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Contribution

OPERATIONS MANUAL

VERSION 05

MAY 31, 2013

**FOR GPs CLUSTER
ON PUBLIC HEALTH
SERVICES
IN PRIMARY
HEALTH CARE**

OPERATIONS MANUAL
FOR GPs CLUSTER ON PUBLIC HEALTH SERVICES
IN PRIMARY HEALTH CARE

VERSION 05

May 31, 2013



SH/8/1 Swiss Contribution Programme

“PUBLIC HEALTH FOCUSED MODEL PROGRAMME
FOR ORGANISING PRIMARY CARE SERVICES
BACKED BY A VIRTUAL CARE SERVICE CENTRE”

WP2 Task 2.2

**OPERATIONS MANUAL
FOR GPs CLUSTER ON PUBLIC HEALTH SERVICES
IN PRIMARY HEALTH CARE**

**VERSION 05
May 31, 2013**

Edited by

Róza ÁDÁNY, MD, PhD, DSc

Written by

**Primary Care General Practitioners' Cluster Model and its Operation
(Chapters 1, 2, 5 and 6)**

**Róza ÁDÁNY, MD, PhD, DSc
Karolina KÓSA, MD, PhD
János SÁNDOR, MD, PhD
Ágnes CSORDÁS, MSc
Imre RURIK, MD, PhD
Magor PAPP, MD
Gergely FÜRJES, MD
András GRÓSZ, JD**

**Information and Communications Technology, Communication Activities
(Chapters 3 and 4)**

**Tamás GERGELY, MSc, PhD, DSc
Zita DÉKÁN, MSc**

Discussants

**Eszter SINKÓ, Univ. Dr.
Sándor BALOGH, MD, PhD
Katalin Mária DÓZSA, MD
Éva DOBOS, MD
Rózsa HOLLÓ, MSc
József RINFEL, MD
János SZABÓ, MD
István VÖLGYI, MD
Gábor BENKŐ, MD
János CSÉKI, MD**

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ALL – Adult Literacy and Life Skills Survey

CCPC-PS – Centre for Coordinating Primary Care Preventive Services

CM – Communications Manager

CVD – cardiovascular disease

EC – External communication

EHR – Electronic Health Record

GP – general practitioner

GPC – GPs practice cluster

GPC-SG – GPs practice cluster Screening Group

GYEMSZI – National Institute for Quality- and Organizational Development in Healthcare and Medicines

HRA – health risk appraisal

IALS – International Adult Literacy Survey

IC – Internal communication

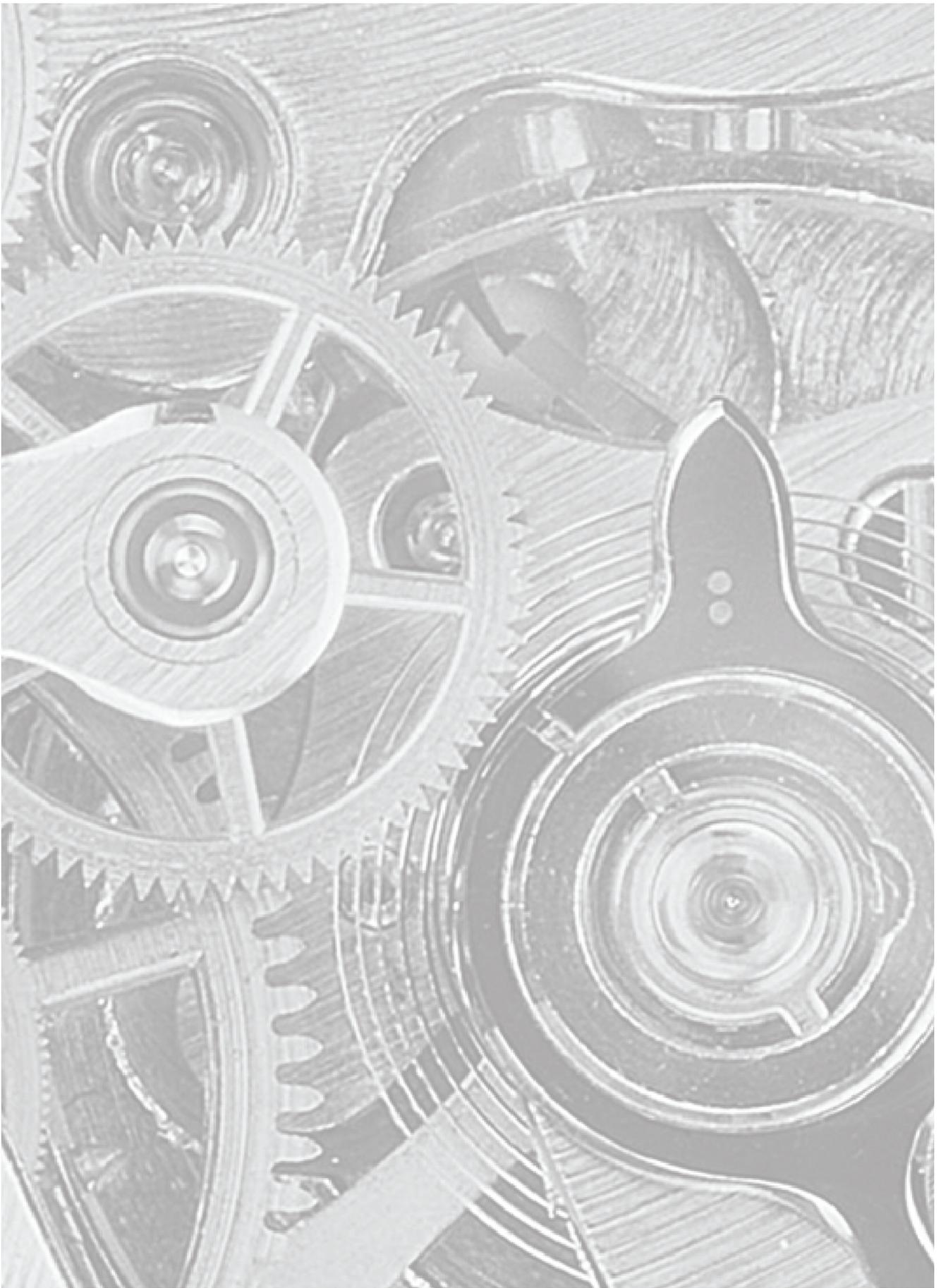
ISO – International Organization for Standardization

ICT – Information and Communications Technology

OALI – National Institute on Primary Care

PHC – primary health care

USPSTF – US Preventive Services Task Force



Since the Alma-Ata Declaration of 1978, primary care has faced a fundamental expectation to resolve societal health problems through the provision of appropriate health promotion, disease prevention, curative and rehabilitation services, as well as to provide education about the most frequently encountered health problems and methods for their prevention and control. After the turn of the millennium, it has been acknowledged more clearly at professional, social and political levels that primary care does not fulfil these objectives. Public health indicators of the Hungarian population (premature mortality rates of non-communicable diseases, trends of hidden morbidity, proportion of the inactive population due to disability, characteristics of health behaviour, prevalence of mental disorders, etc.) clearly indicate that Hungary is a country for which primary care system reform appears inevitable.

The Swiss-Hungarian Cooperation Programme/8/1 entitled “Public Health Focused Model Programme for Organising Primary Care Services Backed by a Virtual Care Service Centre” is a pilot project targeting the foundation of the Hungarian primary health care reform that encourages an improvement in the general health status of the population, thereby substantially reducing social inequalities in health. The primary care system, in addition to traditional patient care services, should focus on health promotion, disease prevention and health restoration within the affected community, as well as on the effective rehabilitation of chronically ill individuals. These activities must be

well-controlled at the process and output levels, thereby resulting in a significant improvement of quality of life. The formation of primary care teams is a prerequisite for multilevel preventive services, which can be provided through collaborative practices and sharing the time and cost of employees. This model project is an innovative health promotion and public health programme that reflects challenges in public health and establishes the development of a community-oriented primary care system in Hungary.

This Operations Manual is intended for use in practices that are involved in the Programme. The key diagnostic, curative and chronic care services currently delivered are not discussed; however, the Manual is based on a public health approach. In accordance with the recommendations of the World Health Organization, which outline the need for strengthening preventive services in primary care, the Manual is dedicated to clearly describing the organisation of practice teams and clusters, as well as the aims, providers and content of their public health services. The use of this Manual will assist primary care teams and clusters in planning and delivering health promotion and preventive interventions in an integrated manner at all levels. Furthermore, it will encourage sharing of resources and experiences to deliver services in the most effective way. The Manual deals with managerial, informational and communication requirements for the delivery of effective primary care services, and will be completed later by chapters on the economical and legal aspects of the operation.

The “Public Health Focused Model Programme for Organising Primary Care Services Backed by a Virtual Care Service Centre” Project (SH/8/1 Project) considered to be a Primary Care Pilot Project strongly related to the Semmelweis Plan on restructuring the Hungarian health care system.

With regard to the special intervention field of the SH/8/1 Project the document presented here are decidedly referring to the development of the community-oriented primary care with public health focus of the disadvantaged and most disadvantaged regions, whereas the recommendations pertain the improvement of the primary care development at national level. In a wider sense the Project is designed to generate methodological suggestions and recommendations to improve primary care services both on a micro-regional and on a national level in pursuance with the national interventions and health policy decision making.

Public health indicators of the Hungarian population clearly indicate that Hungary is a country for which primary care system reform appears inevitable. The primary care system, in addition to traditional patient care services, should focus on health promotion, disease prevention and health restoration within the affected community, as well as on the effective rehabilitation of chronically ill individuals.

This model project is an innovative health promotion and public health program that establishes the development of a community-oriented primary care system in Hungary.

The formation of primary care teams is a prerequisite for preventive services, which can be provided through collaborative practices and sharing the time and cost of employees.

In the Swiss Contribution Programme, one GP cluster is composed of six general practices, with each practice employing one general practitioner (GP) and one practice nurse, whose work is supported by other health professionals with university degrees, such as dietitians, physiotherapists, public health specialists, health psychologists, community nurses, and health workers with vocational or ad-hoc training (health mediators and assistant health mediators). The Programme prescribes the formation of four clusters in four small areas of Hungary. The four clusters also include health visitors.

In the framework of the Project the organization of practice teams and general practices' clusters (GPs' clusters), as well as the aims, providers and content of their public health services were developed.

In addition to the health promotion activities in community settings the GPs' clusters provide preventive services which are organized into units: three (health status assessment, lifestyle counselling, and medical risk assessment) are new to the Hungarian primary health care system, and the fourth (chronic care and rehabilitation) has a new orientation towards rehabilitation. A new motif of the model

program is creating a link between the primary care teams and health visitors.

The new services described in detail in the Operations Manual are:

Health promotion activities in community settings

Health promotion programmes in community settings are meant to improve the determinants of health and equity at locations (settings) in the community where groups of the target population can be found and mobilised. Schools and workplaces are the most frequently utilised of such locations. Programmes and activities should be designed with a special emphasis on targeting those in greatest need while considering their assets and resources. All community activities should be built on partnerships with all the stakeholders within and without the cluster. The commitment to and support of these programmes by the municipal/local government must be ensured.

Health visitor services

Health visitors will continue to provide all the statutorily required services and in addition, they will perform health risk assessments for all children younger than 18 years of age. Depending on the results of the assessments, the health visitors will refer the children and their caregivers either to health promotion programmes in the community, to the GP or paediatrician for further examination, or to individual- or group-based “lifestyle counselling” services, which are provided by the health visitors or by other health professionals.

Health status assessments

These assessments are performed by the public health specialist and the community nurse on adults over 18 years of age who belong to the individual practices of the cluster. Health status assessments have a double aim. First, the results document the health status of a client (patient) at the beginning of the programme, providing a baseline assessment against which changes in health status can be compared at the end of the programme. Second, the procedure includes various screening methods that are applicable in primary care for the early recognition of risk factors and/or the early stages of treatable disorders. Special emphasis will be placed on including adults with disadvantageous socioeconomic status, especially Roma.

Lifestyle counselling

Lifestyle counselling and health education are aimed at increasing health literacy to enhance the appropriate use of

public health and health care services, as well as compliance and adherence to medical and health advice, which are all necessary for improving health outcomes, i.e. reducing morbidity and mortality as well as increasing quality of life.

Medical risk assessments

Medical risk assessments aim to determine the significance of the risk(s) of morbidities identified and appraised during a prior health status assessment. These procedures, which are performed by the GP, provide medical advice/ services to persons in the practice who have previously undergone health status assessments.

Chronic medical care with a focus on rehabilitation

The new feature of chronic care will be a reorientation towards rehabilitation, i.e., helping people with disabilities to achieve optimal social integration. This service will be provided by the GPs and the newly employed health professionals in the GP cluster (physiotherapists, public health specialists, health psychologists, and dietitians).

The developments of the Project properly meet the most important primary care related aims of the Semmelweis Plan which are the following:

- Increasing the rate of definitive care in primary care.
- Encouraging and assuring the participation of GPs in preventive activities, health status surveys and health promotion.

- Implementing weighted allocation of financial resources based on local morbidity and performance data.
- Establishing collaboration among general practitioners and additional health care professionals in order to reduce inequities and inequalities regarding to the access of community-oriented primary care.
- Enhancing the role of GP Clusters in patient care pathway management.
- Developing integrated IT network connection between GPs' clusters, secondary, tertiary health care providers, and the National Health Insurance Fund supported by e-health solutions.

The implementation steps and organization network, as well as the administration and reporting of the Programme are described in detail of the ANNEXES under the titles "Administration and Reporting" (Annex I), Organogram of the Programme (Annex II), Logical framework (Annex III) and Gantt chart (Annex IV).



1.1. DEFINITION OF THE GPs CLUSTER

The General Practitioners’ (GPs) cluster in the Swiss Contribution Programme is a network of collaborative primary care practices that, in addition to offering the traditional curative, acute and emergency services, provides preventive services and health promotion interventions. The goal of the GP cluster is to improve the health status of the serviced population not only by providing care for the sick but also by providing services and activities aimed at preventing diseases and improving the health status of the entire target population. These goals will be accomplished by employing new health professionals and support workers who are competent to plan and implement various public health services. The GPs in the cluster will share the labour and cost of the new workers. One GPs cluster is composed of 6 general practices.

In addition to the traditional acute and chronic medical care and services offered by the GPs, four new types of services will be provided by the cluster. The new services have a public health focus and are organised into the following units within the cluster:

1. health status assessment
2. medical risk assessment
3. lifestyle counselling
4. *chronic care – rehabilitation*

The italicized name of unit 4 indicates that the chronic care traditionally provided by GPs will be extended and re-oriented towards rehabilitation.

In addition to preventive services, a conceptually novel feature of primary care service delivery will be the coordination of the actions of the traditionally independent health visitor services and the new services of the GP cluster.

1.2. COMPOSITION OF THE GP CLUSTER

In the Swiss Contribution Programme, one GP cluster is composed of six general practices

(Figure 1), with each practice employing one general practitioner (GP) and one practice nurse, whose work is supported by other health professionals with university degrees, such as dietitians, physiotherapists, public health specialists, health psychologists, community nurses, and health

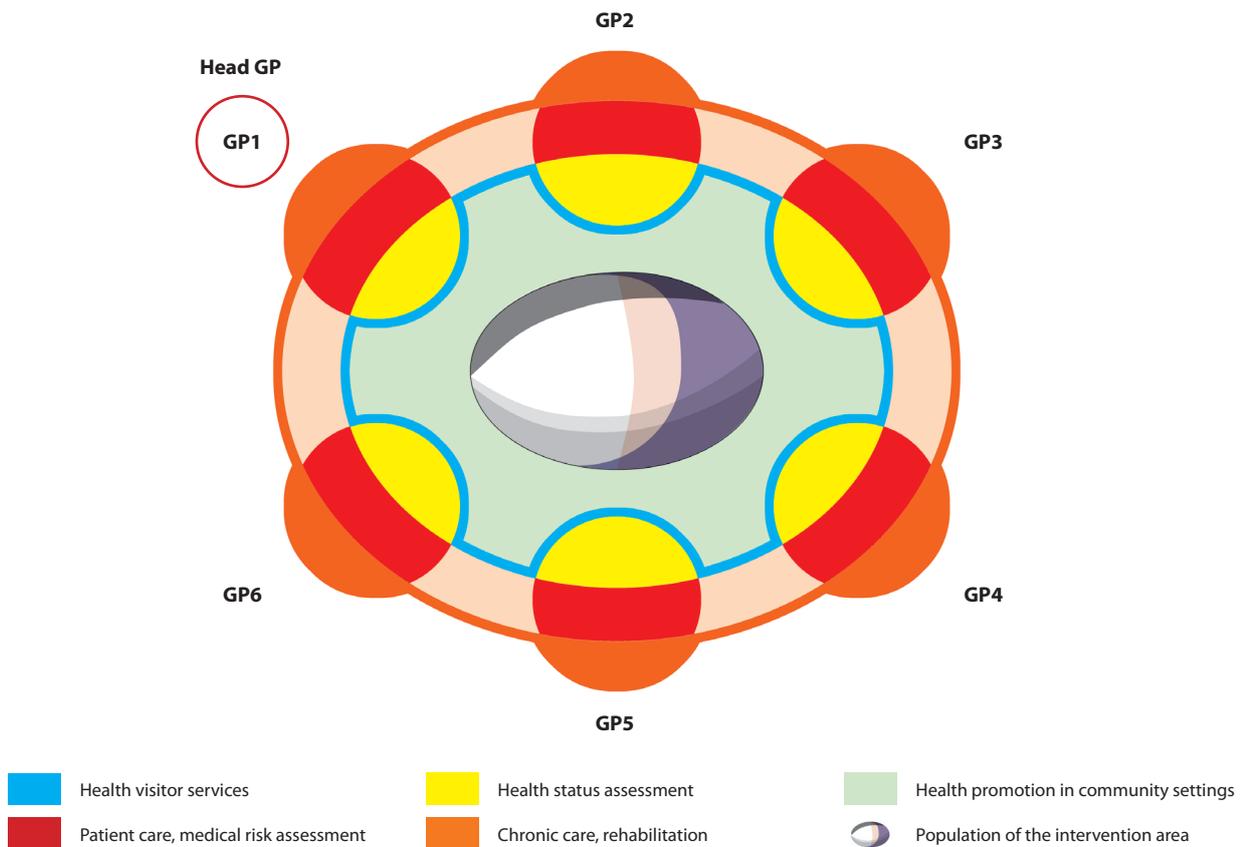


Figure 1. One GPs cluster is composed of six general practices (circles), which provide a range of services (colours) by the Head GP to the target population (central oval)

workers with vocational or ad-hoc training (health mediators and assistant health mediators). The Swiss Contribution Programme prescribes the formation of four clusters in 4 small areas of Hungary. The four clusters also include a total of 33 health visitors; the exact number of health visitors per practice varies because the population-based territorial assignments for GPs and health visitors vary.

1.3. DESCRIPTION OF THE TARGET POPULATION

The target population is depicted in Figure 2 as a shaded oval form representing the strata (layers or subgroups) of the population according to age and social vulnerability.

Four strata distinguished by age are set on the perpendicular axis, beginning in the origo: the dark blue layer at the bottom represents newborns, infants, and children below the age of 18 years (1); pregnant women and mothers with infants and small children are shown in light blue (2); older people are represented by the dark grey stratum at the top of the oval (4); and adults not belonging to any of the previously mentioned strata are represented by the white layer in the middle (3).

Social vulnerability increases along the horizontal axis towards the right. The left half of the oval represents the nonvulnerable stratum of the population; the vulnerable

stratum is coloured pink on the right side (5). Another subgroup comprises vulnerable Roma people, who are represented by the colour lilac (6).

1.4. HUMAN RESOURCES OF THE GPs CLUSTER

The human resources of one cluster (Figure 3) comprise six general practitioners and their practice nurses, shown in blue on the left side of the figure. One GP who is the designated coordinator of the cluster, also called the Head GP, is coloured in red. All the other GPs report to the Head GP.

Non-medically qualified health professionals are shown in green on the right side of Figure 3; at the top is the Public Health Coordinator, who coordinates the work of the other health professionals and supervises the work of the Roma health mediators and assistant health mediators. All the non-medically qualified health professionals report to the Public Health Coordinator, except the district health visitor, who collaborates with both the Public Health Coordinator and the Head GP, and the practice nurse, who reports exclusively to the GP employing her.

The Head GP and the Public Health Coordinator work in close collaboration, as indicated by the red arrow, but the ultimate responsibility for the cluster's operation rests with the Head GP.

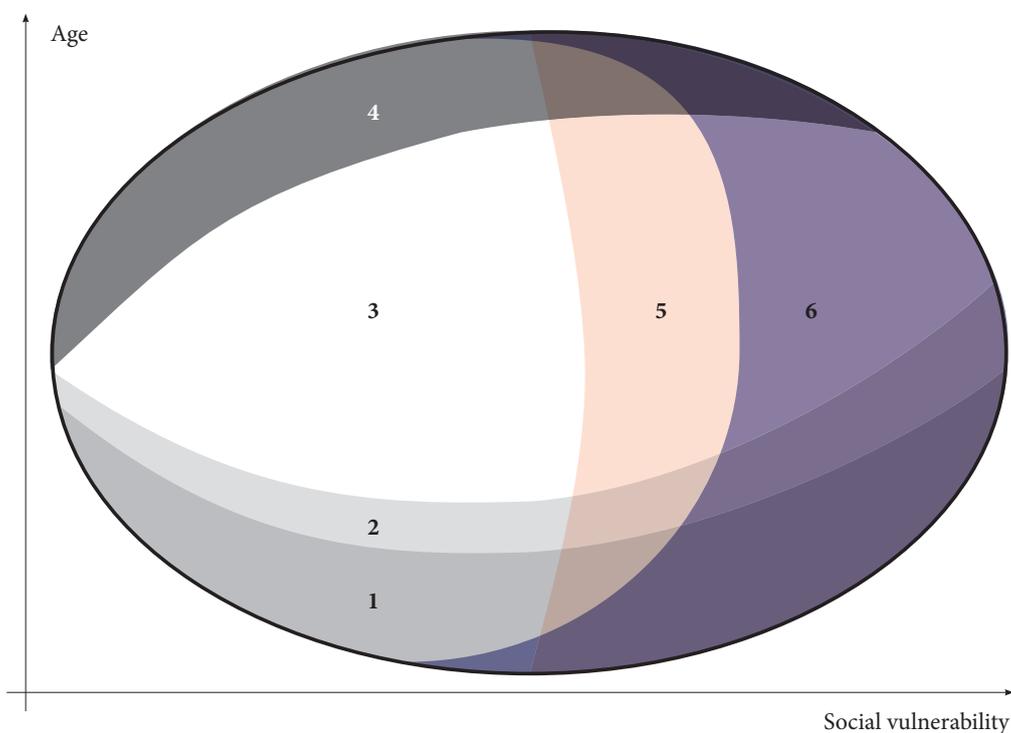


Figure 2. Various strata (layers) of the target population represented by shades

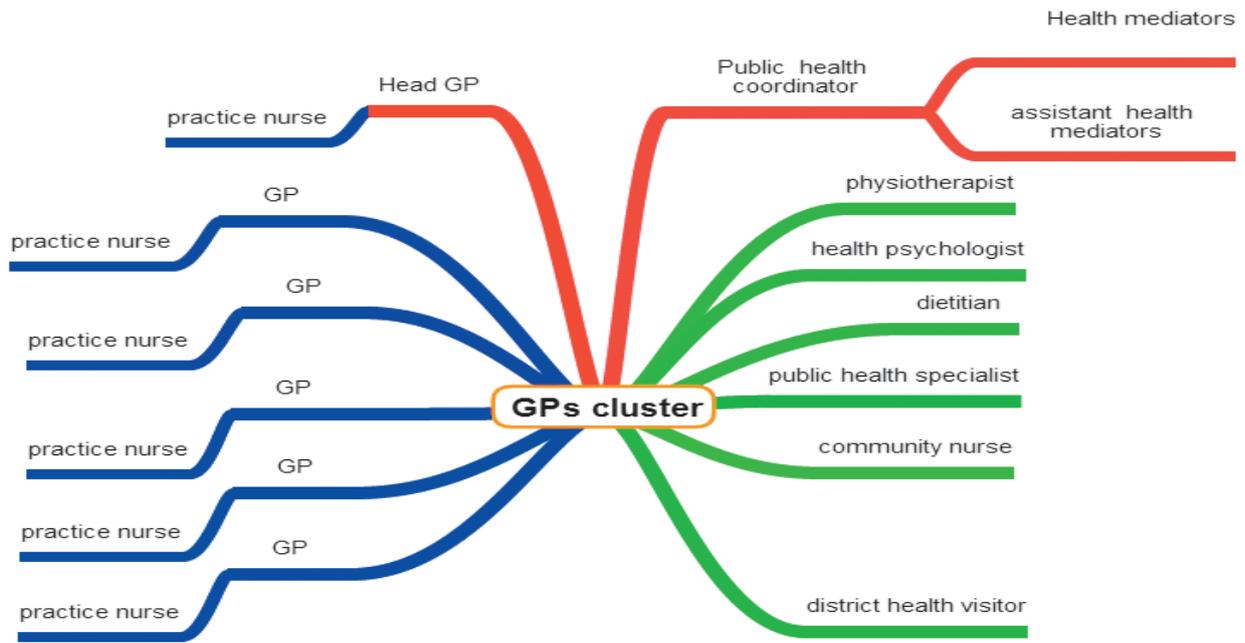
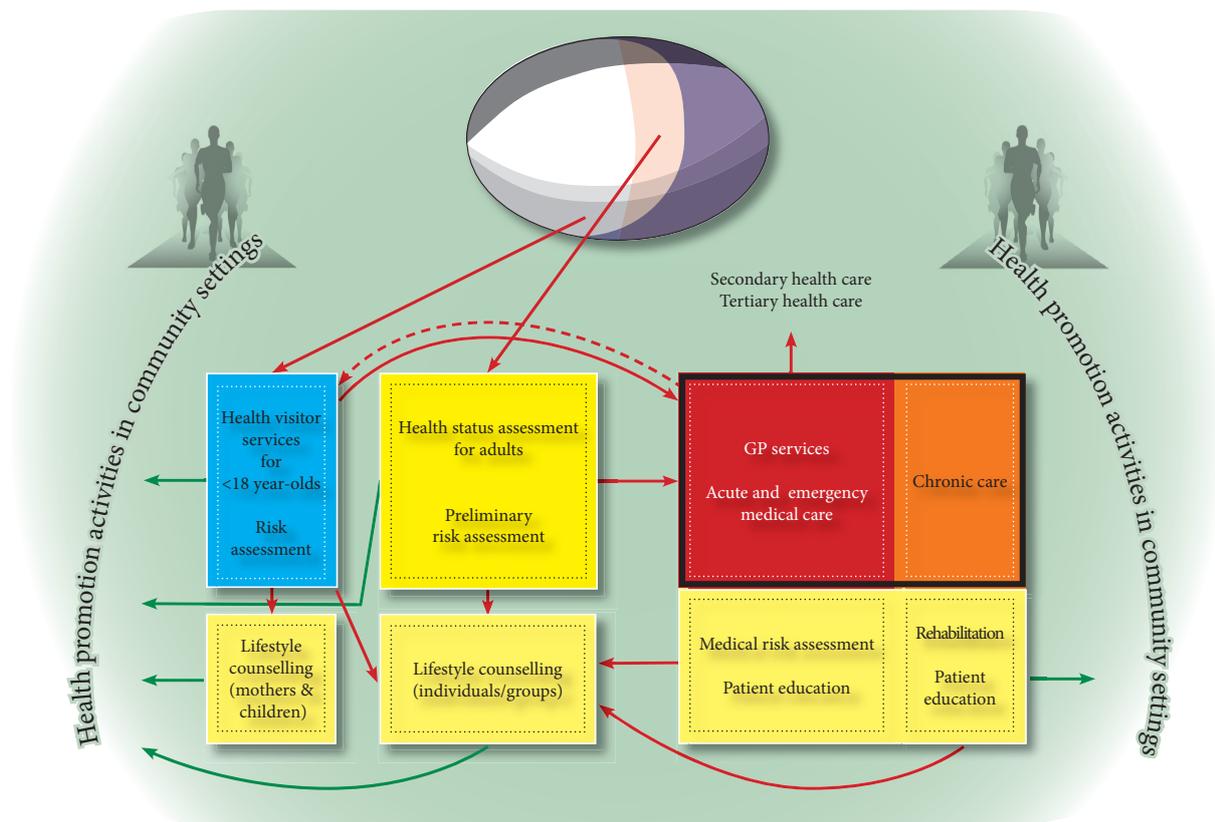


Figure 3. Human resources of one GP cluster



The presently existing services at the level of primary care are in black frame.

Figure 4. Services provided by units within the cluster

Table 1. Qualification and tasks of the health workers in the cluster

GP cluster member	Person per cluster	Qualification	Unit served	Tasks related to the operation of the cluster
GP cluster coordinator (Head GP)	1	GP with compulsory medical specialisation	<ul style="list-style-type: none"> - Coordination of all units - Medical risk assessment - Lifestyle counselling - Chronic care and rehabilitation 	<ul style="list-style-type: none"> - Management of the work of the cluster - Coordination of activities in the cluster in collaboration with the Public Health Coordinator - Approval of tasks and work schedule in the cluster - Approval of reports in the cluster - Reporting to supervising agency
Public health coordinator	1	Master degree in Public Health	<ul style="list-style-type: none"> - Coordination of health status assessment, lifestyle counselling, community health promotion - Organization of the rehabilitation services 	<ul style="list-style-type: none"> - Administration of the preventive work in the cluster - Coordination of activities in the cluster in collaboration with the Head GP - Planning of tasks and work schedule in the cluster - Collection of data, preparation of reports in the cluster
General Practitioners (GPs)	4 (except Berettyóújfalu: 5 persons)	GP with compulsory medical specialisation	<ul style="list-style-type: none"> - Medical risk assessment - Lifestyle counselling - Chronic care and rehabilitation 	<ul style="list-style-type: none"> - Approval of tasks and work schedule in the practice - Provision of relevant services - Approval of data for reporting
General pediatrician	1 (except Berettyóújfalu)	Pediatrician with compulsory medical specialisation	<ul style="list-style-type: none"> - Medical risk assessment - Lifestyle counselling - Chronic care and rehabilitation 	<ul style="list-style-type: none"> - Planning of tasks and work schedule - Provision of relevant services - Provision of data for reporting
Practice nurse	6	Bachelor or Master degree in Nursing	<ul style="list-style-type: none"> - Lifestyle counselling - Chronic care and rehabilitation 	<ul style="list-style-type: none"> - Planning of tasks and work schedule - Provision of relevant services - Provision of data for reporting
District health visitors	Health visitors in the area of the cluster	Health Visitor with Bachelor or Master degree	<ul style="list-style-type: none"> - Health visitor services - Health status assessment for children - Lifestyle counselling - Health promotion activities in the community 	<ul style="list-style-type: none"> - Planning of tasks and work schedule - Provision of relevant services - Provision of data for reporting
Community nurse	1	Bachelor or Master degree in Nursing	<ul style="list-style-type: none"> - Health status assessment - Lifestyle counselling 	<ul style="list-style-type: none"> - Planning of tasks and work schedule - Provision of relevant services - Provision of data for reporting
Public health specialist	1	Bachelor or Master degree in Public Health	<ul style="list-style-type: none"> - Health status assessment - Lifestyle counselling 	<ul style="list-style-type: none"> - Planning of tasks and work schedule - Provision of relevant services - Provision of data for reporting

GP cluster member	Person per cluster	Qualification	Unit served	Tasks related to the operation of the cluster
GP resident (doctor in training for medical specialization)	1	MD with or without medical specialization (not in general practice)	<ul style="list-style-type: none"> – Medical risk assessment – Lifestyle counselling – Chronic care and rehabilitation 	<ul style="list-style-type: none"> – Planning of tasks and work schedule – Provision of relevant services – Provision of data for reporting
Dietitian	1	Bachelor or Master degree, Dietitian	<ul style="list-style-type: none"> – Lifestyle counselling – Chronic care and rehabilitation 	<ul style="list-style-type: none"> – Planning of tasks and work schedule – Provision of relevant services – Provision of data for reporting
Health psychologist	1	Master degree in Health Psychology or Specialization in Clinical Psychology	<ul style="list-style-type: none"> – Lifestyle counselling – Chronic care and rehabilitation 	<ul style="list-style-type: none"> – Planning of tasks and work schedule – Provision of relevant services – Provision of data for reporting
Physiotherapist	1	Bachelor degree in Physiotherapy	<ul style="list-style-type: none"> – Lifestyle counselling – Chronic care and rehabilitation 	<ul style="list-style-type: none"> – Planning of tasks and work schedule – Provision of relevant services – Provision of data for reporting
Health mediator	12 (48 in 4 clusters)	Nationally recognized vocational training provided by WP 6.4	<ul style="list-style-type: none"> – Health promotion activities in the community – Recruitment for preventive services 	<ul style="list-style-type: none"> – Contribution to planning of tasks and work schedule – Implementation of delegated tasks
Assistant health mediator for the Roma	25 (100 in 4 clusters)	Ad-hoc training provided by WP 6.5	<ul style="list-style-type: none"> – Health promotion activities in the community – Recruitment for preventive services 	<ul style="list-style-type: none"> – Contribution to planning of tasks and work schedule – Implementation of delegated tasks
Other qualified health professionals in the cluster on a contractual or ad-hoc basis, depending on their availability				
Dentist	variable, depending on the number of dental practices in the cluster	DMD with or without further specialization	<ul style="list-style-type: none"> – Medical risk assessment – Lifestyle counselling – Health promotion activities in the community 	<ul style="list-style-type: none"> – Planning of tasks and work schedule – Provision of relevant services – Provision of data for reporting
School doctor	At least 1, depending on the number of schools in the cluster	GP with compulsory medical specialisation	<ul style="list-style-type: none"> – Medical risk assessment – Lifestyle counselling – Chronic care and rehabilitation – Health promotion activities in the community 	<ul style="list-style-type: none"> – Planning of tasks and work schedule – Provision of relevant services – Provision of data for reporting
School health visitor	At least 1, depending on the number of schools in the cluster	Health Visitor with Bachelor or Master degree	<ul style="list-style-type: none"> – Health visitor services – Health status assessment of children – Lifestyle counselling – Health promotion activities in the community 	<ul style="list-style-type: none"> – Planning of tasks and work schedule – Provision of relevant services – Provision of data for reporting

Qualification and tasks of the health workers in the cluster are summarized in Table 1.

1.5. SERVICES PROVIDED BY THE CLUSTER AND THE OPERATION OF ONE PRACTICE WITHIN THE CLUSTER

The services provided by the cluster are organised into units, as shown in Figure 4. Among the units that provide preventive services, three (health status assessment, lifestyle counselling, and medical risk assessment) are new to the Hungarian primary health care system, and the fourth (chronic care and rehabilitation) has a new orientation towards rehabilitation.

DESCRIPTION OF THE UNITS THAT PROVIDE SERVICES

1.5.1. Health visitor services

Health visitors will continue to provide all the statutorily required services¹. In addition, they will perform health risk assessments for all children younger than 18 years of age. Depending on the results of the assessments, the health visitors will refer the children and their caregivers either to health promotion programmes in the community, to the GP or paediatrician for further examination, or to individual- or group-based “lifestyle counselling” services, which are provided by the health visitors or by other health professionals. The health visitor services are detailed in Chapter 2.2.

1.5.2. Health status assessments

Health status assessments must be separated from acute and chronic patient care because they target all adults, not just the patients who belong to the cluster. These assessments are performed by the public health specialist and the community nurse on adults over 18 years of age who belong to the individual practices of the cluster. Health status assessments have a double aim. First, the results document the health status of a client (patient) at the beginning of the programme, providing a baseline assessment against which changes in health status can be compared at the end of the programme. Second, the procedure includes various screening methods that are applicable in primary care for the early recognition of risk factors and/or the early stages of treatable disorders. Special emphasis will be placed on

including adults with disadvantageous socioeconomic status, especially Roma. The Screening Plan developed will be accepted by the GPC Screening Group (GPC-SG), and the GPC coordinating GP sends it to the Centre for Coordinating Primary Care Preventive Services (CCPC-PS) for approval. Chapter 2.3 provides a detailed description of health status assessments. The assessment of children remains the task of health visitors.

1.5.3. Lifestyle counselling

Lifestyle counselling and health education are aimed at increasing health literacy to enhance the appropriate use of health care services and compliance and adherence to medical and health advice, which are all necessary for improving health outcomes, i.e., reducing morbidity and mortality as well as increasing quality of life.

Lifestyle counselling is the responsibility of each health professional in the cluster, and the methods they employ will vary according to their competencies. The counselling methods should be tailored to the specific level of health literacy of the target population. Chapter 2.5 provides a detailed description of lifestyle counselling.

1.5.4. Medical risk assessments

Medical risk assessments aim to determine the significance of the risk(s) of morbidities identified and appraised during a prior health status assessment. These procedures, which are performed by the GP, provide medical advice/services to persons in the practice who have previously undergone health status assessments. Chapter 2.4 elaborates the process of medical risk assessment.

1.5.5. Chronic medical care with a focus on rehabilitation

The traditional aim of chronic care is to provide long-term medical care to individuals with chronic physical and/or mental impairments. The new feature of chronic care will be a reorientation towards rehabilitation, i.e., helping people with disabilities achieve optimal social integration. This service will be provided by the GPs and the newly employed health professionals in the GP cluster (physiotherapists, public health specialists, health psychologists, and dietitians). Chronic care with a focus on rehabilitation is described in Chapter 2.6.

¹.. 49/2004. (V. 21.) ESzCsM rendelet a területi védőnői ellátásról (Statute on the activities of the health visitors)

http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A0400049.ESC

² 4/2000. (II. 25.) EüM rendelet a háziorvosi, házi gyermekorvosi és fogorvosi tevékenységről. (Statute on the activities of the general practitioner, general paediatrist and dentist.)

http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A0000004.EUM

1.5.6. Acute and emergency medical care

Acute, emergency and other types of primary health care services provided by general practitioners and general paediatricians are prescribed by Statute 4/2000 of the Ministry of Health². These activities, being well-established elements of the work performed by GPs, are not detailed here.

1.5.7. Health promotion activities in community settings

Health promotion programmes in community settings are meant to improve the determinants of health and equity at locations (settings) in the community where groups of the target population can be found and mobilised. Schools and workplaces are the most frequently utilised of such locations. Programmes and activities should be designed with a special emphasis on targeting those in greatest need while considering their assets and resources. All community activities should be built on partnerships with all the stakeholders within and without the cluster. The commitment to and support of these programmes by the municipal/local government must be ensured. Chapter 2.1 provides guidelines for planning and implementing health promotion programmes.

1.6. PATIENT CARE PATHWAYS

Members of all strata of the target population are recruited by the public health coordinator and the health mediators, with the help of the assistant health mediators.

Children are directed to the district health visitor for health status assessments, whereas all adults are invited to make an appointment with the health status assessment unit.

After the health status assessment, individuals with no identifiable health risks will be invited to attend health promotion programmes in community settings. Those with behavioural risks but no laboratory or measurable physical abnormalities will be referred to lifestyle counselling for, e.g., weight control or smoking cessation. Those with identified laboratory and/or physical abnormalities will be referred to the GP for a medical risk assessment. Based on the results, they will either be sent for further tests and examinations and/or be admitted to chronic care with rehabilitation as the priority. Individuals with additional behavioural risks will be referred to lifestyle counselling.

A special effort should be made to invite and motivate members of vulnerable groups to utilise all of these preventive services.

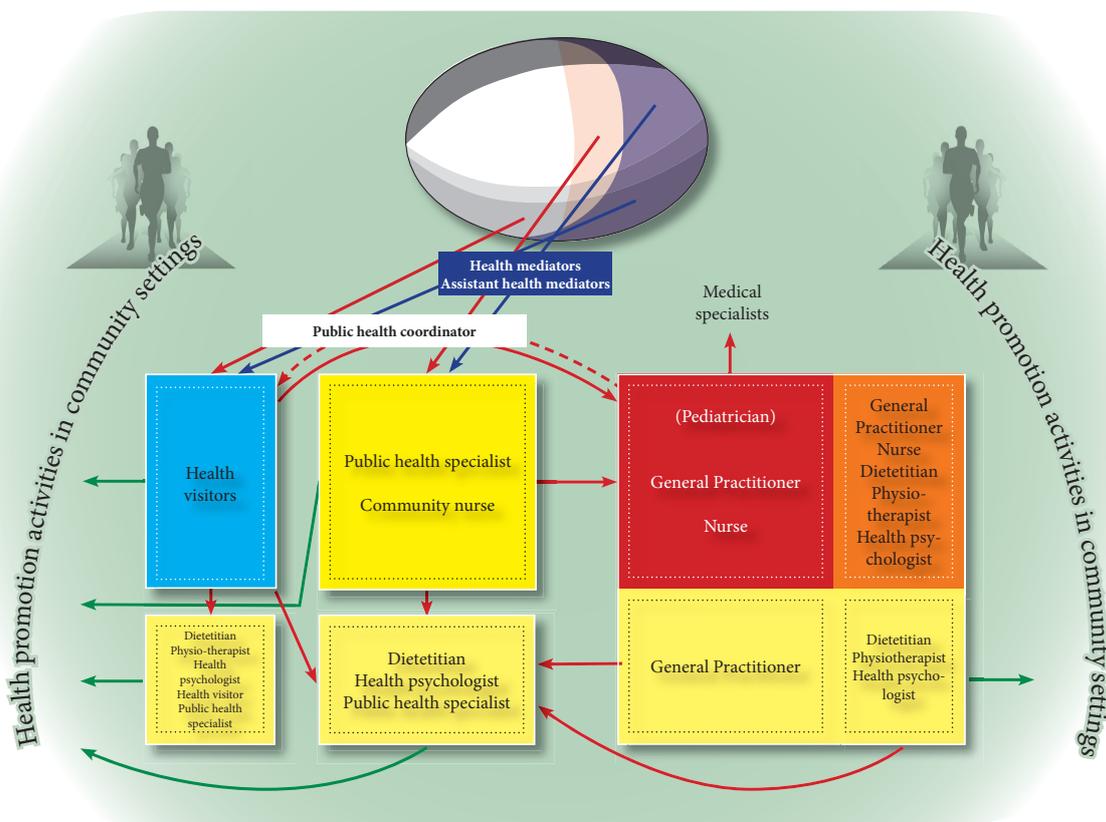
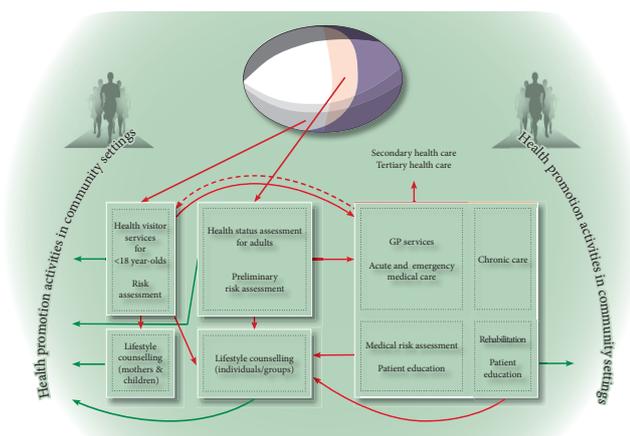


Figure 5. Human resources of GPs clusters



2.1. HEALTH PROMOTION PROGRAMMES IN COMMUNITY SETTINGS



Definition of term and concepts

The settings-based approach in health promotion has its roots in the Health for All strategy of the World Health Organization of 1981 and, more specifically, in the Ottawa Charter for Health Promotion issued in 1986. The concept has grown out of the recognition that health is created and experienced by people within the settings of their everyday lives, including where they learn, work, play, and love¹. The aim of health promotion programmes in community settings is to develop and implement integrated activities in those locations where various groups of the community can be reached.

Settings are physical locations where people actively use and shape their environments by creating or solving problems related to health. Settings are circumscribed environmental locations that have physical boundaries and that include a range of people with defined roles and an organisational structure. Schools, work sites, hospitals, villages and cities can be cited as examples of settings².

Settings-based approaches to health promotion ideally involve holistic and multi-disciplinary methods that integrate actions across risk factors, thereby maximising well-being and disease prevention. The key principles underlying the settings-based approach include community participation, empowerment, partnership, and equity³. These principles refer back to the Alma Ata Declaration on primary health care, which required primary health care to encompass equity, community involvement/participation, intersectorality, appropriateness of technology and affordable costs².

Actions to promote health across different settings can take many different forms, often manifested through some type of organisational development, including changes to the physical environment or to the organisational structure, administration and management. Settings can also be used to promote health by reaching people who work within them, by using them to gain access to services, and through the interactions of different settings with the wider community².

An early example of a settings-based health promotion programme is the Healthy Cities Project of the World Health Organization Regional Office for Europe, launched 15 years ago. Its principles call for governance for health at the community level based on equity, participation and empowerment, to be achieved by working in multisectoral partnership, solidarity and friendship⁴.

Community-based population health promotion – as defined in a report for the Parliament of Canada – aims to promote healthy human development at the community level by building on community involvement, intersectoral partnership, political commitment, healthy public policy, and asset-based community development⁵.

In community-based health promotion, two broad approaches can be identified. One of the approaches primarily aims to prevent specific diseases and symptoms and/or to promote specific health outcomes. The other approach focuses on community development for health promotion, which highlights community capacities by mapping assets that the community already has and builds upon them in order to implement a variety of programmes designed to improve the foundations of a vibrant community. In this approach, building capacities and resources within the community take precedence over attracting resources from outside the community. This approach ideally arises from the community itself, but in practice, it is mostly initiated by outsiders⁶.

The strategic significance of community health promotion – according to the largest global non-governmental organisation of health promotion, the International Union for Health Promotion and Education – is related to the inability of most countries with mixed health systems to deliver health as a public good. This, coupled with the emerging role of the market in health and the limited resources in the social sector, calls for a greater role of communities in health promotion to improve outcomes and increase health equity⁷.

¹ Ottawa Charter for Health Promotion. World Health Organization 1986. <http://www.who.int/healthpromotion/conferences/previous/ottawa/en/>

² Health Promotion Glossary. World Health Organization 1998 <http://www.who.int/healthpromotion/about/HPR%20Glossary%201998.pdf>

³ Healthy settings. World Health Organization http://www.who.int/healthy_settings/en/

⁴ Zagreb Declaration for Healthy Cities. World Health Organization 2009. http://www.euro.who.int/__data/assets/pdf_file/0015/101076/E92343.pdf

⁵ Act locally: Community-based population health promotion. A report by T. Hancock for the Senate Sub-Committee on Population Health 2009. <http://www.parl.gc.ca/Content/SEN/Committee/402/popu/rep/appendixBjun09-e.pdf>

⁶ Bracht N. (ed): Health promotion at the community level 2. SAGE Publications, Thousand Oaks CA. 1999.

⁷ S. Nishtar: Community health promotion – a step further. Promotion and Education, 2007;14(2):61-62. http://www.iuhpe.org/upload/File/PE_2_07a.pdf

These distinctly named yet overlapping concepts reflect many years of debate surrounding the precise definitions of health practices, including a poor understanding of health promotion that is implemented at the community level. This led to the establishment of the Global Consortium on Community Health Promotion in 2003 as a collaborative initiative of the US Centers for Disease Control and Prevention (CDC) and the International Union for Health Promotion and Education (IUHPE), which aimed to clarify these concepts and norms as a starting point. The Consortium's Statement defines community health promotion as a participatory, empowering, and equity-focused process, one that regards community participation as essential to every stage of health-promoting actions and that leverages community assets and knowledge to create the necessary conditions for health⁸.

However, not all community oriented health-promoting policies and actions – regardless of how they designate themselves – conform to this definition. The most poignant issues are community participation and intersectoral collaboration. Both concepts require a horizontal approach and partnership for planning and implementing actions⁹. Community participation is vital, not only as a means to conform to guidelines, but because it greatly contributes to the effectiveness of the programme. A systematic review of community-based health promotion programmes has revealed that, whereas many community-based programmes have had only modest impact, those programmes that were unquestionably effective made great efforts to establish contacts with the community. Such programmes relied on greater community input into intervention design and implementation, in many cases through informal – rather than formal – contacts¹⁰.

Thus, *community involvement is the fundamental point that helps distinguish between community-based health promotion programmes from the technocratic, top-down oriented public health programmes*. In contrast, the degree of community participation differentiates community oriented (least involvement) from community health promotion (greatest involvement).

General recommendations for planning

To facilitate the planning and implementation of health-promoting programmes in community settings within the framework of the Swiss Contribution Programme, five aspects of planning are recommended for colleagues working in the field.

First, the *concept of health promotion*, as outlined in the Ottawa Charter for health promotion¹, extends the work for health well beyond the health sector and beyond individuals needing care. The WHO guideline for planning health promotion projects in community settings calls for governance for health at the community level based on equity, participation and empowerment, achieved by working in multisectoral partnership, solidarity and friendship⁴.

Second, the *social psychological definition*¹¹ is recommended for a group as at least 2 people who share some socially important features (e.g., common cultures, values and norms), interact with each other, and share common goals. Similarly, communities are large or very large groups of people who – just like groups – share common cultures, values and norms. However, communities have distinct social structures and often exist in a well-defined geographical area. It is important to note that individuals in modern societies do not belong to only one community. Rather, modern individuals belong to a range of communities based on variables such as geography, occupation, social and leisure interests².

Third, as *community participation* is a vital element, the spectrum of public participation, as specified by the International Association for Public Participation (IAP2)¹², should be used to guide planning and gauge community involvement (Figure 1). This model helps to distinguish between various degrees of community participation for those who will create health promotion projects in the target communities and for those whose tasks it will be to evaluate such projects. The IAP2 also offers a toolbox that provides a range of methods for engagement and information sharing with the community to be involved¹³.

Fourth, *each programme should preferably be based on evidence* showing the effectiveness of the planned activities. References for effective health-promoting interventions across various settings are offered below, based on the international literature.

Fifth, *Hungarian guidelines* developed by the National Advisory Board of Healthcare and issued by the Ministry of Human Resources should be used to design and plan health promotion programmes at the community level.

AIMS

Aims of health promotion programmes in community settings should include the improvement of conditions necessary for health and equity at the community level by

⁸ The statement of the Global Consortium on Community Health Promotion. *Promot Educ.* 2006;13(1):7-8, 53-4

⁹ Rice M., Franceschini M.C.: Lessons learned from the application of a participatory evaluation methodology to Healthy Municipalities, Cities and Communities initiatives in selected countries of the Americas. *Promotion and Education*, 2007;14(2):68-73.

¹⁰ Merzel C., D'Afflitti J.: Reconsidering Community-Based Health Promotion: Promise, Performance, and Potential. *Am J Public Health.* 2003 April; 93(4): 557-574. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447790/>

¹¹ Smith E.R., Mackie D.M.: *Szociálpszichológia*. Osiris Kiadó, Budapest 2004.

¹² IAP2 spectrum of public participation. International Association for Public Participation. http://www.iap2.org/associations/4748/files/IAP2%20Spectrum_vertical.pdf

¹³ IAP2's Public Participation Toolbox. http://iap2.affiniscape.com/associations/4748/files/06Dec_Toolbox.pdf

Table 2. Spectrum of public participation

	Inform	Consult	Involve	Collaborate	Empower
Public participation goal	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision-making in the hands of the public.
Promise to the public	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.
Example techniques	Fact sheets Web sites Open houses	Public comment Focus groups Surveys Public meetings	Workshops Deliberative pooling	Citizen advisory committees Consensusbuilding Participatory decisionmaking	Citizen juries Ballots Delegated decision

Source: IAP2 spectrum of public participation. International Association for Public Participation.
http://www.iap2.org/associations/4748/files/IAP2%20Spectrum_vertical.pdf

- actively engaging (at least involving) the target community (see Table 2);
- explicitly, but not exclusively, targeting those in greatest need;
- focusing on assets and experience that the community already has;
- building on intersectoral partnerships, primarily with local governments, local for-profit businesses, and local non-governmental organisations; and
- establishing political commitment, primarily with the municipal/local government.

SERVICE PROVIDERS

Service providers involved in community health promotion programmes may include health professionals in the GP practice, as well as Roma health mediators and assistant health mediators. In general, the Chief Health Mediator, with professional qualifications in public health, can act as the initiator and coordinator of such programmes,

equipped with the power to delegate specific tasks to other professionals, in agreement with the Head GP.

Partnerships

To develop effective community projects, it is of utmost importance to build alliances with the widest possible range of stakeholders, including formal or informal leaders of the actual setting, representatives of the local government, and professionals of the Policy Administration Services of Public Health of the relevant Government Office¹⁴, business ventures, and non-governmental organisations in and around the locality before the project is planned.

TARGET POPULATION

The definition of community should be kept in mind: large or very large groups of people who share common culture, values and norms; interact with each other; have common goals; have a distinct social structure; and tend to

¹⁴ Kormányhivatalok Népegészségügyi Szakigazgatási Szervei

live in a defined geographical area. This definition offers a clear guide for planning in several respects.

First, the target community must be defined separately for each health promotion intervention. A project on improving the diet of school teenagers will have a different target population compared to another that aims to reduce motor vehicle accidents, even if both are planned in the same settlement (city or village). A quit-smoking community project will be different in a workplace setting compared to one taking place in a segregated neighbourhood of the same settlement.

Second, target populations must share common values and norms if they are to be involved in a project. Therefore, professionals must ensure that the values and norms underpinning any project are truly shared among members of the target population. Otherwise, common values and norms must first be built.

Third, the active engagement of a community, one of the hallmarks of a community-based health promotion project, should aim to at least involve and preferably empower the target community (see Figure 1). This must be achieved by also keeping in line with the aim of building equity. It follows that each member, or at least representatives of each stratum of the target population, should be involved in planning and implementation, not only those who have the loudest voices. The Swiss Contribution Programme 8/1 provides an excellent framework in this respect, by providing employment for Roma health mediators from the most disadvantaged strata of the Hungarian population and engaging health assistants from disadvantaged communities. Health promotion projects in community settings should provide the frame in which their active involvement will lead to their empowerment by the end of the Programme.

Fourth, building trust with various communities is a long and sometimes arduous process, yet it is one that provides progressively increasing benefits for the future. Difficulties may often arise from divergent values and norms between professionals and the target population. Hungarian society in general has been more acclimated to the left end of the participation scale, that is, being informed (if at all), rather than to the right end of the spectrum (being empowered)¹⁵. Health promotion programmes anchored in community settings in the framework of the Swiss Contribution will represent a new approach to targeting populations, a new approach that can change their attitudes about not only health but also public affairs. Perseverance is key. It is strongly suggested that health professionals build a common understanding of the degrees of participation, which will not only serve the target populations but also benefit team members of the GP practices.

ACTIVITIES

Health promotion programmes in community settings should be asset based, as mentioned above. This means that assets (resources, capacities, knowledge, etc.) possessed by the community should first be identified and taken into account along with needs when designing specific programmes, which, for these reasons, will vary from one community at one setting to the next. Programme design will also depend on the level of participation of the target population, as mentioned above. Specific activities should be planned to build on the available evidence of effectiveness.

Sources of evidence to be used for planning specific activities and, last but not least, a step-by-step guide for planning health promotion projects in Hungarian community settings are recommended below.

Evidence for effective health-promoting interventions

The Guide to Community Preventive Services¹⁶

- Infectious diseases
 - HIV/AIDS, STIs, Pregnancy
 - Vaccination
- Mental health and psychoactive substance abuse
 - Mental Health
 - Tobacco
 - Excessive Alcohol Consumption
- Non-communicable diseases
 - Cancer
 - Asthma
 - Birth Defects
- Lifestyle
 - Nutrition
 - Obesity
 - Oral Health
 - Physical Activity
 - Cardiovascular Disease
 - Diabetes
- Safety and injury prevention
 - Motor Vehicle Injury
 - Violence
 - Emergency Preparedness
- Overarching issues
 - Health Communication

¹⁵ Tóth I.Gy.: Bizalomhiány, normazavarok, igazságtalanságérzet és paternalizmus a magyar társadalom érték szerkezetében. TÁRKI 2010. http://www.tarki.hu/hu/research/gazdkult/osszefoglalo_kepviselek_091026.pdf

¹⁶ The Guide to Community Preventive Services. Centers for Disease Control and Prevention. <http://www.thecommunityguide.org/index.html>

Action Guides to Improve Community Health¹⁷

1. Diabetes Self-Management Education
2. Physical Activity
 - Places for Physical Activity: Facilitating the Development of a Community Trail and Promoting Its Use to Increase Physical Activity Among Youth and Adults
 - School-Based Physical Education: Working with Schools to Increase Physical Activity Among Children and Adolescents in Physical Education Classes
 - Social Support for Physical Activity: Establishing a Community-Based Walking Group to Increase Physical Activity Among Youth and Adults
3. Tobacco-Use Treatment
 - Healthcare Provider Reminder Systems, Provider Education, and Patient Education to Improve the Delivery of Tobacco-Use Treatment to Patients

World Health Organization Safe Communities model of safety and injury prevention¹⁸

A “Safe Community” can describe a municipality, a county, a city or a district of a city that works to promote safety and injury, violence and suicide prevention, as well as the prevention of the consequences (human injuries) related to a natural disaster, covering all age groups, gender and areas and that is a part of an international network of accredited programmes.

Population Approaches to Improve Diet, Physical Activity, and Smoking Habits¹⁹

The American Heart Association carried out a systematic review in 2012 to identify and grade the evidence for a range of population-based strategies to promote lifestyle change. The findings provide a framework – among others – for communities to understand and implement the most effective approaches.

Healthy Cities

The WHO Healthy Cities movement promotes comprehensive and systematic policy and planning for health that addresses inequality in health and urban poverty, including the needs of vulnerable groups, participatory governance, and the social, economic and environmental determinants of health. The Zagreb Declaration for Healthy Cities⁴ defines the values and principles of action, along with relevant health-related topics. The European Healthy Cities Network²⁰ supports the activities of participating municipalities that must prepare a health profile and a health development plan to get started. Details of establishing a healthy city can be found in a manual²¹.

Promoting health in schools – From evidence to action²²

The guideline recommended by the School Health Promotion (SHE) network – the European platform for school health promotion coordinated by the CBO²³, as the WHO Collaborating Centre for School Health Promotion – explains the dimensions of a health-promoting school and lists effective health-promoting, evidence-based interventions in schools.

Guidelines for workplace health promotion programmes²⁴

Motivation for employers to carry out workplace health promotion²⁵

This literature review summarises the rationale and arguments for employers – the most important stakeholders to convince to initiate programme planning at workplaces – to launch health promotion programmes.

The evidence of health promotion effectiveness²⁶

- Chapter 9 Setting 1 – Health Promotion in the Workplace
- Chapter 10 Setting 2 – Health Promotion in Schools

¹⁷ Partnership for Prevention. <http://www.prevent.org/Action-Guides/The-Community-Health-Promotion-Handbook.aspx>

¹⁸ The Safe Community Network. Violence and injury prevention. World Health Organization.

<http://www.ki.se/csp/pdf/Books/The%20Safe%20Community%20Network.pdf>

¹⁹ Population Approaches to improve diet, physical activity, and smoking habits. A Scientific Statement from the American Heart Association. *Circulation*. 2012;126:1514-1563. <http://circ.ahajournals.org/content/126/12/1514.long>

²⁰ WHO European Healthy Cities Network.

<http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health/urban-health/activities/healthy-cities/who-european-healthy-cities-network>

²¹ Twenty steps for developing a Healthy Cities project. World Health Organization Regional Office for Europe 1997.

http://www.euro.who.int/__data/assets/pdf_file/0011/101009/E56270.pdf

²² Promoting health in schools – From evidence to action. IUHPE 2010.

http://www.iuhpe.org/uploaded/Activities/Scientific_Affairs/CDC/School%20Health/PHiS_EtA_EN_WEB.pdf

²³ Dutch Institute for Healthcare Improvement

²⁴ Nemzeti Fejlesztési Ügynökség www.nfu.hu

²⁵ Motivation for employers to carry out workplace health promotion. European Agency for Safety and Health at Work.

²⁶ The evidence of health promotion effectiveness. A report for the European Commission by the International Union for Health Promotion and Education ECSC-EC-EAEC, Brussels – Luxembourg, 2000. http://www.iuhpe.org/uploaded/Publications/Books_Reports/EHP_part2.pdf

– Chapter 11 Setting 3 – Health Promotion in the Health Care Sector

Guidelines for health-promoting interventions

Guide for planning health promotion projects at community settings²⁷

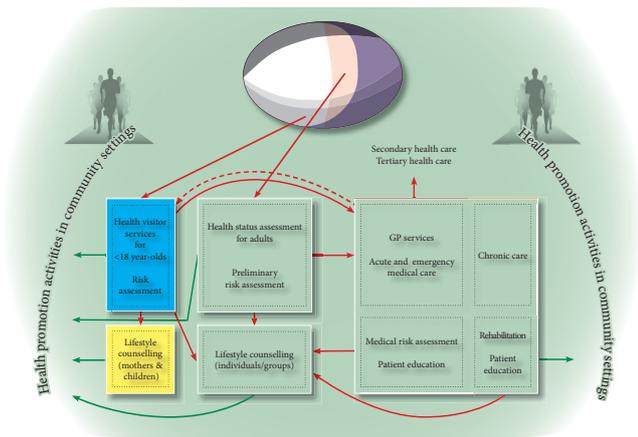
This publication provides a step-by-step guide for planning projects in Hungarian community settings. It is available both in printed and electronic format.

Guide for working with communities²⁸

²⁷ Füzési Zs., Tistyán L.: Egészségfejlesztés és közösségfejlesztés a szintereken. Országos Egészségfejlesztési Intézet 2004. http://www.oefi.hu/regiweb/fuzetek/egeszsegfejlesztes%20es%20kozosssegfejlesztes_web.pdf

²⁸ Vercseg I.: Legalább ennyit a közösségfejlesztésről. <http://www.oefi.hu/modszertan5.pdf>

2.2. SERVICES PROVIDED BY HEALTH VISITORS



Concept and definition

The provision of services by health visitors was established in 1915 in Hungary to decrease neonatal mortality and contribute to population growth. This programme began as a network of gynaecologists, obstetricians, and young women who received two weeks of training before being sent to cities and villages to work with pregnant women and young mothers and their children. The programme was administered exclusively by health visitors, with funding from the government and municipalities that began in 1921. Foreign assistance was provided during the first world war by the Dutch Mission, the American Red Cross, and later by the Rockefeller Foundation. The programme was expanded in 1940 to include care for people with pulmonary and sexually transmitted diseases¹. Health visitors became well-respected health professionals who received the same pay as school teachers. After World War II, the incoming communist government remodelled the health care system; health visitors received 2 years of post-secondary training, and the focus of their work returned to maternal and child health². Their training was expanded to a 3-year Bachelor's degree in 1975 and then to a 4-year Bachelor's degree in 1993; Master's level training has also been available since 2004³. Currently in Hungary, district health visitors are the only independent health professionals (except for general practitioners) with the following roles:

- district health visitors provide services for mothers and children (through the age of 6 years) in a role similar to that of health visitors in the UK ;
- school health visitors offer preventive services in kindergartens and schools;

- health visitors in hospitals work in maternity, neonatal, and paediatric hospital wards;
- and family protection health visitors primarily provide family planning for adolescents, couples, and women with unwanted pregnancy crises.

Health visitors are supervised by chief health visitors at the city, county and national levels under the supervision of the Chief Medical Officer of the National Public Health and Chief Medical Officer Service.

AIM

The aims of the health visitor programme are to help citizens understand their constitutional and legal rights regarding their health; exercise their health-related rights; be aware of and utilise institutional health care facilities; acquire health information and skills; and develop a health-promoting attitude to achieve an optimal quality of life to help them consider their health to be an asset that is useful to both themselves and their community. With a focus on prevention and an awareness of the factors that both protect and endanger health, health visitors achieve their goals using the latest evidence from scientific healthcare research.

SERVICE PROVIDERS

The service providers are health visitors.

TARGET POPULATION

In general, the target population includes women, particularly pregnant women, young mothers (postnatal women) and their families, and children aged 0-18 years.

In greater detail, the target population includes the following groups:

- newborns and their families
- babies, children and families
- children younger than school age (6 years) and their families
- school-age children and families in crisis
- women/couples preparing for childbirth and couples preparing to adopt a child
- expectant mothers
- postnatal and breastfeeding mothers and their families

¹ Kahlichné Simon M. A védőnőképzés története Egészségügyi Munka 1985. 10.

² Beckley P.: The védőnők program: maternal and child health visitors in the changing Hungarian context. <http://www.gesundheit-nds.de/downloads/05.10.07.berlin.beckley.pdf>

³ Csordás Á.: A védőnőképzés és továbbképzés 1975-2006 között. 2007.

http://www.mave.hu/uploads/file/Vedonokepzes_tovabbkepzes_tanulm_341ny_Csordas_Agnes.doc.pdf

⁴ National Health Service. What do health visitors do?

<http://www.nhscareers.nhs.uk/explore-by-career/nursing/careers-in-nursing/health-visiting/what-do-health-visitors-do/>

- young women of reproductive age
- women of reproductive age who do not plan to have additional children
- perimenopausal and menopausal women

ACTIVITIES OF DISTRICT HEALTH VISITORS

In general, district health visitors work on a territorial basis, serving a target population size determined by legal regulations⁵.

The fundamental function of district health visitors is the provision of family care to pregnant women, children aged 0-6 years, and families with children aged 6-18 years living at home. In providing family care, the health visitor focuses upon maternal health and healthy foetal development especially before and during childbirth, so that the newborn is welcomed and raised in a healthy environment. Services may be provided in the family's home, in the health visitor's office or, if necessary for group activities, at a venue suitable for community programmes. Health visitors cooperate with GPs, school doctors⁶, local social services workers, and authorities, under the leadership of the Chief Health Visitor within the National Public Health and Medical Officer Service.

The methods of district health visitor service delivery include the following:

- family visits
- individual counselling (brief interventions, brief treatment, intensive counselling, telephone counselling, and motivational interviews)
- group counselling (intensive group counselling, lectures, focus groups, mother-child groups, and peer support groups)
- lectures delivered at public health events

(See also Chapter 2.5)

The following are details of the activities of district health visitors according to the target group:

1. Women's welfare and care

Aims: Promote and maintain reproductive health, assist in positive family planning, prevent diseases of major public health importance, and improve public health status.

Activities: Transfer health-related knowledge; provide advice about reproductive health and good lifestyle practices

according to women's biological life stages; assist in preparations for conception, pregnancy, parenthood, childbirth, and breastfeeding; provide information about the prevention of unwanted pregnancy and positive family planning methods; introduce screening tests; organise screenings; perform health visitor screening tests⁷; and assist in preparations for the physical, mental and social changes associated with women's various life stages.

2. Care for the expectant mother and her family

Aims: Maintain the health of the mother and her foetus; support the expectant mother's physical and mental well-being and social security by detecting, preventing and assisting in the removal of hazards; assist in preparations for family life, parenthood, childbirth, breastfeeding and infant care.

Activities: Explore the health and social histories of the expectant mother and her family to identify and prevent any hazards as soon as possible. Conduct screening tests⁸ in accordance with current legislation and professional guidelines, record and monitor special medical examinations that are performed, relay the information revealed by these tests to the client. Prepare prospective parents for parenthood; for the changes associated with pregnancy, childbirth, and the postnatal period; for the care of the newborn; and for (natural) breastfeeding. Provide information about institutional health care and the opportunities for social and charitable assistance that are available to families.

3. Care for the postnatal and breastfeeding mother and her family

Aims: Maintain the physical and mental health of the postnatal mother, recognise problems in a timely fashion, prevent risks and complications, support the formation of family ties, and provide assistance with processing loss.

Activities: Explore the personal and environmental backgrounds and the social opportunities of families receiving care, monitor the lactation and involution processes during the postnatal period, and provide advice on infant care and breastfeeding. Determine the psychological condition of the postnatal mother, and arrange for additional professional assistance, if necessary. Assist in preparations for positive family planning. Prepare the mother for changes

⁵ 49/2004. (V. 21.) ESzCsM rendelet a területi védőnői ellátásról (Decree of the Ministry of Health on the district health visitor service).

http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A0400049.ESC

http://www.eum.hu/health_policy/quality_development/health_visitor_care

<http://www.mave.hu/?q=webpage/jogszabalyok>

⁶ A védőnő preventív alapfeladatai, kötelezettsége és felelőssége a megelőző ellátásban (Országos Tisztifőorvosi Hivatal, 2004.) (The basic tasks, obligations and responsibilities of the health visitors in the preventive care, The Office of the Chief Medical Officer, 2004) https://www.antsz.hu/data/cms26771/vedono_preventiv_alapfeladatai_2009030920.pdf

⁷ 51/1997. (18.XII.) a kötelező egészségbiztosítás keretében igénybe vehető betegségek megelőzését és korai felismerését szolgáló egészségügyi szolgáltatásokról és a szűrővizsgálatok igazolásáról (On the compulsory health insurance-based health services, aimed to prevent and timely detect the diseases, and the certification of screenings). http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=99700051.NM

⁸ A Nemzeti Erőforrás Minisztérium szakmai protokollja a védőnői szűrővizsgálatokról a várandós anya ellátásában (Protocol for screening carried out by health visitors) <http://www.mave.hu/uploads/file/VSZK%20Protokoll%20Varandos%20szurovizsgalatok.pdf>

related to her future employment, and provide information about the safe and appropriate placement of the child in a daycare facility, about breastfeeding, and other feeding options during work hours.

4. Care for the newborn, the child and the family

Aims: Maintain the health of the newborn, prevent risks and complications, recognise problems in a timely fashion, and support the formation of family ties and the socialisation process.

Activities: Explore the personal and environmental backgrounds and the social opportunities of families receiving care. Transfer medical guideline-based knowledge and practical methods related to newborn/baby care, breastfeeding, complementary feeding, and formula feeding. Monitor the condition and the physical, psychological and social development of the newborn/baby. Recognise any environmental, parental or other hazards based on preliminary signs and symptoms, help prevent or avoid these hazards, and assist in handling these challenges. Monitor and support the evolution of harmonious family relationships. Perform the screening tests that are required by law and are part of nursing duties, and monitor and document any changes in the test results. Monitor the results of specialised medical examinations. Provide information about various vitamin supplements and vaccinations. Assist in creating a safe and harmonious environment and preventing accidents. Present the rules of first aid. Transfer knowledge and practical methods related to sick infants, caring for a premature baby, nursing, and primary (pre-medical) emergency care; and prepare special care plans for patients, including patients with chronic diseases and premature newborns/infants. The conduct of all activities should be based on a previously approved care plan.

5. Care for children aged 1 to 3 years and their families

Aims: Maintain the health of the child, prevent hazards and complications, recognise problems in a timely fashion, assist in providing solutions, and support the formation of family ties and the socialisation process.

Activities: Monitor changes in both the family background and medical conditions. Follow the evolution of family relationships. Transfer knowledge about caring, nursing and feeding, as well as practical methods to promote the ideal development of the child. Monitor the condition of the baby and his/her physical, psychological and social development. Perform the screening tests required by law. The conduct of all activities should be based on a previously approved care plan. Provide information about various vitamin supplements and vaccinations. Present the conditions for creating a safe and harmonious environment, the rules of first aid and the placement of emergency telephone calls. Explain child placement and child-care aspects and opportunities, and prepare the family and the child for nursery care, family day care, or other daytime

care services, as well as for preschool settings, institutional care conditions, and changes in the child's community. Transfer the knowledge and practical methods needed for caring for a sick child, the prevention of accidents, and contacting primary care services when needed. Prepare a detailed care plan for ill children (acute / chronic). The conduct of all activities should be based on a previously approved care plan.

6. Child care, including family care, from the age of 3 until school age:

Aims: Maintain the health of the child, prevent hazards and complications, recognise problems in a timely fashion, and support the formation of family ties and the socialisation process.

Activities: Monitor changes in both the family background and the conditions system. Follow the evolution of family relationships. Transfer knowledge and practical methods concerning child care, nursing and feeding. Monitor the baby's condition and his/her physical, psychological and social development. Perform the screening tests required by law⁶ and monitor any changes in the test results, particularly those that pertain to school maturity. The conduct of all activities should be based on a previously approved care plan. Provide information about various vitamin supplements and vaccinations. Describe the conditions that promote a safe and harmonious environment and the prevention of accidents, as well as the rules of first aid and the placement of emergency telephone calls. Present the options regarding child placement and child care facilities, and prepare the family for changes associated with placing the child in a community (kindergarten), institutional circumstances of kindergarten and preschool settings. Transfer knowledge and practical methods related to caring for a sick child, and the proper use of emergency versus primary care. Prepare a detailed care plan for ill children (acute/chronic). The conduct of all activities should be based on a previously approved care plan.

7. Care for school-age children/youth and their families in situations of crisis or endangerment

Aims: Maintain the physical and mental health of the child, provide assistance with resolving the family's social difficulties, prevent risks and complications, recognise problems in a timely fashion, and assist in their solution. Prevent and recognise individual difficulties with socialisation and family crises in a timely fashion, and collaborate with other professionals and the family to find the appropriate solutions.

Activities: Monitor changes in the family background and the conditions system. Assess the personal and environmental backgrounds, social opportunities and problems, and causes and levels of crises among the children receiving care. Follow the evolution of family relations with a particular focus on the possibility of abuse and family

violence. Present age-related information about child/youth care, nursing and feeding. Evaluate the child/youth's condition and his/her physical, psychological and social development. Recognise dangerous or crisis situations. Perform the screening tests required by law⁹. Provide information about vaccinations. Present the conditions that promote a safe and harmonious environment, accident prevention, and the avoidance of substance abuse and lifestyles associated with health hazards; introduce the rules of first aid; and explain the options for requesting help. Prepare a detailed care plan for the ill child/youth (acute/chronic) and show it to the child's parents and the professionals involved in caring for the child (especially school health and social work professionals) to ensure quality care based on the child's specific needs.

8. Community health development activities related to health visitor services and involving the above-mentioned target groups in various settings

See Chapter 2.1.

9. Referral of children in danger

On the initiative of herself, the individual under care or another professional, the health visitor can help prevent or resolve an acute problem or emergency situation by referring the case to the appropriate organisations and authorities. The actions the health visitor are bound by legal regulations .

10. School-based health care for youths

Aims: Participate in promoting healthy physical, mental and social development; health protection; and health improvements among children in primary and secondary schools.

Activities: Follow and document students' health conditions. Conduct age-related screenings according to professional recommendations and the terms and conditions specified by professional guidelines and regulations^{6,8}. Inform the parents, school doctor, GP and family paediatrician about the results of the examinations and tests. Assist students and parents in health-related aspects of career planning. In cases of vocational institutes, perform the necessary tasks related to career assessment screenings and temporary professional eligibility screenings. Talk to students and parents as individuals and in groups, with a special focus on adolescent changes and crises. Assess the personal hygiene of the students. Participate in vaccinations. Promote healthy lifestyles, community integration and the necessary care of chronically ill and disabled students.

Monitor the age-specific diets of the pupils, participate in shaping and overseeing the culinary culture, hygiene and environment. Help develop and maintain a health-promoting school environment. Maintain contact with parents, participate in parent-teacher conferences, and collaborate with the district health visitor. Ensure the provision of health education according to the needs established in the annual work plan and the specific public health situation. If necessary, conduct individual and group training sessions both inside and outside the classroom. Participate in preparing a health promotion plan for the educational institute. Design an annual care work plan.

The specific duties of health visitors in the Swiss Contribution Programme include the following:

1. Work as part of the primary health care team.
2. Attend GP cluster work sessions and provide regular feedback on their activities.
3. Support the work of the health promotion and health assessment units of the GP cluster. The work of health visitors should include a special focus on recruiting women in the community for specific screening tests (mammograms and cervical cancer screening).
4. Provide a gateway to the other services provided by the GP cluster. Inform community members and stakeholders about the additional (new) services available within the GP cluster, and refer clients to these services during consultations and family visits.
5. Conduct baseline Health Status Assessments for children younger than 18 years⁶ (also see Chapter 2.3) and, based on the results, prepare health care plans for these children.
6. Increase the motivation of families, especially vulnerable ones, and provide them with assistance in accessing public health services. Follow up clients who fail to appear at previously agreed appointments and programmes. Work with Roma health mediators towards achieving these aims.
7. Help improve the mental health of children and youth by conducting evidence-based health promotion interventions and by improving the school-home relationship to foster a caring community. Promote healthy lifestyles, especially among school-aged children, to reduce the daily intake of carbohydrates and sugar-sweetened drinks, as well as to make them aware of the dangers of psychoactive substance abuse.
8. Inform families about the importance of vaccinations and ensure the participation of Roma community members in vaccination campaigns. Prepare notes on those who do not participate in immunisation and

⁹ 26/1997. (IX. 3.) NM rendelet az iskola-egészségügyi ellátásról (Statute on school healthcare) http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=99700026.NM

¹⁰ 1997. évi XXXI. törvény a gyermekek védelméről és a gyámügyi igazgatásról (Act on the protection of children and custody administration) http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=99700031.TV

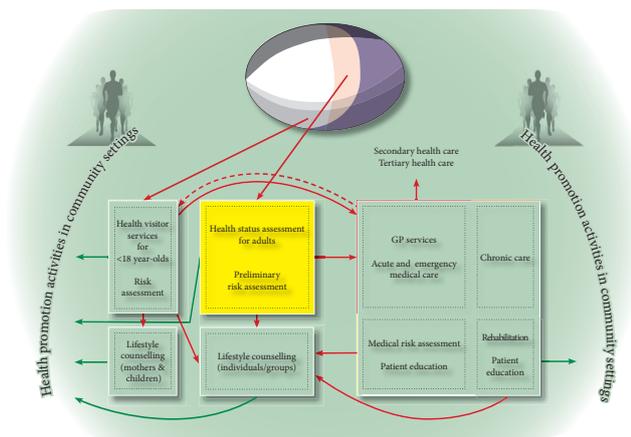
their reasons; inform the public health coordinator and the paediatrician or general practitioner of the area.

9. Raise awareness about family planning and the importance of early antenatal care among young girls and women.

10. In cases of expecting and young mothers exhibiting risk behaviours (especially smoking), organise support groups and other group activities to improve the behaviour.

11. Organise mother-child groups in coordination with Roma health mediators.

12. Contribute to the development of a childhood obesity prevention programme by testing the effectiveness of such a programme in 11-year-old children in all the clusters of the Programme.



Introduction

Decree No. 51/1997 of the Minister of Welfare serves as the legal base for the screening of age-defined adult target groups in primary health care (PHC) in Hungary. It defines the screening services that are freely available (financed by the National Health Insurance Fund) for insured adults, as well as the responsibilities of PHC personnel in screening and documenting the results. The methods are based on relevant international recommendations, with minor deviations. Although the legal basis for high quality PHC screening is provided, unfortunately this decree is not adequately supported by enacting clauses, guidelines and recommendations. Such amendments could ensure the proper realisation of the prescribed screenings.

- There are procedures that lack methodological specifications in the decree. (e.g., The GPs are obliged to determine the cancer risk of the clients, yet the methods for risk assessment are not determined in the decree or in any guidelines – the detailed tasks could be collected from 15–20 different professional directives. The General Practitioners Competence List gives some help¹.)
- There is no dedicated financing that could directly support the value of screening and motivate the PHC team members to improve their performance in this field. The inherent feature of capitation-based financing in the primary care is that the level of reimbursement does not depend on the quantity or quality of the provided services. Collectively, the general practitioners are not financially motivated to improve their performance. The conscience of the general practitioner determines the range of services, since no professional, legal and financial consequences would result due to a lack or failure of preventive services.

- The PHC team is not supported by health professionals who are trained to fulfil the tasks prescribed by the decree. (e.g., although a minor proportion of the adult population is reached by PHC screenings, neither communication experts involved in recruitment nor public health professionals who deliver preventive services are involved in these programmes. Similarly, neither GPs nor practice nurses are trained in this field.)
- The monitoring of screening implementation is not functioning at a GP practice level, with the exception of monitoring the participation in organised cervical and breast cancer screenings. (e.g., the implementation of screening for smoking habits or hypercholesterolemia is not in place.)
- Although a separate chapter of the General Practitioners Competence List² determines how and what should be documented on the patients health status and the B308 line of the report should be sent to the National Insurance Fund, there is no detailed protocol with which to document PHC screening, nor is there a clearly defined reporting mechanism. Consequently, there is no explicit evaluation of performance, and furthermore, there are no interventions formed by the findings.

As a consequence, the present Hungarian PHC screening practice is highly variable in the respect to both its methodology and effectiveness. There is consensus among experts that there are many opportunities may improve the performance of PHC-based screening, and these opportunities should be exploited in order to diminish the health loss due to preventable, chronic, non-communicable diseases among adults in Hungary. The under-evaluation and underreporting of PHC screening results in the neutral public attitudes towards secondary preventions, which is a considerable obstacle to improving collaboration between PHC and adult clients.

Purpose and application domain of the procedure

The purpose of the development, according to the framework set forth by the Swiss Contribution Programme, is to introduce new organisational measures, at the GP practices' cluster (GPC) level, to the screening activity of PHC for adults over 18 years old. It aims to involve new health-care professionals and public health experts in the practice through the establishment of a new collaborative network for all members of PHC. Eventually, the proposed screening protocol is developed to encourage good practice and thus generate improvements in health.

¹ https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/HAZIO_Haziorvosi_hataskori_lista_mod1_v0.pdf

² https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/HAZIO_Haziorvosi_hataskori_lista_mod1_v0.pdf

The procedure describes the processes and methods recommended for the GPC operations with regard to the general organisation, execution, and monitoring of organised screening. Accordingly, the procedure defines the following:

- the organisational, material, personal, training, and IT requirements for the application of the screening activity within the framework of GP clusters;
- the tasks of and the hierarchy between members participating in the provision of screening activities;
- the organisation of the screening process;
- the documentation of screening activities and their results in the PHC setting;
- the methods of monitoring based on input, process and outcome indicators; and
- the processes to evaluate the performance of a GPC in health status assessment, including the mechanisms to utilise in these evaluations.

AIMS

The procedure aims to facilitate the in-time (early) recognition of exposure to avoidable risk factors and early stage disorders through screening. By applying screening methods that can be used in the PHC setting and that have proved efficacy, this approach also supports the effectiveness of early stage treatments among adults.

The risk factors and early stage disorders for screening are defined by Decree No. 51/1997 of the Minister of Welfare. The target definition is completed by the evidence-based recommendations of the U.S. Preventive Services Task Force and the Royal Australian College of General Practitioners. The improved quality of PHC-delivered screening is designed to be associated with increased population coverage. Explicit aims also include an improved access to PHC screening in adults with disadvantaged socio-economic status, especially for Roma.

The PHC screening is clearly separate from the acute and chronic patient care, i.e., it deals with neither patients complaining of symptoms who need acute treatment nor patients who have known illnesses who require chronic care management.

Although the data originating from the documentation of PHC-based screening can also be applied in epidemiological analyses, the procedure itself does not involve an assessment of the population level health status, but rather, it aims to assess the health status of individual adults.

Legal and professional regulations on the provision of screening activities

Decree No. 51/1997 of the Minister of Welfare defines the screening tests aimed at the prevention and early detection of illnesses, the target groups stratified by clients' ages, gender and preliminary risk status, the healthcare providers responsible for performing screening tests and some elements of the procedures.

Many of the proposed procedures are complemented and further specified by guidelines from the National Institute for Quality- and Organizational Development in Healthcare and Medicines (GYEMSZI) and National Advisory Board of Healthcare (available at www.gyemszi.hu).

The procedures for screening methods, which are applicable in the PHC setting and recommended by international reference organisations (U.S. Preventive Services Task Force, and of The Royal Australian College of General Practitioners), are not included in Decree No. 51/1997 of the Minister of Welfare or the official Hungarian guidelines that are elaborated and enclosed

Screening methods

The screening methods with proven effectiveness can be integrated into the procedure. The use of methods with uncertain efficacy may jeopardise the cost effectiveness and credibility of the programme. On the other hand, the methods/recommendations with moderate certainty can be tested in a research setting within the SH/8/1 Programme, and the methods whose classifications are under consideration can be integrated into the screening programme if the evaluation indicates a substantial benefit from using them.

Therefore, the methods declared by Decree No. 51/1997 of the Minister of Welfare have been completed by screening for colorectal cancer, abdominal aortic aneurysm, depression and osteoporosis (Table 1). The SH/8/1 Programme management should follow the new scientific results on the effectiveness of screening for malignant melanoma of the skin, glaucoma, COPD and prostatic cancer.

SERVICE PROVIDERS

The PHC-based screening is carried out by the GPC Screening Group (GPC-SG). However, the entire process involves the following GPC team members:

- GPC coordinating GP
- GPs,
- General pediatricians
- Public health coordinator
- Community nurse
- Public health professional
- Health visitors
- Dentists
- Health mediators
- Assistant health mediators

The leader of the GPS-SG is the GPC Coordinating GP. The GPC Coordinating GP initiates the process by requesting the involvement of all other GPs of the GPC and of the Public Health Coordinator. The secretary of the group is the Public Health Coordinator. This group is responsible for creating the Screening Plan, for the management of its implementation, for controlling documentation, for carrying out the performance evaluations and for modifying the Screening Plan, if necessary.

Table 1. Screening methods to apply within GP clusters

Screening with timing	Applied methods	Further specifications	Responsible GPC team members
1 Screening for individuals 21 years of age			
1a Family history	Illnesses among parents and siblings, particularly early onset (<55 among males, <65 among females) ischemic heart diseases, atherosclerosis based stroke, and peripheral arterial diseases Basic socio-economic indicators (employment, education, ethnicity based on self-identification)		Public Health Specialist
1b Life style assessment	Description of nutritional behaviour, smoking habits, alcohol misuse, physical inactivity, and prophylactic aspirin usage		Public Health Specialist
1c Physical examination	Measurement of body weight, waist circumference, height, blood pressure		Public Health Specialist
1d Laboratory tests	Blood samples obtained and sent to medical laboratories for the measurement of triglyceride, HDL cholesterol, and glucose	n the case of abdominal obesity (waist circumference \geq 80 cm for females, \geq 94 cm for males)	Community Nurse
1e Glucose metabolism test	Measurement of fasting or postprandial blood glucose concentration, or oral glucose tolerance testing	In the case of obesity, positive family history, gestational diabetes in history (high risk for diabetes mellitus)	Community Nurse
1f Assessing cardiovascular risk by SCORE	Blood samples obtained and sent to medical laboratory for measurement of serum cholesterol, LDL cholesterol; testing urine samples for microalbuminuria and macroalbuminuria and description of gender, smoking habits, and diabetes mellitus history and measurement of systolic blood pressure, body weight and height		Community Nurse and Public Health Specialist
1g Assessing kidney failure risk	Blood samples obtained and sent to medical laboratory for measurement of serum creatinine and creatinine clearance; testing urine sample for microalbuminuria and macroalbuminuria.	In the case of high risk for nephrological diseases (positive family history for inherited nephrological disorders; hypertension diabetes mellitus)	Community Nurse
1h Assessing cancer risk	By questionnaire, positive family history for early onset tumours (<40) among parents or siblings and history of precancerous diseases		Public Health Specialist
1i Oral health screening	Inspection of oral cavity to screen for malignant or precancerous diseases and for parodontosis		Dentist or GP
1j Testing visual acuity	Snellen chart application		Public Health Specialist
2 Screening between 21 and 40			
2a Repetition of 1a-f methods in 5 years		In the case of low risk status by SCORE	Public Health Specialist and Community Nurse
2b Repetition of 1a-f methods in 2 years		In the case of high risk status by SCORE	Public Health Specialist and Community Nurse
2c Repetition of 1g in 2 years		In the case of high risk for nephrological disorders	Community nurse
2d Repetition of 1i in 2 years			Dentist or GP
3 Screening between 40 and 64			
3a Repetition of 1a-f methods in 5 years		In the case of low risk status by SCORE	Public Health Specialist and Community nurse

Screening with timing	Applied methods	Further specifications	Responsible GPC team members
3b Repetition of 1a-f methods in 2 years		In the case of medium or high risk status by SCORE	Public Health Specialist and Community Nurse
3c Assessing arteriosclerosis risk in 2 years	Palpation and auscultation of peripheral arteries, mini-Doppler (ankle-arm index)	In the case of high cardiovascular risk status without symptoms of peripheral arterial diseases	Community Nurse
3d Repetition of 1g in 2 years		In the case of high risk for nephrological disorders	Community Nurse
3e Repetition of 1i in 2 years			Dentist or GP
3f Motivating for participating in yearly chest x-ray examination		Examination carried out in Centres for Pulmonary Diseases	Health Mediator and Assistant Health Mediator
4 Screening above age 65			
4a Repetition of 1b-e in 2 years			Public Health Specialist and Community Nurse
4b Repetition of 3c in 2 years			Community Nurse
4c Repetition of 1g in 2 years		In the case of high risk for nephrological disorders	Community Nurse
4d Repetition of 1i in 2 years			Dentist or GP
4e Yearly examination of visual acuity and hearing loss			Public Health Specialist
4f Motivating for participating in yearly chest x-ray examination		Examination carried out in Centres for Pulmonary Diseases	Health Mediator and Assistant Health Mediator
5 Motivations for participating in organised cancer screening			
5a Cervix cytology in 3 years for women between 25 and 65		Examination carried out in Gynaecologic Departments	Health Mediator and Assistant Health Mediator and Health Visitor
5b Mammography in 2 years for women between 45 and 65		Examination carried out in Mammographic Centres	Health Mediator and Assistant Health Mediator and Health Visitor
6 Motivations for participating in organised cancer screening			
6a Colorectal Cancer, Screening for men and women aged 50 to 75	faecal occult blood testing, sigmoidoscopy, or colonoscopy	Examination carried out in Gastroenterological Departments	Health Mediator and Assistant Health Mediator
6b Abdominal Aortic Aneurysm Screening for men aged 65 to 75 who have ever smoked	Abdominal ultrasonography	Examination carried out in Radiological Departments	Health Mediator and Assistant Health Mediator
6c Osteoporosis, Screening women aged 65 or older and for women under 65 whose 10-year fracture risk is equal to or greater than that of a 65-year-old white woman without additional risk factors	DEXA (if it is available)	Examination carried out in Radiological Departments	Health Mediator and Assistant Health Mediator
6d Screening for depression among adults without specified frequency	Validated questionnaire	Screen when staff-assisted depression care supports are in place to assure accurate diagnosis, effective treatment, and follow-up.	Health psychologist, GP

The community nurses, public health professionals, GPs and dentists are responsible for clients' testing and examinations. Their administrative duties also include the documentation of screening activities.

The Public Health Coordinator leads a group consisting of a community nurse, assistant health mediator, health mediators and health visitors responsible for recruitment.

Requirement for premises

Simple space, including appropriate rooms with furniture, heating and electricity, is needed. During the hours of operation, the space it should be used for this purpose only. It could be located in the office of GP or in other building provided by the local municipalities.

Equipment required

The equipment that comprises the compulsory accessories of the office for PHC-based screening includes the following:

- Questionnaires for family history
- Questionnaires for health behaviours (nutritional habits, physical activity, smoking history, alcohol consumption, risk factors for cancer, prophylactic aspirin usage)
- Questionnaires on mental health
- Personal scale calibrated for accuracy
- Measuring tape
- Stadiometer
- Sphygmomanometer or electronic blood pressure measuring device (with different sizes of inflatable upper arm cuff)
- Phonendoscope for auscultation on peripheral arteries' pulse
- Snellen eye chart for visual acuity testing
- Urine test strips for hematuria
- Urine test strips for proteinuria
- Containers for urine sample collection
- Vacutainers for blood collection (needles, syringes)
- Protective eyewear
- Protective gloves
- Tourniquet
- Disinfectant spray
- Alcohol swabs
- 2x2 sterile gauze pads
- Tape to secure gauze
- Computer equipped with relevant software to register the health status assessment

TARGET POPULATION

Adults aged over 18 years are targeted by each practice of the cluster. The target groups for specific screening tests and examinations are essentially specified by age and gen-

der, as well as by the formerly registered risk status in certain cases.

ACTIVITIES

1. GPC Screening Group organisation

The GPC Coordinating GP sets up the GPC-SG by requesting the involvement of all other GPs of the GPC, as well as the Public Health Coordinator. The leader of the GPC-SG is the GPC Coordinating GP. The secretary of the group is the Public Health Coordinator. This group is responsible for creating the Screening Plan, for management of its implementation, for controlling documentation, for carrying out the performance evaluation and for modifying Screening Plan, if necessary.

2. Screening Plan preparation

The Public Health Coordinator compiles the list of adults provided by the cluster GPs and specifies their health assessment needs for a 12 month period. The planned list of the adults to be invited for screening is purchased by Public Health Coordinator from Public Health Authorities (responsible for organisation of cervical and breast cancer screening) and from the Centre for Pulmonary Diseases (responsible for organisation of chest x-ray examination). With these lists, the Screening Plan is prepared by the Public Health Coordinator. It covers the objectives, target group, date/time of screening, and definition of the locations, as well as the required equipment, detailed tasks of the team members, communication and recruitment methods, documentation and reporting obligations. Considering the capacities available, all adults must be invited and screened in the initial 3 year period (Table 2). If the Screening Plan is accepted by the GPC-SG, the GPC coordinating

Table 2. Number of daily screenings in GPCs in a 3 year time frame (participants screened/working day)

Clusters	Size of adult population	Number of participants screened/working day
GPC-1	12271	16
GPC-2	8034	11
GPC-3	9725	13
GPC-4	7852	11
Total	37882	51

Source: National Health Insurance Fund, December 2012

GP sends it to the Centre for Coordinating Primary Care Preventive Services (CCPC-PS) for approval.

3. Finalisation and approval of the screening plan

The CCPC-PS passes a decision on the plan, taking into consideration the following criteria: evidence base, conformity with the target system of the CH/8/1 Programme, size of the target group concerned, assets required, costs, and the result evaluation methods. The CCPC-PS provides feedback to the GPC coordinating GP to define any necessary modifications if the plan needs to be improved and issues the declaration of approval if the plan is acceptable.

If the CCPC-PS requests amendments of the plan, the GPC coordinating GP initiates consultations within the GPC-SG. Consultation is concluded by the GPC coordinating GP. The CCPC-PS may request modifications of the screening plan until it fully meets the approval criteria.

4. Registration of screening

The GPC coordinating GP informs members of the GPC-SG about approval of the Screening Plan. Following the approval, the GPC coordinating GP nominates the Public Health Coordinator as the person responsible for managing recruitment, screening implementation, documentation and primary reporting.

5. Planning recruitment

The Public Health Coordinator plans the recruitment. The health mediators, assistant health mediators, health visitors, GPs, and dentists are involved in the preparation of the recruitment plan. The GPC-SG accepts the final version of the recruitment plan.

6. Providing necessary conditions for screening implementation

The Public Health Coordinator ensures the availability of necessary offices, equipment and personnel. Registration of Roma participation, as well as the results of their investigations without reference to personal identification, must be ensured. The local companies (e.g., companies that can support participant travel) and enterprises can be involved in screening organisation. The Public Health Coordinator informs the GPC-SG when the implementation can be initiated.

7. Recruitment

In addition to traditional channels of communication (e.g., press releases for written and electronic media), the Public Health Coordinator is advised to involve local stakeholders by providing them with communication tools in order to ensure the widest possible involvement and mo-

bilisation of the community. The Public Health Coordinator also contacts targeted groups of the population and – to arrange possible changes in working organisation and provide means of transportation – local entrepreneurs and governments.

The community level recruitment is completed by contributions from following persons:

- GPs and practice nurses refer patients to PHC screening during their daily patient care practices;
- health visitors advise family members during family visits to participate in screening; and
- health visitors' activity is supported by health mediators and by assistant health mediators in accessing adults living in disadvantageous socio-economic status.

The health mediators and assistant health mediators are responsible for supporting participation in screening organised by special service providers (e.g., colorectal cancer screening, abdominal aortic aneurysm screening, osteoporosis screening). Additionally, they are involved in the recruitment for cervix and breast cancer screening, in collaboration with the health visitors.

The adults not participating in the planned time period in the screening are registered by the Public Health Coordinator, who organises the secondary screening opportunity. The GPC-SG accepts the secondary recruitment plan.

8. Implementation of screening tests and examinations

The community nurse (who obtains blood and urine samples, sends blood samples to diagnostic laboratories, executes urine tests, and assesses cardiovascular and kidney failure risk) and public health professionals (who collect questionnaire-based data, perform physical examinations, assess cancer risk, and test visual acuity and hearing loss) are responsible for the majority of clients' testing and examinations. GPs are responsible for depression screening and for oral health if a dentist is not available. (A detailed list of methods, including the person responsible for fulfilling the tasks, is provided in table 1.)

9. Documentation

The implementation of a screening test or examination must be registered by the team member who executed the task. The report summarising the implementation and the results of screening carried out by specialised health care providers must be purchased by a Community nurse, who is also responsible for adding these reports to the screening records of the subjects.

If the subjects did not participate in organised screening but utilised their private providers' services, the Public Health Coordinator is responsible for collecting and registering the results in the subject's screening records. This task is supported by health mediators and assistant health mediator.

10. Round of the duties, depending on screening results

- The clients free of any screened risk factors and diseases are advised to participate in health-promoting programmes. The results are reported to the GP.
- The clients with a known risk status but who are free of any previously unknown risk/positive test results must be managed by the formerly established protocol. The results are reported to the GP.
- The clients with at least one new risk factor are registered by the Public Health Professional and are reported to the GP with the recommendation to participate in adequate life style counselling. The GP can accept this advice or can initiate other interventions.
- Clients exhibiting any new findings that suggest the existence of a preclinical disease are referred by the community nurse to the GP for further risk analysis and management.
- The clients with previously unknown oral health problems are referred to dental care in the case of parodontosis and to the oncologist in case of suspected malignant disorders.
- The clients with positive results in screenings initiated by the GPC and implemented by special service providers are managed by the special service providers.
- The clients with new positive test result in depression screening are referred to a psychiatrist by the GP.

Monitoring the operation and reporting

Monitoring

The following documentation that is produced during screening planning and implementation is utilised for monitoring:

- approved screening plan
- database of the screening related workload of GCP team members
- database of the applied premises, equipment, and travelling related to screening activities
- list of persons invited to be evaluated in the Screening Plan,
- records of screening execution by GCP team members,
- records of motivating interventions to facilitate the participation of screening that is not provided by the GPC,
- records of the screening results carried out by GPC members, and
- records of the screening results of screenings implemented by entities other than GPC providers.

These databases are processed by Public Health Coordinator who is assisted by IT team experts in database management. Public Health Coordinator is obliged to prepare the GPC and GP practice level indicators.

The indicators for the whole intervention area are produced by the CCPC-PS. The process, outcome and input

indicators are calculated according to the following specifications:

Process indicators for all applied methods (listed in table 1) to describe the effectiveness of the organisational screening process are calculated by computing the following measures:

- crude participation ratios
- age and gender-specific participation ratios, education-specific participation ratios, ethnicity-specific participation ratios
- age and gender standardised participation ratios,
- age, gender and education-specific participation ratios
- age, gender and education-specific standardised participation ratios
- age, gender and ethnicity-specific participation ratios
- age, gender and ethnicity-specific standardised participation ratios
- age, gender, education and ethnicity-specific participation ratios
- age, gender, education and ethnicity-specific standardised participation ratios

Outcome indicators for all applied methods (listed in table 1) used to describe the results of the process activities are calculated by computing the following measures:

- crude prevalence of positive results
- age and gender-specific prevalence of positive results, education-specific prevalence of positive results, ethnicity-specific prevalence of positive results,
- age and gender standardised prevalence of positive results,
- age, gender and education-specific prevalence of positive results
- age, gender and education-specific standardised prevalence of positive results
- age, gender and ethnicity-specific prevalence of positive results
- age, gender and ethnicity-specific standardised prevalence of positive results
- age, gender, education and ethnicity-specific prevalence of positive results
- age, gender, education and ethnicity-specific standardised prevalence of positive results

Input indicators are calculated to measure the amount of resources consumed during outcome generation for the entire screening programme (without specifying the indicator for screening methods) at the GPC and GP practice levels.

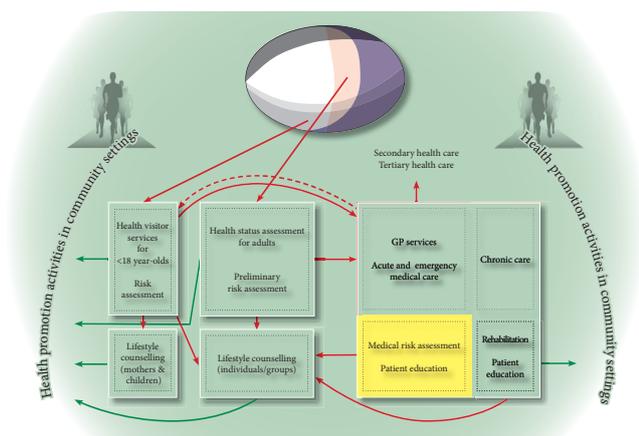
Reporting

A primary short report on activities and results for the whole intervention area is prepared by the CCPC-PS. This report describes the screening performance by indicators, and evaluates the screening programme achievements for the whole programme, without analysing the heterogeneity of the background results.

The secondary report is produced by the Public Health Coordinator for every GPC separately by using their GPC-

based indicators and the reference data from their primary reports. The secondary report must be discussed by the GPC-SG. The non-GPC-SG members of the screening implementation team are also invited to this evaluation meeting. The reports are finalised after the workshop. The final version of the report must include a chapter on the planned modification of the Screening Plan, if needed. The finalised secondary report is submitted to the CCPC-PS.

The final report on screening activities is prepared by the CCPC-PS by utilising the database and reports of GPCs. In addition to the summary of findings, the final report must include chapters on identified research needs, on the proposals for rationalisation of the legal environment, on suggestions to prepare or modify guidelines, and on suggestions to promote the education of professionals involved in any phase of the PHC-based screening.



Concepts and definitions

The level of individual risk in health care is usually estimated in the framework of health risk assessments or health risk appraisals (HRAs). According to the CDC¹, an HRA is an assessment tool for evaluating an individual's health. An HRA could include a health survey or questionnaire, a physical examination, or laboratory tests, resulting in an individual health risk profile, which is often accompanied by advice or strategies to reduce the identified risks.

Because risk can be defined as the effect of uncertainty regarding the patient's objectives on his/her health, the choice of medical and health care activities following an HRA largely depends on the patient's goals and objectives. Individual risk management must take into account the patient's (client's) specific circumstances, socioeconomic level, health literacy, and, above all, his/her goals and objectives before the appropriate next step can be determined. In every case, the patient's (client's) goals and objectives regarding health should be clarified first.

In the Swiss Contribution Programme, risk is identified and appraised during the health status assessment (see Chapter 2.3).

Subsequent to a health risk appraisal, the following actions should be performed:

1. In every case, the results should be presented to the client (patient) by a health professional or a health educator in a format that is appropriate to the patient's health literacy. The feedback itself may be beneficial.
2. Feedback could be coupled with lifestyle counselling.
3. Feedback could be combined with referral to a health promotion programme.
4. High-risk persons should be referred to a medical professional for counselling.

5. Persons with existing conditions should be referred for a medical checkup and counselling².

Details of risk management for high-risk persons and persons with medical conditions are described below.

AIMS

Providing medical advice/ services to patients in the practice who have previously undergone health status assessments and were found to be at risk of morbidities, as well as determining the significance of the identified and appraised risk(s).

SERVICE PROVIDERS

The key professional in the risk evaluation is the GP in whose practice the client has been previously enrolled. The GP is supported by the practice nurse and the health mediators, who are full-time employees of the practice and are helped by two assistant health mediators. The GP plays a pivotal role in the professional interpretation of the finding(s) of the health status assessment team. If any abnormalities or pathologic alterations are discovered, the GP plans and initiates the necessary interventions.

TARGET POPULATION

- Individuals with elevated risk of any morbidities, identified by the health status assessment team.
- Patients with elevated risk(s) that were previously determined/diagnosed by the GP.
- Clients/patients/persons aged 21-50 years who missed their regular medical checkups (consultations and physical examinations by their GP) over a long period of time (more than 3 years), even if the health status assessment team does not identify the person as being at risk. (According to recent regulations [43/1999 Government Order], GPs are expected to examine their patients every 2-3 years; otherwise, the financial support provided by the Health Insurance Fund for the care of such patients may be withdrawn. The only exception to this rule involves a properly documented request by the doctor for the patient to appear for a checkup.)

¹ Workplace Health Promotion, Glossary Terms CDC <http://www.cdc.gov/workplacehealthpromotion/glossary/#R>

² Health Risk Appraisals. Centers for Disease Control and Prevention. http://www.cdc.gov/nccdphp/dnpao/hwi/programdesign/health_risk_appraisals.htm

Principles of medical risk assessment

In the process of medical risk assessment the following steps are proposed:

Step 1. Identify the patient's health-related goals.

Step 2. Identify the patient's health risks and any potential connections between the identified risks

Step 3. Evaluate the risks in as much detail as possible, using the relevant guidelines.

Step 4. Propose actions, discuss them with the patient, and select viable alternatives.

Step 5. Refer the patient to the appropriate service provider.

Step 6. Record your findings: the results of the evaluation, the suggested and accepted actions, any medication that was prescribed, and the next appointment.

Step 7. Review the assessment and update it as necessary.

Remember that the most vulnerable patients are more likely to suffer harm due to health risks.

ACTIVITIES

The choice of interventions depends on the type of abnormality, which indicates the risk status or the possible existence of a disease.

Patients with high risk levels can access the GP's office by the different means outlined below.

1. Admission through the health status assessment team

The members of the health assessment team who screened the patient are not expected to perform the health risk evaluation/analysis of that patient; instead, this task is performed by the GP.

- After the findings are analysed, a medical checkup should be performed to assess the risk of future medical problems.
- The requirements concerning the proper gatekeeping and the provision of the appropriate treatment and examinations at the primary care level should be considered by all patients.
- Assistance in developing a healthy lifestyle should be offered. Patients may be candidates for lifestyle counselling programmes, depending on their personal treatment plans.
- The GP should provide referrals to specialists, hospitals, laboratories and other medical facilities/services. Treatment options and recommendations for more specialised medical examinations may be discussed

with patients with established or suspected morbidities.

- Persons at risk should be regularly examined and consulted; their schedules will depend on the types of interventions and medications applied.
- Persons with normal medical findings but an elevated risk of cardiovascular morbidity should receive the appropriate lifestyle counselling. Appointments for these services and for regular follow-up visits should be scheduled.
- GPs should consider the advantages of integrated service delivery, i.e., coordinating patient care with guidance from social, housing and legal services³.

2. Admission as a first (acute) encounter

According to the guidelines, patients visiting the GP with new complaints/symptoms or requiring urgent medical care for any reason should also be sent for health status assessments to identify any additional problems that are unreported or unknown to the patient. For these patients, the appropriate preventive services (lifestyle counselling or risk analysis) could also be offered as necessary, independent of the reason for the admission. Depending on the patient's health status, such services could be postponed until appointments become available.

A special focus should be directed at younger people, who do not tend to receive regular health care from the practice. The underlying reason for focusing on this age group is that the health behaviour patterns established at a young age tend to be continued throughout life.

3. Admission from chronic care

Chronic care patients being treated for other types of morbidities may represent another target population for risk assessment, as described in Chapter 2.6.

4. Identifying patients at high risk of developing CVD

CVD risk assessments should be based on age, gender, smoking status, blood pressure, family history of cardiovascular diseases, familial and personal histories of diabetes, and blood plasma glucose and lipid profiles. The risk assessment should be based on a validated CVD risk assessment chart (e.g., SCORE⁴). Patients with a 10% CVD mortality risk or a 20% CVD morbidity risk over the next 10 years should be registered with the chronic care programme.

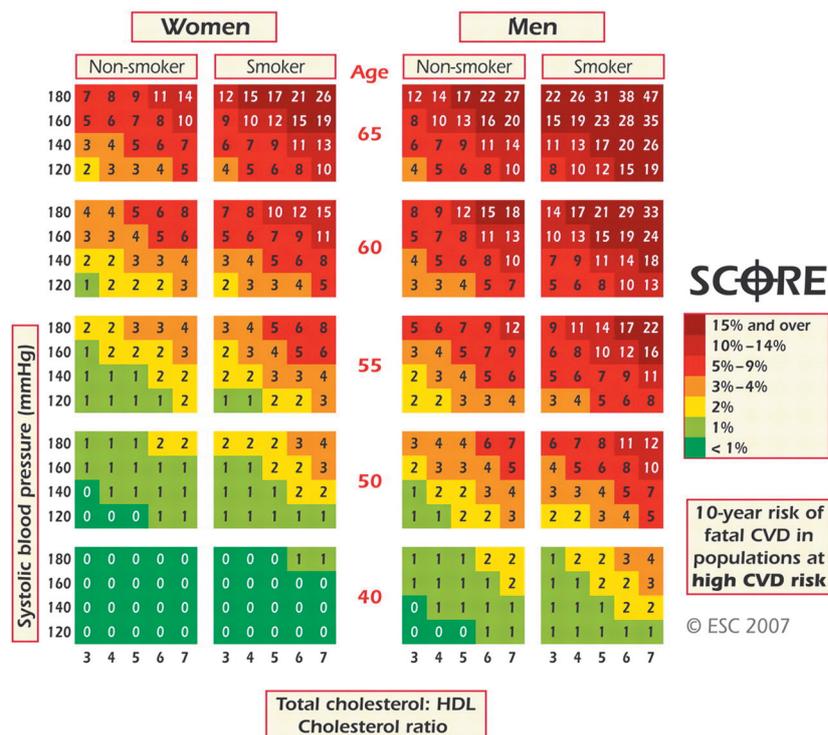
³ Integrated services and housing consultation, OECD Social Policy Division, 2012

http://www.oecd.org/els/soc/Richardson_Patana%20INTEGRATING%20SERVICE%20DELIVERY%20WHY%20FOR%20WHO%20AND%20HOW.pdf

⁴ SCORE (Systematic Coronary Risk Evaluation) charts (European Society of Cardiology)

<http://www.escardio.org/communities/EACPR/Documents/score-charts-2012.pdf>

SCORE in Hungarian Magyar Nemzeti Szívalapítvány)



Source: The European Society of Cardiology, 2007

Figure 1. SCORE chart: the 10-year risk of fatal CVD in populations at high CVD risk based on the following risk factors: age, gender, smoking status, systolic blood pressure, and the total cholesterol:HDL cholesterol ratio

The SCORE chart is the most widely recognised chart⁵, but alternative opportunities for self-assessment using non-validated questionnaires are offered to the (lay) audience by different websites.

Preventissimo⁶ (in Hungarian, “in the phase of theoretical development,” according to the website) (KFRT Számítástechnikai Zrt, Hungary)

Cordelia cardiovascular risk assessment and counselling portal (in Hungarian) (Veszprémi Egyetem – University of Veszprém, Hungary)⁷

5. Recording medical data

A proper medical record contains a summarised list of the patient’s major medical problems and established diagnoses; details of currently prescribed medications; information about drug allergies and food intolerances; and any other contraindications to medications.

The comprehensive recording of cardiovascular risk factors is recommended for patients who are either at high risk of CVD or have an established diagnosis. This process

requires adequate information systems and registration routines in daily practice.

Previous audits of medical records have shown that although the documentation of regular prescriptions was almost complete, the documentation of cardiovascular risk factors was inconsistent and needed improvements⁸. Records of the following data and personal habits should also be maintained:

- Preventive medications, such as statins and anti-platelet therapy.
- Influenza immunisations and other vaccinations.
- Screening tests for women’s cancers should be recorded at both the individual and target group levels, including the participation rates of invited women in defined age ranges (45–65 yrs for mammography and 25–65 yrs for cervical cancer screening).
- Participation in lifestyle counselling programmes.

⁵ <http://www.mnsza.hu/szivbeteg/kockazat/score.php>

⁶ Preventissimo. <http://preventissimo.kfirt.hu>

⁷ Cordelia szív- és érrendszeri kockázatfelmérő és tanács-adó oldal <http://egeszseg.origo.hu/kalkulator/risk/risk.php>

⁸ Bíró, K., Zsuga, J., Kormos, J., Ádány, R.: The effect of financing on the allocation and production efficiency of the Hungarian health care system - Placing primary care into focus. *Society and Economy*, 34, 3, 433–451, 2012

RISK MANAGEMENT

Definition

The term “risk management” includes options for treating defined morbidities or abnormalities, including case revision if necessary.

- Health care usually emphasises the episodic treatment of acute symptoms. Care management, proactive or planned care, active cross-disciplinary management, and preventive care are traditionally underutilised services.
- Because chronic illness management and preventive services are not urgent needs, they often remain unaddressed and untreated. However, the health care focus is shifting from episodic, illness-oriented, complaint-based care to patient-centred, preventive, longitudinal care.
- Cardiovascular diseases (CVDs) have major impacts on mortality, costs and quality of life, and they are largely preventable. A large proportion of CVDs could be prevented by lifestyle modifications alone. A balanced mix of community-based and medical approaches holds the greatest promise for preventing CVDs.

ACTIVITIES

The services implemented during the project will contain elements of primary, secondary and tertiary prevention.

- Primary prevention will require the expansion of risk factor assessments and global risk scoring, which will prioritise cost-effective interventions for persons at risk (see Chapter 2.5).
- New staff members on the project, who are well-trained health professionals, will provide lifestyle interventions to patients through individual and group counselling.
- Additional approaches are needed to improve the effectiveness of primary prevention, such as referrals to websites and the participation of local sports groups. However, many healthy adults are not particularly enthusiastic about such approaches; therefore, they should be convinced.
- Counselling programmes with special focuses will be organised (e.g., smoking cessation, lifestyle changes, nutrition, and physical exercise).
- Secondary prevention refers to the appropriate screening for morbidities, most of which were described as components of adult health status assessments (see Chapter 2.2).

- Tertiary prevention is a primary care service that plays a role in the prevention of additional cardiovascular events in patients with histories of previous events (e.g., myocardial infarction or stroke). The administration of preventive medications is necessary for many of these patients. Chronic care and rehabilitation will be described in the next chapter (see Chapter 2.6).

The communication of cardiovascular risk is an innovative means of providing lifestyle interventions and enhancing adherence to health interventions and medical treatment. The effective communication of cardiovascular risk is the key to the more active involvement of patients in self-management and self-treatment.

- The continuous improvement of the programme is expected to focus on primary and secondary prevention because these can be highly effective, particularly for patients at risk of CVDs or who have established cardiovascular disease.
- Traditionally, lifestyle interventions for high-risk patients and patients with coronary heart disease have not been delivered to large numbers of eligible patients in the Hungarian primary care system. This shortcoming is probably due to poor registration and a lack of resources. Innovative methods for sustaining the implementation of lifestyle interventions by cardiovascular patients are needed.

The following interventions are recommended for GPs as methods of risk management:

Communication of health risks (after a health status assessment)⁹

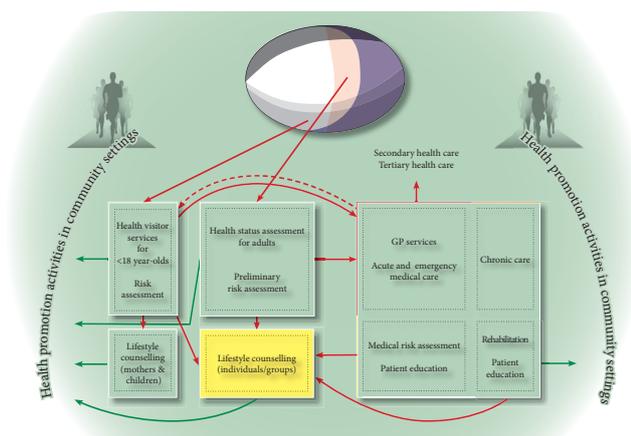
- Brief interventions (5-A framework)¹⁰
- Brief treatment
- Intensive individual counselling
- Telephone counselling
- Motivational interviews

Consultations with specialists at the primary care level

The establishment of opportunities for local consultations with different medical specialists (such as ophthalmologists, gynaecologists, and dermatologists) is recommended. If premises limitations prevent local consultations, transportation to the nearest available secondary care specialists should be organised; this will necessitate a special contract.

⁹ Risk assessments alone can have positive effects on health behaviour changes and health status. See Ozminowski R.J. et al.: The savings gained from participation in health promotion programs for Medicare beneficiaries. *J Occup Environ Med.* 2006;48(11):1125-32

¹⁰ Counselling and interventions to prevent tobacco use and tobacco-caused disease in adults and pregnant women. USPSTF <http://www.ncbi.nlm.nih.gov/books/NBK115121/#adults.s50>



Definition of terms and concepts

One of the basic principles in bioethics is the autonomy of human beings¹. Healthy and sick persons alike can make health-related decisions in an autonomous manner only if they possess relevant knowledge and skills related to the required decisions. Informed decisions do not necessarily result in health-promoting behaviour. However, risk behaviour is deemed acceptable if it is based on informed decisions and not acceptable if it is based on insufficient, improper or other ways inadequate information and/or inadequate comprehension.

Lifestyle counselling, lifestyle advice, patient education or health education all encompass activities that are designed to help clients, whether in or out of health services, to make informed decisions. These activities are consciously constructed opportunities for learning that involve some form of communication designed to improve health literacy, including improving knowledge and developing life skills that are conducive to individual and community health, as specified by the Health Promotion Glossary of the WHO².

Health literacy has been defined by the World Health Organization as the cognitive and social skills that determine the motivation and ability of individuals to gain access to, understand and use information in ways that promote and maintain good health. Health literacy implies more than the ability to read pamphlets and successfully make ap-

pointments. By improving people's access to health information and their capacity to use it effectively, health literacy is critical to empowerment. According to this definition, health literacy is a means of health promotion that helps to address all of the factors that determine health³.

Low health literacy is associated with poorer health outcomes and poorer use of health care services⁴. Therefore, health literacy is of fundamental importance in primary health care, as was emphasised by a recent systematic review of interventions designed to improve health literacy for chronic disease behavioural risk factors⁵. Based on 52 studies, group and individual interventions were found to be useful towards making behavioural changes in a range of chronic conditions. The review also suggested that group and individual interventions of varying intensity, grounded in both primary health care and community settings, may be useful in supporting a sustained change in health literacy that can change behavioural risk factors. Specifically, interventions should be tailored in terms of the site and type, depending on which risk factor is the focus of the intervention(s).

However, many primary health care workers are not aware of the importance of patient education and counselling, are not sufficiently trained in these techniques, or have no adequate opportunity to deliver patient counselling due to time constraints. Physicians, in particular, are trained to deal with individuals, so doctors tend to focus on individual behavioural change without being aware of the power of counselling and health education at the group and community levels. The pressing need to expand the competencies of health professionals that are required to develop, among others factors, a broader view of population-based care and improved skills in information and communication technologies was articulated almost a decade ago by the World Health Organization in its vision to prepare the health care workforce for this century⁷. The need for group-based health education in primary health care was recently given prominence in one of the most prestigious medical journals of the world⁶.

In light of the statement that lifestyle counselling and health education increase health literacy by improving knowledge and life skills, a distinction must be made be-

¹ Beauchamp, T.L., Chilress, J.E.: Principles of Biomedical Ethics. (third. ed.) New York-Oxford, Oxford University Press 1989.

² Health Promotion Glossary. World Health Organization 1998
<http://www.who.int/healthpromotion/about/HPR%20Glossary%201998.pdf>

³ Health literacy and health behaviour. 7th Global Conference on Health Promotion.
<http://www.who.int/healthpromotion/conferences/7gchp/track2/en/index.html>

⁴ Berkman N.D. et al: Low health literacy and health outcomes: an updated systematic review. *Ann Intern Med* 2011;155(2):97-107.
<http://annals.org/article.aspx?articleid=747040>

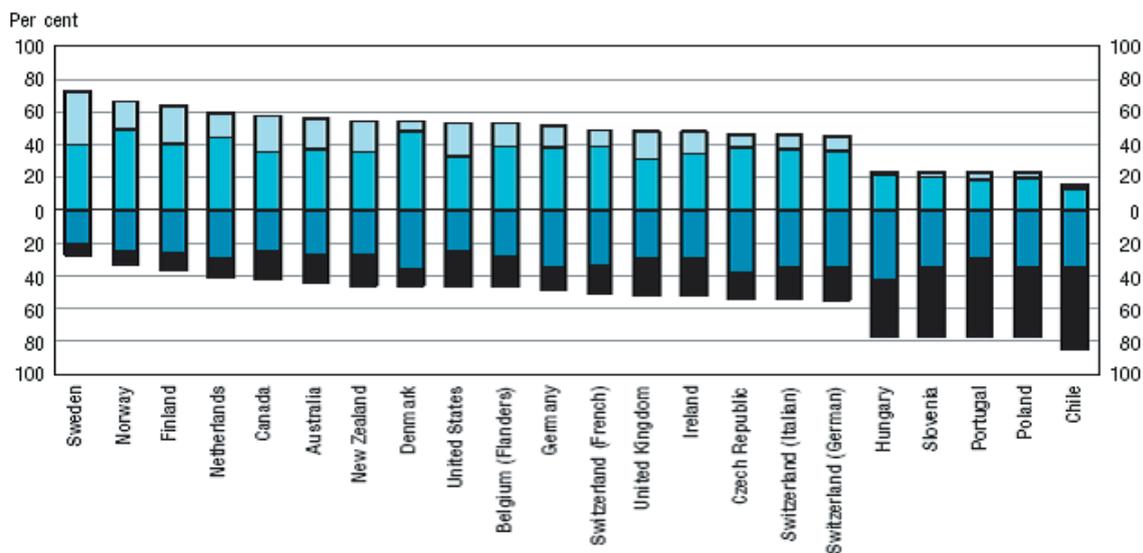
⁵ Taggart J. et al: A systematic review of interventions in primary care to improve health literacy for chronic disease behavioral risk factors. *BMC Fam Pract.* 2012 Jun 1;13:49. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3444864/>

⁶ Bonal Ruiz R.: Commissioning health education in primary care. *BMJ* 2011; 333:667-668. <http://www.bmj.com/content/333/7570/667.pdf%2Bhtml>

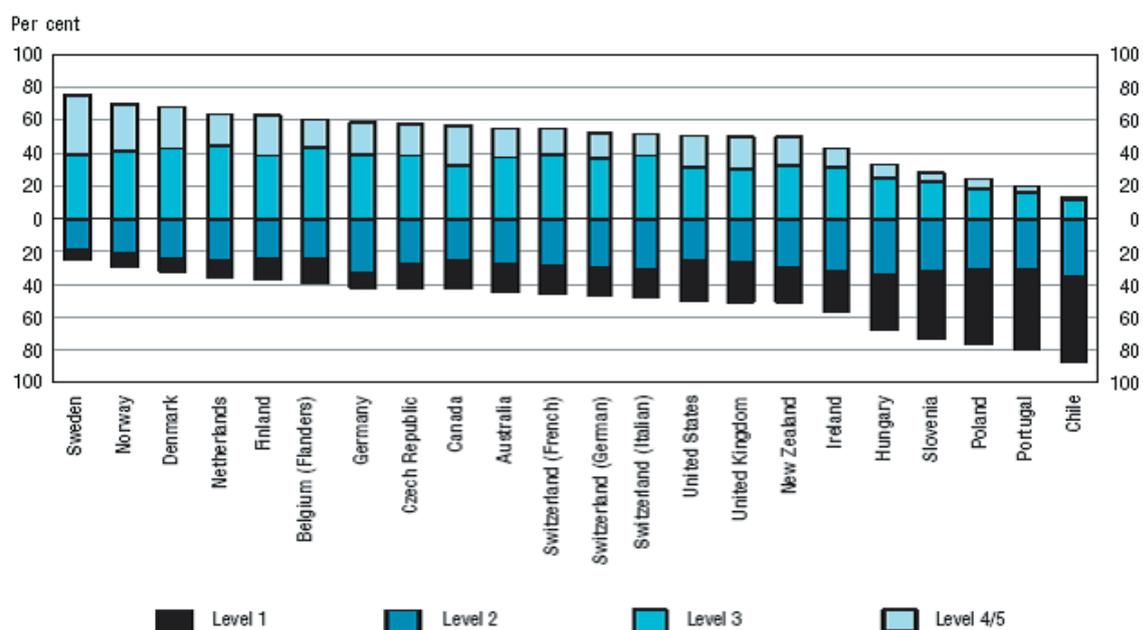
⁷ Preparing the health care workforce for the 21st century. The challenge of chronic conditions. World Health Organization 2005.
http://www.who.int/chp/knowledge/publications/workforce_report.pdf

Figure 1. Results of the International Adult Literacy Survey of 1994-1998 for prose literacy (panel A) and document literacy (panel B)

A. Per cent of population aged 16-65 at each prose literacy level, 1994-1998



B. Per cent of population aged 16-65 at each document literacy level, 1994-1998



tween information, knowledge, and life skills if counselling and health education are to be more effective.

“Information” refers to what is communicated about a particular fact or subject, whereas “knowledge” refers to a state or condition of understanding that permits factual information to be related to other information and knowledge, synthesised into broader concepts and usefully ap-

plied. “Life skills” are defined as psychosocial abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life. They are loosely grouped into the following three broad categories: cognitive skills for analysing and using information, personal skills for developing personal agency

⁸ Definition of terms. UNICEF http://www.unicef.org/lifeskills/index_7308.html

and managing oneself, and inter-personal skills for communicating and interacting effectively with others⁸.

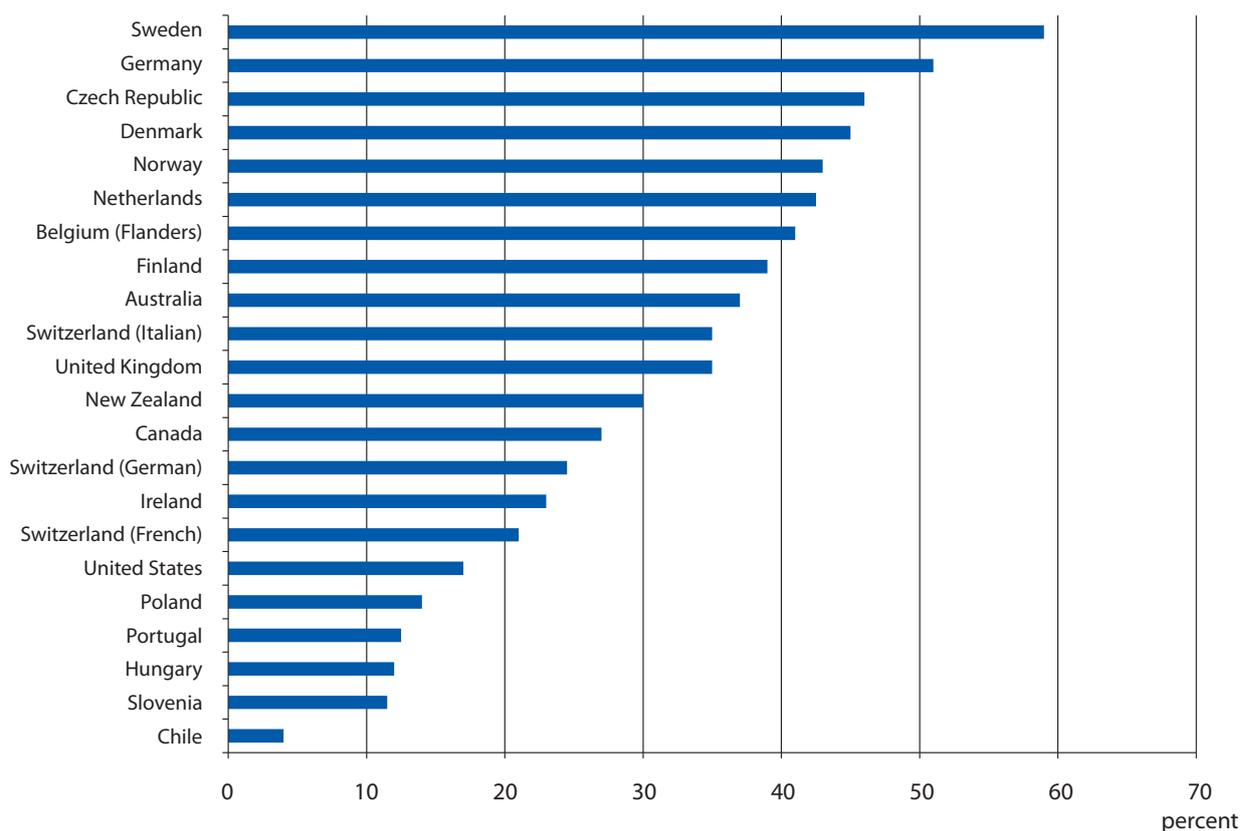
Primary health care workers who provide lifestyle counselling, and health education should have information on the health literacy of the Hungarian adult population; unfortunately, there is no such information available. However, inferences can be made from results of the International Adult Literacy Survey (IALS)⁹ commissioned by the OECD, which provides the world's first reliable and comparable estimates of the levels and distributions of general literacy skills in the adult population. Data collection of the IALS in Hungary was carried out in 1998 to investigate the following three domains of literacy skills: prose literacy (required to understand and use information from texts, including brochures and instruction manuals), document literacy (to locate and use information in various formats, such as schedules, tables and charts), and quantitative literacy (to apply arithmetic operations to numbers embedded in print-

ed materials). Standardised methodology was used to measure literacy in each domain, with scores ranging between 0 and 500 points. Literacy ability was reported separately in each domain at one of 5 levels. Level 1 indicates individuals with very poor skills who, for example, may not be able to determine the correct amount of medicine to be given to a child based on information printed on the package. In contrast, Levels 4 and 5 describe respondents in command of higher-order information processing skills. According to the OECD, Level 3 is considered a suitable minimum for coping with the demands of everyday life and work in a complex, advanced society.

Figure 1 makes it clear that Hungary was at the lower end of the international literacy spectrum. Hungary had a staggering three-fourths of the adult population at 1 and 2 prose literacy levels and two-thirds at 1 and 2 document literacy levels, which were deemed insufficient to cope with the requirements of a modern society.

Figure 2. Proportion of the adult population who have not completed upper secondary education and scored at Level 3 or above on document literacy, 1994-1998

Per cent of population aged 16-65 who have not completed upper secondary education but who score at Levels 3 and 4/5 on the document scale, 1994-1998



Countries are ranked by the proportion of the population without upper secondary graduation who are at 3 and 4/5. Source: International Adult Literacy Survey. 1994_1998

⁹ Literacy in the Information Age. Final report of the International Adult Literacy Survey. OECD 2000. <http://www.oecd.org/edu/skills-beyond-school/41529765.pdf>

Figure 3. Results of the Adult Literacy and Life Skills Survey (ALL) of 2002-2008 for prose (panel A), document (panel B) and numeracy (panel C) literacy in participating countries

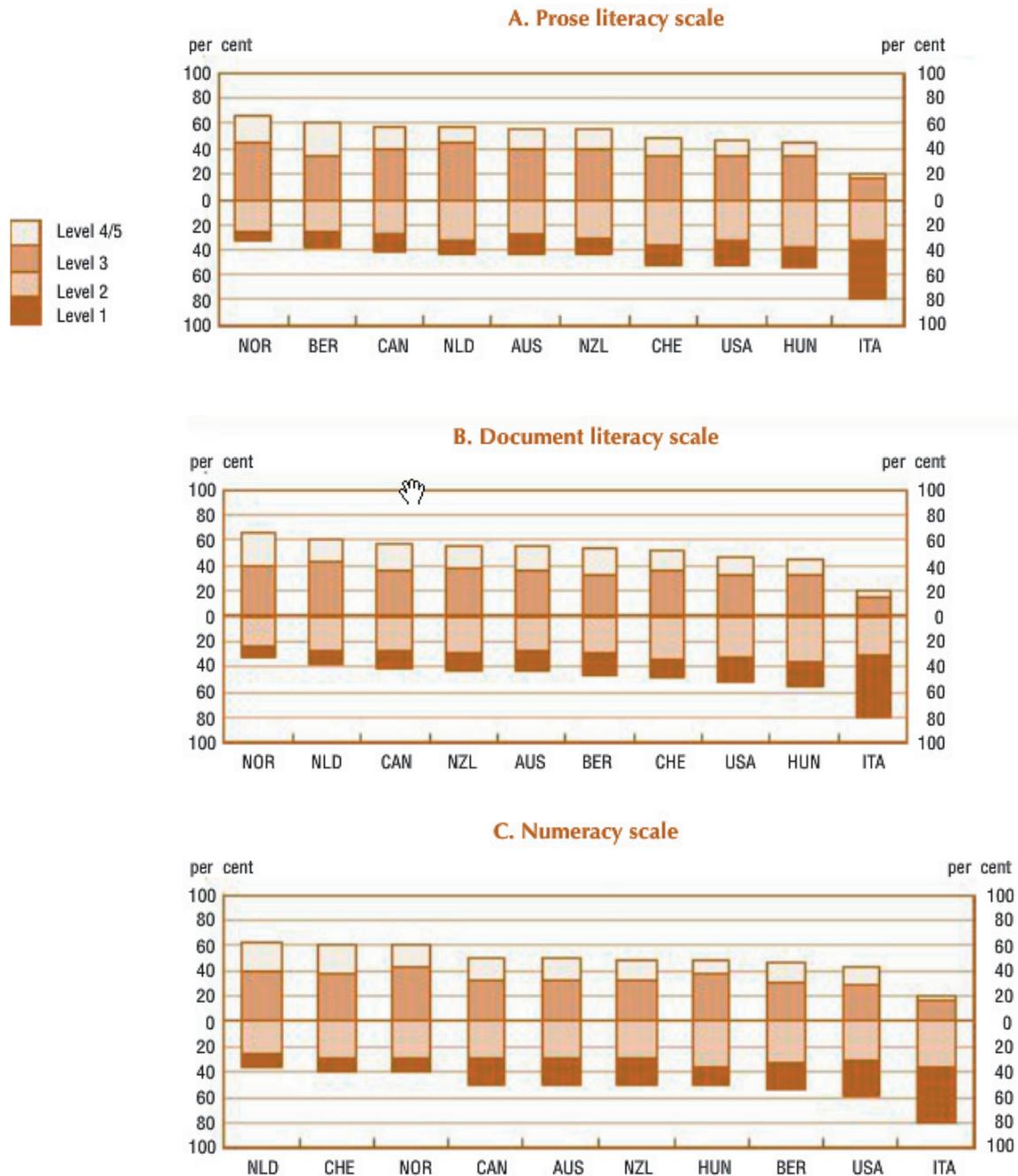


Figure 2 reveals that only one-eighth of the Hungarian adults with no high school education had adequate document literacy skills. This finding indicates that adults with vocational training education or less cannot be assumed to have Level 3 literacy skills or above.

Building on the IALS, another literacy survey (Adult Literacy and Life Skills Survey, ALL)¹⁰ was carried out in two waves between 2002 and 2008. This survey measured prose literacy, document literacy, numeracy and problem solving.

¹⁰ Literacy for Life. Further results from the Adult Literacy and Life Skills Survey. Preliminary version. OECD, Statistics Canada, 2011. http://www.keeppeek.com/Digital-Asset-Management/oecd/education/literacy-for-life_9789264091269-en

Hungary participated in the second wave of data collection between 2006 and 2008. The definition of prose and document literacy remained unchanged. Numeracy was defined as the knowledge and skills required to effectively manage the mathematical demands of diverse situations. Skill proficiency was measured by the same method as in the IALS.

Figure 3 shows one of the key findings of the ALL report published in 2011, indicating that Hungary (along with Italy and the United States) consistently ranks lower on most skill domains. In light of this finding, it cannot be considered a major achievement that Hungary showed the highest increase in mean prose performance since the last survey.

Hungarian data indirectly support the international findings that low health literacy is a determinant of poorer service use. A health survey of inhabitants of Roma settlements (colonies) of the Hungarian population showed that settlement (colony)-dwelling adult males with less education than that of males of the general population had significantly less contact with their family physicians, as compared to adult males of the general population¹¹. It is of utmost importance that professionals who provide lifestyle counselling in primary care take these findings into consideration and that they receive appropriate training on the methodologies of counselling and education.

AIMS

The fundamental aims of lifestyle counselling and health education are to

1. increase health literacy,
2. enhance the appropriate use of health care services, and
3. improve compliance and adherence to medical and health advice in order to improve health outcomes (e.g., morbidity and mortality).

SERVICE PROVIDERS

1. The general practitioner provides individual counselling in the GP office to high risk patients or patients in chronic care based on his/her professional judgement, after assessing the patient's condition and circumstances.
2. The public health specialist, dietician, physiotherapist, health visitor, health psychologist, and community nurse provide individual and/or group counselling and health education outside the GP office, which is

offered to clients and patients referred from the health examination survey and the GP.

TARGET POPULATION

- Clients (with or without health risk factors) referred from health examination surveys
- Clients recruited from the community (group settings)
- Patients (with disease) referred by the GP
- Mothers and/or their relatives referred by the health visitor

ACTIVITIES

It is important to note that the integration of clinical and community preventive strategies is highly recommended in the GP cluster¹². The primarily recommended clinical activities for non-medically trained professionals¹³ to increase health literacy in primary health care consist of behavioural counselling interventions¹⁴.

Recommended topics

Mothers and children

- Education of all pregnant women to achieve moderate weight gain based on their pre-pregnancy body mass index and to participate in physical activity
- Folic acid supplementation
- Primary care of pregnant women (e.g., pregnancy follow-ups, foetal development, Rh(D) incompatibility)
- Education about delivery for pregnant women
- Formal breastfeeding education for mothers and families
- Direct support of mothers during breastfeeding
- Peer support for breastfeeding
- Dietary guidelines for infants
- Mandatory vaccination for newborns and infants based on age
- Prevention of household accidents
- Oral health and dental hygiene
- Use of contraception

Adults

- Smoking
- Alcohol misuse

¹¹ Kósa Zs. et al: A Comparative Health Survey of the Inhabitants of Roma Settlements in Hungary. *Am J Public Health* 2007;97:853-859. doi:10.2105/AJPH.2005.072173

¹² Integrating Evidence-Based Clinical and Community Strategies to Improve Health. USPSTF <http://www.uspreventiveservicestaskforce.org/uspstf07/methods/tfmethods.htm>

¹³ An evidence-based resource for nurse practitioners. USPSTF <http://www.uspreventiveservicestaskforce.org/uspstf09/epbnursesep/epbnursesep.htm>

¹⁴ Evaluating Primary Care Behavioral Counseling Interventions: An Evidence-based Approach. USPSTF <http://www.uspreventiveservicestaskforce.org/3rduspstf/behavior/behsum1.htm>

Table 1. Methods of behavioural counselling services

Method of delivery	Individual client/patient	Group
Communicating health risk (after health status assessment) ¹⁵	yes	
Brief intervention (5-A framework) ¹⁶	yes	
Brief treatment	yes	
Intensive individual counselling	yes	
Intensive group counselling		yes
Telephone counselling	yes	
Motivational interview	yes	
Lecture		yes
Group discussion		yes
Club		yes
Peer support group		yes
Poster		yes
Printed material (leaflet, brochure)	yes	yes
Online material	yes	yes
Social marketing		yes

- Brief interventions for overweight and obese persons
- Prevention and signs of malnutrition in older persons
- Dietary recommendations for cardiovascular prevention
- Dietary recommendations for cancer prevention
- Dietary recommendations in lipid disorders
- Dietary recommendations for healthy persons

- Self-monitoring of blood glucose for diabetic patients
- Prevention of angiopathy for diabetics
- Foot care and hygiene for diabetics

- Physical activity for healthy persons of different ages
- Physical activity for patients with cardiovascular diseases
- Physical activity for overweight and obese persons
- Prevention of osteoporosis (e.g., adequate calcium and vitamin D intake, weight-bearing exercises)

- Prevention of falls in older persons
- Signs of ageing-related problems (e.g., presbyopia, cataract, glaucoma, hearing loss) and potential interventions
- Safety in the household
- Vaccinations linked to occupation, travel, and epidemics
- Prevention of the transmission of infectious diseases (e.g., sexually transmitted diseases, hepatitis B, respiratory, gastrointestinal and skin infections)
- Responsible use of contraception
- Education of patients with hypertension regarding the benefits of
 - reduction of dietary sodium intake
 - potassium supplementation
 - increased physical activity, weight loss
 - stress management
 - reduction of alcohol intake
 - quitting smoking
- Reduction of morbidity and mortality due to motor vehicle accidents by
 - increasing the proper use of child safety seats
 - increasing the use of safety belts
 - reducing alcohol-impaired driving
- Behavioural counselling to prevent skin cancer

Methods of service delivery are summarized in Table 1.

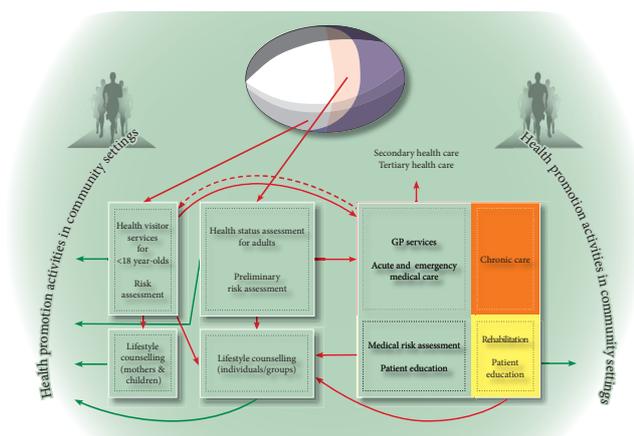
Intervention delivered exclusively by health psychologists

- Direct depression care¹⁷

¹⁵ Risk assessment alone can have a positive effect on health behavior change and health status. See Ozminkowski R.J. et al.: The savings gained from participation in health promotion programs for Medicare beneficiaries. *J Occup Environ Med.* 2006;48(11):1125-32

¹⁶ Counseling and interventions to prevent tobacco use and tobacco-caused disease in adults and pregnant women. USPSTF <http://www.ncbi.nlm.nih.gov/books/NBK115121/#adults.s50>

¹⁷ Depression: Management of depression in primary and secondary care. National Clinical Practice Guideline Number 23, National Health Service, UK. <http://www.nice.org.uk/nicemedia/pdf/cg023fullguideline.pdf>



CHRONIC CARE

AIM

The aim of chronic care is to provide long-term medical care to individuals with chronic physical or mental impairments.

When selecting a medicine from the available variety of prescription drugs, the economical/financial status of the patient must be considered.

SERVICE PROVIDERS

Chronic care services are provided by the staff of the patient's GP and by the newly employed participants in the GP cluster (physiotherapists, public health specialists, and health psychologists).

TARGET POPULATION

The target population includes patients with chronic disease(s), patients who need medical attention and treatment after a major disease, and patients who have been encouraged by a GP to participate in any of several chronic care and rehabilitation programmes (such as health promotion activities, programmes for lifestyle change or smoking cessation, special physiotherapy programmes, or patients' clubs).

ACTIVITIES

Medical services, prescriptions and care are provided by the GP and the practice nurse.

The treatment of defined morbidities should be based on recent Hungarian guidelines issued by professional bodies and approved by the Ministry responsible for healthcare¹. Previously, there were only three types of guidelines, which are widely familiar to GPs:

- Guidelines for hypertension treatment issued by the Hungarian Society of Hypertension (the most recent version was issued in 2009²)
- Guidelines for diabetes treatment issued by the Hungarian Society of Diabetes³
- The recommendations of the Hungarian Consensus Panel for the treatment of patients with high cardiovascular risk⁴ (all were last updated in 2011)
- In 2010, the Board of Hungarian Family Physicians also updated its own Guidelines and List of Competences for Family Physicians (Háziorvosi Hatásköri Lista). This document includes a list of the diseases that GPs are expected to treat alone or by consulting with specialists (secondary care physicians). There are recommendations for the care and rehabilitation of patients suffering from cardiovascular diseases, myocardial infarction, cancer, musculoskeletal problems, psychiatric disorders and addictions to drugs or alcohol.

Other activities must be offered in the framework of GP cluster services:

- Special lifestyle programmes, particularly smoking cessation and lifestyle counselling
- Clubs for patients' groups

Chronic care often includes elements of secondary and tertiary prevention; it may involve the rehabilitation of patients who have experienced a cardiovascular event (e.g., myocardial infarction or stroke); and it also helps prevent the recurrence of the disease.

- Preventive medications are provided to many patients. The complete implementation of the recommendations concerning medications for CVD prevention remains an important target for programmes aimed at improving healthcare delivery.
- Therapeutic options and opportunities to receive prescriptions are regulated by the Health Insurance Fund. The guidelines of this entity need to be monitored because the levels of contributions and reimbursements by both patients and providers change frequently.

¹ Many of the relevant medical guidelines in Hungary will be revised in 2013.

² <http://www.hypertension.hu/protokollok.aspx>

³ https://www.doki.net/tarsasag/diabetes/dokumentumok.aspx?web_id=204AE2BF92CB301#224

⁴ <http://metabolizmusonline.hu/rovat/konszenzus-konferencia>

REHABILITATION

DEFINITIONS⁵

The World Health Organisation defines rehabilitation as “The use of all means aimed at reducing the impact of disabling and handicapping conditions and at enabling people with disabilities to achieve optimal social integration.”

The Union Européenne des Médecins Spécialistes Section of Physical and Rehabilitation Medicine (PRM) defines PRM as “an independent medical specialty concerned with the promotion of physical and cognitive functioning, activities (including behaviour), participation (including quality of life) and modifying personal and environmental factors. It is thus responsible for the prevention, diagnosis, treatment and rehabilitation management of people with disabling medical conditions and co-morbidity across all ages.”

The International Classification of Impairments, Disabilities and Handicaps provides the following definitions:⁶

Impairment: any loss or abnormality of psychological, physiological or anatomical structure or function.

Disability: any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or in the range considered normal for people (depending on age, sex and social and cultural factors).

Handicap: a disadvantage for a given individual, resulting from an impairment or disability, that limits or prevents the fulfilment of a role that would be otherwise normal (depending on age, sex and social and cultural factors) for that individual.

AIM

The aim of rehabilitation is to facilitate the process of recovery from injury, illness, or disease to as normal a condition as possible. The purpose of rehabilitation is to restore some or all of the patient’s physical, sensory, and mental capabilities that were lost due to injury, illness, or disease. Rehabilitation includes assisting the patient to compensate for deficits that cannot be reversed medically⁷.

PRINCIPLES OF DELIVERY OF SERVICES

- A person with complex or severe disabilities requires a variety of health, social and other services.
- The reduction of unnecessary complications is desirable.

- Improvements in the coordination and cost-effective use of resources should be sought.
- A local/regional community-based rehabilitation service could be established, with available experts based within their respective geographical areas and supported by the new members contracted/employed in the project.
- Teamwork in the delivery of rehabilitation services is necessary and should be coordinated by the GP.
- An appointment system for the provision of services and access to lifestyle counselling is required.
- Improvements that allow the patient to return to work or re-enter the labour market are a crucial component of the rehabilitation process.

Physiotherapy⁸

Different types of physiotherapy help patients restore the use of muscles, bones, and the nervous system. The aims of physiotherapy are to relieve pain, improve strength and mobility, and train the patient to perform important everyday tasks. Physiotherapy may be prescribed to rehabilitate patients who have experienced amputations, arthritis, burns, cancer, cardiac disease, cervical or lumbar dysfunction, neurological problems, orthopaedic injuries, pulmonary disease, spinal cord injuries, stroke, traumatic brain injuries, or other injuries/illnesses. The duration of the physiotherapy programme varies according to the injury/illness being treated and the patient’s response to the therapy.

Exercise is the most widely used and best known type of physiotherapy. Depending on the patient’s condition, exercises may be performed by the patient alone, with the therapist’s help, or with the therapist moving the patient’s limbs. Heat treatment (applied with infrared lamps), high-frequency electrical currents, ultrasound, paraffin wax, or warm baths may be used to stimulate the patient’s circulation, relax the muscles, and relieve pain. Cold treatment is applied with ice packs or cold water soaking. Massage aids circulation, helps the patient relax, relieves pain and muscle spasms, and reduces swelling. Very-low-strength electrical currents applied through the skin stimulate the muscles and make them contract, helping paralysed or weakened muscles respond again.

Dietary counselling⁹

Dietary counselling is one type of the behavioural counselling offered in primary care. Routine dietary counselling is a form of lifestyle counselling, whereas intensive dietary

⁵ White Book on physical and rehabilitation medicine in Europe. Section of Physical and Rehabilitation Medicine and European Board of Physical and Rehabilitation Medicine, 2006

Union Européenne des Médecins Spécialistes (UEMS) and Académie Européenne de Médecine de Réadaptation.

⁶ International Classification of Impairments, Disabilities and Handicaps (ICIDH). <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=6442455478>

⁷ Vekerdy-Nagy Zs. (szerk.): Rehabilitációs orvoslás. Medicina, Budapest, 2010

⁸ <http://www.nhs.uk/Conditions/Physiotherapy/Pages/How-does-it-work.aspx>

counselling is provided by dietitians to patients with chronic diseases and to persons at elevated risk of CVD, cancer and metabolic disorders. Dietary counselling for patients with different chronic diseases can be supplemented (if necessary) with various medications, including lipid-lowering drugs.

Psychological counselling¹⁰

By understanding and harnessing psychological factors, health psychologists can improve health directly by working with individual patients or indirectly by participating in large-scale public health programmes; they can also train other healthcare professionals to take advantage of knowledge about psychological factors when working with their patients. The generally critical condition of the mental health of the Hungarian population and this country's traditionally high mortality rate from suicide necessitate and justify the primary care-level involvement of health psychologists or psychologists who specialise in clinical and mental hygiene. These professionals could cost effectively participate not only in the detection and treatment of psychiatric diseases (or somatic diseases of mental origin) but also in the management of psychological problems related to somatic diseases by performing the following tasks:

- relieving the GPs (who are typically not qualified for these tasks) of the treatment of psychogenic diseases and disorders caused by life management problems
- referring patients to the appropriate social, rehabilitation and psychiatric specialists based on a determination of the patient's mental status and the detection of premorbid states
- preventing costly diagnostic interventions (if the origin of the psychiatric disorder can be definitively confirmed) and the unnecessary (and sometimes large-scale) consumption of prescription medications
- providing services to prevent the development of mental illnesses in connection with chronic diseases and supporting individual and family life management
 - providing mental support for the confrontation and coexistence with somatic illnesses by strengthening cooperation and compliance, thus contributing to the development of improved disease prognosis

Psychological Interventions for Health Behaviour Change and/or Illness Management are particularly important for the following issues:

- Coping with chronic illness and treatments
- Smoking cessation
- Weight management

GPs must consider making occupational and speech therapies available for the patients who need them.

SERVICE PROVIDERS

In the provision of rehabilitation services, the GP cluster staff (the GP, nurse, dietician, and health psychologist) require regular consultations with other specialists and contributions by the following experts to treat the following conditions:

Dietitians

- Artificial nutritional support
- Issues faced by cancer patients
- Eating and swallowing disorders

Health psychologists

- Ageing-related disabilities
- Behavioural disorders
- Issues faced by cancer patients
- Cognitive and behavioural disorders
- Dementia
- Depression
- Impairments in intellectual function
- Psychiatric problems and rehabilitation
- Post-traumatic stress disorders

Physiotherapists

- Arthritis
- Amputation
- Issues faced by cancer patients
- Disorders of the peripheral nerves
- Epilepsy
- Incontinence (bladder and stool)
- Footwear and orthoses
- Motor neuron diseases
- Multiple sclerosis
- Nerve supply disorders
- Parkinson's disease and movement disorders
- Prostheses
- Special seating
- Spinal cord injury
- Spinal pain and soft tissue rheumatism
- Stroke
- Surgical and orthopaedic processes
- Traumatic brain injury
- Wheelchair use

Other physical problems (evaluated by the GP)

- Technical aids and assistive technologies

The process of rehabilitation (in both social and health contexts) necessitates close cooperation among medical professionals, social service providers and the community.

⁹ <http://www.uspreventiveservicestaskforce.org/3rduspstf/diet/dietrr.htm>

¹⁰ Ogden, J.: Health Psychology: A Textbook (5th ed.). Maidenhead, UK, Open University Press, 2012

PROTOCOLS FOR LONG-TERM CARE AND REHABILITATION IN PRIMARY HEALTH CARE

Hungarian guidelines

Cardiovascular and metabolic diseases and their risk factors

- Dietetikai teendőkről a kardiovaszkuláris szekunder prevencióban
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/DIET_dietetikai_teendokrol_a_kardiovaszkularis_szekunder_prevencioiban_mod0_v0.pdf
- A diabetes mellitus kórismézése, a cukorbetegség kezelése és gondozása a felnőttkorban
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/BELGY_diabetes_mellitus_korismezese-a_cukorbetegseg_kezelese_es_gondozasa_a_felnottkorban_mod0_v0.pdf
- Felnőttkori diabetes mellitus háziorvosi ellátása
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/HAZIO_felnottkori_diabetes_mellitus_haziorvosi_ellatasa_mod0_v0.pdf
- A diabetes mellitus dietoterápiájáról felnőttkorban
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/DIET_diabetes_mellitus_dietoterapiajarol_felnottkorban_mod0_v0.pdf
- A metabolikus szindróma dietoterápiájáról
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/DIET_metabolikus_szindroma_dietoterapiajarol_mod1_v0.pdf
- Alsóvégtagi amputációk és az amputáltak rehabilitációja
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/REHAB-INTERD_Alsovégtag_amputaciok_es_amputaltak_rehabilitacioja_mod0_v0.pdf
- Dietetikai teendőkről a kardiovaszkuláris szekunder prevencióban
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/DIET_dietetikai_teendokrol_a_kardiovaszkularis_szekunder_prevencioiban_mod0_v0.pdf
- Kardiovaszkuláris rehabilitáció dietetikájáról
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/DIET_kardiovaszkularis_rehabilitacio_dietetikajarol_mod1_v0.pdf
- A hypertóniabetegség kezelése
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/BELGY_hypertoniabetegseg_kezelese_mod0_v0.pdf
- Felnőttkori hypertónia betegség háziorvosi ellátása
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/HAZIO_felnottkori_hypertonia_betegseg_haziorvosi_ellatasa_mod0_v0.pdf
- A felnőttkori obezitás jelentősége a rehabilitációban
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/REHAB-BELGY-INTERD_felnottkori_obezitas_jelentosege_a_rehabban_mod0_v0.pdf
- Ischaemiás szívbetegek rehabilitációja
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/KARD_ischaemias_szivbetegseg_rehabilitacioja_mod0_v0.pdf
- Az ischaemiás szívbetegek dietoterápiájáról
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/DIET_ischaemias_szivbetegseg_dietoterapiaja_mod0_v0.pdf
- Pitvarfibrilláció kezelése
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/KARD_pitvarfibrillacio_pitvari_flattern_kezelese_mod0_v0.pdf
- Pulmonalis embolia
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/KARD_pulmonalis_embolia_mod0_v0.pdf
- A zsíryanycsere zavarokról (dyslipidaemiákról)
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/BELGY_Zsiranyagcsere_zavarokrol_mod0_v0.pdf
- A cerebrovaszkuláris betegségek ellátásáról
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/NEUR_cerebrovascularis_betegsegsek_ellatasarol_2010_02_03_mod3_v0.pdf
- Stroke rehabilitációs ellátásról (felnőtt)
[https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/REHAB_a_Stroke_rehabilitacios_ellatasrol_\(felnott\)_mod1_v0.pdf](https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/REHAB_a_Stroke_rehabilitacios_ellatasrol_(felnott)_mod1_v0.pdf)
- Perifériás verőér megbetegedések
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/ALTSEB_Periferias_veroer_megbetegedesek_mod0_v0.pdf
- A perifériás obliteratív verőérbetegségek
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/BELGY_periferias_obliterativ_veroerbetegesek_mod0_v0.pdf
- Perifériás obliteratív verőérbetegség rehabilitációja
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/BELGY_periferias_obliterativ_veroerbetegesek_mod0_v0.pdf

COPD

- Felnőttkori krónikus obstruktív légzőszervi betegségek (COPD) háziorvosi ellátása
<https://kollegium.gyemszi.hu>

GP treatment of locomotor diseases

- A csípőficamról
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/ORT_a%20csipoficamrol_mod1_v0.pdf
- Coxarthrosis
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/ORT_Coxarthrosis_mod0_v0.pdf
- A lúdtalp (pes planus) ellátásáról
[https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/ORT_a%20ludtalp%20\(pes%20planus\)%20ellatasarol_mod0_v0.pdf](https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/ORT_a%20ludtalp%20(pes%20planus)%20ellatasarol_mod0_v0.pdf)
- Gerincdeformitásokról
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/ORT_gerincdeformitasokrol%20Scoliosis%20es%20kyphosis_mod0_v0.pdf
- Hanyagtartásról
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/ORT_hanyagtartasrol_mod0_v0.pdf
- Térdarthrosis ellátásáról
[https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/ORT_terdarthrosis%20ellatasarol%20\(arthrosis%20deformans%20genus\)_mod1_v0.pdf](https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/ORT_terdarthrosis%20ellatasarol%20(arthrosis%20deformans%20genus)_mod1_v0.pdf)

Care and rehabilitation activities of physiotherapists

- A scoliosis (az idiopathiás strukturális scoliosis) fizioterápiájáról
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/MOZG-FIZI_A%20scoliosis%20fizioth_mod0_v0.pdf
- Csípőízületi endoprotézis fizioterápiájáról
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/MOZG-FIZI_Csípőízület%20endoprotézis%20fizioth_mod0_v0.pdf
- Csípőtáji törések fizioterápiás kezelése
[https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/MOZG-FIZI_Csípőtáji törések fizioth kezelése_mod0_v0.pdf](https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/MOZG-FIZI_Csípőtáji_törések_fizioth_kezelse_mod0_v0.pdf)
- Rheumatoid arthritis fizioterápiás kezelése
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/MOZG-FIZI_Rheumatoid%20arthritis%20fizioth%20kezelse_mod0_v0.pdf
- Spondylitis ankylopoetica fizioterápiás kezelése
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/MOZG-FIZI_Spondylitis%20ankylopoetica%20fizioth%20kezelse_mod0_v0.pdf
- A stressz inkontinenciában szenvedő nőbetegek fizioterápiás kezeléséhez
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/MOZG-FIZI_A%20stressz%20inkontinenciában%20szenvedő%20nőbetegek%20fizioth%20kezelsehez_mod0_v0.pdf
- A vállizület elülső instabilitásának fizioterápiás kezelése
https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/MOZG-FIZI_A%20vállizület%20elülső%20instabilitásának%20fizioth%20kezelse_mod0_v0.pdf
- A terhesség és a pathológiás terhesség fizioterápiájáról
[https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/MOZG-FIZI_A terhesség és patológiás terhesség fizioth_mod0_v0.pdf](https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/MOZG-FIZI_A_terhesség_és_patológiás_terhesség_fizioth_mod0_v0.pdf)
- A gyermekágyas időszak fizioterápiájáról
[https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/MOZG-FIZI_A gyermekágyas időszak fizioth_mod0_v0.pdf](https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/MOZG-FIZI_A_gyermekágyas_időszak_fizioth_mod0_v0.pdf)
- A stressz inkontinenciában szenvedő nőbetegek fizioterápiás kezeléséhez
[https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/MOZG-FIZI_A stressz inkontinenciában szenvedő nőbetegek fizioth kezeléséhez_mod0_v0.pdf](https://kollegium.gyemszi.hu/conf/upload/oldiranyelvek/MOZG-FIZI_A_stressz_inkontinenciában_szenvedő_nőbetegek_fizioth_kezelsehez_mod0_v0.pdf)

Permission was obtained to translate the Guide to Clinical Preventive Services of the US Preventive Services Task Force (USPSTF), 2012,¹¹ into Hungarian.

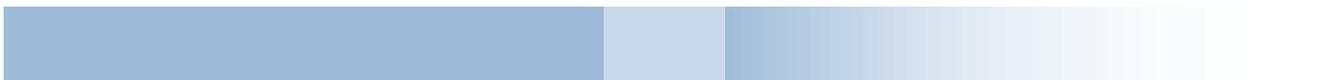
“Per your request, you and your colleagues participating in your Preventive Services pilot project are free to translate the 2012 USPSTF Guide to Clinical Preventive Services into your language. However, we request that you properly cite all the materials.”- NCBA User Services, U.S. Preventive Services Task Force, the Agency for Healthcare Research and Quality, and the U.S. Department of Health and Human Services.

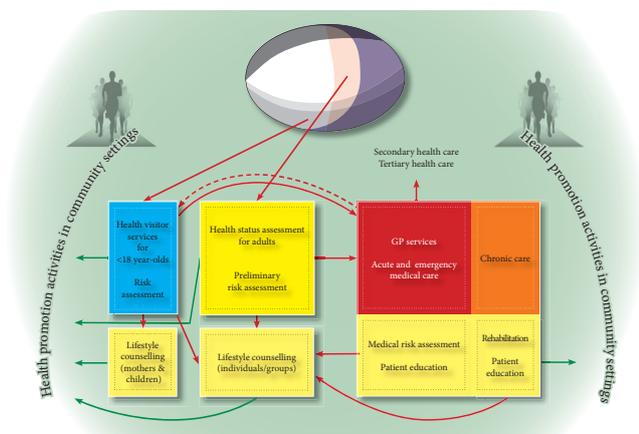
The 2012 USPSTF Guide to Clinical Preventive Services includes new or updated recommendations on 64 clinical preventive services released from 2002-2012 in a brief, easily usable format and the complete USPSTF recommendation statements are also available.

¹¹ <http://www.ncbi.nlm.nih.gov/books/NBK115115>

The translation and distribution of the following guidelines are planned:

- Screening for abdominal aortic aneurysm
<http://www.ncbi.nlm.nih.gov/books/NBK115121/#adults.s1>
- Screening and behavioural counselling interventions in primary care to reduce alcohol abuse
<http://www.ncbi.nlm.nih.gov/books/NBK115121/#adults.s2>
- Aspirin for the prevention of cardiovascular disease
<http://www.ncbi.nlm.nih.gov/books/NBK115121/#adults.s3>
- Screening for depression in adults
<http://www.ncbi.nlm.nih.gov/books/NBK115121/#adults.s18>
- Screening for type 2 diabetes mellitus in adults
<http://www.ncbi.nlm.nih.gov/books/NBK115121/#adults.s19>
- Screening for gestational diabetes mellitus
<http://www.ncbi.nlm.nih.gov/books/NBK115121/#adults.s22>
- Screening for high blood pressure in adults
<http://www.ncbi.nlm.nih.gov/books/NBK115121/#adults.s29>
- Screening for impaired visual acuity in older adults
<http://www.ncbi.nlm.nih.gov/books/NBK115121/#adults.s33>
- Screening for lipid disorders in adults
<http://www.ncbi.nlm.nih.gov/books/NBK115121/#adults.s34>
- Screening for oral cancer
<http://www.ncbi.nlm.nih.gov/books/NBK115121/#adults.s37>
- Screening for osteoporosis
<http://www.ncbi.nlm.nih.gov/books/NBK115121/#adults.s38>
- Counselling and interventions to prevent tobacco use and tobacco-related diseases among adults and pregnant women
<http://www.ncbi.nlm.nih.gov/books/NBK115121/#adults.s50>





3.1. THE NATIONAL E-HEALTH DEVELOPMENTS

3.1.1. Strategic objectives of the national e-Health development

The Hungarian Government since 2012, (more details in 3.1.2.chapter) initiated e-Health developments on a large scale, based on EU Structural Fund resources. Beside the EU resources some of the national e-Health components will be realized on complementary funding from the Swiss Contribution and the Norwegian Grant projects.

Hungarian e-Health developments are not only pertaining to IT investments, but rather are considered as comprehensive health care and health services development projects. In a wider sense developing appropriate IT technology capabilities and infrastructure will serve as effective tools for improving the quality of health, health care and the system efficiency.

Hungarian e-Health developments are responding to the EU e-Health Task Force recommendations as well as are taking into consideration the EU wide standardization requirements and compatibility aspects.

Since the early '90s Hungary has been invested continuously into improving e-Health capabilities: citizens have their unique social insurance identification number, and it was also achieved that pharmacies and GPs are sending their electronic reports directly to the National Health Insurance Fund. The institutionalization of the hospital information systems was assured as a part of the everyday operations of the hospitals. Currently the electronic reporting responsibility (mainly) targets the following national institutions:

- National Health Insurance Fund (OEP),
- National Public Health and Medical Officer Service (OTH),
- Office of Health Authorization and Administrative Procedures (EEKH),

– National Institute for Quality-and Organizational Development in Health care and Medicines (GYEMSZI).

All of these reporting functions are connected to recent e-Health development processes. The aim of the health policy is to maintain methodologically terminologically connected and transparent reporting data controlling system, in which the controlling and validating responsibilities are clarified. It is also important to assure one channelled reporting practices of the actors involved in the health care.

Moreover e-Health developments are also contributing to maintain up- to- date communication between the public health registries and the above mentioned databases, and to support the various (authenticated) actors of the health care system from patients through GPs to hospitals to have an access (well protected) to relevant and needed data.

As a result of the above mentioned e-Health developments in short time general practitioners will have access to the central health insurance and central public databases, through which they will have the ability to control the participation of patients in public health screening examinations, and to take care of prevention activities. Additionally the electronic prescription system will ease the everyday life of patients, doctors and pharmacists. Through the new established e-Health data-warehouse GPs, and ambulance service doctors will also be able to have an access to relevant hospital care documentation and to diagnostics data regarding their patients. This function is highly important in the case of emergency services.

Additionally data on pharmaceuticals will also be available through the transaction support of the electronic prescription system. Data regarding pharmaceuticals can be utilized not only for the administration of fiscal reimbursement but also for macroeconomic planning, or for improving personalized patient cure compliance. The Electronic Health Record (uploaded by the GPs) and the diagnostic databases of hospital information systems will support the strategic planning, the allocative decision making of GP Clusters according to interventions, nursing, public health and medical capacities.

3.1.2. Brief summary of the current Hungarian e-Health projects

Integrated e-Health developments are supported by seven specifically e-Health centred development projects, and by various other components of health services development and public health development projects.

Human Resources Monitoring System (HRM System) (TÁMOP 6.2.1)

The aim of the HRM project is to build an integrated HR monitoring system and data warehouse, in order to support and prepare decisions on governmental, sectoral and on institutional levels. The HRM System supports the development of sectoral HR strategy and enables to track sectoral HR features and trends. It also develops and elaborates the conception of career model for health workers. As a result of the project a Call Centre and a HR Clearing House will be arranged and will serve as a support for health professionals and providers. Moreover the data of the HRM System will work as an input to the TAMOP 6.2.3, (see below).

National Health Monitoring and Capacity Map Database and application development (TÁMOP 6.2.3)

This database will provide a sectoral management information system, by applying special algorithms regarding health care capacities, sectorial human resources, hospital-management achievements and economic indicators, public health indexes and sectoral network analysis. The background IT system will provide visual map reports.

National Health Informatics (e-Health) System – Development of Electronic Certified Public Records and Healthcare Portal (TIOP 2.3.2)

This project serves as a basis of the e-Health portfolio by assuring the validity of the core databases. As a result of the project a web portal will be maintained through which public data can be uploaded and downloaded by the various actors of the health sector (such as OEP, OTH, EEKH, GYEMSZI, etc.). The validation of the data will be accomplished by data hosts (the background institutions of the sector). This register will serve as a central and authentic source of institutional information, accounting and reporting systems, as well as a non-evadable instrument for reaching authentic basic data from the health sector. Data hosts will be responsible for managing certain range of data to establish uniform handling of the sectorial information and to eliminate the redundancies, and different terminologies for the same phenomenon. By implementing the validation function of the hosts the content of the most important reports will be reviewed and standardised (integrated), and will be sent to the appropriate institutions for processing.

National Health Informatics (e-Health) system: Development of central and unified IT systems for ensuring the development of patient identification systems among institutions – (TIOP 2.3.1)

By implementing the project, health care providers on all levels of the health system – primary, outpatient, and inpatient – will have access to a shared data warehouse. This data warehouse extends from patient identification through prescription to patient turnover data, generated directly and automatically from closed hospital IT systems. .

National Health Informatics (e-Health) System: Local infrastructural developments as a background of regionally and functionally integrated interinstitutional information systems (TIOP 2.3.3)

The project supports the utilization of the interoperability IT solutions, by modernizing the local IT infrastructure of the health care provider institutions. The main goal of the project is to enhance the number of providers resorting the disposable resources (provided by TIOP 2.3.3) in an attempt to improve the local IT infrastructure. Additionally it is also aimed that the running sectorial developments should (together) raise the quality of the services provided the citizens by optimally allocating the given resources.

From the improved local IT components a national and shared register and data warehouse will be established (validated and provided by TIOP 2.3.2.), which will provide the opportunity of the interoperability among institutions. The new system- by collecting and storing the data centrally- will contribute to the implementation of online national services, will monitor the national health processes and will support trend research and health statistical analysis.

Methodological, Educational, and HR Developments supporting the implementation of the National e-Health system (TÁMOP 6.2.7)

The aim of the project is to develop methodological and educational materials unified IT interfaces and creative applications in order to enable the actors (of the health care, the sectorial background institutions and governmental institutions) to use e-Health platforms.

3.1.3. The connection between the e-Health solutions of SH/8/1 project with the national e-Health developments

The SH/8/1 project targets the development of a community-oriented primary care model, which pertain to make an important step towards the personalized, predictive, preventive, and participatory (P4) medicine, increasingly focusing on prevention and on the wellbeing of the residents. Through the implementation of this model, it is elementary to provide adequate information and communication technology (ICT) support by efficient e-Health solutions.

Therefore the Swiss Contribution supports the development of a specific primary care component of the national e-Health system. This new component will be a model for a national primary care e-Health solution.

Currently GPs are using several different GP information systems that are capable to support the administration of their individual work in individual practices. The IT system has the function of core patient records, can store documents of hospital or outpatient records, can print and store prescription data, and export various reports and statistics. GP IT systems receive input on authentic pharmaceutical databases and report electronically to the National Health Insurance Fund. All these functions are accessible for the

individual GPs and for the nurses, and have a focus on the patients of individual GP practices.

With the ICT developments of the SH/8/1 Project, the national e-Health development will be complemented with a new integrated primary care e-Health solution. As a core and start-up function, the new software will be capable to support individual GPs with the traditional practice management functions. Moreover the new GP software will ensure:

- the national integration of primary care data,
- the national e-Health connectivity of individual GPs,
- the possibility of integrating data on GP cluster level,
- connection between the different health professionals within each cluster,
- including care protocols, warning for pharmaceutical interactions or special contraindications, reminding function of necessary controls.

These capabilities will support the escalation of the potential of ICT for prevention, patient care, the development of efficient GP cluster logistics, the development of personalized models of care, better utilization of scarce health care resources as well as will enhance the professional competencies of GPs (by the application of evidence based guidelines, which function will be refreshed, developed periodically). At the same time the new e-Health solution opens the door of telemedicine applications in primary care and enhances management of health care services and self-management of the patients.

3.2. THE GPs CLUSTER PRIMARY CARE MODEL AND E-HEALTH

The proposed primary care model will be responsible for providing/arranging community-oriented preventive services in addition to acute and chronic care for the clients/patients.

The GPs cluster model as the first community-oriented primary care model in Hungary

- uses high quality, information technology,
- organises the partnership between GP-team members, clients/patients and families,
- opens the primary care services towards the community,
- increases the health literacy of the clients in order to have clients who are able to participate actively in promoting their health, preventing themselves against diseases and as patients in making decisions affecting their lives,
- empowers and activates clients/patients and increase their individual responsibility in order to enforce their self-care activity.

In the realisation of this model it is of central importance to provide adequate and efficient information and communication technology (ICT) support together with efficient e-health solutions.

Note that the term e-health is used as the overarching term for the range of tools based on ICTs to assist and enhance prevention, diagnosis, treatment, chronic care, rehabilitation, as well as monitoring and management of health care services and self-care¹.

The proposed e-health solutions support public health interventions and permit to make an important step towards the personalized, predictive, preventive, and participatory (P4) medicine² increasingly focusing on wellness, which step by step will substitute the reactive care approach, where we wait until the patient is sick before responding.

The key benefits of these solutions include new abilities to

- shift the emphasis in the care from reaction to prevention and from disease to wellness,
- identify risk conditions before the manifestation of diseases,
- detect disease at an earlier stage, when it is possible (or easier) and less expensive to treat effectively
- stratify clients/patients into groups that enable the selection of optimal interventions/therapy
- reduce adverse drug reactions by more effective early assessment of individual drug responses.

The proposed primary care model provides a health management approach, based on assessment of the health status, which helps the GPs to determine the probability of an individual contracting certain diseases, as well as reveal how an individual may respond to various interventions/treatments, thereby providing guidance for developing customized intervention/therapy. Thus the IC technologies and tools together with the proposed health science approach will provide preventive treatments for individuals, based on their potential health problems, and on current health parameters.

The proposed primary care model (the GP cluster model) offers the opportunity to give primary care a central role in the health literacy development, health promotion and disease prevention in the community, as well as in the management of chronic diseases and rehabilitation. The proposed model will make the first step to take responsibility for public health and health care services and realise, if necessary, the missing preventive interventions, care and/or treatment. In doing so the proposed better organised and integrated primary care model focuses on patient empowerment, quality improvement of care and cost effectiveness, too.

¹ http://ec.europa.eu/health-eu/care_for_me/e-health/index_en.htm

² Brand, A.: A népegészségügyi genomika európai hálózatának szervezete és feladatai. In: Ádány, R. (szerk): Népegészségügyi genomika. Medicina, Budapest, 2012

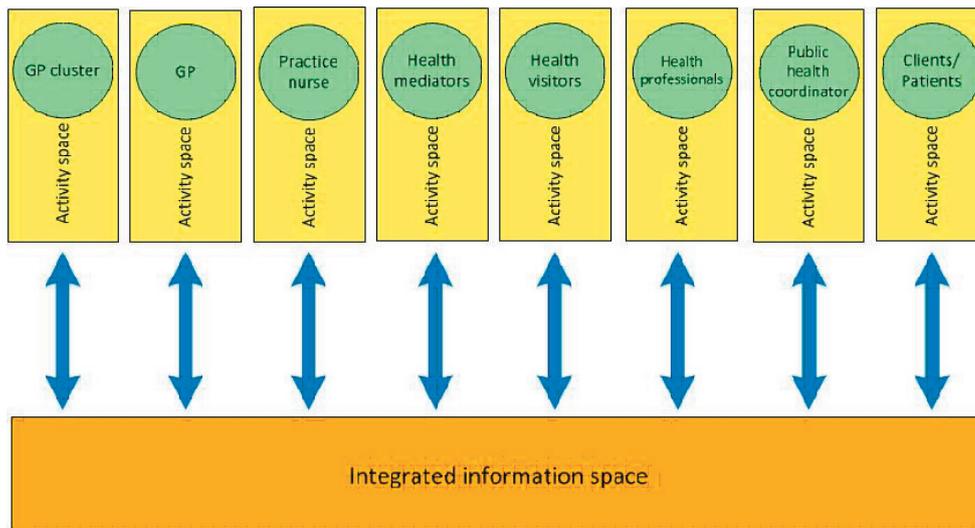


Figure 1. The activity and information spaces of the GP cluster

3.3. THE ACTIVITY AND INFORMATION SPACES OF THE PRIMARY CARE MODEL

In order to provide facilities for an efficient care support appropriate mathematical and computational methods will be used for extracting maximum information from records on health behaviour, health and social status, as well as medical history of individuals. This information will be used in an appropriate aspect and form during the activity of the participants of the GP cluster. The activity of the participants will be supported by various ICT solutions. Thus an appropriate ICT solution will provide and support the activity space of each participant. Moreover, the activity spaces are integrated into a unique information space as it is illustrated in Figure 1. Thus the ICT solutions permit to support distributive activity spaces and integrate these spaces through a unified information space, which is necessary for realising efficient care.

The integrated information space consists of three components:

- (i) Electronic Health Record (EHR)³ database, which contains patient/client data from within the GP cluster's organisational boundaries. EHRs are designed to be accessed by all people involved in the health care including the clients/patients themselves.
 - Track data over time
 - Easily identify which clients are due for preventive screenings or checkups
 - Check how their patients are doing on certain parameters - such as blood pressure readings or vaccinations

- Monitor and improve overall quality of care within the practice
- Public health and health care increasingly require health care practitioners to access detailed and complete health records in order to manage the safe and effective delivery of complex and knowledge-intensive Public health services and health care, and to share this information within and between the GP clusters. Patients/clients nowadays also require access to their

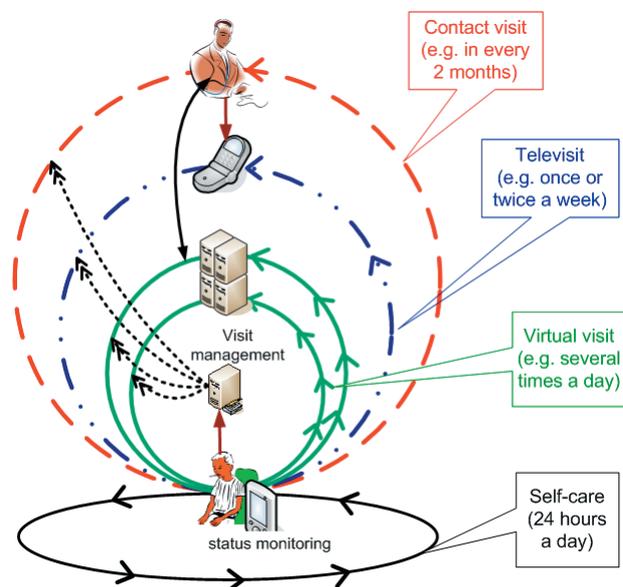


Figure 2. Types of visits

³ <http://www.healthit.gov/buzz-blog/electronic-health-and-medical-records/emr-vs-ehr-difference/>)

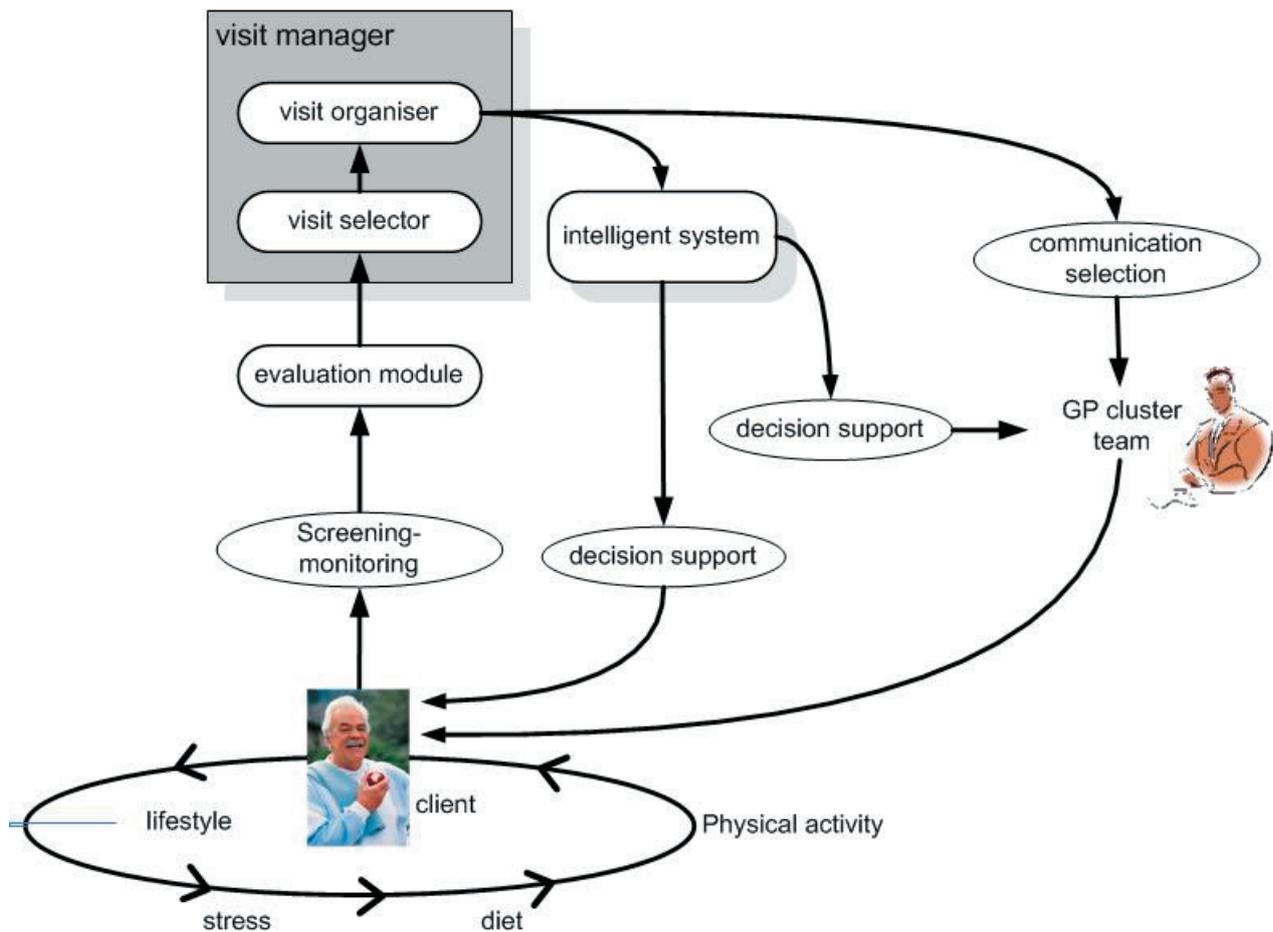


Figure 3. Visit management for the clients

own EHR to an extent that permits them to play an active role in their health management.

- (ii) Case base, which consists of the depersonalised health records of the clients/patients
- (iii) Knowledge base which contains all the necessary information for all the participants: a) for the care providers it contains various information materials, health care supply agreements, etc. b) for the professional staff it contains guidelines and recommendations, multidisciplinary working agreements and health care supply agreements for common diseases and complex afflictions like: diabetes, cardiovascular diseases, stroke, stress, hypertension, and diseases of the locomotor system, education materials, etc.; c) for the clients it contains information materials, education materials, etc..

The integrated information space is based on the digitized health records i.e. on the effective and secure databases for individual health records. When the health status modelling methods are available the interpretation of the monitored data will become increasingly rich and informative as science and databases advance.

The activities of the participants can be described through a structured set of functions. Each function is supported by appropriate ICT solution. The activity of a GP cluster consists of an administrative function and a client relationship management^{4,5} function.

These functions will be supported by the following ICT modules

- (i) GP cluster administrative system. This system supports the integrated operation of the GP cluster and the organization of the services, as well as the collection of the necessary practice performance indicator

⁴ <http://www.ipedr.com/vol9/5-I00005.pdf>

⁵ <http://arxiv.org/ftp/arxiv/papers/1204/1204.3685.pdf>

⁶ Deutsch, T., Gergely, T., Lévy, Á.: A krónikus beteg gondozás új ellátási modellje és intelligens infokommunikációs rendszere I. Rész, Informatika és Menedzsment az Egészségügyben, 8. évf. 10. szám, 2009

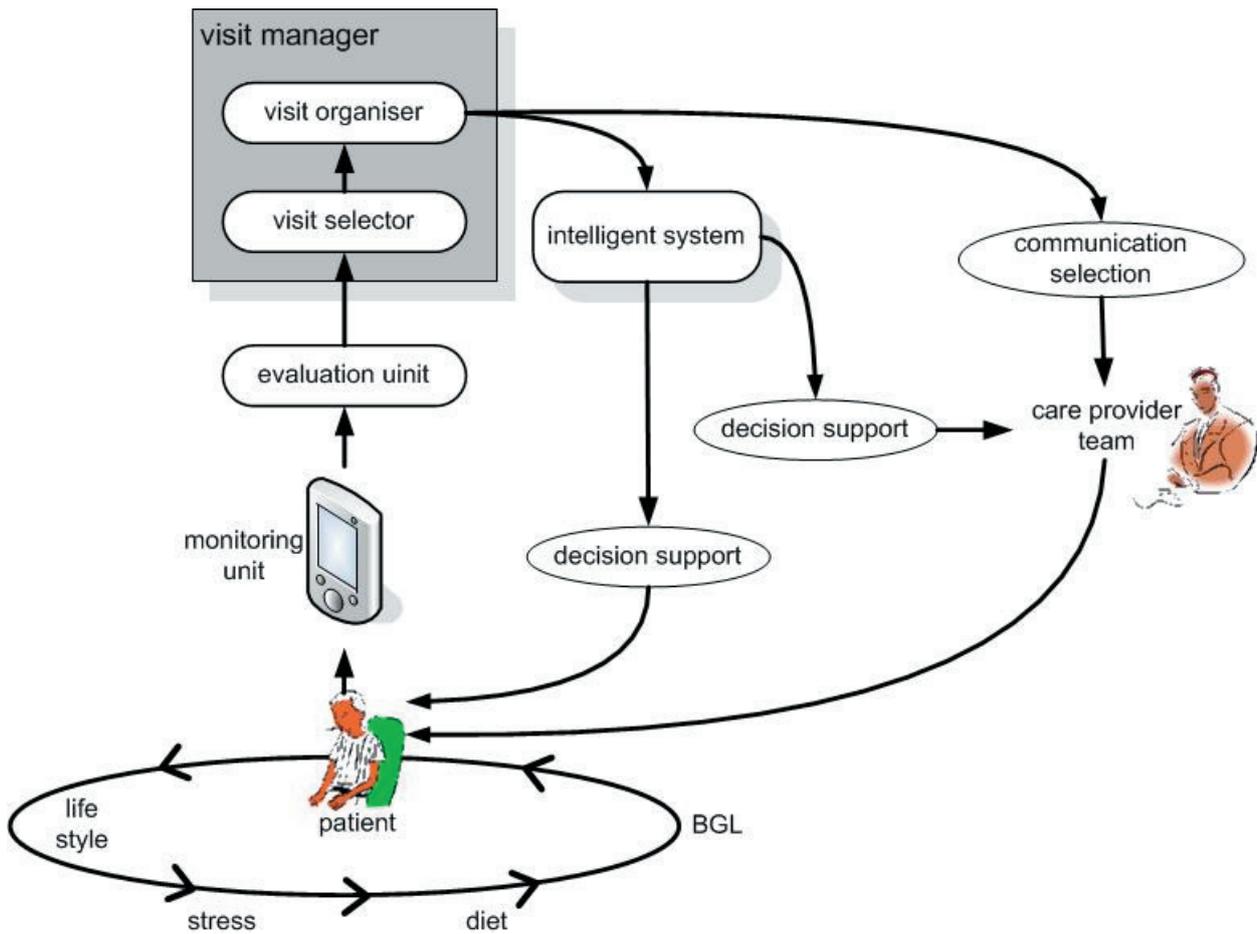


Figure 4. Visit management for diabetes care

data. The system supports the administrative handling of the records of clients and patients. This system also supports the reporting process and the economic and business management of the cluster.

(ii) Client relationship management system based on visit management system. This component receives data/

calls from patients, detects and particularly by the use of its intelligent module ranks problems and subsequently forwards them to the visit manager who decides on the necessary actions, and allocates tasks to the persons responsible (doctor, nurse, public health coordinator, health psychologist, etc.). Visits are orga-

nized and scheduled on the basis of professional protocols. The system supports tele-visits, virtual visits, contact-visits and self-care processes by patients⁶.

Figure 2 illustrates the types of visits which are managed by the proposed system.

Figure 3 illustrates a possible realisation of the visit management function for the clients/patients. In this case the visits take place episodically only when special needs require medical assistance.

Figure 4 illustrates a possible realisation of the visit management function for the case of diabetes care.

Note that Figures 3 and 4 show the relationship between an e-health solution and the underlying ICT tools in the realisation of this solution.

3.4. THE MAIN IC TECHNOLOGIES AND TOOLS SUPPORTING THE REALISATION OF THE ACTIVITY SPACE OF THE PARTICIPANTS

The main IC technologies and tools supporting the realisation of various e-health solutions are shown on Figure 5. All these ICT components will be realised as services with appropriate e-health solutions^{7,8}.

The activity space of the participants will be realised by the use of the above services. For example, the above visit management is realised by the following services: knowledge and information base as intelligent system, decision support, data analysis and interpretation for the evaluation and communication module.

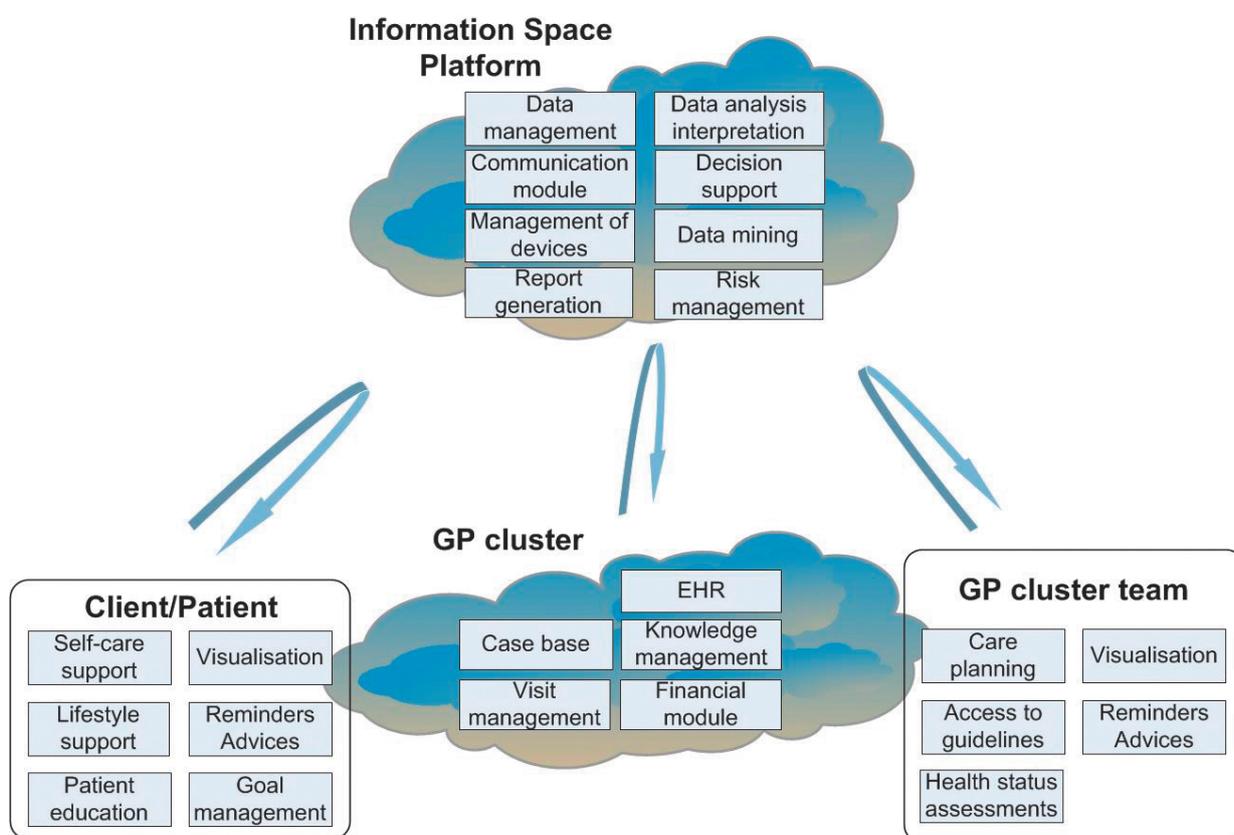


Figure 5. ICT services for e-health solutions

⁷ Thestrup, J., Gergely, T., Beck, P.: Exploring new Care Models in Diabetes Management and Therapy with a Wireless Mobile eHealth Platform, 2nd International ICST Conference on Wireless Mobile Communication and Healthcare (MOBIHEALTH 2011), Kos, Greece; 10/2011 http://www.in-jet.dk/en/downloads/papers/Thestrup_et_al_Exploring_new_Care_Models_in_Diabetes_Management_final.pdf

⁸ Gergely, T.: Integrated care space for chronic diseases, in Investing in Health Systems of the Future, e-Health week, Budapest, 2011 <http://www.worldofhealthit.org/education/Person.aspx?ID=100>

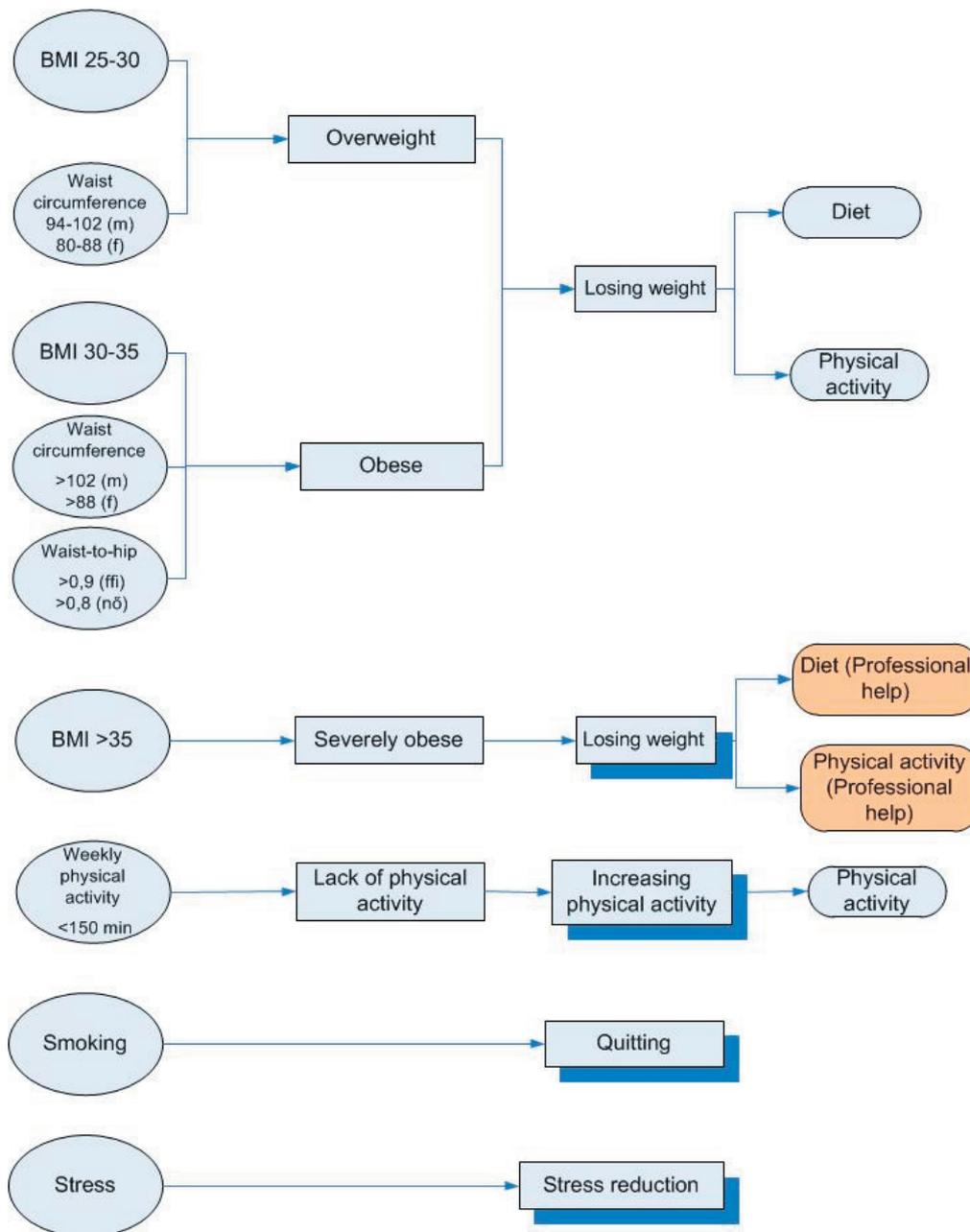
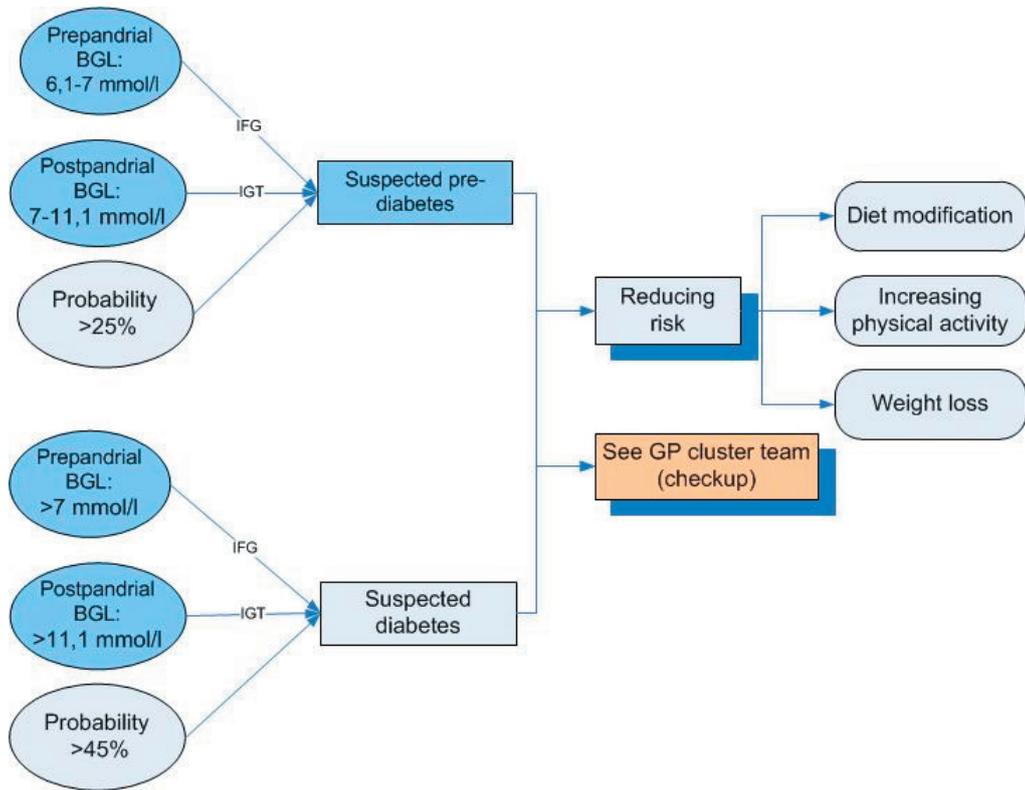


Figure 6. A selected fragment of the decision rules for lifestyle

3.5. THE INTEGRATED RISK-DRIVEN APPROACH

The primary care model is supposed to be implemented on the basis of a comprehensive risk-driven approach. This approach will be realized by various functionally closed loops which support the collection of data generated during risk assessment and evaluation, life-style counselling, patient care and rehabilitation according to a care plan.

Risk assessment is an important service in the primary care model with e-health support. Several risk evaluation algorithms can be applied to estimate: (i) the health behaviour risk of a client, (ii) susceptibility to chronic diseases and (iii) the risk of the development of complications in case of a patient with chronic disease. The system will incorporate all the risk indicator entities during health assess-



(IGT-Impaired Glucose Tolerance; IFG-Impaired Fasting Glucose; BGL-Blood Glucose Level)

Figure 7. A selected fragment of the decision rules that address the symptoms of diabetes

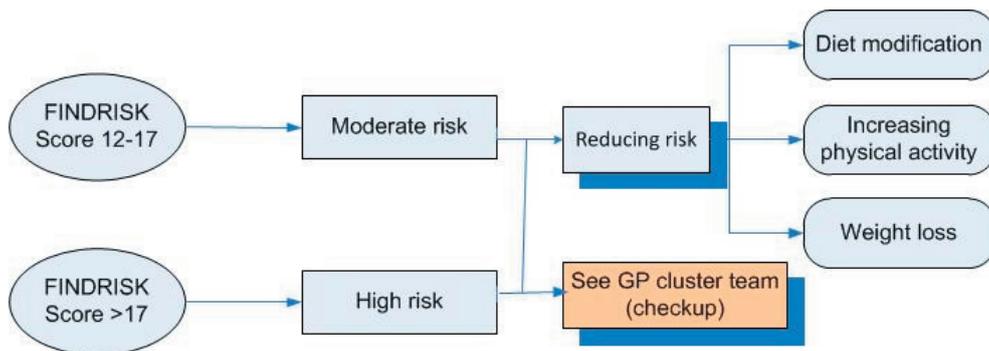


Figure 8. A selected fragment of the decision rules based on the Finnish diabetic score (FINDRISC)⁹ system

⁹ Winkler, G., Hidvégi, T., Vándorfi, G., Balogh, S., Jermendy, G.: Kockázat alapú diabetes-szűrés felnőttek körében: a FINDRISC II. vizsgálat. Medicus Universalis, XLIII, 1-5, 2010

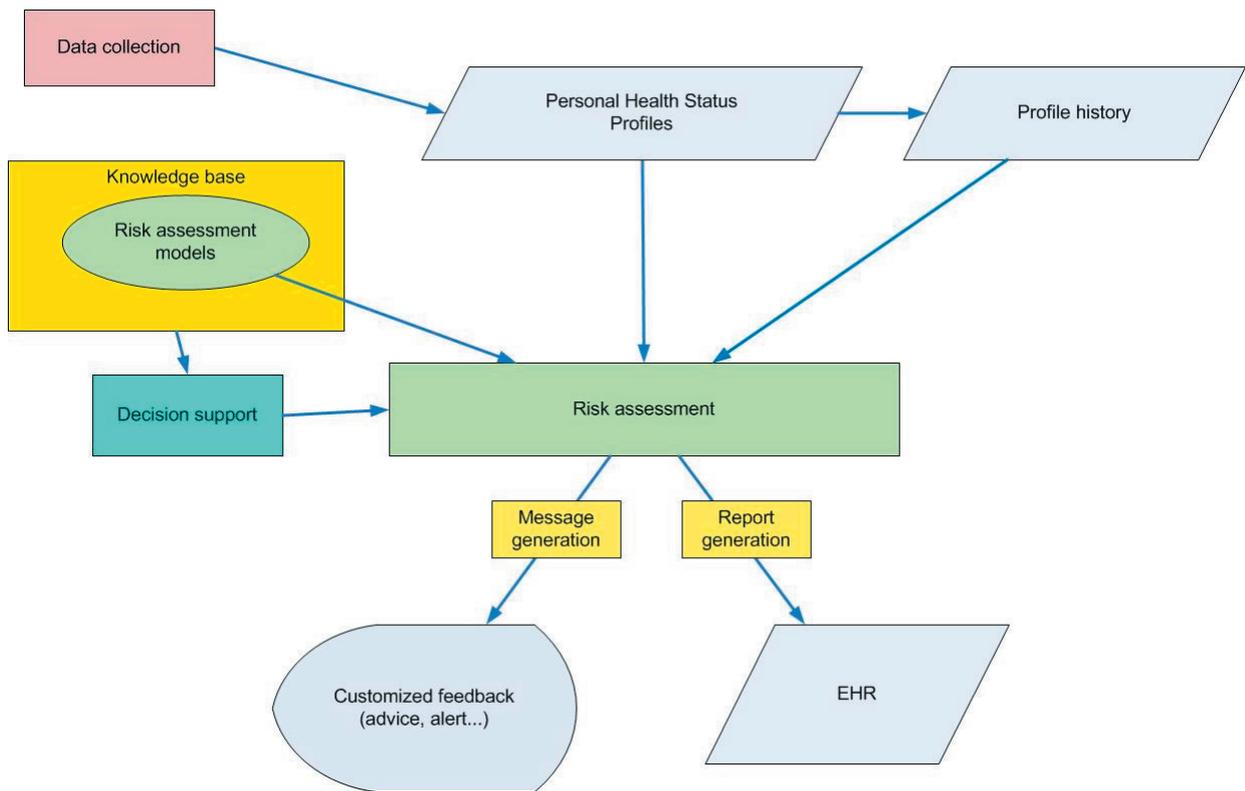


Figure 9. Risk assessment

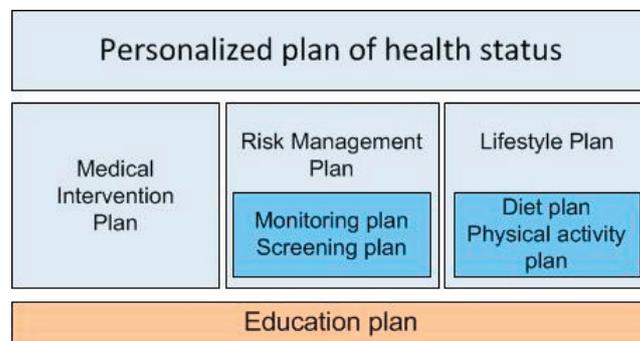


Figure 10. The risk-driven plan for health status

ment, as well as in chronic care. An intelligent system can provide continuous risk monitoring and prediction.

The intelligent system can also generate advices and recommendations based on the evaluation of health parameters. These may include proposals to visit the care team for further investigation, lifestyle changes and even therapy

change with rigorous restrictions. The latter must be approved by the GP.

Figure 6 shows a fragment of the rules which are used by the decision support system to maintain the clients' wellbeing.

Figures 7 and 8 show two fragments of the rules which are used by the decision support system for risk assessment.

Figure 9 shows the functional architecture of the risk assessment module of the e-health solution for the GP cluster.

The above described risk-driven approach is used for supporting the wellbeing of the clients and for providing efficient care for the patients. Certainly, this can be fulfilled

only in the case if an effective organisation of the information processes and an efficient intelligent support for all the participants (which can be realised only by the use of efficient ICT) exist.

The risk-driven plan of wellbeing generated by the system for the clients is show on Figure 10.

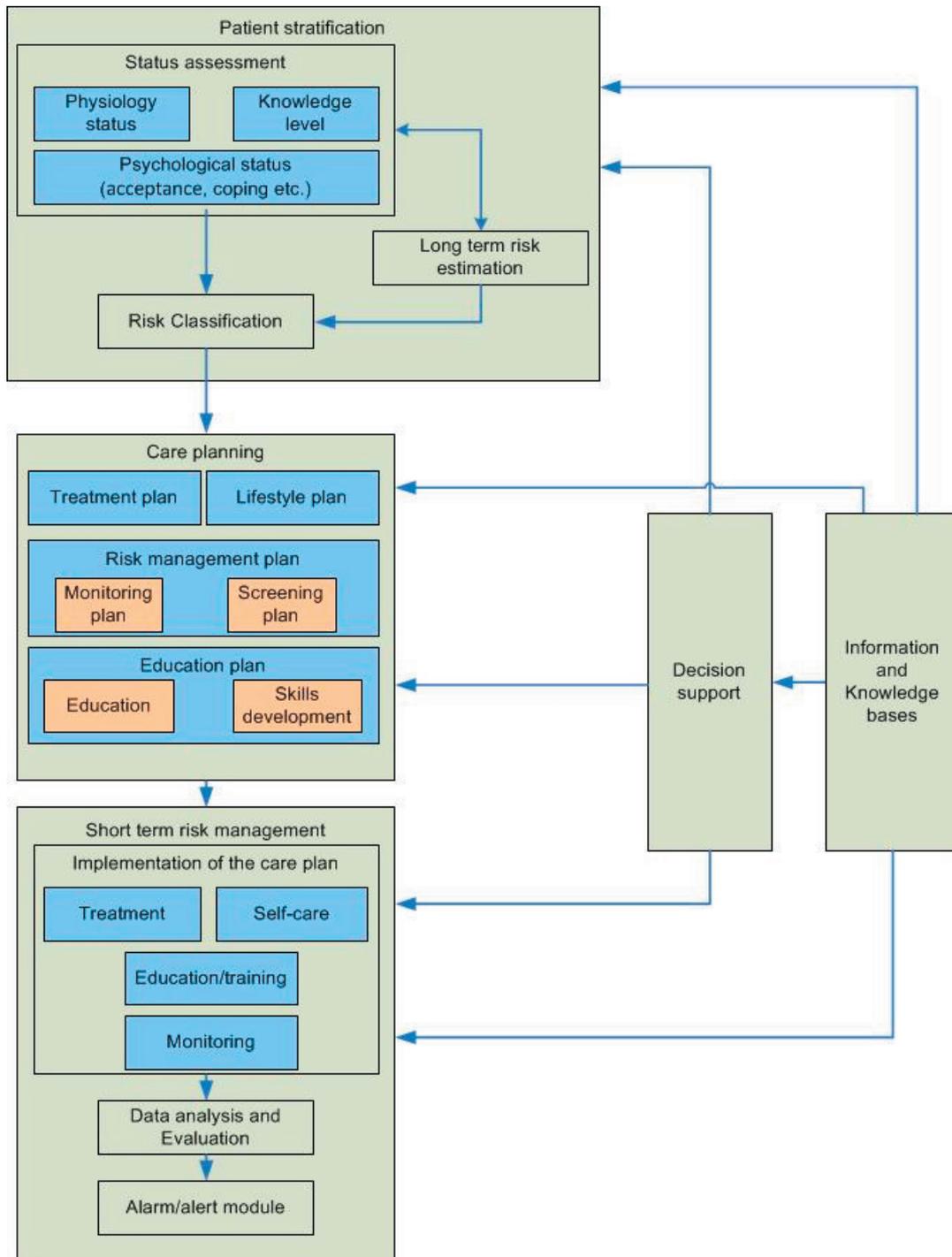


Figure 11. The functional architecture of risk-driven diabetes care management.



Figure 12. Care plan for patients with chronic diseases

3.6 THE INTEGRATED RISK-DRIVEN CHRONIC CARE

The integrated risk-driven approach is an important tool for the chronic care management, too. On the example of diabetes care risk-driven care means a delivery architecture which guides patient management in anticipation of and in response to long-term and short-term complications and acute episodes of impaired glucose metabolism. The long-term risk assessment creates conditions for setting up personalized care strategies, while the short term risk assessment forms the basis of defining risk-driven care tactics.

Figure 11 shows the functional architecture of the risk driven chronic care management on the example of diabetes care. This functional architecture strongly corresponds to the activity of the GP cluster.

In this case the chronic disease management can be considered as a short-term risk management feedback system embedded in a long-term risk management loop. The closed loop cycles consist of assessment, care planning/ implementation and data collection/monitoring elements operating over time. High risk patients are assigned to be under strict medical control, while low risk patients can be sufficiently controlled by self-management with limited medical involvement.

The central controlling component of the risk-driven chronic care is the personalised care plan for each patient. The data for building such a plan are the followings: (i) the physiological status of the patient that can be represented by a model, which may also serve as a basis for the monitoring and control of the care processes; (ii) the mental status of the patient and his/her worldview and lifestyle expectations and coping skills, (iii) the social-economic status of the patient. A personalized care plan is a complex plan that consists of a treatment plan, a risk management plan, and a lifestyle plan.

The personalised plan should be implemented by the care team (physicians, nurses, public health professionals, dietitian, health psychologists, etc.) and patients themselves. This implementation requires a collaborative work with cooperative problem solving and shared decision making. Moreover the cooperation presupposes certain

level of concordance between the patient and the medical professionals.

The above described requirements related to a health care model can be fulfilled only in the case if an effective organisation of the information processes and an efficient intelligent support for all the participants (which can be realised only by the use of efficient ICT) exist. The structure of the care plan is show on Figure 12.

Note that care plan in general case prescribes the possible pathways of a patient. Namely it suggests an integrated care pathway as a multidisciplinary plan for delivering health and social care to patients with a specific condition or set of symptoms. Note that such plans are often used for the management of common conditions and are intended to improve patient care by reducing unnecessary deviation from best practice.

3.7. THE VIRTUAL HEALTH CENTRE (VHC)

The above given set of ICT components supports the realization of the so called Virtual Health Centre. The VHC will support all the participants of the primary care model. Among others it will support prevention and chronic care. This Centre will provide services for health- and disease management together with the persuasive platform for augmenting compliance. The main functions of VHC will support

- health professionals in decision making
- information collection by the use of semantic language technology
- data collection and data processing
- patients in the implementation of their care plan providing goal management
- clients in the health status assessment and risk factor management

The main components of VHC are as follows:

- Knowledge centre
- Intelligent support modules for data analysis and information and knowledge extraction
- Decision making support modules

The implementation of the VHC will use the following WEB based interfaces::

- Clinician portal
- Patient portal
- Client portal

The VHC contains a health management module (HMM), which helps planning and monitoring the client's lifestyle. In the system, advice on the two major components of lifestyle, that is, nutrition and physical activity, is provided by intelligent system modules based on scientific evidence and individual characteristics. The goal management module is part of the HMM; it supports the patient in setting and monitoring her personalised treatment or lifestyle goals.

The VHC provides a general disease management module (DMM) which supports the management and administration of all possible therapies. The risk management module is part of the DMM; it supports the management of risks for both (i) the health status maintenance and (ii) the actual chronic disease.

The VHC prepare its components, integrate the system as a prototype, and make sure of its operability through tests and clinical examinations.

The two biggest groups of system users are formed by the health professionals and clients/patients requiring prevention/treatment services.

The clients of the VHC may be classified into different risk groups according to their health status on the basis of a questionnaire based assessment. For members of the medium risk group, the system provides a strategy for individual risk management, lifestyle advice, and supports the improvement of compliance. People of the high risk group are directed to contact care, where the care provider's staff determines and begins the appropriate therapy on the basis of a detailed assessment of their condition. The VHC supports the therapy, takes part in lifestyle monitoring, and helps increasing the compliance with lifestyle advice.

The VHC enables the primary care model to make it clear for health professionals how to treat their patients (protocol-based treatment) and ensures access for them to these prescriptions. Health professionals can be continuously informed about the condition of their patients and also about to what extent they keep themselves to treatment prescriptions, can get help for the intelligent evaluation of the received data and for the selection of an optimal, personalized therapy. An optimal, personalized therapy takes into consideration the patient's life quality expectations. Health professionals have access to the latest professional knowledge necessary for the solution of the problems, they are able to send data to other medical systems, and can request data from these systems. They can draw on intelligent support for their decisions.

With the help of the VHC patients can get information about the necessary arrangements, answers for their questions and access to external help if necessary.

3.7.1. Intelligent systems of VHC

Several intelligent systems will support the functioning of VHC. Namely the main intelligent systems are as follows:

- (a) An intelligent system supporting the health status defining process in the well-being consultancy,
- (b) An intelligent system that supports the lifestyle consultancy process,
- (c) An intelligent system supporting the development of care plans and plans of well-being,
- (d) A target management system assisting clients/patients,
- (e) Intelligent information and knowledge extraction.

3.7.2. The Knowledge Centre

The Knowledge Centre is the first component of the so called Virtual Health Centre (VHC) which is under development. The VHC will support all the participants of the GP cluster.

The Knowledge Centre consists of several different data and information bases, i.e. the dynamically improving information about medical knowledge and services, life style, and life quality.

Important elements of the Knowledge Base are the descriptive models of the considered chronic diseases. It also provides various educational materials. The methods supply knowledge- and model-based decision preparation and decision making. The decision is based on medical knowledge, organisational and individual knowledge, and individual preferences and experiences. It is important to manage the high degree of uncertainty in the decision making. The technology providers have to take into consideration that the decisions are dynamic, as medical science, organizational knowledge (i.e. the guidelines) and individual knowledge and experiences are continuously growing and changing. Note that every decision generates indirectly or directly new information, and decreases the uncertainty in the management of the given client/patient. The Centre will also support the cooperative decision making (health professional – client/patient) in order to create the conditions of concordance.

3.7.3. The EHR database

The other important ICT component is the electronic health records base with an efficient data management. This EHR base contains the results of the client's health status survey, and details of the personal treatment and results generated during disease management. The health records conform to the EU (CEN/TC 251) as well as the Hungarian (MST 22800:2008) standards. The conditions and notations of the health record data model have to make possible to describe the separate data items formally, completely and unambiguously, without any dependency and/or influence from the actual technology environment

Table 1. ICT moduls supporting the actors

Actor	Activity	ICT solution
GP cluster	Provide the organisational framework Support administration and reporting	Administrative system Client relationship management system Reporting system Integrated database
GP cluster coordinators	Manage responsibilities in relation to the GP cluster Organise availability Coordinate resources Plan, organise and implement programmes Provide accounting support	Administrative system Client relationship management system Reporting system Decision support Integrated database Collaborative work management system
Public health coordinators	Organise preventive (primary and secondary) activities Provide personalised communication Plan and implement health-promoting community programmes, Participate in recruitment processes Participate in tertiary prevention	Client relationship management system Decision support Knowledge base and knowledge management system Special data collection interface Medical measuring devices Integrated database Collaborative work management system
GPs	Perform medical examinations Develop and implement the care plan Modify the care plan	Administrative system Client relationship management system Reporting system Decision support Knowledge base Medical measuring devices Special data collection interface Integrated database Collaborative work management system
Nurses Public Health experts	Assess health status Support care plan management	Administrative system Client relationship management system Reporting system Integrated database Collaborative work management system
Health visitors, Roma health mediators, Assistant Health mediators	Mediate communication between healthcare providers and the Roma population, recruit participants provide information Support the work of all health professionals within the Roma community Provide personalised communication, recruit participants for the health promotion and prevention programmes Provide health education and information on primary and specialist care Assist with the use of specialist medical services	Medical measuring devices Knowledge base Decision making Special data collection interface Collaborative work management system
Health professionals: Dietitian, Physiotherapist, Health psychologist etc., as required	Participate in individual and group interventions Provide specialised care Provide consultations for local communities	Integrated database Decision making Special data collection interface Collaborative work management system
Clients	Self-manage concerning Lifestyle Risk management Health promotion	Medical measuring devices Knowledge base Decision making
Patients with chronic disease	Self-manage concerning Lifestyle Risk management Medical intervention	Medical measuring devices Knowledge base decision making

3.8. ICT MODULES SUPPORTING E-HEALTH SOLUTION FOR THE GP CLUSTERS

The e-health solution for the GP clusters will be supported by the following ICT modules:

1. Integrated database, which integrates the participants of a GP cluster into a single information space. To achieve this, the information systems of each practice will be connected to the integrated data base with the help of an adequate interface. The first version of the Electronic Health Records (EHR) will be implemented for the integrated information space. EHR database will support the realisation of efficient disease and well-being management.
2. Administrative system, which supports the integrated operation of the GP cluster. It supports the integrated data processing of each participant of the GP cluster, with a unified management of EHR as an essential part.
3. Reporting system. It support the generation of financial and professional reports.
4. Special data collection interface. It supports communication with clients and patients e.g. by the use of various questionnaires. It will also support a more efficient way of communication by using speech technology (speech recognition, dialogue, speech synthesis).
5. Collaborative work management system. This system supports the collaboration of the actors of the GP cluster.

6. Client-relationship management system based on visit management system. This component receives data/calls from patients, detects and ranks problems particularly by the use of its intelligent module and subsequently forwards them to the visit manager who decides on the necessary actions, and allocates tasks to the persons responsible (doctor, nurse, public health coordinator, health psychologist, etc.). Visits are organised and scheduled on the basis of professional protocols. The system supports tele-visits, virtual visits, contact visits and the patient's self-treatment processes as well. The recording of all kinds of visits is an important requirement for this subsystem.
7. Knowledge base and knowledge management system. It is the first component of VHC. Knowledge base will integrate the relevant professional guidelines, protocols and algorithms. An appropriate semantic search technique will be applied to support efficient information retrieval.
8. Decision-support system. This system supports the participants' decisions, defines the alternatives and draws up the possible consequences of the decisions.
9. Monitoring medical devices and intelligent data analysis and evaluation module.

These modules will realise the activity space support for each actor. The following table shows how the actors are supported by the above ICT modules (Table 1.).

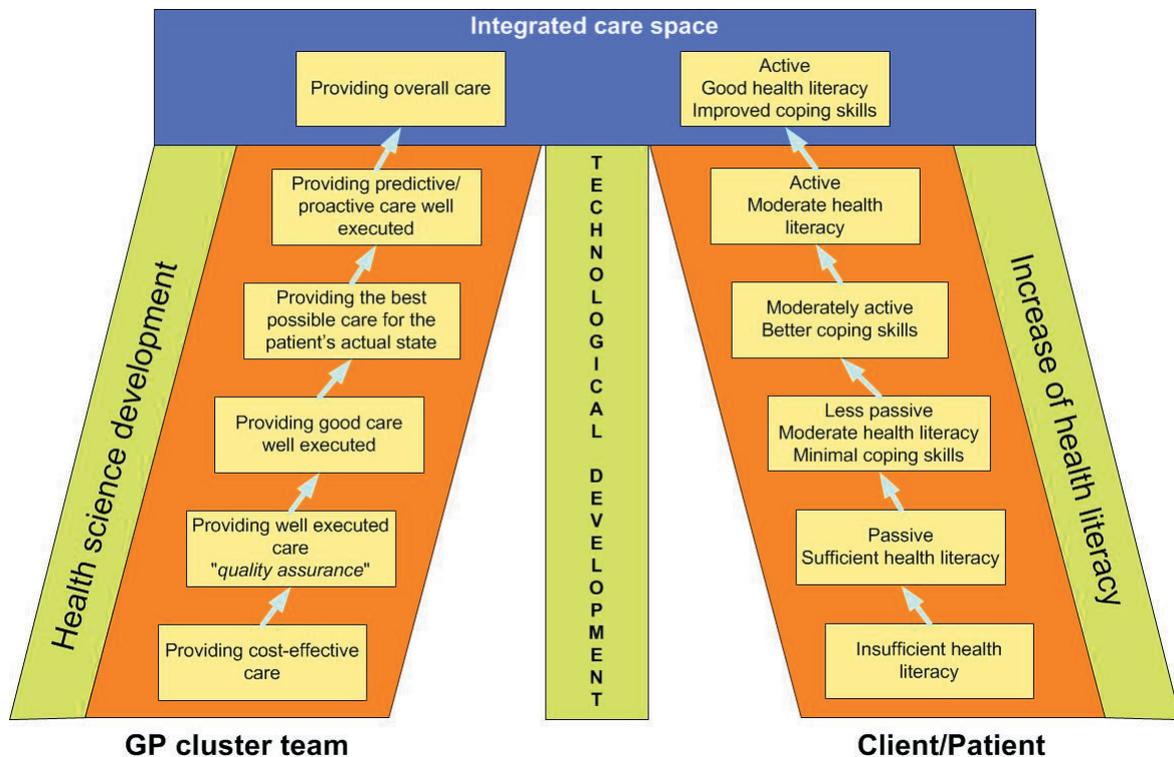


Figure 13. Development of attitudes

3.9. DEVELOPMENT OF THE ATTITUDES

The transformation of the primary care system is strongly connected with the development of the attitudes of both the health care team members and the clients/patients¹⁰.

The primary care team/cluster members have to be sensitized to the following values and principles essential to the high-quality service delivery:

1. evidence based approach at defining and selecting services
2. consideration of cost/effectiveness
3. quality assurance and improvement system based on professional guidelines and protocols
4. monitoring and evaluating activities at process and outcome levels
5. patient-focused approach by respecting the complexity of health determinants (in addition to biological and environmental determinants considering socio-economic and cultural factors which widely define the patients' expectations).

Patients should also go through attitude development stages from a passive stage characterized with insufficient health culture and literacy to an active one with more developed health culture and literacy.

In harmony with the attitude development of both the health care team members and the clients/patients the health care system becomes a more proactive integrated care¹¹ which has the potential to improve outcomes through effects of high-quality health services and clients/patients' self-management. The integrated care cannot be achieved without the interrelated development of three important pillars: biomedical and clinical research, health and information technologies and community support activities

by adopting health literacy to social responsibility strategy at local and global governmental level (Figure 13).

A variety of psychological and educational interventions have been shown to enhance psychological adjustment to chronic diseases. Approaches that increase patient participation in decision-making regarding care and education have been shown to be more effective than a „do as I say” approach in enhancing psychological adjustment to chronic disease and potentially preventing psychological distress. Education and training may result in a more sustainable health in case of clients/patients.

The development of the attitudes raises factors that influence the organisational changes. Some of these are: (i) personalised medicine – personalisation of the care, (ii) patients' participation and empowerment in self-management and (iii) proactive care in an integrated network.

¹⁰ T. Gergely, Integrated care space for improving efficiency of chronic care, ALL Working Paper, Budapest, 2011.

¹¹ Allen, D, Gillen, E., Rixon, E.: Systematic review of the effectiveness of integrated care pathways: what works, for whom, in which circumstances? *Int. J. Evid. Based Healthc.*, 7:61-74, 2009

INTRODUCTION

Communication is an essential, strategic function supporting the publicity of the Programme and the Swiss Contribution, contributing to the successful implementation of the new primary care model. Communication pervades the whole project, strongly influences the recognition of the Programme, and even has a considerable effect on the quality of and the access to GP cluster services.

GENERAL AIMS

- Raise awareness to the Programme and the Swiss Contribution
- Contribute to the successful implementation of the new primary care model
- Support smooth operation of GP Clusters and the motivation of GP Cluster members by good internal communication and information flow
- Improve health provider-patient (e.g. doctor-patient) communication and inter-professional communication by development of communication skills of GPCs members (not only doctors)
- Support health education, promotion and prevention, encourage health-value oriented behaviours
- Support the successful introduction of services by recruitment and mobilisation for screening programmes and immunisation campaigns, promote the use of new services, improve the recognition of GPCs services in general
- Involve national and local stakeholders, opinion leaders and members of the civil society, facilitate cooperation and joint interventions
- Support the dissemination of results, the acceptance of the suggestions by health policy makers and the extension of the model to the national level

MAIN FIELDS

1. According to the purpose of communication

Communication Trainings aim the development of communication skills of professionals taking part in the Programme

Programme Communication aims to inform internal and external target groups about the Programme itself to create awareness and understanding, and to involve target audiences.

Health Communication activities support the successful operation of health promotion and health education programmes. Adequate health communication has a considerable role in influencing health behaviours, health literacy

and health beliefs and in shaping the attitudes of target audiences regarding healthy living and prevention.

Promotion of GPC Services support the awareness and acceptance of new GPC services and the effective involvement and motivation of local communities (general public, local media, other intermediate target groups) in the new health promotion, vaccination, screening, chronic care and rehabilitation programmes provided by GPCs. Special focus will be on the effective reach and involvement of disadvantaged groups, especially the Roma.

2. According to the direction of communication

Internal Communication (IC) is communication within an organization, encompassing both official and unofficial communication among the staff members.

External Communication (EC) is the exchange of information and messages between an organisation and other organisations, groups, or individuals outside the organisation's formal structure.

THE PROCESS OF COMMUNICATIONS PLANNING, IMPLEMENTATION AND EVALUATION

The planning, regulation and coordination of communication is carried out by the *Communications Team*, in strong collaboration with the Professional Management and Project Management and with the support and cooperation of external subcontractors and consultants. The Communications Team is led by the *Communications Manager*.

The communication strategy, objectives and activities are determined based on the overall professional and strategic goals of the Programme and are summarised in the form of a comprehensive *Communications Strategy and Action Plan* (Short title: Communications Plan (CP)) to be prepared by the Communications Team. All staff members have to be familiar with the Communications Plan and adhere to its tasks and requirements.

To customise external communication activities targeting the specific characteristics of local communities as much as possible, Local Communication Action Proposals are prepared by each GPC, in accordance with the general communications strategy. The preparation of the first Local Communication Action Proposals will be part of the Communication Training as a group task (based on a Local Communication Action Proposal Template) and will be supported by on-site professional supervision and theory-based lectures on communications planning.

The IC protocol will be developed by the Communications Team in cooperation with the Professional Manage-

ment (National Institute on Primary Care – OALI). It is important to consider that IC is a support function: its procedures, channels and tools are defined according to the professional tasks and necessary collaborative processes of the GP Clusters and should be continuously reviewed and refined in response to changes in the tasks and processes.

For a health communication programme to be successful, it must be based on an understanding of the needs and perceptions of the target audience. In addition to Health Status Assessments, both *Internal Communication Audits* and *Attitude and Satisfaction Surveys* will be conducted to outline the perceptions of internal and external audiences. *Focus Group sessions* (small moderated group discussions with participants representing the main target audiences) will be organised to outline attitudes, perceptions and beliefs; to define information needs; and to pre-test communication messages and materials (e.g., for relevance, clarity, cultural appropriateness, etc.) prior to release.



Figure 1. Process of communications planning

Communication activities on the local level are implemented according to the finalised Communications Plan, which includes the approved Local Communication Action Proposals. Activities on the local level are coordinated by Public Health Coordinators, under the supervision of GPC Coordinators. The implementation of the actions defined in the Communications Plan has to be monitored and evaluated continuously and should be reviewed on a yearly basis. A continuous follow up, monitoring and evaluation is needed to measure the effects of internal and external communication activities in order to adopt them to the real needs of target audiences and increase efficiency as much as possible.

GUIDING PRINCIPLES

Consistency and concordance of central and local communication activities

Local communication activities have to be harmonised with each other and with the Programme communication incentives. Although there might be some differences in the channels and tools used by the single clusters, the content, timing and basic methodology of central communication incentives and the general local (health communication and promotional) initiatives have to be consistent and correspond to the general strategic goals. The harmonisation of central and local communication activities is the responsibility of the Communications Team and is performed by integrating the Local Communications Action Proposals into the Communications Plan.

Indication of the Swiss Contribution on all identity tools and information materials

All visual materials, including brochures, information materials, posters, and all assets used in external and internal communications, have to be designed according to the Programme's official Programme Identity (PI) Code and shall contain a clear indication of the Swiss Contribution. For information made available through digital media channels (e.g., websites) or for audio-visual materials, the principles set out above shall apply. The Programme Identity rules defined in the Programme Identity Code are compulsory for all members and shall be applied to all information materials.

Coordination of internal and external communications

To avoid unexpected incidents and confusion, internal target audiences should always be informed about planned messages before these messages are communicated externally.

Clear, coherent messages, credible and verified professional content

To ensure that communications are credible and effective, the harmonisation and strict strategic and professional control of verbal messages and the content of written information materials are necessary.

The central messages used in external communications have to be defined based on communication panels distributed among all internal target audiences and have to be discussed during professional internal workshops. The professional content of patient and public information materials is to be determined by OALI, with the active involvement of relevant consortium members, GPs and GPC Coordinators.

tors. The Communications Team finalises the information materials based on this professional input, according to the purpose and the target audiences' characteristics. The final layouts of communications materials have to be approved by OALI, Professional Management and GPC Coordinators before printing or publication.

Enhanced consideration of specific target audiences' needs and specific socio-cultural characteristics

Particular attention should be paid to risk groups that require special and intensive interventions. Such groups include underprivileged populations, with special emphasis on Roma and people living with disabilities. To reach the intended specific target groups effectively, communications messages, materials, and activities should be relevant to the behaviours, specific needs, preferences, beliefs, socio-cultural attitudes, knowledge, and reading habits of those groups. Particular attention must be paid to people with basic and health literacy deficiencies.

Communication Channels and Tools to be used

The primary communications channels to be used in external communications include Interpersonal Channels; Organisational, Group and Community Channels; Mass Media and Interactive Digital Media (online) Channels. The primary communication tools to be used are described in this document and later on specified in the communication plan). They include interpersonal communication, information materials (e.g., brochures, posters, patient hand-outs, and news releases), online information (internet, e-mail, IT system services), events (patient/health clubs, press conferences, public events), and so on.

I. INTERNAL COMMUNICATION

Internal Communication (IC) is a critical element in planning, managing and operating the model, the GP Clusters and a basic criterion for provision of high quality services. IC plays a great role in the involvement, information and motivation of professionals working within GP Clusters. By ensuring proper internal information flow, good internal atmosphere and a high level of employee satisfaction, IC contributes to the elimination of information gaps, and generates common understanding of program goals to be reached and main tasks to be done. IC also supports the continuous monitoring of the activity and promotes feedback from internal audiences contributing to the ongoing development of the Programme and to the early detection and resolution of problems. IC even has a considerable effect on external communications and the quality of service. Bad IC however, can cause disruptions in the work flow and

lead to serious coordination problems, which – in extreme cases - can be recognized even by external audiences and undermine the image and the efficiency of the Programme. It is important to take into consideration that IC is a supporting function: its procedures, channels and tools are defined according to the professional tasks and necessary collaborative processes of GP Clusters and should be continuously reviewed and refined according to their changes.

AIMS

- Involving, informing, committing and motivating GP cluster members
- Ensuring a proper, interactive exchange of information between GP clusters and Professional Management
- Supporting effective operation of GP clusters by ensuring common understanding of program goals, tasks and responsibilities, smooth inter-professional communication and cooperation
- Facilitating continuous communication and support of proper internal information flow
- Early identification and elimination of problems by continuous monitoring and facilitation of feedback, supporting continuous development of the Programme and services
- Fostering commitment, empowerment of GP cluster members, and a supportive internal atmosphere

Main internal communication activities

Internal Communication Audit

An internal communication audit, including questionnaires and personal interviews is to be conducted at the beginning of the Programme and to be repeated every year. The aim of the audit is to uncover the strengths and weaknesses in the internal transfer of information and to provide data for the development of IC. The first communication audit (to be performed before public services begin) will serve as more than an evaluation of IC to date. This audit will constitute an assessment of the cluster members' information needs and their preferred channels and tools of communication, and it will contribute to the tailor-made planning and refinement of IC processes and communication training.

Target group: GPC Coordinators, GPs

Internal Employee Satisfaction Surveys

Internal Employee Satisfaction Surveys are questionnaires to be completed annually by all GPC staff members. Measuring employee satisfaction is a means of obtaining an impression of overall employee satisfaction and to gathering feedback on employees' experiences of the operation of

GP Clusters. Based on the results, employee benefits, concerns and satisfaction can be directly addressed by Management. These surveys also provide information to make meetings more effective or can indicate need for certain changes in the process of cluster operation or in the staff training.

Target group: All GPC Members

General Internal Communication and Feedback Channels

Continuous interactive communication, a smooth information flow and opportunities to give and receive regular feedback is of vital importance to the Programme because these processes support the development and continuous improvement of services and enable the early identification of problems and interventions. Main channels include Help Desk, Internet, Intranet, telephones, Skype, Local (GPC) meetings and forums, integrated e-health system and documentation.

Target group: All GPC Members, Professional Management

Formal internal events

Formal internal events serve as interactive forums for information exchanges and the involvement and engagement of GPC members, focusing on the transmission of general information on the Programme.

Internal opening event serves to inform GPC staff members on the Programme, and to answer questions before the new services are offered to the public. It will be organized prior to the Official Opening Ceremony. (Further formal internal events can be organized by the Professional Management).

Internal closing event serves to inform GPC members about the results of the Programme, to enable joint evaluations and to provide a forum for internal acknowledgements. This event will be organized prior to the Official Closing Ceremony.

Target group: All GPC members, Professional Management

Informal Internal Events

Informal Internal Events may be organized by GPC Coordinators with the participation of staff members at the particular GPC, with the aims of maintaining of good internal working atmosphere and promoting team building.

Target group: Staff members at the particular GPC (to be determined by the GPC Coordinators)

Regular Formal Meetings, Workshops, Case discussions

Regular formal meetings will serve as interactive forums of internal communication between the Professional Management / National Institute on Primary Care - OALI and the GPC Coordinators, as well as between the GPC Coordinators and the relevant GPC staff members to ensure the smooth flow of information, performance evaluations, allocation of tasks, or the exchange of ideas, experiences and expectations.

- Monthly meetings between Professional Management/OALI and the GPC Coordinators (additional participants may be invited)
- Regular Meetings every two weeks between GPC Coordinators and the GPs (further participants may be invited according to the specific agenda)
- Case Discussions (participants invited by the GPC Coordinators)
- Thematic working group meetings
- Suggestion and Evaluation Forums involving all the GPC staff members and Professional Management; to be held quarterly during the first year, and every 6 month thereafter)

Communication trainings

Communication trainings for GPC members, including doctors, nurses and other professionals are crucial in order to ensure high quality interpersonal communication (e.g. doctor-patient communication, inter-professional communication), with a special focus on the specific communication characteristics of the Roma and other underprivileged and risk groups.

Interpersonal communication is one of the most credible channels of health communication, the effectiveness and importance of which has been demonstrated by several international studies. In the model Programme, interpersonal communication occurs continuously in the form of the provision of information, consultations, education, and recruitment activities by members of GPCs at different locations. Because some of the Programme's target groups presumably have basic literacy problems, the importance of interpersonal verbal interactions is even greater in the Programme than usual. The tasks of doctors and other health professionals are complemented by additional duties aiming to influence patients' knowledge, beliefs and attitudes on health and prevention. As a community-oriented approach has not been a characteristic feature of primary care until now, and GP cluster is a completely new form of operation, new attitude, skills and motivation are required from doctors and other professionals not only when communicating with patients/clients but also in inter-professional co-operations. The number of colleagues to cooperate and communicate with is significantly increased in the Programme. To perform these complex tasks professionally, communications skills must be developed and specific

techniques and methods must be learned in frame of communications trainings.

Target Groups: All GPC members, Professional Management

General Objectives

- Develop communication skills to improve interpersonal communications, including health provider
 - Patient/ Client (e.g. Doctor-Patient) and inter-professional communication
- Preparing professionals for health communication tasks related to health promotion, health education activities
- Development of collaborative skills, facilitate and support effective teamwork and internal communications
- Enhance and prepare for socio-cultural characteristics and communication specialties of certain target groups, with special focus on disadvantaged population, particularly Roma
- Preparing professionals for the promotion of GPC services, recruitment and motivation
- Preparing GPC Coordinators and Public Health Coordinators for planning and coordination of communication activities
- Preparing GPC Coordinators and Professional Management for media interviews

Main topics

- Communication theory
- Communication with Patients/Clients (e.g. Doctor-Patient/Client communication) including individual counselling, improving adherence, motivations techniques, etc.
- Communication with Patients with special communication needs and different socio-cultural characteristics, with special focus on disadvantaged population, especially the Roma
- Team communication, team work, internal communication
- Rules and techniques of conflict management, joint problem solving
- Communication methodology for planning and organization of health promotion programmes, recruitment and motivation techniques, communications planning
- Media Communication, etc.

Methodology

Trainings will be planned and organized in form of small group sessions by WP4, with strong collaboration of the communications professionals of the Communications Team. Trainings include lectures, group work, interactive case discussions and practical exercises, facilitating the joint, collaborative learning of members of GP Clusters. Lecturers and trainers include communication professionals, psychologists, public health experts and doctors. Presentations, handouts and list of recommended literature, and supervision will support the learning process.

II. EXTERNAL COMMUNICATION (EC)

External communication is an interactive, two-way process that supports the transfer of information to and encourages feedback from the public and target audiences.

EC plays a significant role in the realisation of the overall project goals, the effective operation of GP clusters (GPCs), and the successful introduction and provision of new public health services in the primary care setting. External communication supports acceptance by the community and the education of local residents, potential clients, patients and intermediate (secondary) target groups and their involvement in the Programme. Good external communication may result in broad publicity of the Programme and the Swiss Contribution and may increase the intended audience's awareness of the new primary care services. By improving Patient/Client-Health professional communications and by supporting health promotion and education, external communication may contribute to patient satisfaction and compliance and may influence the perceptions, beliefs, and attitudes of people regarding health and prevention. Inadequate EC, however, can undermine the reputation of the Programme and the new services, possibly resulting in low motivation and limited compliance of the target audiences, thus endangering the success of the entire Programme.

Main external communication activities

1. Communication with the national and local public

Public Communication is the transmission of information to the general public on a national level and the active notification, involvement, education, motivation and empowerment of members of the local communities, including potential patients and clients. Public communication supports, among others, the broad publicity and positive assessment of the Programme and the effective implementation and operation of GPC services, and on the long term, this communication may have a considerable posi-

tive impact on residents' health behaviours, health beliefs, knowledge and attitudes regarding health and prevention and even the general acknowledgement of primary care services.

Target groups

- The general population, at the national and local levels
- Local communities, including all age groups with special focus on disadvantaged population, including specific risk groups such as the Roma population and people living with disabilities

Specific goals

- Overall awareness of the Programme and the Swiss Contribution, ensuring adequate publicity and positive acknowledgement of the Programme and its services
- Involvement of local communities in the Programme and in health promotion and prevention activities
- Education on health, healthy lifestyle and prevention to expand knowledge, to influence attitudes and health behaviours and to improve health literacy
- Motivation to take action: 1) support recruitment and mobilisation for screening programmes and immunisation campaigns, 2) promote the use of available health promotion and GP services, and 3) encourage health-value oriented behaviours
- Empowerment to promote health value-oriented individual behaviours and to encourage individuals to take responsibility for their own health

Main Channels and Tools

Interpersonal communications

- Personal consultations in community places and at patient residences

Printed information materials and other Promotional and PI Tools

- Brochures and flyers introducing the model Programme and the Swiss Contribution
- Posters to be placed in GPs' offices, community spaces and the offices of partnering organisations
- Information materials on specific health topics and prevention
- Information materials (flyers) on specific screening and immunisation programmes
- Special flyers for people with low health literacy
- Invitation letters for screening and immunisation programmes
- Programme Identity tools (roll ups, displays, etc.)

Interactive Digital Media channels

- Programme Homepage – includes information on the Programme and its services and information materials for the public/patients to download

- Information and banners on other websites (e.g., co-operating partners, local authorities, etc.)
- Direct Mail – for direct invitations, or to provide information on services available, etc.
- Social Media Profiles, YouTube, PR film on the Programme, Cartoons, etc.

Mass Media Channels

- Appearances (news, interviews, etc.) generated free of charge in the national and local media
- Paid appearances to promote the Programme and its services among public audiences
- Articles written by experts for the local media

Events and other Group and Community Channels

- Local Opening Events with the participation of representatives of the local public and stakeholders
- Health Clubs focusing on certain health and prevention issues, targeting certain groups
- Consultations in community spaces for specific groups (e.g., presentations in schools and nurseries)
- Joining existing local community events, groups or clubs

2. Communication with Clients/Patients

Communication with Patients/Clients includes the verbal and written communication between health professionals and persons who have already visited a doctor's office or a lifestyle counselling office. Services of the planned integrated IT system will enable additional options, bringing interactions outside the walls of the GP's and health counsellor's offices, making communications even more innovative and effective.

Good communication between healthcare providers and individuals is important to achieve positive health outcomes. Good interpersonal (e.g., doctor-patient) communication has a considerable effect on patients' attitudes, satisfaction, and compliance, and it strongly influences the quality of care. Patient involvement and participation in care, as well as question-asking, information exchange, and shared decision-making, are significantly correlated with some patient outcomes. Furthermore, much patient dissatisfaction and many complaints are due to a breakdown in the doctor-patient relationship rather than to a lack of clinical competency. In addition, communication is one of the most important factors influencing patient safety – communication breakdowns are responsible for a significant proportion of sentinel events. Good communication between providers and patients facilitates the comprehension of medical information, allows for better identification and influence of patients' needs and perceptions, beliefs, and attitudes, increases patient satisfaction and compliance, and patient safety.

Target groups

- Patients, Clients including all age groups with a special focus on disadvantaged populations, including specific risk groups such as the Roma population and people living with disabilities

Specific goals

- Establish an innovative and effective patient/client
 - health professional communication practice
- Facilitate the exchange of information and include patients in decision making
- Place specific emphasis on the socio-cultural characteristics of patients/clients
- Improve health literacy
- Improve patient compliance (compliance > concordance)
- Support the integration of lifestyle counselling, prevention and health promotion into the everyday primary care practice
- Increase patient/client satisfaction, create a good interpersonal relationship, and improve the general acknowledgement of primary care services

Main Channels and Tools

Interpersonal communications

- Personal consultations in the offices of GPs and health counsellors and at patient residences

Printed information materials and other Promotional and PI Tools

- Tailored hand-outs for patients printed at GPs offices and Lifestyle Counselling Offices (according to the health status and risk factors of the patient/client)
- Posters in the waiting room (information on the Programme and the Swiss Contribution)
- Flyers prepared on certain diseases and risk factors
- Motivation tools that support recruitment for screenings and reward the use of services (e.g., Chip Card, small gifts such as calendars with useful info and tips, etc.)

Interactive Digital Media channels

- Online information and educational materials on different internet pages read by patient groups
- Online information and educational materials on the Programme homepage
- Patient information and education services ensured by the integrated IT system
- Direct mail (prior consent is necessary!)
- Forums, chat rooms, etc.

Mass Media Channels

- Articles and interviews addressing certain patient groups by covering particular topics and issues, promoting health promotion and education

Events and other Group and Community Channels

- Patient clubs organised in the framework of focusing on certain health and prevention issues

3. Media Relations

Media communication includes the process dealing with the media to broadcast messages targeting intended external (public and professional) audiences. Media publicity should focus on the agreed-upon priorities, values and messages of the Programme and should support reaching strategic and professional goals. Media Relations are handled by the Communications Team.

Target groups

Representatives of print, electronic and online media

Specific Goals

- Media advocacy, awareness of the Programme and its services
- Support of health communication (by appearances focused on certain topics)
- Support recruitment for screening and vaccination campaigns, encourage the public to use the services
- Generate positive, continuous appearances in the print, electronic and online media concerning the Programme and the Swiss Contribution and certain health and prevention topics
- Sensitising the media (myths, stigma, discrimination)
- Develop good, trustful relationships with journalists
- Avoid negative media attacks (handling crisis situations)

Main Channels and Tools

Interpersonal channels

- Continuously manage and handle media relations, carefully select, train and brief speakers, respond promptly and professionally to all media enquiries, proactively build up media relations, generate appearances, brief speakers before events or before they are interviewed by the media, follow-up

Printed information materials and other Promotional and PI Tools

- Press releases to be issued at opening and closing press conferences
- Press releases to be issued regularly on pre-defined topics
- Background materials (briefings), photos
- Programme Identity tools (roll ups, displays, etc.) to be used during events

Interactive Digital Media channels

- Separate menu for the media on the Programme homepage

- E-mail, DM, Social media (Facebook, Twitter), YouTube videos (PR Films, cartoons)

Events and other Group- and Community Channels

- Opening and closing press conferences
- Local press conferences, media background discussions

Rules of Media Communications

As mass media is one of the most important channels for communicating the primary messages of the Programme and services, it is of strategic importance to control and coordinate media communication to assist in the realisation of strategic goals. Rules and processes regarding the handling of media relations must be taken into consideration by all staff members.

1. Media Communications takes place according to pre-defined, clear policy guidelines
2. Media Relations are to be handled by the Communications Team, under the supervision of the Communications Manager in continuous consultation with and supervision by the Professional and Project Management
3. All media enquiries MUST be directed to the Communications Team
4. Media statements can only be made with PRIOR notification of and approval by the Communications Manager (Professional and Project Management will be informed by the CM)
5. Only dedicated members of the Project and Professional Management are entitled to make Media Statements on the Programme with PRIOR notification of the Communications Manager.
6. Regarding specific health and professional issues and the availability of services, GPC Coordinators are allowed to make statements with prior consent and briefing by the Communications Manager.
7. Potential speakers are required to complete media and communications training and must be briefed before events and interviews
8. Media publicity should focus on the agreed-upon priorities, values and messages
9. It must be ensured that the personal details of the patients/clients are not divulged to the media, unless the patients/clients have given their express consent for their stories to be used for publicity purposes
10. Press releases and other written information to the media can be issued only centrally by the Communications Team, with prior approval by or according to the instructions of the Professional and Project Management

4. Communication with professionals and other intermediate target groups

The involvement, information and gaining support of certain stakeholders is also essential for the successful establishment and operation of GPC services.

Target groups

- Healthcare services managers and professionals including doctors, nurses, pharmacists, managers of healthcare institutions
- Professional organisations, associations, public health organisations
- Representatives of local governments responsible for health issues
- National Insurance Fund, health promotion offices and departments
- World Health Organization, Regional Office for Europe
- Civil society – civil organisations, patient associations and other non-governmental organisations
- Organisations, associations for the Roma, Roma advocates and advocacy groups, opinion leaders
- Local governments, minority local governments and other relevant authorities
- Local community institutions and local enterprises, social institutions, schools, nurseries, etc.
- Other intermediate (secondary) target groups including other stakeholders, opinion leaders, organisations functioning as gatekeepers for the local communities
- Hungarian Government and Parliament
- Health policy makers, members of the Health Committee of the Hungarian Parliament, political parties

Specific goals

- Overall awareness of the Programme, ensuring adequate publicity and positive acknowledgement of the Programme and the available services
- Involvement of health professionals and managers, local stakeholders and opinion leaders in the Programme, to support Programme goals and the effective reaching of the primary target audiences
- Motivation for joint initiatives, introduction of changes, recommendations and recruitment within the organisation or community groups, provide feedback on the program to support the continuous development and refinement of the model, support the extension of the Programme and the dissemination of Programme results
- Influence the general acknowledgement of primary care services within local communities
- Ensure smooth information flow, a balanced reporting processes and the support of the Programme

Main Channels and Tools

Interpersonal channels

- Personal meetings with Professional Management and GP Cluster Coordinators

Printed information materials and other Promotional and PI Tools

- Information letter, drawing attention to the Programme and potential areas of collaboration
- Programme brochure (sent as an attachment, distributed at personal meetings, at conferences, etc.)
- Posters and flyers for the public (for dissemination in public places, institutions, etc.)

Interactive Digital Media channels

- Separate menu for professionals on the Programme homepage (information materials, documents, publications, contact details for download), regular information letters (e-mails)

Mass Media Channels

In addition to the mass media tools used to target the public (see above):

- Publications in public and professional media on the concept of the new model, intermediate results

Events and other Group and Community Channels

- Professional workshop involving GPs (those not participating in the Programme) to be organised before the start of GPC services and then regularly during the Programme, to encourage feedback and to support Programme development
- Opening and closing ceremonies – invite important stakeholders and opinion leaders, representatives of the civil society, organisations for the Roma, health politicians, etc.
- Presentations at conferences, interactive lectures for GPs and other professionals in the region e.g., in framework of their regular education programmes
- Joint events and initiatives for public audiences (see above)

MAIN TASKS AND RESPONSIBILITIES REGARDING COMMUNICATION ACTIVITIES

Responsible Party	Planning	Implementation	Evaluation
Project Management	<p>Supervise the communications planning process, approve the Communications Plan (CP), rules and regulations</p> <p>Support the development of and approve the Programme-related information materials, home-page content, press releases, etc.</p>	<p>Continuous cooperation and consultation with the Communications Team to harmonise the communication activity with strategic and professional goals</p> <p>Communication and cooperation with the Professional Management</p> <p>Initiate partnership agreements and communication with health policy decision makers and stakeholders</p>	<p>Requirements, proposals concerning the methodology, content and forms of evaluation</p> <p>Integration of the evaluation results into the model development process</p> <p>Participation in communication workshops</p>
Professional Management	<p>Supervise the communications planning process, approve the Communications Plan, rules and regulations</p> <p>Provide professional support for and approve patient/client information materials</p> <p>Approve programme-related information materials, homepage content, press releases etc.</p>	<p>Continuous cooperation and consultation with the Communications Team to harmonise the communication activity with strategic and professional goals</p> <p>Regular communication with GPC Coordinators and GPs</p> <p>Initiate partnership agreements and communication with health policy decision makers and stakeholders</p>	<p>Requirements, proposals, concerning the methodology, content and forms of evaluation, professional support</p> <p>Integration of the evaluation results into the model development process</p> <p>Participation in communication workshops</p>

Responsible Party	Planning	Implementation	Evaluation
Communications Manager & Communications Team	<p>Perform strategic communications planning and preparation, continuously review and adapt the CP</p> <p>Integrate Local Communication Action Proposals</p> <p>Regulation: Programme Identity Code, Rules of internal and external communication</p> <p>Produce final layouts of information materials (design & content), plan and manage content of the homepage</p> <p>Prepare external and internal events</p>	<p>Manage and coordinate overall communication activities of the Programme, according to the CP</p> <p>Manage media relations</p> <p>Organise external and internal communication events, support IC and Communication Trainings</p> <p>Provide instruction for and supervise local communication activities</p> <p>Direct subcontractors and consultants</p> <p>Support the introduction of and the compliance with comm. rules and regulations</p>	<p>Continuous monitoring and evaluation of the communication activities, refinement of the CP</p> <p>Communication Audit, personal interviews with GPC Coordinators</p> <p>Organisation of communication activity planning and evaluation workshops, and focus group sessions</p> <p>Contribution to the development of Client/Patient satisfaction and attitude surveys and public attitude surveys</p>
GPC Coordinator	<p>Prepare Local Communication Action Proposals (LCAP) with the involvement of other GPC members</p> <p>Provide professional support for the preparation of Patient/Client/Public/Professional/Media information materials</p> <p>Participate on workshops and meetings serving the planning and preparation of communication activities and on communication trainings</p>	<p>Direct, supervise and provide instructions for local communication activities</p> <p>Facilitate local partnership agreements in cooperation with PM</p> <p>Distribute information materials locally</p> <p>Provide verbal information and education and promote the involvement of clients, patients</p> <p>Regular communication and cooperation with PM and GPC staff members, direct IC of GPC</p>	<p>Support Client/Patient satisfaction and attitude surveys</p> <p>Participation in communication audits, workshops, focus groups</p> <p>Initiation of GPC evaluation meetings</p> <p>Provide and encourage feedback based on practical experiences</p>
Public Health Coordinator	<p>Contribute to LCAPs</p> <p>Provide professional support for the preparation of Patient/Client/Public information materials</p> <p>Take part on internal events, meetings, communication trainings serving the preparation of the introduction of GPC services</p>	<p>Coordinate and organize local communication activities according to approved LCAPs</p> <p>Support the establishment of partnership agreements</p> <p>Regular communication and cooperation with GPC Coordinators and staff members, report on own tasks to GPC coordinator, organize internal events and meetings</p>	<p>Support Client/Patient satisfaction and attitude surveys</p> <p>Participation in communication audits, workshops, focus groups</p> <p>Organise and take part on internal GPC evaluation meetings</p> <p>Provide feedback</p>

Responsible Party	Planning	Implementation	Evaluation
GP	<p>Contribute to LCAPs</p> <p>Provide professional support for the preparation of Patient/Client/Public information materials</p> <p>Take part on internal events, meetings, communication trainings</p>	<p>Distribute information materials</p> <p>Provide verbal information and education, promote the involvement of Clients, Patients and the Public</p> <p>Submit internal reports and other documentation, take part on internal meetings, events, workshops</p> <p>Regular communication and cooperation with GPC Coordinators, Praxis nurses and other relevant GPC staff members, report on own tasks to the GPC coordinator</p>	<p>Support Client/Patient satisfaction and attitude surveys</p> <p>Participation in communication audits and workshops, focus groups, evaluation meetings</p> <p>Provide feedback</p>
Praxis Nurse	<p>Contribute to LCAP</p> <p>Provide professional support for the preparation of Patient/Client/Public information materials</p> <p>Take part on meetings, communication trainings</p>	<p>Distribute information materials</p> <p>Provide verbal information and education, promote the involvement of Clients, Patients and the Public, recruit, motivate</p> <p>Submit internal reports and other documentation, take part on certain internal meetings, events, workshops</p> <p>Regular communication and cooperation with GPs and other relevant GPC staff members, report on own tasks to the GP</p>	<p>Support Client/Patient satisfaction and attitude surveys</p> <p>Participation in focus groups, certain internal evaluation meetings</p> <p>Provide feedback</p>
Health visitor, Health mediator, Assistant health mediator, GP Cluster nurse	<p>Contribute to LCAPs</p> <p>Provide professional support for the preparation of Patient/Client/Public information materials</p> <p>Take part on meetings, communication trainings</p>	<p>Distribute information materials</p> <p>Provide verbal information and education, promote the involvement of the Public, recruit, motivate</p> <p>Submit documentation, take part on certain internal meetings, events, workshops</p> <p>Report on own tasks to the Public health coordinator</p>	<p>Support Public attitude surveys</p> <p>Participation in focus groups and certain internal evaluation meetings</p> <p>Provide feedback</p>
Other Health Professionals Dietitian Physiotherapist Health Psychologist GP resident GP paediatrician	<p>Contribute to LCAPs</p> <p>Provide professional support for the preparation of Patient/Client/Public information materials</p> <p>Take part on meetings, communication trainings</p>	<p>Distribute information materials</p> <p>Provide verbal information to Clients, Patients, recruit, motivate</p> <p>Report on own tasks to GPC Coordinator</p>	<p>Support Public attitude surveys</p> <p>Participation in focus groups and certain internal evaluation meetings</p> <p>Provide feedback</p>

The research programmes provide data and information for the evaluation of the model experiment, thus establish the policy proposal which is the main objective of the programme. The research plan consists of the baseline and final surveys and serves the continuous programme monitoring.

The professional leadership to the research activities is provided by the University of Debrecen, Faculty of Public Health. The participating partners are the OALI, the University of Szeged, the University of Pécs and the Semmelweis University, while GYEMSZI and MÁOTE participate as reviewers.

1. BASELINE AND FINAL SURVEYS

The Programme Document contains the logical framework which defines the indicators to be investigated at the commencement of the Programme.

The investigation of the prescribed indicators required a multiple survey which utilized data from the following sources:

- databases (Primary Care Quality Monitoring database and Outpatient Discharge Records database of the National Health Insurance Fund) produced by different routine reporting systems,
- participating GPs' and their co-workers' own databases, practice documentations (incidence rates detected by GPs, public health visitors' registered pregnant care and child health related data)

Baseline surveys

The above listed databases are not able to provide all the data necessary to calculate the Programme indicators, so additional primary data collection is also required in questionnaire-based and physical examination surveys

- on the representative sample of the population of interventional practices (the Ethical Committee of the Hungarian National Scientific Council on Health approved the survey: 57096/2012-EKU),
- on the representative sample of Roma people living in the settlements covered by the interventional practices (the Ethical Committee of the Hungarian National Scientific Council on Health approved the survey: 2213-9/2013-EKU),
- in addition, a survey has to be carried out on the representative sample of the general Hungarian population (the Ethical Committee of the Hungarian National Scientific Council on Health approved the survey: 2213-8/2013-EKU) to make an adequate, comparative evaluation possible. It is highly probable that legal, fi-

nancing and demographical changes will happen during the 4 years duration of the Programme, thus the simple (focused exclusively on the interventional area) survey and a before-after analysis will not be able to quantify the contribution of the Programme to the development of primary health care services and health status. Consequently, the need for detailed external reference data is obvious and makes the extension of the baseline survey to a representative Hungarian control sample necessary. The control area will provide data on the changes in the effectiveness of the Hungarian primary health care services during the project period independently from the Programme. The methodology of the control area survey has to be exactly the same as it was applied in the interventional area.

Final surveys

Final surveys will be implemented exactly according to the methodology of baseline survey. Evaluation of the Programme's achievement will be carried out by comparing the baseline and final surveys indicators' differences adjusted for the Hungarian baseline shifts indicated by the control areas' baseline and final indicators' differences.

1.1. Survey on the general population of the interventional area

The data collection is implemented in the interventional area of the Programme. The GPs' computer based client registries are used to prepare the sampling frame. Simple randomization is applied: 50 adults (above 18 yrs) are chosen in every practice. The sample composes of 1050 subjects. The data collected and the questions applied are listed below:

1. Gender, age, education, ethnicity, eligibility for prescription exemption certificate
2. Height, weight, waist circumference
3. Smoking status
4. Date of the diagnosis of hypertension
5. Blood pressure measured by standardized method
6. Date of the diagnosis of diabetes mellitus
7. Fasting serum glucose concentration measured by standardized method
8. Date of the diagnosis of liver cirrhosis
9. Knowledge on healthy diet
10. Health attitude evaluation
11. Time since last:
 - a. cervical cancer screening
 - b. breast cancer screening
 - c. prostatic cancer screening
 - d. colorectal cancer screening

- e. oral cavity cancer screening
 - f. test of visual acuity
 - g. test of hearing loss
 - h. examination of atherosclerosis
 - i. measurement of body weight
 - j. measurement of waist circumference
 - k. assessment of dietary habit
 - l. screening for alcohol misuse
 - m. assessment of smoking habit
 - n. measurement of blood pressure
 - o. measurement of serum lipid parameters
 - p. measurement of serum glucose
 - q. measurement of urinary creatinine
 - r. measurement of urinary protein
 - s. assessment of family history
12. Symptoms of cirrhosis
 13. How many times has been the patient referred by the GP in the last 12 months?
 14. How many times has the survey participant used the services of non-medical health professionals in the last 12 months?

1.2. Survey on the Roma population of the interventional area

Stratified multistep sampling method will be applied. Namely, all the colonies with more than 100 inhabitants and located in the intervention and reserve areas served by the participating GPs will be considered as study base and 30 (20 from the intervention clusters and 10 from the reserve ones) will be selected randomly. 20 households from each colony will be selected using the GPs' and Roma self-governments' validated (and corrected, if it is needed) household-lists. The 20-64 years old inhabitants of the resulted about 600 households will comprise the final sampling frame, and 1 person from each household will be chosen by a member of the primary health care team using random table. Informed consent from the participants will be obtained. The participants will be invited to the GPs' office where a questionnaire on socio-demographic factors, life-style and self-assessed health status will be completed by GPs or practice nurses on the basis of interviewees' answers, and physical examination will be carried out. The health status description will be based on the former medical records of participants as well. Blood samples for laboratory investigations will be taken. The following items will be recorded: Socio-demographic characteristics (age, gender, level of education), results of physical examination (body weight, height, waist circumference and blood pressure), serum concentrations of triglyceride, HDL-cholesterol and glucose of fasting blood samples, and the medical history of lipid disorders, hypertension and type 2 diabetes mellitus. On the basis of data the prevalence of metabolic syndrome will also be estimated. Applied thresholds: central obesity ≥ 94 cm for men and ≥ 80 cm for women; serum triglyceride concentration ≥ 1.7 mmol/l or specific treat-

ment for it; serum HDL cholesterol concentration < 1.03 mmol/l for men and < 1.29 mmol/l for women or specific treatment for it, systolic blood pressure ≥ 130 mmHg or diastolic blood pressure ≥ 85 mmHg or specific treatment for it, fasting plasma glucose level ≥ 5.6 mmol/l or previously diagnosed type 2 diabetes mellitus.

1.3. Survey on the Hungarian general population

The baseline survey methodology is applied in the GP practices of the control area. There is only one alteration from the baseline protocol. Instead of the 50 only 20 subjects are randomly selected for person level data collection. The control sample is organised by the Hungarian General Practitioners' Morbidity Sentinel Stations Programme. The population provided by control-GPs is representative for Hungarian adults by demographical structure. The 150 GPs participating in the Hungarian General Practitioners' Morbidity Sentinel Stations Program will be called to participate in the control survey. The voluntary collaborating GPs will be contracted.

1.4. Survey on the reserve practices

The interventional areas' baseline survey methodology is applied in the GP practices of the Programme's reserve area.

2. EVALUATION OF THE HEALTH STATUS OF THE POPULATION OF THE INTERVENTIONAL AREA IN COMPARISON WITH THE GENERAL HUNGARIAN POPULATION BY USING DATABASES AVAILABLE

2.1. Indicators based on the National Health Insurance Fund Primary Care Quality Monitoring database

The age and gender standardized ratios of the health service utilization indicators are calculated. The national reference data for demographical structure and age specific ratios are applied in calculating indirect standardized measures. All the indicators are calculated for people eligible for prescription exemption certificate and for those ineligible as well. The input data for the analysis are provided by the National Health Insurance Fund.

The following indicators are to be prepared for interventional and control populations:

1. Ratio of patients with hypertension (taking anti-hypertensive medication at least four times within 12 months).
2. Proportion of patients having a serum creatinine test within the last 12 months among hypertensive patients (taking antihypertensive drugs at least four times within the last 12 months)

3. Ratio of patients with diabetes mellitus (taking ATC code A10 drugs at least four times within 12 months).
4. Proportion of patients having a haemoglobin A1c test within the last 12 months among diabetes patients (taking ATC code A10 drugs at least four times within the last 12 months)
5. Proportion of patients examined by ophthalmologist within the last 12 months among diabetes patients (taking ATC code A10 drugs at least four times within the last 12 months)
6. Proportion of patients having a lipid status assessment within the last 12 months among hypertensive and/or diabetes patients (taking antihypertensive medication at least four times within 12 months and/or taking ATC code A10 drugs at least for times within the last 12 months)
7. Ratio of patients taking beta-blocker medication at least four times within 12 months to the total number of acute myocardial infraction (MI) and/or coronary artery bypass surgery (CABG) and/or percutaneous coronary intervention (PTCA).
8. Ratio of patients above age 65 yrs vaccinated against influenza within the last 12 months.
9. Ratio of patients 3-24 months of age vaccinated against Neisseria meningitidis within the last 12 months.
10. Number of consultations per persons and the consultation rates in the general practices within the last 12 months.
11. How many times a month has been the patient referred by the GP in the last 12 months
12. The ratio of patients provided by definitive care within the last 12 months.

2.2. Indicators based on the National Health Insurance Fund Outpatient Service Discharge Records database

The age standardized screening intensity is calculated. The national reference data for demographical structure and age specific screening participation rates are applied in calculating indirect standardized measures. All the indicators are calculated for people eligible for prescription exemption certificate and for those ineligible as well. The input data for the analysis are provided by the National Health Insurance Fund. The following indicators are to be prepared for interventional and control populations:

1. Number of examinations and participation rate of clinical mammography among 45-65 years old women living in the interventional area of the Programme for the previous 24 months.
2. Number of examinations and participation rate of organized breast cancer screening among 45-65 years old women living in the interventional area of the Programme for the previous 24 months.
3. Breast cancer screening intensity by the number and the proportion of women who participated either in

organized breast cancer screening or clinical mammography among 45-65 years old women living in the interventional area of the Programme for the previous 24 months.

4. Number of examinations and participation rate of clinical cervical cytology examination among 25-65 years old women living in the interventional area of the Programme for the previous 36 months.
5. Number of examinations and participation rate of organized cervix cancer screening among 25-65 years old women living in the interventional area of the Programme for the previous 36 months.
6. Cervix cancer screening intensity by the proportion of women who participated either in organized cervix cancer screening or in clinical cervical cytology examination among 25-65 years old women living in the interventional area of the Programme for the previous 36 months.

2.3. Incidence rates for the diseases with high public health importance

The GPs of the Programme interventional area collect data on newly diagnosed diseases using their own practice management database. The incident cases diagnosed in 2012 are determined. The data processing by indirect standardization produce the following indicators for interventional and control population:

1. Age and gender standardized incidence ratio for stroke among <65 yrs adults
2. Age and gender standardized incidence ratio for hypertension among <65 yrs adults
3. Age and gender standardized incidence ratio for diabetes mellitus among <65 yrs adults
4. Age and gender standardized incidence ratio for liver cirrhosis among <65 yrs adults
5. Age and gender standardized incidence ratio for acute myocardial infraction among <65 yrs adults

2.4. Indicators for pregnant care and child health

Health visitors in the settlements covered by the Programme collect data to calculate indicators for prenatal care and child health. The Hungarian reference values are obtained from relevant reports of national institutions. The following indicators are to be calculated for the GP-clusters as aggregated measures for interventional and control population:

1. Preterm delivery ratio in the settlements' health visitor practices covered by the project
2. Proportion of overweighted or obese children among 11 years old children
3. Median gestational age at the time of the commencement of prenatal care in the settlements' health visitor practices covered by the project

3. CONTINUOUS MONITORING

The operation of the GPs' clusters has to be regularly evaluated. The interim reports are to describe the concordance between Programme's objectives and achievements. Both process and outcome indicators are produced. The reinforcement of the Operations Manual methodology or the identification of its modifications' requirement has to be based on the monitoring results.

The indicators of the continuous monitoring system are calculated by utilising the data from integrated data management system of the Programme. All the indicators originated from the baseline survey and from existing database have to be regularly evaluated. The frequency of the interim evaluation is to be determined when the baseline survey's results are evaluated and before the GPs' clusters operation is started. The need for additional indicators has to be discussed, the required new indicators have to be defined, and the information technology for input data production has to be elaborated and tested at the same period. The control data for the indicators' evaluation are provided by the demographically representative Hungarian General Practitioners' Morbidity Sentinel Stations Programme, which has proved its collaborative ability in the last 15 years.

The activity is carried out throughout the whole implementation period of the project. The central database of the monitoring has to be maintained by the work package leader. The data processing, reporting and evaluation is organised by the work package leader as well.

Secondary aim of the monitoring is to validate the reliability of the existing PHC monitoring system and to evaluate the feasibility of new primary data collection methods. Suggestion of new indicator set, which could be applied in the phase of GPs' cluster-model expansion, is also among the expected outcome. The gains can be achieved by integrating the new indicators into the national health statistics system has to be demonstrated as well.

4. COLLABORATION WITH SWISS INSTITUTIONS AND INTERNATIONAL ORGANIZATIONS

Regular co-operation with Swiss partner network to generate internationally relevant comparative data on the effectiveness of the GPs' clusters, primarily to improve the ability of the programme management to identify weaknesses of the GPs' clusters operation, is also a task of the continuous monitoring.

Concerning the fact that the reform of primary care services has a priority in the programme of the World Health Organization a collaboration with its European Office will further improve the effectiveness of the Programme.

5. SUMMARY ON THE MAIN RESEARCH ACTIVITIES PLANNED

1. Baseline survey in the interventional practices
2. Baseline survey in the reserve practices
3. Baseline survey in the control practices
4. Baseline Roma health examination survey in the interventional practices
5. Baseline Roma health examination survey in the reserve practices
6. Baseline Roma health examination survey in the control practices
7. Papers on the effectiveness of preventive health services in Hungary
8. Publication on the Roma health status
9. Concept paper on General Practitioners' Cluster operation
10. Elaboration of the international co-operation with Swiss primary health care consortium
11. Definition of the indicator set for continuous monitoring
12. Elaboration of the interim report and evaluation protocol
13. Installing the IT for monitoring
14. Interim reports
15. Final survey in the interventional practices
16. Final survey in the reserve practices
17. Final survey in the control practices
18. Final Roma health examination survey in the interventional practices
19. Final Roma health examination survey in the reserve practices
20. Final Roma health examination survey in the control practices
21. Evaluation of programme's achievements
22. Recommendation for indicator set applicable for primary health care monitoring
23. Papers on the effectiveness of GPC model
24. Publication on the GPC contribution to Roma health status improvement
25. Review on General Practitioners' Cluster characteristics
26. Publication on the comparison of Swiss, Hungarian and Hungarian-GPC primary health care effectivity

The trainings in the framework of the Programme will be focusing on all fields of activity that are to be carried out in the cluster. It will be divided into various modules; each module covering specific areas of activity aimed at professionals and co-workers who will carry out the designated activity.

The most important milestones in human resource development and training for working in GPs' clusters

1st milestone

- recruitment and contracting with the presently missing GP cluster members; deadline for contracting 01/07/2013

2nd milestone

- development of training materials in the framework of the WP4; deadline 31/05/2013

3rd milestone

- launching of the trainings for the new and old members of the GPs clusters (Table 1.) in the following order:

I. Trainings for health professionals (community practice coordinators, public health coordinators, public health specialists, community nurses, health visitors, GPs, practice nurses, health psychologists, physiotherapists, dietitians)

The core training will introduce the basics of the Programme, its aims, participants, organization, activities, and publicly available documents on the details of the Programme. This module will cover the fundamentals of internal and external communication as well, providing a basic understanding of the concept of the Programme to all professional participants.

The **health promotion module** will cover details on the development and organization of health promotion programmes in community settings to all professionals working at the cluster level.

The **health status assessment methodology module** will be mandatory for the public health coordinators, public health specialists, and community nurses in order to make them familiar with the arrangement, the various methods and equipments used for the assessment of health status of the clients of each practice.

The **lifestyle counselling module** will be focusing on the state-of-the-art methods of behavioural change at the primary care level in terms of psychoactive substance use, diet and physical activity; and will be offered to all professionals who will be expected to engage in various forms of counselling in an individual or group setting.

The **medical risk assessment, chronic care, and rehabilitation module** will be offered specifically for GPs and prac-

tice nurses in order to make them competent to use the latest techniques in these topics. Medical risk assessment will be aimed exclusively to doctors who are expected to carry it out in practice. Chronic care and rehabilitation will be offered for health professionals involved in these services.

II. Training for co-workers (health mediators, assistant health mediators)

The health mediators will participate first in NTR (National Vocational Training Register; Országos Képzési Jegyzék - OKJ) trainings accredited by the Adult Educational Accrediting Corporation to get official warrant as assistant nurse or social worker. Thus, their special training for the GPs cluster' work will be carried out after the NTR course. These health mediators will be responsible for the training of the assistant health mediators under the supervision of the public health coordinator.

III. Continuous education and upgrading trainings

Written material from the above mentioned training modules will be made available online and upgraded regularly for continuous use of the cluster workers. An internet-based questionnaire will be developed to enable professional cluster workers to provide feedback on their experiences and training needs. They will be requested to fill the questionnaire every 6 months; based on its results, additional material will be developed, and/or face-to-face supervision sessions will be organized to collect experience and decide on further needs of capacity building. Supervisory visits will be conducted at each cluster in the 6th and 12th months after completing the first training round, and in the 24th month of the programme in order to identify areas of discontent and methods of addressing them.

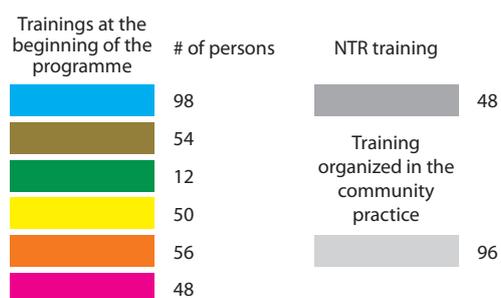
IV. Training for stakeholders' (e.g. local governments, NGOs') representatives

An online material along with printed material will be developed for stakeholders, a simplified version of the one to be prepared for professionals. A pilot version will be finalized based on feedback from a smaller circle of stakeholders.

The scheduled training for GPs cluster members and stakeholders' representatives will be delivered by university teachers with substantial experience in public health and family medicine trainings. These teachers will be recruited from the consortium member universities.

Table 1. Training modules for the members of the GPs' clusters

	1. core training	# of persons	2. health promotion	# of persons	3. health status assessment methodology	# of persons	4. lifestyle counselling
COMMUNITY PRACTICE (GPs' CLUSTER)							
Community practice coordinator (head GP)	+	4	+	4			
Public health coordinator	+	4	+	4	+	4	+
Public health specialist	+	4	+	4	+	4	+
Community nurse	+	4	+	4	+	4	+
Health visitor	+	26	+	26			+
Health psychologist	+	4	+	4			+
Physiotherapist	+	4	+	4			+
Dietitian	+	4	+	4			+
GENERAL PRACTICE							
Health professionals							
General practitioner	+	20					
Practice nurse	+	24					
Trained co-workers							
Health mediator							
Assistant health mediator							
Total number of trainees	core	98	h prom	54	health ass.	12	couns
Deadlines of completing training		30/07/2013		30/09/2013		30/09/2013	30/09/2013



# of persons	5. chronic care and rehabilitation	# of persons	6. NTR training for health mediators	# of persons	7. special training of health mediators	# of persons	8. training of assistant health mediators	# of persons
4								
4								
4								
26								
4	+	4						
4	+	4						
4	+	4						
	+	20						
	+	24						
			+	48	+	48		
							+	96
50	chr.care	56	accr.tr.	48	core h.m.	48	ass.h.m.	96
30/09/2013	30/09/2013		30/08/2013		30/09/2013		31/10/2013	

Training no. 6. is an accredited national programme.

Training no.8. is organized by the public health coordinator in the community practice

