a variety of settings and contributing with technical support of international and local experts.

In providing TA to the MOPH, coordination with the activities of other components of the Project has been essential to ensure an integrated approach to health system reform implementation. We have ensured correlation between access to pharmaceuticals in rural areas, decentralization of services and primary care delivery in order to integrate the policies chosen for each specific area and to determine details about the specific actions to be taken. Inter-institutional memorandums were developed as a tool that defines inter-institutional collaboration with regard to policy making at county level.

### ***Collaborative partnerships to promote consensus on policy reform developed and sustained***

Building stakeholder trust and capacity at all levels has been achieved by routinely participating in partner meetings, disseminating critical policy information and providing technical assistance. Consensual decision-making that builds on MOPH and donor inputs including the World Bank, EU Phare, and other groups has been facilitated through our project. We have participated in numerous donor meetings in which we exchanged information on health reform issues with other

programs/projects relevant to the area. Our partnerships focused on building alliances in support of reforms and promoting sustainability.

### **Summary of Results:**

- Inter-sectoral Policy working Groups (IPWG) formed at national level;
- Key secondary legislation on health reforms developed;
- Achieved highly diverse IPWG representation from all levels including national experts, private sector, providers, labor and other local stakeholders;
- Stakeholder consensus achieved on strategies and priorities for health policy reform implementation;
- Health policy toolkit developed to address the key health reform challenge of insufficiently developed institutional capacity at the local level.

## **COMPONENT 2: PRIMARY HEALTH CARE**

The primary health care system in Romania has experienced major changes in the last decade. PHC practitioners were privatized following the introduction of the national health insurance system and were called family practice physicians (FPP). At the same time, the FPP/PHC professionals were not provided the clinical and management training needed to successfully fulfill their new “gate-keeping” role. They were not prepared to divert patients from specialized services, nor did they have sufficient resources to provide the types of ambulatory services needed.

Given the importance of skilled and adequately funded primary health care providers, the RHCRP worked to design and implement interventions that would enhance the capacity and scope of practice of these providers and in turn, the primary health care system. The results are detailed below.

### ***Development and Implementation of an Optimized Design of the Primary Health Care System***

A Primary Health Care Advisory group was established by the project and played a critical and proactive role in addressing PHC reform through policy at the national and local levels. The PHC Advisory group not only secured participation and commitment of key officials at the national level (MOPH, NHIH, College of Physicians, Family Practice Physicians Association) and at the local level (County Public Health Authorities, County Insurance Houses, the local College of Physicians, local FPAs), but was also instrumental in the identification and prioritization of interventions to improve the design and function of the PHC system.

Support provided to the PHC Advisory Group resulted in the development of several secondary legislation items for implementing the Primary Health Care law. The project specifically worked to redefine:

- The scope of work for PHC in Family Practice settings and organizations;
- Policies regarding the licensing and distribution of PHC services and;
- Linking the Primary Care domain with other recently regulated domains including Community Care, National Health Programs, and the framework contract under the social insurance law.

## ***Development and implementation of the Primary Health Care System model***

A primary health care framework that was successfully implemented in the three pilot districts was proposed to the Ministry of Public Health as the basis of the National Public Health program on primary care.

The conceptual model for preventive care with the risk-o-gram and other instruments created to document the data collected are being considered by the Ministry of Public Health for national scale-up. This has been reviewed and approved by the Family Medicine Commission appointed by the Minister to promote improved quality care and would become part of the National Health Evaluation Program.

In addition, the Family Medicine Commission of the MoPH has also reviewed and expressed its support for endorsement of the chronic care model and related forms and tools for both diabetes mellitus type 2 and hypertension.

The National Health Insurance House has expressed interest in incorporating incentives as part of a new payment concept based on performance of PHC providers using standardized protocols. The options being considered are: pay for performance with a more defined risk adjustment in the capitation system that incorporates workload and other population parameters linked to increased use of healthcare services. The Chief Physician of the National Health Insurance House expressed willingness to introduce these new payment concepts in the pilot sites based on data for creating future resource allocation strategies for PHC.

A conceptual model to improve performance was introduced to key stakeholders. Key interventions were identified to implement a model that increases quality care and clinical capacity. The project achievements initiated in the pilot sites need to be maintained and built upon to ensure sustainability of improved primary health care clinical performance. Changes will have to be implemented continuously that reduce the administrative burden through such improvements as an information system for reporting, increased access of patients to chronic medications and essential tests, introduction of incentives in the payment system for motivation, improved participation of patients through IEC, and other targeted social marketing interventions.

## ***Finalization and successful implementation of Quality Assurance tools for PHC clinical practice in the pilot sites***

Based on existing guidelines for PHC prevention, conceptual models were developed, a Quality Assurance (QA) system was designed and implemented successfully by 29 PHC physicians in the three pilot counties of Bistrita-Nasaud, Suceava and Brasov. Implementation tools were developed and tested in the pilot sites.

In the preventive care model, the risk assessment tool was designed as a flow sheet to orient adult health maintenance episodes ( risk-o-gram) as well as a flow sheet, a chart of age and sex preventive care schedules, a simple preventive care register, patient sheets to document information collected, and nomograms and other aides, etc. (See Annex 3)

For the chronic care model, flow sheets, protocols, and clinical pathway forms that assist in the decision process and improve the patient record of clinical information were introduced, along with a standard referral form for a diabetes diagnosis and a patient register. (See Annex 3)

A computer generated tool that had been developed with input from a group of GP physicians was introduced to assist in developing an electronic medical record. An attempt was made to facilitate a link between this software and the developers of the National Health Information System commissioned by the Ministry of Public Health.

## ***Design and introduction of Clinical Evaluation system methodologies***

The project designed and utilized evaluation tools for clinical practice to perform chart audits, and to support quality improvement through mentoring and monitoring systems.

Quality of care criteria and indicators were created to assess the compliance of GPs in pilot sites to follow selected standard treatment guidelines for the preventive care, and for the chronic care of diabetes and hypertension.

The evaluation tools were used to assess a total of 1,075 clinical encounters for preventive care and chronic care performed in the pilot counties. The results indicated excellent compliance with good practice for all criteria.

The Bistrita Public Health Authority independently tested the evaluation tools of the diabetes model on a small sample of charts on patients at the Diabetes Center in Bistrita. The results indicated lower scores for the majority of quality indicators for the care provided by diabetologists as compared to the care provided by pilot trained GPs.

## **Promote Scale-Up of Clinical Models with the PHC pilot sites**

In all of the workshops and conferences with key stakeholders, project staff promoted the importance of learning from and scaling up the models developed in the pilot sites. Discussions were also held with donors to encourage them to consider supporting scale up of the pilot activities.

### **Summary of Results:**

- Developed and implemented Primary Health Care System model in 3 pilot sites – Bistrita-Nasaud, Suceava and Brasov Counties;
- The pilot PHC framework has been proposed by the MoPH Commission on primary health care to be adopted as the basis for the National Public Health Program addressing PHC services;
- The NHIH has indicated their willingness to conduct a study on various incentives such as payment for performance that could be initiated for those providers who perform the QA procedures and report their results;
- The clinical care model implemented in the pilot sites was successfully used for improving the quality of care and clinical performance. To maintain the improved effectiveness and efficiency, it will be necessary to continuously monitor and initiate changes to ensure sustainability;
- The QA program was successfully implemented by 29 PHC physicians in the pilot sites;
- The combined implementation of clinical tools and a computer generated program for data collection was developed as the protocol to improve the efficiency and consistency of a patient record and statistical data collected.

## **COMPONENT 3: RATIONALIZING PHARMACEUTICAL MANAGEMENT**

The concept of the Pharmacy and Therapeutics Committee was introduced to the Director of the Cardiovascular Institute in Targu Mures which was selected as the first pilot site. A follow up meeting was scheduled with a group of ten physicians from various medical and surgical specialties in the hospital. They were provided with an overview of the Committee organization and the development of the Formulary for their hospital, appropriate for the specific patients being treated there. A major role of the Committee is to screen all requests for pharmaceuticals to be routinely stocked and available through the hospital pharmacy. The selection of products should be based on

objective criteria about their effectiveness and cost. The pharmacist, as a member of the PTC, must begin to function in a clinical role, Unfortunately, it does not appear likely that this will occur in the near future in the Romanian hospital system since the pharmacists function primarily as supply clerks and do not interact with the medical staff in a peer capacity.

The PTC cannot be implemented effectively in this environment since all pharmaceutical procurement decisions are made at the central level which will not allow an individual hospital to negotiate for an equivalent product on a competitive basis. The present procurement process is conducted by auction organized by the NHIH. There continues to be a lack of transparency in this process since the insurance house is not receptive to outside assistance to review this process.

The large pharmaceuticals are thriving in Romania with annual sales increases ranging from 28% to 36%. The Formulary system eliminates duplication of similar therapeutic agents. Reimbursement to the pharmacists is based on the average lowest generic price documented in 3 European countries. The products comprising the list of reimbursable items changes from time to time without warning resulting in a great deal of confusion by the prescribing physicians and pharmacists. Even the county level insurance house does not receive any pre-announced date for these changes and learns about them when they actually receive the list.

### **Summary of Results:**

- Introduced the Pharmacy and Therapeutics Committee concept to four hospitals including the Institute for Cardiovascular Diseases in Targu Mures, and hospitals in Bistrita, Suceava and Bucharest.
- Emphasized the value of the PTC model for improving product selection, cost control of pharmaceutical expenditures and as an educational tool for the medical, pharmacy and nursing staffs for a better understanding of monitoring and reporting adverse drug reactions and inappropriate drug prescribing.
- Organized the Pharmaceutical Advisory Group to discuss issues related to improved patient access to pharmaceuticals and quality care. A priority is having the most cost effective drug available. The Group consisted of representatives from the County Insurance House, College of Pharmacists, Faculty of Pharmacy, Jurist for the College of Pharmacists and Physicians, and Family Practice Physicians;
- Advised the Bistrita County Health Insurance House and the College of Pharmacists in both Bistrita and Brasov Counties on development of a management system for the pharmacies and the Insurance House to monitoring allocation of diabetic supplies so that the subsidized medications could be reallocated between pharmacies in order to meet the patients' needs on a regular basis;
- A pilot will be initiated through the collaboration and support of the College of Pharmacists in Bistrita and Brasov counties to improve patient's access to medications in the rural areas. A courier service will pick up the written prescriptions, fill them centrally and deliver the medications to the physicians' offices in these rural towns for the patients;
- Developed abbreviated Drug Information Summary sheets for physicians and patients on the medications approved in the standardized treatment guidelines. The physician will provide this to the patient to ensure they have useful and practical information as a reference while at home including purpose, symptoms and observations to note, precautions, possible interactions and compliance questions, etc.
- The Bistrita County Insurance House began compiling information on the medications prescribed which are designated for the two chronic diseases with the relative pricing in order to forecast the real medication need and the budget required to treat these diseases adequately.

## V. LESSONS LEARNED & ACTIONS FOR INSTITUTIONALIZATION

### Lessons Learned:

Throughout the project, various situations arose indicating that the National Health Insurance House holds the key to many of the changes that are needed to implement health reform and improve health care services. The Basic Benefit Package (BBP) was often identified as being at the crux of many of the problems related to availability of services and medications. A select number of diseases that require expensive therapies are presently being treated with 100% coverage with no charge to the patient including diabetes mellitus type 2, cancer therapies, hepatitis B and other diseases requiring very costly therapies. This is causing a tremendous strain on a very limited health budget that is stretched beyond the funds collected. Typically, these therapies are heavily promoted through marketing to the medical providers and the consumer by the pharmaceutical companies. Many of the therapies should be reviewed as to their cost effectiveness and proven benefit.

Pharmacies have proliferated in the cities and larger towns, especially chain pharmacies, but they are generally not interested in providing services to the rural areas. Incentives are needed to attract pharmacists to invest in rural and remote areas. One incentive would be to allow the pharmacists to market veterinary products along with human medications, but presently, the law requires separate pharmacies with animal products under the control of a veterinarian. The county level stakeholders comprised of local government officials and health professionals signed a Memorandum of Understanding committing to address the public health needs in their county. We found that coaching these individuals and institutions was essential to stimulate the decision makers to learn how to work together and develop strategies for health reform to draw on resources available to find resolution to the needs of their community's population, whether these needs were medical, social or a combination. One mayor of a commune realized that by working together with his counterparts in surrounding communes who shared similar problems could benefit by joining forces and pooling their resources. As a result, the mayors of four communes in Bistrita county formed a non profit association to formalize their cooperative effort.

It was obvious from early meetings and workshops that mentoring and monitoring the activities for implementing changes in the pilot sites was essential to ensure sustainability of the reform developments of this program. Other programs in the past provided orientations and trainings alone with no on-going monitoring or follow up which resulted in diminished outcomes over time and poor sustainability. Constant mentoring and monitoring were the key reasons we were able to achieve the level of commitment and sustainability achieved. The leaders involved in the pilots and those who supported the achievements must continue to work on improving the health care system. The health providers must accept responsibility for providing and maintaining a higher standard for quality care.

The medical providers in Romania do not employ or utilize support staff to conduct many of the routine tasks, such as checking a patient's blood pressure, which could be done by a properly trained person. Family Practice Physicians should coach their support staff to make routine preliminary diagnostic preparations allowing the physicians more time to build their practice. Speculation is that physicians do not want to give up the individual contact with patients for self interests.

The current health care budget cannot support the services currently offered, the system is not efficient, is wasteful and not transparent. A private health insurance system would alleviate some of the stress on the social health care system, however those who would opt for the private health insurance want to be exempt from contributions to the social system. The social health insurance needs the contributions to support a universal health system for everyone. One recent positive development is that the budget of the Ministry of Public Health has nearly doubled due to additional revenues transferred to the MOPH budget from the alcohol and tobacco taxes which will assist with subsidizing the covered disease treatments

With regard to the pilot sites, three sites were selected after an assessment of their interest to participate, potential for collaboration with the core community leaders, and ability to establish a list of agreed upon priority issues to address. It became evident early that each of the pilot sites would progress at a different rate and attain different levels of implementation in a given period.

Bistrita-Nasaud County was the leading implementer which was attributed to strong leadership by the Director for Public Health Authority and the support of his Deputy Director to maintain the commitment with key stakeholders in the community. This community was focused, committed, well organized, and had a competitive spirit to excel as expressed by the Prefect at the Closing Conference. The Director of the County Insurance House in Bistrita was the most receptive to considering alternative measures that could improve the reimbursement system and to compiling data for evaluation.

Suceava County was less organized as a community, consists of a large geographic area with a poor rural population, and did not demonstrate the collaboration and commitment of local officials as found in Bistrita-Nasaud County.

Brasov County was added as the third pilot to the project at a later date because they were represented on the PHC Committee of the MOPH and had several leaders interested in health reform. At the end of the pilot period, the core group of leaders participating from Brasov County did not follow through as well as the others, nor did they demonstrate the long term commitment found in other counties. This may have been attributed to less stability due to frequent changes in the institutional leaders and more local politics.

In conclusion, as a member of the EU, the Romanian Government has the opportunity to collaborate with other EU member states and replicate effective and efficient models developed in our project that would provide health care services that meet the needs of the population. This should include an option for private health care for those who can afford more comprehensive services.

**Key Follow-up Recommendations:**

- Therapies should be reviewed as to their cost effectiveness and proven benefit;
- Incentives are needed to attract pharmacists to invest in rural and remote areas;
- Coaching is essential to stimulate the decision-makers to learn how to work together and develop strategies for health reform to draw on resources available to find resolution to the needs of their community's population, whether these needs were medical, social or a combination;
- Mentoring and monitoring the activities for implementing changes in the pilot sites is critical to ensure sustainability;
- Family Practice Physicians should coach their support staff to make routine preliminary diagnostic preparations allowing the physicians more time to build their practice.

## **VI. ANNEXES**

## **ANNEX I: Workshops, Trainings and Conferences Delivered**

### **May 3-6, 2006, Predeal, “Modeling the secondary legislation package”**

60 registered participants from the Ministry of Public Health, Public Health Authorities of Bistrita and Suceava, National and County Health Insurance Houses, Hospitals from Bucharest (Bagdasar) and the Institute for Cardiovascular Surgery, Targu Mures, National School for Management in Health (INCDS), College of Physicians, Family Physicians, City Hall in Bistrita County, USAID, URC, JSI, and other individuals.

### **June 15, 2006, Bucharest, “Voluntary/private health insurance – developing a framework through secondary legislation”**

10 participants from MOH, UNSAR (association of private insurers), CSA – Insurance Surveillance (supervisory) Commission, Insurance House of Transporters, Medicover (private health care clinic), “Medical Solidarity” Federation, URC.

### **July 4-6, 2006, Iasi, “Continuity of care for diabetic and hypertensive patients – Translating evidence into practice for primary health care in Romania”**

16 participants from Suceava & Bistrita counties: General Practitioners, leaders from Medical Training Centers in Iasi & Cluj & Bucharest – CEMC, CSS, and CNSFM, and URC.

### **July 10-11, 2006, Predeal, “Improving quality patient care through the introduction of hospital accreditation process criteria”**

15 participants from the MOH, Public Health Authorities from Suceava & Brasov Counties, Dambovita County HIH, Targu Mures & Bucharest (Bagdasar) Hospitals, IOMC, URC.

### **July 18, 2006, Bucharest, “Voluntary health insurance – developments for secondary legislation”**

14 participants from the MOH, UNSAR, Insurance Surveillance Commission (CSA), Insurance House of Transporters, Medicover Clinic, “Medical Solidarity” Federation, and URC Consultant and staff.

### **July 27-30, 2006, Vatra Dornei, “Clinical Practice Guidelines for PHC - Preventive Care and Chronic Hypertensive and Diabetic Care”**

30 participants from Bistrita & Suceava Counties including GPs, Medical Training Centers in Iasi, Cluj & Bucharest – (CEMC, CSS & CNSMF), and URC.

### **August 10-13, 2006, Venus Conf. Center - Constanta, “Primary Health Care – Policy Development”**

20 participants from the College of Physicians, the MOH’s Committee for Family Medicine, GPs, and URC.

### **September 14, 2006, Bucharest, “Voluntary health insurance - secondary legislation developments”**

14 participants from the MOH, UNSAR, Insurance Surveillance Commission (CSA), Insurance House of Transporters, Medicover Health Clinic, “Medical Solidarity” Federation, Insurers - InterAmerican, Generali Asigurari, Omnisig, “Caritas” Hospital, and URC.

**September 22-24, 2006, Campulung, “Introduction to Health Policies and Program Planning – Suceava pilot county”**

27 participants from the MOH (Strategic Planning Department), representatives from Suceava county Public Health Authority, HIH, City Hall from Vatra Dornei & Campulung Moldovenesc, Local Council, Prefect’s Office, College of Physicians, College of Pharmacists, an NGO (Bucovina Ladies Assoc.), GPs, Medical Assistants, and URC.

**September 28-30, 2006, Brasov, “Integrating preventive care and chronic disease management in family practice”**

30 participants from Suceava & Brasov counties which included GPs, the MOH Committee for Family Medicine, and URC.

**September 29 – Oct 1, 2006, Bistrita, Poiana Zanelor, “Introduction to Health Policies and Program Planning– Bistrita Pilot county”**

19 participants from Bistrita county including City Hall, Prefect’s Office, county HIH, College of Physicians, Public Health Authority, Directorate for Labor and Social Solidarity, County Hospital, Nurses’ Association, and URC.

**October 18 – 20, 2006, Sinaia, “Approaches to improve health system in rural areas”**

15 participants from the MOH, Bistrita County including Prundu Barghului City hall (Mayor), GPs from Bistrita-Nasaud & Brasov Counties, Community Assistant from Bistrita, the Public Health Authorities from Bistrita, Constanta, Brasov and Suceava Counties, and URC.

**October 25-26, 2006, held in Vama, Suceava County, Working meeting with the three training centers to assemble all clinical management tools, and to review mentoring and monitoring methodologies based on input from participating GPs.**

10 GPs participated from the three Medical Training Centers in Bucharest, Iasi & Cluj – (CNSMF, CEMC, CSS), and URC.

**October 27, 2006, Bistrita, Review clinical tools for health prevention module with participating GPs from Bistrita County based on the National MOH - Health Evaluation Program. Multidisciplinary training workshop comprised of GPs, nurses, medical specialists and managers, on the complete toolkit for diabetes, and including URC.**

23 participants from Bistrita county including physicians from the county hospital, GPs, the Public Health Authority, College of Physicians, medical assistants, and URC.

**November 10-12, 2006, Bran in Brasov County, “Introduction to Health Policies and Program Planning – Brasov County”**

21 participants from Brasov county including the Public Health Authority, HIH, City Hall, Prefect’s Office, the Directorate for Labor, Social Solidarity and Family, College of Physicians, College of Pharmacists, the NGO – Hospice Casa Sperantei, Nurses’ Association, and URC.

**November 16-19, 2006, Vatra Dornei, “Developing plans for implementing health policies and programs at the local level”**

35 participants from Bistrita & Suceava counties included the Public Health Authorities, HIH, Prefect’s Office, Directorate for Labor, Social Solidarity and Family, City Halls, County Councils, GPs, the Directorate for Social Services, the Directorate for Statistics, and URC.

**December 7-9, 2006, Sinaia, “Improving health resource allocation”**

30 participants from the MOH, College of Physicians, College of Pharmacists, the Public Health Authorities in Suceava, Brasov & Bistrita Counties, County and National HIH, INCDS, GPs, Directorate for Labor, Social Solidarity and Family, and URC.

**January 11-12, January 25-26, 2007, Vama, ”Methods and using practical tools for ensuring improved quality in preventive care and chronic care for Family Medicine Practitioners”**

15 participants: General Practitioners

**January 16-19, 2007, Sinaia, ”Developing and implementing health policy and programs at the local level”**

20 participants: Brasov county participants including the PHA, Prefect’s Office, HIH, College of Pharmacists, College of Physicians, GPs and URC.

**February 1-3, 2007 Sinaia, ”Optimizing performance in primary health care”**

20 participants – including Vice President of the NHIH, a URC Consultant and staff

**February 22 – 24, 2007, Vatra Dornei, ”Resource mobilization for health policy implementation”**

35 participants: Suceava & Bistrita counties. This included the review of each Health Policy Trainer’s presentation by the evaluators from the National Institute of Administration.

**March 9, 2007, Brasov, “Information Systems to Support and Ensure Quality Preventive and Chronic Care Services in Family Medicine Practice”**

20 participants – IT specialists developing MOPH project, INSOFT (developer of MedINS system), HIH, College of Physicians, Medical Specialists and CNSFM(Bucharest) and GPs.

**March 23-25, 2007, Sinaia, Final Conference – ”Integrating Improved Health Care from Policy to Practice”**

112 participants including the MOPH, NHIH, central and local government officials, pilot site institutions, interested County representatives other than pilot counties, GPs, the Minister of Public Health, the President and Vice President of the National Health Insurance House, etc.

## ANNEX 2: PMP Indicators

Table 1: RHCRP Indicator Status.

### RHCRP End of Project Indicator Status

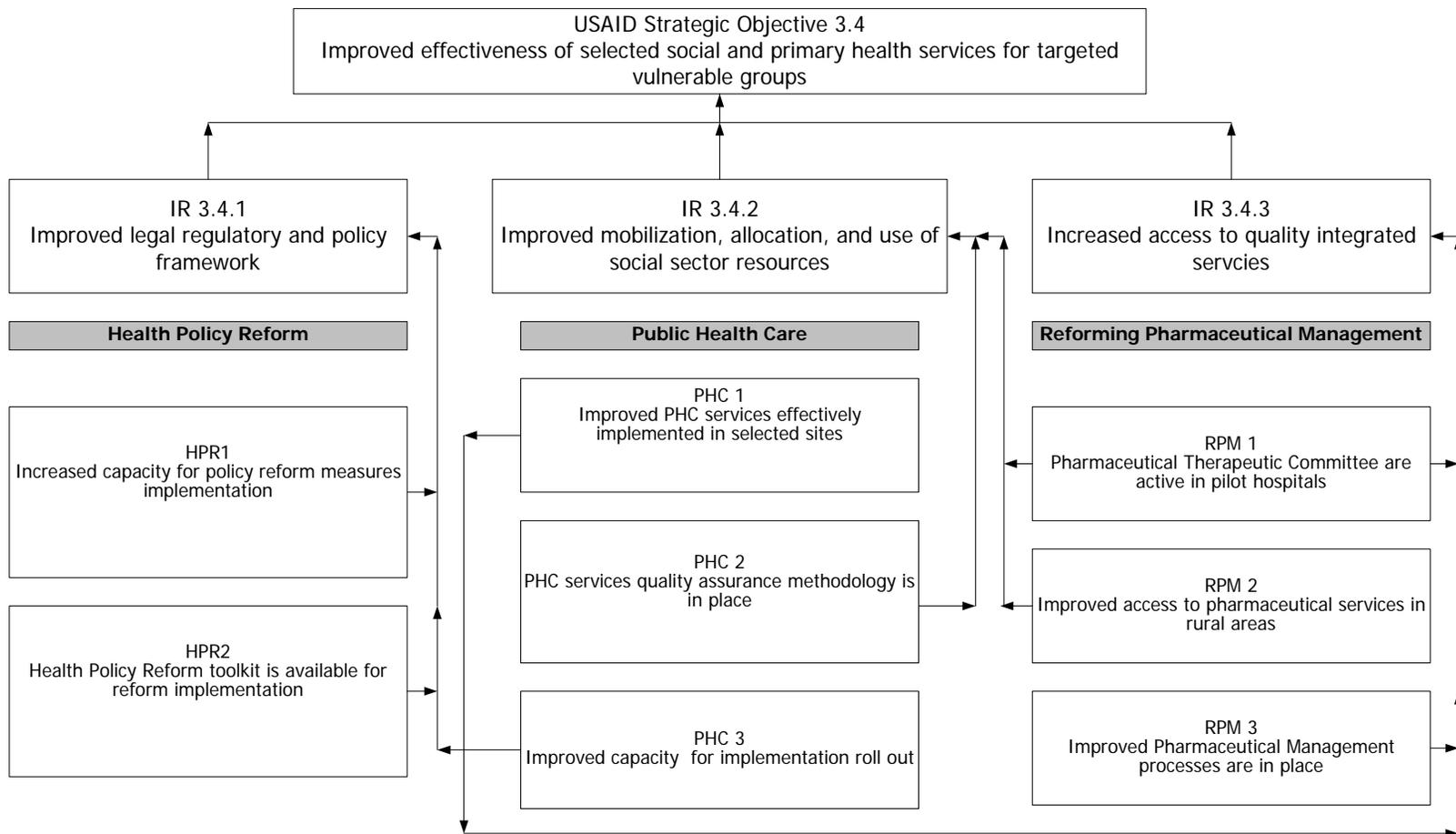
Sub Intermediate Result	Indicator Name	Indicator's Code	Present status	Corresponding USAID Intermediate Result
Increased capacity for policy reform measures implementation	#, area and % of improvement proposals included in new regulations	HPR 1.1	* 2 topic areas (national agency for health programs, hospital management) approved regulations * 85% (17 out of 20) proposals have been included into new regulations	IR 3.4.1 Improved legal regulatory and policy framework
	# of inter sectoral partnerships committed to implement Policy Reform measures	HPR 1.2	3 intersectoral partnerships concluded (Bistrita, Brasov, Suceava)	
	# strategic plans based on the topic areas selected by pilot sites	HPR 1.3	4 strategic plans drafts in Bistrita pilot The other pilots strategies are under development	
Health Policy Reform toolkit is available for reform implementation	# of trainers involved in toolkit design and delivery	HPR 2.1	20 trainers involved in toolkit preparation	IR 3.4.1 Improved legal regulatory and policy framework
	Policy toolkit is developed and disseminated	HPR 2.2	Working	
	Memorandum of Understanding with National Institute for Administration for ongoing support of roll out	HPR 2.3	Finalized	

<b>Sub Intermediate Result</b>	<b>Indicator Name</b>	<b>Indicator's Code</b>	<b>Present status</b>	<b>Corresponding USAID Intermediate Result</b>
Improved PHC services effectively implemented in selected sites	# of PHC practices effectively involved in implementing Improved PHC services	PHC 1	38 practices involved in implementing improved PHC services	IR 3.4.3 Improved access to integrated quality services
PHC services quality assurance methodology is in place	# of professional entities which committed to implement the new quality assurance methodology	PHC 2.1	4 national entities 15 local entities	IR 3.4.2 Improved mobilization, allocation, and use of social sector resources
	PHC clinical quality assurance document	PHC 2.2	Under work – will be included in PHC Policy	
Improved capacity for implementation roll out	# and type of professional experts for process roll out	PHC 3.1	22 experts trained	IR 3.4.1 Improved legal regulatory and policy framework
	Roll out plan sites discussed at Closing Conf.	PHC 3.2	4 counties	

<b>Sub Intermediate Result</b>	<b>Indicator Name</b>	<b>Indicator Code</b>	<b>Present status</b>	<b>Corresponding USAID Intermediate Result</b>
Pharmaceutical Therapeutic Committee in pilot hospitals	# of hospitals selected for the Pharmaceutical & Therapeutics Committee	RPM 1	Introduced Pharmacy Management improvement methodology in four hospitals	IR 3.4.3 Improved access to integrated quality services
Improved access to pharmaceutical services in rural areas	County level stakeholders trained on incentives to encourage pharmacists to offer services in rural areas	RPM 2	Conducted workshops with stakeholders on improving access to pharmacy services in rural areas of the pilot counties. Brasov -6 rural pharmacies added; Bistrita -3 rural areas served from central pharmacies.	IR 3.4.2 Improved mobilization, allocation, and use of social sector resources
Improved Pharmaceutical Management processes are in place	# of pilot site practices that implemented the analysis of comparative costs for pharmaceuticals appropriate for protocols of the targeted medical conditions; pharmaceutical education materials for patients to improve appropriate use.	RPM 3	Pharmacists and HIH in pilot counties compile data on medications for two chronic diseases: HTA and DM2. Fourteen drug information summaries developed for improved appropriate use of medications	IR 3.4.3 Improved access to integrated quality services

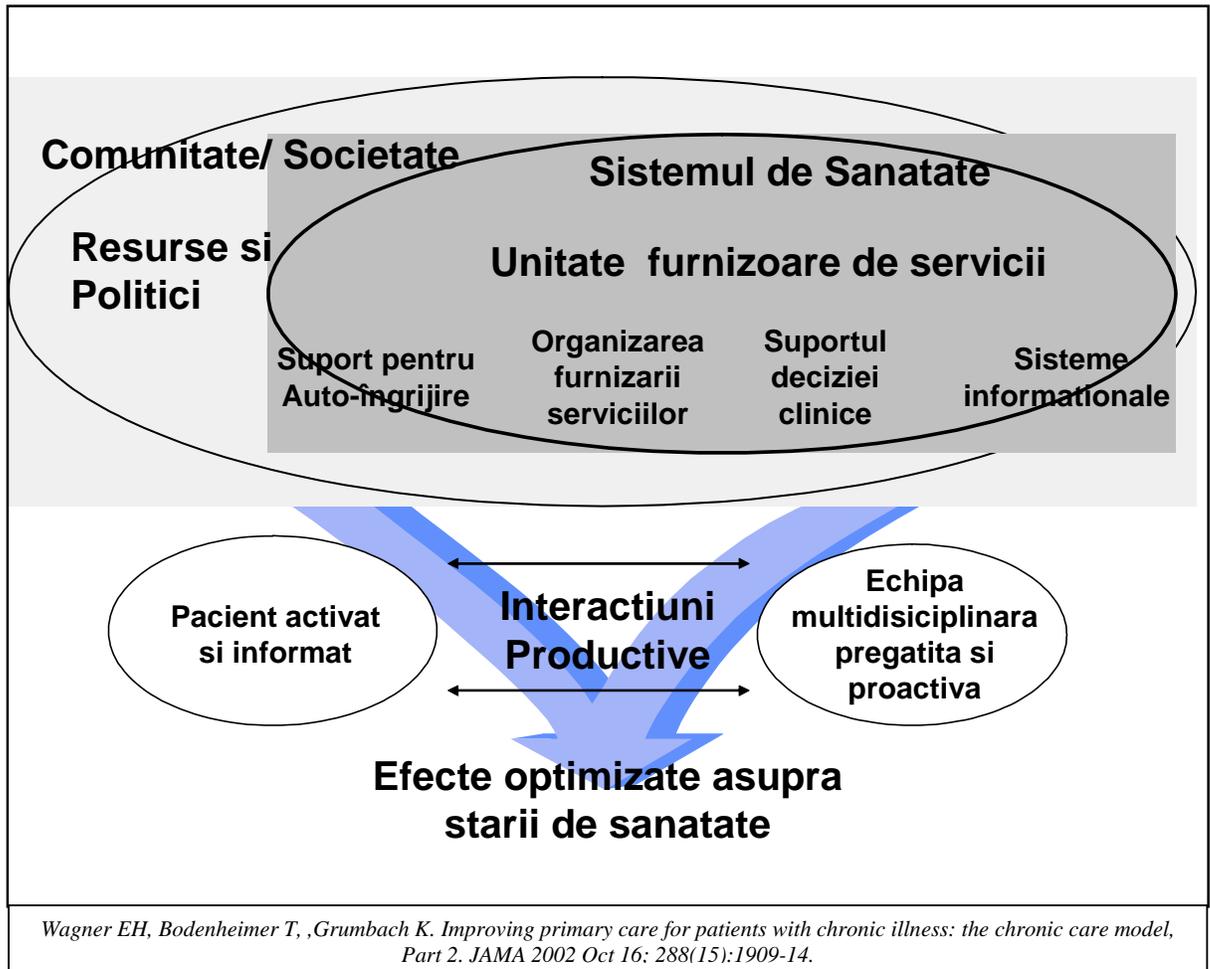
**Table 2: Program Results Framework**

**Romanian Health Care Reform Program Results Framework**



## Annex 3: Example Primary Health Care Tools

### CHRONIC CARE MODEL

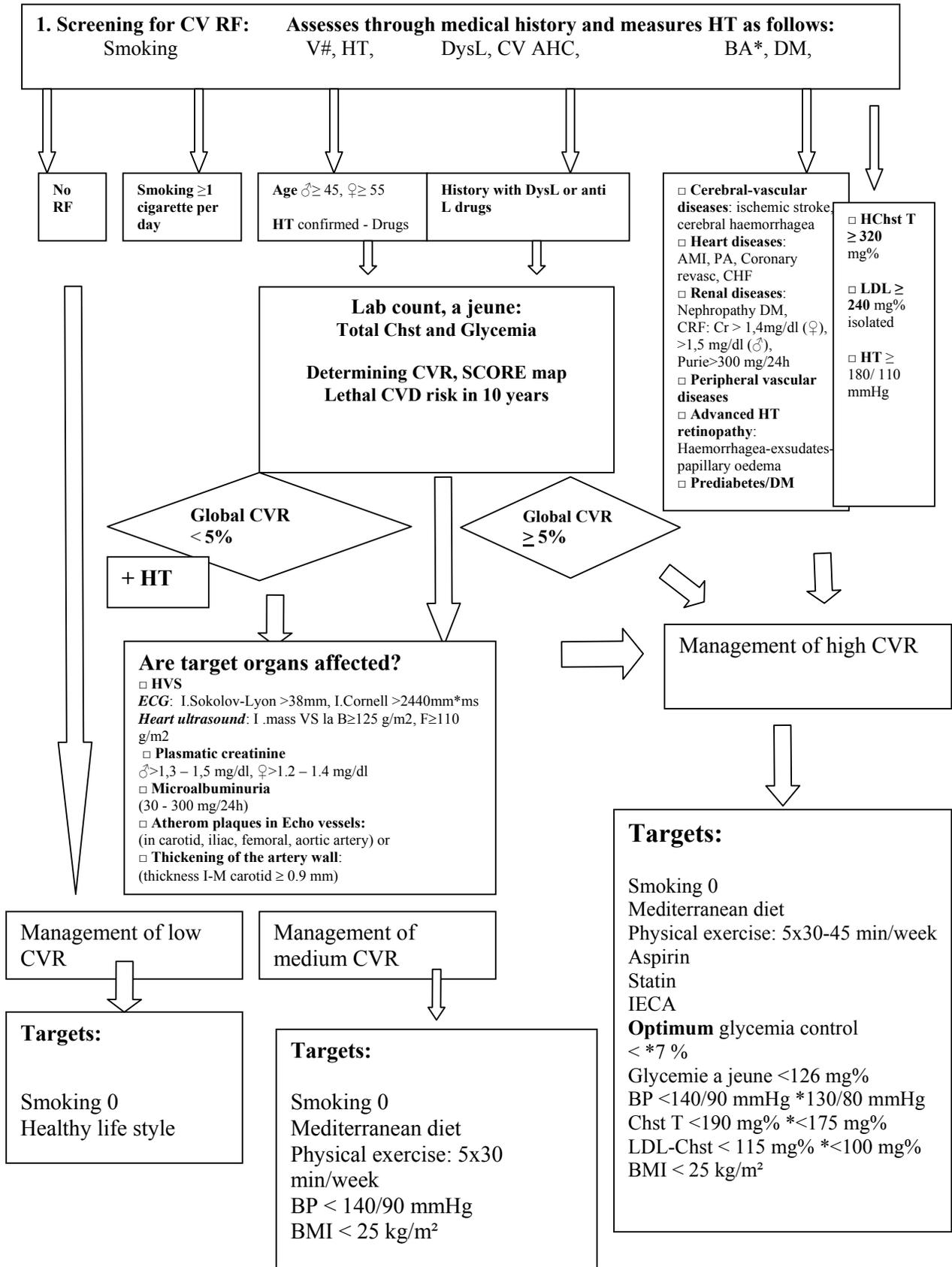


**Type II diabetes management protocol, in line with the order for GP's management of type II diabetes**  
*Bistruta Pilot Project*

CLINICAL CATEGORY	TYPE OF SERVICE	CLINICAL CONTENT	PROFESSIONALS
Detection of new cases	Passive screening	Clinical signs or occasional lab tests 2 blood glucose counts, a.j., venal blood, on different days, for persons with risk F	GP team Any other physician
Complete diagnosis	Assessment of persons with glycemia changes Pre-diabetes diagnosis Type II diabetes	Completing the lab dg depending on initial results	GP team, plus Ophtalmologist Diabetologist plus, as the case may be Cardiologist Nephrologist Neurologist
	Assessing global cardiovascular risk	Medical history, clinical exam, lab	GP plus cardio, if necessary
	Assessing the presence of complications	Medical history, clinical, paraclinical exam	GP/Diabetologist/others
	Decision on therapy	Drafting an individualized therapeutic plan Setting individual targets Diet Physical exercise Drug treatment: OAD/combined OAD/Insulin	GP/Diabetologist GP/Diabetologist Diabetologist
	Monitoring plan	Setting an individualized monitoring plan for Glucose control HT Dyslipidemia Foot Eye Self-monitoring	GP/Diabetologist
Control monitoring visit planning Content of communication with other specialists		Implementing the visit protocol quarterly annually	GP Diabetologist

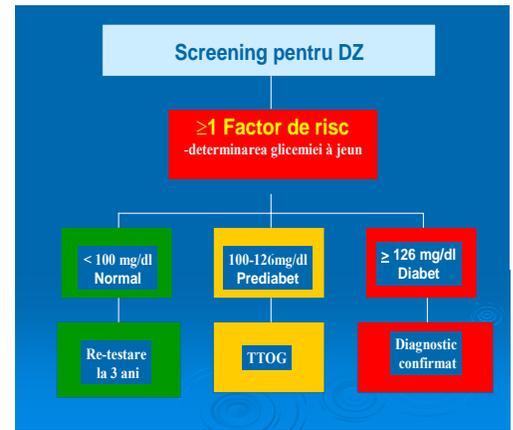
# Global cardiovascular risk assessment and risk management - Algorithm

Name of patient \_\_\_\_\_ Sex \_\_\_\_\_ Age \_\_\_\_\_



Age <45 AND one of the following:

- AHC first degree relatives with DM
  - BMI  $\geq 25 \text{ kg/m}^2$  and CA  $\geq 88$  cm
  - Sedentarism
  - Lower tolerance to glucose (in previous tests)
  - PA from gestational diabetes or macrosome newborns (4000 g)
  - HT ( $\geq 140/90$  mm Hg)
  - TG  $> 250 \text{ mg\%}$  (2.82 mmol/l)
  - HDL  $< 35 \text{ mg\%}$
  - Acanthosis nigricans
  - Polycystic ovary syndrome
- Age  $\geq 45$  □

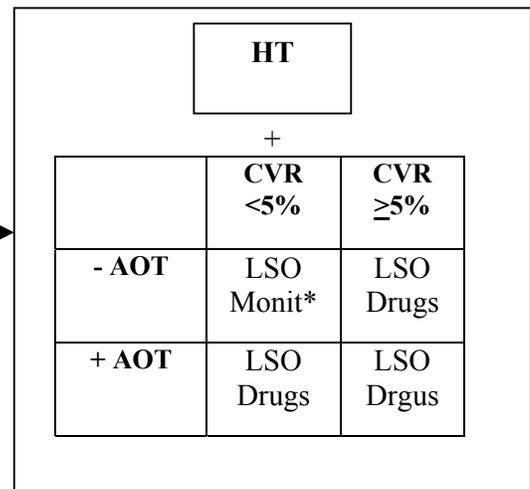


In order to initiate drug therapy for HT, assesses the **ADDITIONAL CV risk**

Alți factori de risc și antecedente de boală	Tensiunea arterială (mmHg)				
	Normal TAS 120-129 TAD 80-84	Normal înalt TAS 130-139 TAD 85-89	Gradul 1 TAS 140-159 TAD 90-99	Gradul 2 TAS 160-179 TAD 100-109	Gradul 3 TAS $\geq 180$ TAD $\geq 110$
Fără alți factori de risc	Risc general	Risc general	Risc adițional scăzut	Risc adițional moderat	Risc adițional înalt
1-2 FR	Risc adițional scăzut	Risc adițional scăzut	Risc adițional moderat	Risc adițional moderat	Risc adițional foarte înalt
3 sau mai mulți FR sau MNO sau diabet zaharat	Risc adițional moderat	Risc adițional înalt	Risc adițional înalt	Risc adițional înalt	Risc adițional foarte înalt
CCA	Risc adițional înalt	Risc adițional foarte înalt	Risc adițional foarte înalt	Risc adițional foarte înalt	Risc adițional foarte înalt

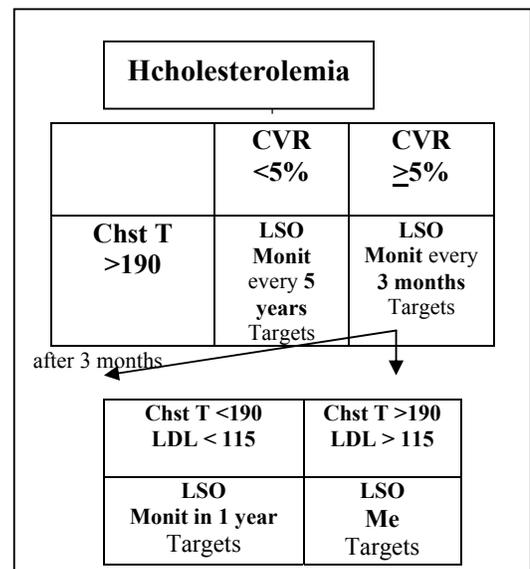
CCA = condiții clinice asociate; MNO = modificări la nivel de organ; TAS = tensiunea arterială sistolică; TAD = tensiunea arterială diastolică

Risc BCV (Framingham)	< 15 %	15-20 %	20-30 %	> 30 %
Risc BCV fatală (SCORE)	< 4 %	4-5 %	5-8 %	> 8 %



LSO life style optimization

In order to initiate drug treatment for **Dyslipidemic patients**, applies the following algorithm:



# MEDICAL LETTER

- for diabetic patients -

Medical practice from specialized ambulatory/hospital/IMP .....

Physician .....

Specialty .....

Contract concluded with HIH ..... Contract no. ....

Mr./Mrs. MD .....

(Medical practice, ambulatory / IMP) .....

locality.....

Dear colleague, we hereby inform you that your patient

(name, surname)..... aged .....

PNC ....., was consulted in our unit on the  
date of .....

**Complete diagnosis:** .....

## Complications :

Non/proliferative retinopathy DM    Neuropathy    Nephropathy/Renal failure    Macroangiopathy

## Associated diseases:

Metabolic syndrome    Dyslipidemia    H uricemia    Obesity    Hypertension  
 CVA/TIA    MI/PA/Revascularization    Heart failure    ATS obliterant arteriopathy

**Risk factors:** .....

Global CVR (SCORE).....

**Reason for referral:**    monitoring by family doctor

initial consultation    treatment adjustment /re-assessment    regular control

**Clinical exam:**

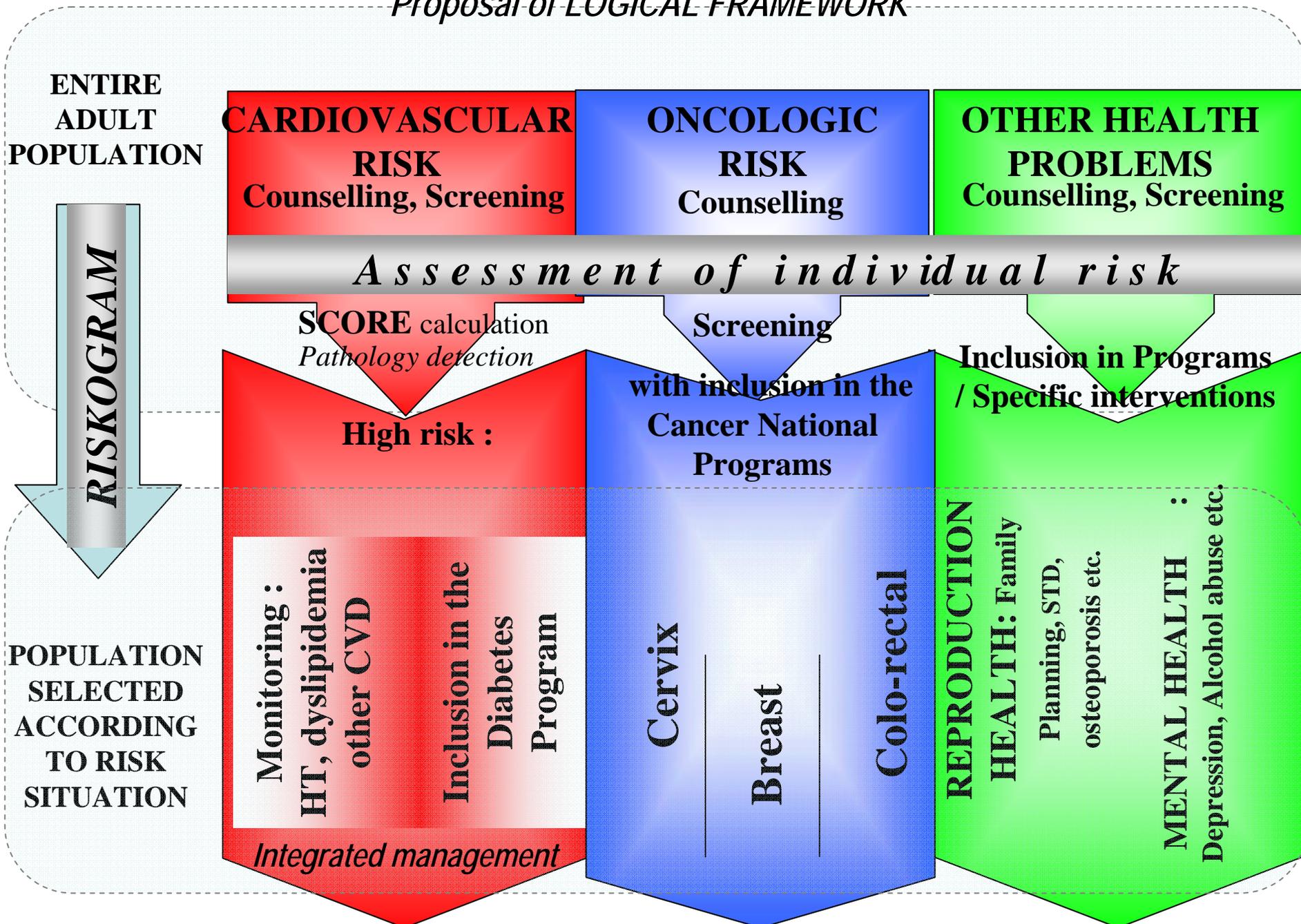


**Prescription issued/ valid for .....months, on the date of.....**  
**Returns for control on the ( *date*): .....**

County unit for diabetes mellitus:	
The insured person's registration number:	

Date:	MD signature and stamp:
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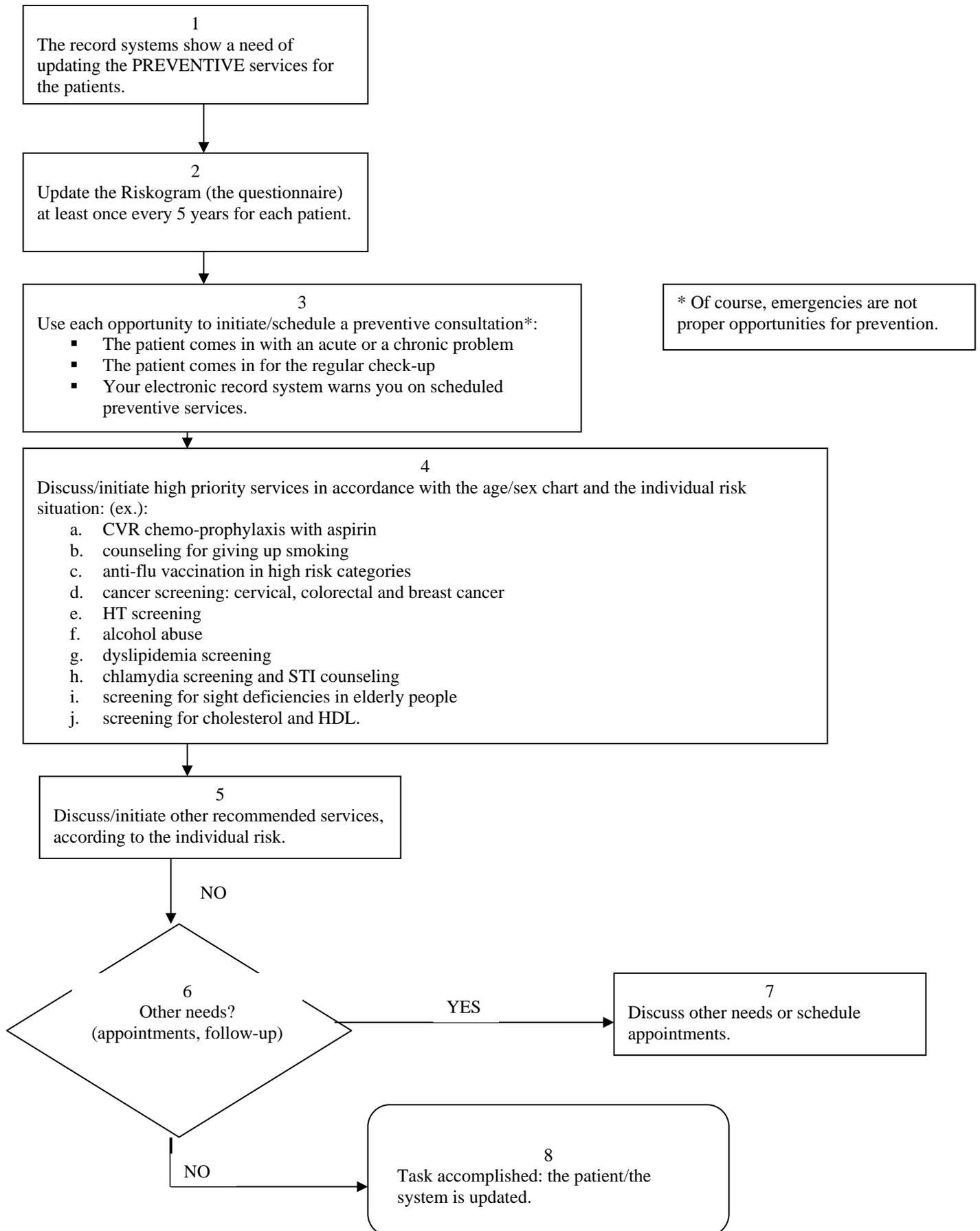
National Program for Assessment of the Adult Population's Health Status –prevention Component  
*Proposal of LOGICAL FRAMEWORK*



## CHART OF PREVENTIVE SERVICES FOR ADULTS

Age group	18	25	30	35	40	45	50	55	60	65	70	75	
<b>CARDIOVASCULAR</b>													
BP	every 2 years - entire population with normal risk												
Cholesterol	Men, high risk			every 5 years - Men, normal risk						Men, with risk			
	Women, high risk						every 5 years - normal r			Women, with risk			
Diet	Men and women, high risk (specialized counselling)												
Diabetes	Men and women, high risk						Men and women, normal risk						
Aspirin (ECV prevention)	Men, high risk				Men, normal risk								
	Women, high risk						Women, normal risk						
<b>CANCER</b>													
Breast cancer				Women	with high risk		every 1 or 2 years - ECS + mammography						
Cervical cancer	Women: BPN test ( at least every 3 years for normal risk)												
Colorectal cancer			Men and women	with high risk		Annual OBF ± colono-/sigmoids- copy every 5-10 years							
<b>RISK BEHAVIOURS</b>													
Smoking	Men and women - regularly ( screening + counseling)												
Obesity	Men and women - regularly ( BMI + counseling)												
Alcohol abuse	Men and women - regularly (screening + counseling)												
<b>REPRODUCTION HEALTH</b>													
Chlamydia screening	Women	Men and women with high risk											
HIV, syphilis screening	Men and women, high risk ( screening + counseling)												
Contraception/Unwanted pregnancy	Women/ couples : FP counseling												
Osteoporosis							Women with risk	high	normal risk ( screening )				
<b>OTHERS</b>													
Depression	Men and women: regularly												
Sight/Hearing deficiencies											Men and women: regularly		
<b>IMMUNIZATIONS</b>													
Flu	Men and women with high risk									Men and women: annually			
Pneumonia										Men and women: acc. indic			

# PREVENTIVE SERVICES FOR ADULTS



# Monitoring chart for hypertensive and/or diabetic patient

Year:

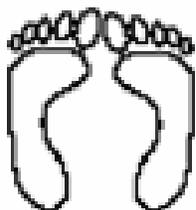
Name of patient \_\_\_\_\_ MC no. \_\_\_\_\_

Dg:

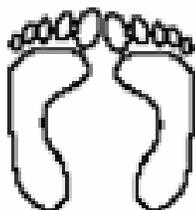
			Cons. 1	Cons. 2	Cons. 3	Cons. 4
Date of consultation	Theoretical targets	Targets patient	Date	Date	Date	Date
Advice to quit smoking	Quitting smoking					
Advice to lose weight	BMI <25 kg/m <sup>2</sup>					
Advice for physical exercise	30-45 min/day					
Set diet						
Assess alcohol consumption	F/M: 1/2u /day					
BP measuring	<140/90 mm Hg if DM <130/80 mm Hg					
Abdominal circumference	F<88cm; M<102cm					
Diabetic foot inspection*:						
Other clinical exam data						
Self-monitoring glycemia*	< 126 mg% < 160, 2 hours postprandial					
Glycemia a jeune	< 126 mg%					
HbA1c*	<7%					
Total cholesterol	< 190 mg%/ if DM/CVD <175 mg%					
HDL cholesterol	F > 50 mg% M > 40 mg%					
LDL cholesterol	<115 mg% if DM/CVD <100 mg%					
TG	<150 mg%					
Creatinine	<1 mg%					
Serum potassium	- if diuretics, ACEI, ARB, direct vasodilators					
Uric acid	If diuretics					
Hepatic tests	if BB, DEK, ARB, BCC, ACEI, α-bloc, vasodilat.					
Microalbuminuria	<30 mg%					
ECG						
Ophtalmology consultation						
Diabetologist consultation*						

<b>Conclusion of consultation 1:</b>	<b>Conclusion of consultation 2:</b>
<b>Conclusion of consultation 3:</b>	<b>Conclusion of consultation 4:</b>

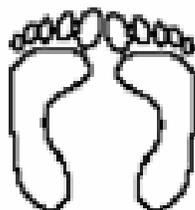
Diabetic foot exam: Mark on the diagram the lesion site



Date: \_\_\_



Date: \_\_\_



Date: \_\_\_



Date: \_\_\_

Parameter	Target	1	2	3	4
Inspection					
Complete exam: tactile, thermal, pain sensitivity Monofilament					

Drug treatment	1	2	3	4	5	6	7	8	9	10	11	12
<b>Diur: DT/DThike/ DEK/DA</b>												
<b>BB</b>												
<b>BCC DHP/NDHP</b>												
<b>ACEI/ARB</b>												
<b>Statins/Fibrates</b>												
<b>Aspirin</b>												
<b>Biguanide/</b>												
<b>Sulphonilureics</b>												
<b>Thiazolidinedione</b>												
<b>Metiglinides</b>												
<b>Others</b>												

DT: thiazidic diuretic; DA: loop diuretics; DEK: K-sparing diuretic; BB: beta blocker; BCCDHP: dihydropyridinic calcium blocker; BCCNDHP: non-dihydropyridinic calcium blocker; ACEI: angiotensin conversion enzyme inhibitor; ARB: angiotensin receptor blocker; G: weight; BP: blood pressure; BMI: body mass index

Referral note	Referral date	Result date	Result
<b>Diabetologist - Quarterly</b> (for diabetic patients)			
<b>Ophthalmologist-</b> Annually/when necessary			
<b>Cardiologist</b> – for complications, HT resistant to treatment			
<b>Nephrology</b> – in case of renal problems			
<b>Neurology</b> – in case of neurology problems			

**Observations:**

# Preventive Interventions Planning

Surname.....Name.....PNC.....

INTERVENTION	FREQ	2007			2008			2009			2010			2011		
		DP	DR	RESULT												
BP																
CHOLESTEROL																
DIET																
GLYCEMIA																
LIPIDIC PROFILE																
ASPIRIN																
ECS																
MAMMOGRAPHY																
PAPANICOLAU																
OBF (occult blood in feces)																
COLONO/ SIGMOIDOSCOPY																
SCREENING COUNSELING	SMOKING															
	ALCOHOL															
	OBESITY															
CHLAMIDIA TEST																
VDRL																
CONTRACEPTION																
OSTEOPOROSIS																
VISUAL ACUITY TESTING																
HEARING ACUITY TESTING																
SCREENING DEPRESSION																
IMMUNIZATIONS																

Dr.....

# Assessment chart for hypertensive and/or diabetic patients

Name of patient \_\_\_\_\_ MC no. \_\_\_\_\_  
 Age \_\_\_\_\_

Drafting date:  
 .....

## Medical History

- CVA/TIA    MI/PA/Revascularization    IC    AOMI    HT Retinopathy (stage 3 or 4)  
 DM 1/2    DM Neuropathy DZ    Non/proliferative retinopathy DM    Nephropathy/Renal failure DM  
 Basal glycemia change    Lower tolerance to glucose    Metabolic sdr.    Dyslipidemia    H uricemia  
 FiA/ Ft A    Htir/ hTir    AB/COPD    BPH    Glaucoma    Migraine    Contraceptives

Global CV risk  
 Very high

Global CV risk

Current .....  
 Estimated .....

## Initial investigations in HT/DM patients

Parameter	Pathologic values	Recorded values
HLG		
Glycémie a jeune	≥ 126mg%	
Summary urine exam – (Macroalbuminuria)	≥300 mg%	
Total cholesterol	≥ 190 mg%	
LDL cholesterol (to be calculated)	≥ 115 mg%	
HDL cholesterol	< 40 mg% M < 50 mg% F	
Triglycerides	> 150 mg%	
Serum creatinine	> 1 mg %	
Uric acid	> 5 mg%	

EKG	LVH <input type="checkbox"/>
FO	
Pulmonary X-ray	

Clinical examination	Result
Weight	
Height	
BMI	
Abdominal circumference	
BP value (last of the three necessary for Dg of HT)	
Signs of heart failure	
Rhythm disorders	
Clinical signs of systemic atherosclerosis (pulsations in peripheral arteries, carotidian sounds, lateral-umbilical sounds)	
Clinical signs of thyroid dysfunction	
<u>Complete foot examination</u> Inspection, thermal, tactile, pain, vibratory, monofilament sensitivity.	

## Additional investigations in HT/DM\* (Optional)

Parameter	Pathologic values	Recorded values
Potassemia	> 4.5 mEq/l	
Reactive C protein	≥ 1mg/dl	
Microalbuminuria* (mandatory in DM)	30-300 mg%	
TTGO at 2 h* (if necessary for Dg in DM)	≥ 200 mg/dl	
Hb A1C* (mandatory in DM)	> 7 %	

Heart ultrasound

Carotidina vascular Doppler

Peripheral Doppler

MATA

**Diagnosis:**

# Therapeutic Plan

## Prescribed diet

**Total of calories:**  
**Hydro carbonates intake:**  
**Lipids:**  
**Proteins:**  
**Other recommendations:**

## Physical exercise

**Type of exercises:**

**Frequency**

## Treatment plan

Drug treatment	Drug	Dose	Frequency of admin.
<b>Diur: DT/DTlike/DEK/DA</b> <b>BB</b> <b>BCC DHP/NDHP</b> <b>ACEI/ARB</b> <b>Statins/Fibrates</b> <b>Aspirin</b> <b>OTHERS: for instance, anti-flu vaccine</b>			
<b>Biguanide/Sulphonilureics</b> <b>Thiazolidinedione</b> <b>Metiglinides</b> <b>Alphaglucosidase inhibitors</b> <b>Insulin</b>			

**Frequency of dispensary visits:**

O 3 months

O 6 months

O 1 year

Assessment 1	Assessment 2	Assessment 3	Assessment 4
Advice to quit smoking Advice to lose weight Advice to exercise Self-monitoring of glucose level* Set diet Assess alcohol consumption General clinical examination BP measuring Complete foot exam* Glycemia a jeune HbA1c* count Total cholesterol HDL cholesterol LDL cholesterol TG Creatinine Uric acid Serum potassium Hepatic tests Microalbuminuria* ECG Ophthalmologic consultation* Diabetology consultation*	Advice to quit smoking Advice to lose weight Advice to exercise Self-monitoring of glucose level* Set diet Assess alcohol consumption BP measuring Inspection of diabetic foot* Glycemia a jeune* HbA1c* count (for those with sub-optimal glucose control)	Advice to quit smoking Advice to lose weight Advice to exercise e Self-monitoring of glucose level* Set diet Assess alcohol consumption Inspection of diabetic foot* BP measuring Glycemia a jeune* HbA1c* count Creatinine HDL cholesterol LDL cholesterol TG Serum potassium Dioabetology consultation*	Advice to quit smoking Advice to lose weight Advice to exercise Self-monitoring of glucose level* Set diet Assess alcohol consumption Inspection of diabetic foot* BP measuring TA Glycemia a jeune* HbA1c* count (for those with sub-optimal glucose control)

### Schedule of consultations and investigations

<b>2007</b>			
<b>2008</b>			
<b>2009</b>			
<b>2010</b>			

2011				
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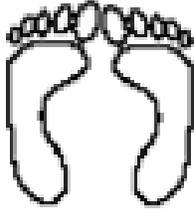
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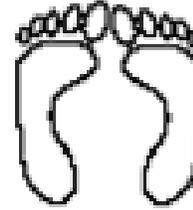
Date: \_\_\_



Date: \_\_\_



Date: \_\_\_



Date: \_\_\_

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<b>Neurology</b> – in case of neurology problems			

**Observations:**

## Annex 4: Patient Drug Information Sheets

### *Patient Information*

#### **ANGIOTENSIN-CONVERTING ENZYME INHIBITORS (ACE Inhibitors)**

##### **Drug names – various products**

**benazepril (Lotensin), captopril (Capoten), enalapril (Vasotec), felodipine (Plendil), lisinopril (Prinivil), perindopril, qinapril (Accupril), ramipril (Altace), trandolapril (Mavik).**

This medication is used to control high blood pressure, congestive heart failure, and kidney problems in people with diabetes. This drug may be used alone or with other blood pressure medications.

##### **Side effects:**

Common side effects are: increased urination, dizziness, dry mouth, cough, diarrhea, weakness, nausea and vomiting, rapid heart beat (palpitations).

Less common side effects are: fever, chills, stomach pain, trouble breathing or swallowing, joint pain. **Contact your doctor** immediately if you experience fainting, rash, sore throat, fever, chest pain, yellow eyes and skin or swelling of face, tongue, and experience respiratory difficulties.

##### **Discuss with your doctor or pharmacist:**

Inform your doctor of other illnesses, (especially a history of heart problems) medicines, vitamins, herbs or over-the-counter medications. They will check for drug interactions. Avoid excessive salt intake. **Do NOT** take potassium supplements. If you are taking iron supplements, take each medication at a different time. Discuss level of physical activity and any dietary restrictions with your doctor.

**How to take this medication:** take at the same time every day on an empty stomach (one hour before meals). Do NOT suddenly stop taking this drug. If you miss a dose, take it as soon as you remember. However, if it is close to the time for your next scheduled dose, do not take the missed dose. **Do Not** take a double dose. Continue this medication even if you feel better. Do not stop unless your doctor tells you to stop. Use caution when driving or operating machines because of dizziness.

##### **Warning.**

Keep this medication in a tightly closed container, and out of reach of children. Store it at room temperature and away from excess heat and moisture. Consult your doctor before any type of surgery or dental procedure. Discuss with your doctor if you are pregnant, plan to become pregnant or are breastfeeding.

##### **Dosage:**

##### **Frequency:**

##### **Date:**

##### **Notes:**

## **INFORMATII PENTRU PACIENTI**

### **BETA-BLOCANTE**

**Atenolol (Tenormin), Acebutolol (Sectral), Betaxolol (Kerlone), Bisoprolol (Zebeta), Carvedilol (Coreg), Metoprolol (Lopressor), Nebivolol, Propranolol (Inderal), Talinolol**

Beta blocantele sunt folosite pentru tratamentul hipertensiunii, anginei, tahicardiei si insuficientei cardiace. Tratamentul cu aceste medicamente poate dura toata viata. Aceste medicamente nu vindeca hipertensiunea, ci tin tensiunea sub control.

#### **Reactii adverse:**

Cele mai comune efecte secundare: ameteala, frecventa cardiaca scazuta, greata, diaree, confuzie, slabiciune, tulburari de somn, oboseala, toropeala.

Efecte secundare rare: dificultate in respiratie, maini si picioare reci, slabirea sau umflarea gleznelor, picioarelor sau gambelor. **Contactati medicul** in cazul acestor reactii adverse. Nu tratati aceste simptome cu alte medicamente nerecomandate / eliberate fara prescriptie.

#### **Mod de administrare:**

**NU** opriti brusc administrarea acestui medicament. Poate provoca dureri crescute in piept.

Daca uitati administrarea unei doze, luati-o imediat ce v-ati amintit. Daca se apropie ora la care trebuie sa luati urmatoarea doza, renuntati sa mai luati doza uitata. Nu luati o doza dubla pentru a o recupera pe cea uitata. Continuati sa luati acest medicament **CU REGULARITATE** chiar daca va simtiti mai bine. Atentie sporita cand conduceti sau manevrati utilaje.

#### **Discutati cu medicul sau farmacistul:**

Informati medicul despre alergii, alte boli si despre medicamentele pe care le luati, vitamine, medicamente pe baza de plante sau medicamentele eliberate fara prescriptie, pentru a verifica posibile interactiuni. Discutati in special despre medicamente pentru hipertensiune, analgezice, medicamente contra astmului, antidiabetice si antiagregante / medicamente pentru subtierea sangelui. Discutati despre consumul de alcool. Evitati consumul excesiv de sare.

#### **Atentionari:**

Consultati-va medicul inainte de o operatie sau interventie stomatologica. Pastrati aceste medicamente intr-un recipient bine inchis si nu le lasati la indemana copiilor. Pastrati-le la temperatura camerei si feriti-le de caldura excesiva si umezeala. Consultati-va medicul daca sunteti insarcinata, planificati o sarcina sau daca alaptati.

#### **Dozaj:**

#### **Frecventa:**

#### **Data:**

#### **Note:**

## ***Patient Information***

### **BETA-BLOCKER**

**Atenolol (Tenormin), Acebutolol (Sectral), Betaxolol (Kerlone), Bisoprolol (Zebeta), Carvedilol (Coreg), Metoprolol (Lopressor), Nebivolol, Propranolol (Inderal), Talinolol**

Beta-blockers are usually used to treat high blood pressure, chest pain (angina), fast heart rate and heart failure. Treatment with those drugs can be life long. They do not cure high blood pressure, but keep it under control.

#### **Side effects:**

More common side effects are: dizziness or lightheadedness, slow heart rate, nausea, diarrhea, confusion, weakness, trouble sleeping, fatigue, drowsiness;

Rare side effects are: shortness of breath, cold hands and feet depression and swelling of ankles, feet and lower legs. **Consult your doctor** if you develop side effects. Do not take over-the-counter medicine for your symptoms.

#### **How to take this medication:**

**Do NOT** suddenly stop taking this drug. It can cause an increase in chest pain.

If you miss a dose, take it as soon as you remember. If it is almost time for your next scheduled dose (8h for single dose and 4h for doubled dose), do not take the missed dose. Never take a double dose to catch up. Take your medicine **REGULARY**, even if you feel better. Use caution when driving or operating machinery.

#### **Discuss with your doctor or pharmacist:**

Inform your doctor if you have allergies, other illnesses and if are taking any other medications, vitamins, herbs or over-the-counter supplements. They will check for drug interactions. Especially discuss any high blood pressure, analgesics, asthma or anti-diabetic and blood thinning medications. Discuss alcohol usage. Avoid excessive salt intake.

#### **Warnings:**

Consult your doctor before having any type of surgery or dental procedure.

Keep this medication in tightly closed container and out of reach of children.

Store it at room temperature and away from excess heat and moisture. Discuss with your doctor if you are pregnant, plan to become pregnant or are breastfeeding.

#### **Dosage:**

#### **Frequency:**

#### **Date:**

#### **Notes:**

## *Patient Information*

### **LOOP DIURETICS**

**Bumetanide (Bumex), Furosemide (Lasix), Torsemide (Demadex)**

Loop diuretics are used to treat and prevent too much fluid in the body. It works by making you pass more urine. It is a “water pill” (loop diuretic). It is a blood pressure lowering agent (antihypertensive).

#### **Side Effects**

Common side effects are: passing more urine at night (nocturia), dizziness /lightheadedness, increased sensitivity to sunlight

Rare side effects include: fever, chills, lower back pain, ringing in the ears, nausea, dry mouth, extreme thirst, increased heart rate, tiredness. **Contact your doctor** if any of these side effects becomes severe. Do not take over-the-counter medicine for your symptoms.

#### **Discuss with your doctor or pharmacist:**

Inform your doctor or pharmacist about all medications you take, including herbal and over-the-counter medications. Discuss other health problems and allergies. They will check for possible interactions.

Your doctor may have you take a potassium supplement to prevent a decrease in your potassium. Foods high in potassium are: bananas, dried fruit, oranges, potatoes, tomatoes.

#### **How to take this medication:**

If your prescription says to take it once daily, take in the morning upon rising

1 hour before eating. If you are to take more than once daily, take the last dose before 1700. This will help keep you from waking during the night to use the bathroom.

**If you miss a dose:** If you miss a dose, take it as soon as you remember. If it is within 2 hours of the time of your next dose, take your next dose at its scheduled time and continue your usual dosing schedule. **Do not** “double up” on doses to catch up. Use caution while driving and operating machines.

#### **Warning:**

Keep this medication in tightly closed container and out of reach of children. Store at room temperature and away from excess heat and moisture. Consult your doctor before any surgery or dental procedure. Consult your doctor if you are pregnant, plan to become pregnant or are breastfeeding.

#### **Dosage:**

#### **Frequency:**

#### **Date:**

#### **Notes:**

## **Annex 5: Collaborating Organizations**

PHC Training Centers

- a. Cluj Center for Health Care Services (CCHCS)
- b. Iasi – Medical Education Center
- c. Bucharest – National Center for Studies in Family Medicine (CNSFM)

College of Physicians – National and County levels

College of Pharmacists –County level

Family Practice Physicians Association – National and County levels

County Public Health Authority Directors – pilot counties of Bistrita-Nasaud, Suceava and Brasov.

National Health Insurance House

County Health Insurance House – pilot counties of Bistrita-Nasaud, Suceava, and Brasov

University of Medicine and Pharmacy, Department of Public Health, Bucharest

National Institute of Administration

Ministry of Labor and Social Solidarity

Institute for Public Health and Management