Ministerul Sănătății

Strategia Naţională de Sănătate 2014-2020

Sănătate pentru prosperitate

ANNEX No 1

National Health Strategy 2014-2020

NOVEMBER 2014

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1. INTRODUCTION

The National Health Strategy 2014-2020 represents the proof of the commitment made by the decision-makers in the health sector and the Romanian Government to ensure and promote health as a key-factor for a sustainable development of the Romanian society, including from a social, territorial and economic point of view, as an agent of nation's progress and prosperity. The document is meant to provide the general framework of intervention to eliminate the important weaknesses identified in the health sector: inequities existing in health, optimized use of resources in health care services under conditions of high cost efficiency, using evidence based medicine and, last but not least, to increase the administrative capacity and the management quality at all levels.

The strategy is a framework-document meant to allow a strong articulation to the European context and strategic guidelines contained in the Health 2020 Strategy of the World Health Organization Regional Office for Europe and included in the seven major initiatives of the European Union. The strategic document is developed in the context of European funds' allocation process for the 2014 – 2020 period and represents a vision document justified by the necessity to meet the ex-ante conditioning foreseen in the Commission's Services Position regarding the development of the Partnership Agreement and the programs for Romania for the 2014 – 2020 period, as well as the country recommendations developed by the European Commission regarding the health sector. At the same time, the general framework for the development of the health policies for the 2014 – 2020 period considered the reform measures proposed in the "Functional Review of the Romanian Health Sector" developed by the experts of the World Bank.

The Ministry of Health views the National Health Strategy 2014 – 2020 as a catalytic document meant to arouse progress and development across the Romanian health sector in priority areas. The key-factors for the success of the Strategy are the ownership, commitment and accountability of the institutional actors and specialists in meeting the proposed objectives, starting from the service providers and local public health authorities and up to the central level involved in replacing the actual paradigm of the health sector with one which is more adequate for the modern, progress and development orientation desired by the Romanian society. The achievement depends greatly on the success in promoting a culture of collaboration, pursuing a progress of the population's health status, most efficient use of the resources available in health, promoting a quality management.

An initiative as vast as a new health strategy is based on teamwork, among specialists, as well as across the institutions collaborating and coordinating to maximize the results; not only is it based on a limited sectorial approach, but also on an intersectorial approach, with great involvement of all sectors and segments of society.

2. STRATEGIC FRAMEWORK

2.1 Mission, vision, scope and basic principles

Vision	A nation with healthy and productive people through access to quality prevention, emergency, curative and rehabilitation services, in terms of efficient and effective use of available resources and promotion of higher standards and good practices.
Mission	The Ministry of Health establishes the strategic guidelines and is working, together with the relevant actors, to ensure equitable access to quality and cost-efficient health services, as close as possible to the individual and community needs.
Overall scope	Improving the health status of the Romanian population
Basic principles	Equal access to essential services, cost-efficiency, and evidence-based approach, optimisation of the health services with a focus on preventive services and interventions, decentralization, partnership with all the actors that can help improve the health status.

2.2 Values

The main values representing the foundation on which the Ministry of Health develops its vision for the future, the understanding of its mission and the planned efforts to meet the proposed strategic objectives are:

Communication and transparency	The decision regarding the national health priorities and the development of the health services shall be taken in an open manner, with the involvement of patients and the consultation of the main actors, communicating the motivation and the decision to the medical staff and the community.
Patient-centred approach	The strategy places the patient at the centre of the system; he/she has the right to be represented in the decision-making mechanism, to be treated in full observance of his/her dignity and rights; on the other hand, the system shall be based on increasing the accountability of the population to comply with the requirements of the recommended prevention and treatment programmes.
Engagement regarding the national strategic guidelines	Commitment to and strong intersectorial and multidisciplinary involvement of the Government, the Ministry of Health, the medical staff and the local communities in implementing the Health Strategy. More efficient national health programmes, focused on results, not only on the process, with predictable multi-annual approach and funding and increased attention to the monitoring and evaluation of the compliance with the proposed health status objectives.
Evidence based approach, ensuring added value for the	Promoting evidence-based medicine in the clinical practice, at individual level, as well as in the public health population approach. Ensuring the best health spending/gained benefit ratio

invested money	(the population health status).
Equity	Increase the universal access to basic health services, especially for those vulnerable and disadvantaged.
Continuous improvement of the quality	Increased efforts to continuously improve the quality of the provided services, with a focus on the individual and the community. Quality at the level of structures, processes and results of the health services and by consequence quality of the management, the information in health that ensures the timely, informed and substantiated decision.
Decentralization in health, but also community accountability and commitment	Decentralization in some decision-making and health management, but also increasing competences of local communities and their accountability for the higher use of the resources available for the health services, to improve the population's health status.
Empowering the health staff	Granting adequate value, reward and staff training, as well as creating opportunities for the health experts to contribute to the organization and provision of health services.
Professional ethics	The medical staff has a professional and ethic attitude and behaviour in the relation with the patient and demonstrates respect for the individual's life and human rights.
Raising awareness of the population and the accountability of the individual	A better understanding and awareness at individual level of the main determinants of diseases, as well as the role and responsibility of each person in adopting healthy behaviours, the preventive measures that can help maintain better health during life and, by consequence, the capacity and productivity of the community members, of the society as a whole.

2.3 Strategic areas for the health sector

Strategic area 1: Public health	Strategic area 2: Health services
▪ Improving the health of the mother and child ▪ Fighting the double burden of the disease in population through: - Effective control of epidemics and surveillance of communicable diseases, with a focus on communicable diseases with the greatest burden in Romanian population - Reducing the burden of preventable non-communicable diseases, including interventions regarding chronic pathologies historically neglected (cancer, cardiovascular diseases, diabetes, mental health, rare diseases) ▪ Health in relation with the environment ▪ Raising awareness in and education of the population regarding the effective preventive solutions (primary, secondary or tertiary)	▪ A system of community-based health services for vulnerable groups ▪ Increasing the effectiveness and diversification of the primary medical care services ▪ Strengthening the quality and efficiency of the services provided in the specialised ambulatory units ▪ Increasing the degree of certainty in the population by strengthening the integrated emergency system and ensuring equal access to emergency medical care ▪ Regionalization/concentration of hospital medical care and establishing regional reference networks with hospitals and labs with different competence degrees related to the primary care and special ambulatory care. ▪ Increased access to rehabilitation, palliative and long-term care services

Strategic area 3: Cross-section measures

- Building the administrative capacity at national, regional and local level and change communication
- Implementing a sustainable policy ensuring human resources in health
- Implementing a sustainable policy ensuring financial resources for health, costs control and financial protection for the population
- Ensuring and monitoring the quality of public and private health services
- Developing and implementing an evidence-based drug policy ensuring equal and sustainable access to medication for the population
- Promoting research and innovation in health
- Intersectorial cooperation for better health status of the population, especially vulnerable groups
- Streamlining the healthcare system by accelerating the use of information technology and modern communication (e-Health)
- Developing the proper health infrastructure at national, regional and local level to reduce unequal access to health services.

3. THE PRESENT CONTEXT OF THE HEALTH SYSTEM

3.1 The Profile of the Population's Health Status

Following the negative balance between the birth rate, mortality and external migration, the stable population of Romania decreased substantially during the two population censuses from 2002 and 2011 (from 21.6 to 20.1 mil. population), on the background of an ageing trend through nominal and relative decrease of the young population rate and the increase of the rate of over 60 years old population up to 20.8% (2012).

Life expectancy at birth – measure of a nation's quality of life and indicator of the potential return of human assets investments – had a positive evolution in the last two decades at both genders, so that it was reached 70.1 years in men and 77.5 years in women (2011). The average lifetime is higher in urban that in rural, but the magnitude of the urban-rural difference differ significantly between regions (+0.8 in the West region and +3 years in Bucureşti-Ilfov) [INS, 2013]. According to the life expectancy, Romania lies on the last but one place in UE27, and the discrepancy compared with the general European population is more substantial at men (-6.5 years) than at women (-4.9 years) [Eurostat].

The birth rate, stabilized during 2006-2010 at values of over 10 born-alive infants‰ population, resettles on a decreasing trend from 2010 and reaches 9.4 born-alive infants ‰ population in 2011. The lowest birth rate is registered in the Southern areas – except for București-Ilfov – and the traditional differences between urban and rural are almost cancelled in 2011. The concurrence index of fertility is stabilized for 10 years at about 1.3 children/woman in Romania compared to 1.56 children/woman in UE27.

The general mortality was maintained at plateau values in the last years, the value in 2011 being equal with the one registered in 2009 (12 deaths‰), being with approximately 25% over the UE27 average. In the rural area, there is a mortality excess (14.2‰) compared with the urban area (9.8‰) due to the more aged population.

Table 1. Standardized mortality based on the main causes of deaths, Romania 2006-2010 (deaths/100.000 persons)

	2006	2007	2008	2009	2010	2006 -2010 % change
Diseases of the vascular system	618.7	578.07	558.3	548.6	539.7	-12.8%
Ischemic diseases	*213.5*	*200.9*	*194.2*	*188.8*	*187.2*	*-12.3%*
Cerebral-vascular diseases	*205.2*	*186.4*	*173.5*	*169.9*	*167.0*	*-18.6%*
Malign tumours	179.8	178.3	179.7	181.4	180.1	0.2%
Digestive system diseases	58.0	59.5	62.5	65.9	66.0	13.8%
Respiratory diseases	52.9	51.8	49.5	50.6	49.0	-7.4%
Liver chronic diseases, incl. cirrhosis	39.7	40.9	44.0	46.5	46.6	17.4%
Diabetes mellitus	7.9	8.5	8.1	8.2	8.7	10.1%
Transport accidents	15.1	15.7	16.6	15.1	12.3	-18.5%
Traumatic lesions and poisonings	57. 7	55.1	57.2	53.9	53.2	-7.8%
Smoking associated causes	493.6	461.2	441.4	433.6	427.7	-13.4%
Alcohol use associated causes	105.8	104.4	109.2	108.8	107.9	2.0%

Source: Health for all database, WHO Regional Office for Europe, 2012

Death causes. The generated mortality is governed by circulatory diseases and neoplasms (cca. 8/10 deaths, more precisely 60.2%, respectively 18.3%). The following causes of death,

based on frequency, are digestive diseases (6.4%), respiratory (4.9%) and deaths from acute causes[1] (4.6%).

The standardized mortality for the first four death causes registered an improvement during 2006-2010 (Table 1). Nonetheless, mortality by liver chronic diseases and cirrhoses – among which mortality by cirrhosis is predominant – as well as the deaths caused by alcohol consumption increased, in general. The mortality pattern for the main non-communicable diseases – circulatory, some cancers, cirrhoses – remains, generally, more unfavourable in Romania compared to other EU countries, the standardized age rates being twice higher compared to the European average values, with even more important differences in case of premature mortality (at 0 – 54 years old).

Table 2. Infant mortality rate and the maternal mortality rate (MMR), Romania 2007-2012
(deaths / 1000 born alive infants)

	2007	2008	2009	2010	2011	2012	2007 -2011 % change
Infant mortality	**11,9**	**10,9**	**10,1**	**9,8**	**9,4**	**9,0 ***	-21,0%
Perinatal mortality	8,8	7,9	7,3	7,0	6,9	6,2	-22,2%
Maternal mortality rate	**20,5**	**19,8**	**21,1**	**24,0**	**25,5**	**11,4**	24,4%
Abortion MMR	5,1	4,1	3,6	5,2	3,1	…	-39,2%
Haemorrhage MMR	2,8	4,9	2,3	1,9	3,1	…	10,7%
gestational, hiperemesis, HTA MMR	2,3	0,5	1,4	2,8	3,6	…	56,5%
Childbed MMR	3,3	3,2	5,8	1,9	3,1	…	-6,1%

*Source: Health for all database, WHO Regional Office for Europe, 2012 and MoH**

The infant mortality rate maintained a decreasing trend until the minimum value of 9.0 deaths ‰ of born alive infants in 2012 (Table 2), especially due to the decreasing of post-neonatal mortality, but remains the highest rate in EU27 countries and 2.4 higher than the European average (~4‰ in 2011). In absolute figures, we talk about 1,812 dead newborns in 2012[2]. The death risk is higher in rural area (>50%) compared to the urban area and differs among counties (maximum values in Tulcea -15.2‰ and Mehedinţi -16.1‰). Infant deaths appear mostly during the first month of life (57%). A significant percent of deaths under 1 year old occurs at home[3], and most of them die without medical care for the death causing diseases. The most frequent causes of infant death are perinatal conditions (34%), followed by respiratory diseases (29%) and congenital pathologies (cca 25%).

The probability of **death at children under 5 years old** is the highest in EU27 (11.7/1000 newborns, 2010).

Maternal mortality. With an index of the maternal mortality rate (MMR) of 25,48 deaths ‰00 born alive infants in 2011, the maternal death risk at birth was about 5 times higher in Romania compared to the EU. On a general trend of sustained decrease in about two decades, in 2012 there was registered a significant decrease of the maternal mortality, up to 11.4 ‰00 born alive infants, especially due the reduction of mortality by abortion. In absolute values, we talk about 11 cases of death by direct obstetric risk and 3 cases of abortion-related deaths, plus 9 cases of deaths by indirect obstetric risk. It is worth mentioning the worrisome consolidate trend of increased gestational-caused MMR during the recent years (Table 2).

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[1] Traumatic lesions, poisonings or other external causes.

[2] Ministry of Health, The National Public Health Institute, The National Centre for Statistics and Informatics. *Infant Mortality in Romania, Year 2012*. CNSISP, 2013

[3] Over 20% of the total deaths under 1 year old compared to all newborns, but approximately 40% compared to the newborns released from maternity.

The illness burden in the population.

Healthy life expectancy at birth remains lower than that in the EU27 member states (57.1, respectively 62.2 years in the EU). The recent SILC[4] surveys show that, although the life expectancy at birth increased, *the healthy life expectancy diminished in Romania*, contrary to the situation in EU25 [EHLEIS, 2013][5].

The healthy life expectancy at 65 years old decreased between 2007 and 2010 at men (from 7.7 to 5.9 years), but mostly at women (from 7.8 to 5 years). Actually, after 65 years old, the Romanian women live 5 years without conditions which can determine the limitation of the activity, 7.5 more years with moderate limitation and 4.8 years with severe limitation, while men spend this way about 5.9 years, 5.6 years, and respectively 2.5 years of life.

Table 3. Potential years of life lost, according to death causes and gender, Romania 2010
(thousand YLL and YLL/1000 population)

Women			Men		
Causes of death	**YLL‰**	**thousand YLL**	**thousand YLL**	**YLL‰**	**Causes of death**
1. Ischemic heart disease	39.4	432,9	598,2	57.3	**1.** Ischemic heart disease
2. Stroke	39.5	434,5	441,7	42.3	**2.** Stroke
3. Liver cirrhosis	8.2	90,3	180,4	17.3	**3.** Liver cirrhosis
4. Hypertensive heart disease	7.7	84,7	175,3	16.8	**4.** Bronchopulmonary cancer
5. Breast cancer	6.4	70,8	117,3	11.2	**5.** Inferior respiratory infections
6. Inferior respiratory infections	6.4	69,9	96,5	9.2	**6.** Hypertensive heart disease
7. Cervix cancer	4.6	51,0	88,2	8.5	**7.** Traffic accidents
8. Colon-rectal cancer	3.9	42,7	85,5	8.2	**8.** Self-injury
9. Other cardiovascular diseases	3.6	39,9	66,8	6.4	**9.** Other cardiovascular diseases
10. Bronchopulmonary cancer	3.4	37,4	63,5	6.1	**10.** COPD
11. Traffic accidents	2.3	25,4	58,5	5.6	**11.** Colon-rectal cancer
12. COPD	2.2	24,2	50,4	4.8	**12.** Cancer gastric
14. Congenital abnormalities	2.2	24,2	37,3	3.6	**15.** Tuberculosis
17. Diabetes	1.9	20,4	35,9	3.4	**16.** Liver cancer
20. Liver cancer	1.5	16,9	29,2	2.8	**19.** Congenital abnormalities
21. Intended accidents	1.4	15,2	21,4	2,3	**20.** Prostate cancer
24. Premature birth complications	0.9	10,4	26,0	2.5	**22.** Alcohol abuse related diseases
30. Domestic violence	0.6	6,9	21,9	2.1	**24.** Diabetes
51. Maternal conditions	0.3	2,9	21,9	2.1	**25.** HIV/AIDS

Source: Institute for Health Metrics and Evaluation, 2013 (http://www.healthmetricsandevaluation.org)

[44] SILC Survey (EU- Statistics on Income and Living Conditions)

[5] European Health and Life Expectancy Information System, *EHLEIS Country Reports, Issue 6, Health expectancy in Romania*, April 2013

Most potential years of life lost (YLL[6]) can be attributed to premature deaths caused by cerebral-vascular diseases, ischemic heats disease and liver cirrhosis, at both genders (Table 3). Of the tumours, the breast cancer and cervix cancer at women and bronchial-pulmonary cancer at men represent the malignity cu most impact on premature mortality.

It is worth mentioning that an important number of potential years of life are lost because of the traffic accidents, especially at men (on the 7th place according to YLL number in 2010, according to Table 3). Although in total they a relative low rate (4,6%), the deaths occurred from external acute causes, respectively transport accidents traumas, falls, aggressions, poisonings etc. – represent the main premature mortality cause at the young population, under 50 years of age (24.4% of the total number of deaths 0-49 years in 2012, the weight being higher than 50% of the deaths occurring in the 10-24 years old group), which ahead of mortality by tumours (20,4%) or respiratory conditions (18%) at this age group [NIS data not published]. However, Romania is on the first place in men and the second in women among the EU27 countries, according to standardized mortality by transport-related accidents in 2010 (Eurostat).

Table 4. Estimated DALY per causes of death and genders at 100.000 population, Romania 2004

DALY/100.000 population	Males	Fem.	DALY/100.000 population	Males	Fem.
All causes	**20,123**	**15,367**	**Infectious and parasitical diseases**	**590**	**375**
			Tuberculosis	353	94
Cardiovascular diseases	**5,661**	**4,389**	BTS, excl. HIV	22	79
Hypertens. heart disease	432	494	HIV/AIDS	55	50
Ischemic heart disease	2,481	1,567	**Maternal conditions**	**-**	**130**
Cerebral-vascular diseases	1,904	1,731	**Perinatal conditions**	**339**	**231**
Malign neoplasms	**2,445**	**1,801**	Prematurity/underweight	89	56
Br.-pulmonary neoplasm	683	137	Birth asphyxia/trauma	65	38
Breast cancer	4	337	Neonatal infections, et al.	185	137
Cervix cancer	-	305	**Nutritional deficiencies**	**152**	**239**
Colon-rectal cancer	220	164	Protein-caloric	35	30
Gastric neoplasm	230	111	Iodine deficiency	38	36
Liver cancer	126	62	Iron-deficit anaemia	75	158
Prostate cancer	98	-	**Neuropsychiatric conditions**	**3,024**	**3,281**
Digestive diseases	**1,428**	**802**	**Musculoskeletal diseases**	**618**	**892**
Liver cirrhosis	889	462	**Congenital abnormalities**	**224**	**176**
Respiratory diseases	**592**	**301**	**Unintended accidents**	**2,349**	**602**
COPD	371	171	Traffic accidents	463	153
Respiratory infections	**529**	**316**	Poisonings	128	51
Inferior respiratory inf.	515	302	Falls	474	109
Diabetes mellitus	**311**	**325**	**Intentional accidents**	**561**	**120**

Source: WHO, February 2009

Table 5. Disease burden according to the main risk factors (DALY[7], YLL[8]) per gender, 2010 estimates

Women			Men		
Risk factors	**DALY** (th)	***YLL*** (th)	**DALY** (th)	***YLL*** (th)	**Risk factors**
1. HBP	775,3	*735,7*	1041,7	*990,6*	**1.** Dietary risks
2. Dietary risks	740,6	*689,5*	940,1	*904,2*	**2.** HBP
3. Increased BMI	348,2	*279,1*	797,5	*732,9*	**3.** Occupational hazards

[6] YLL (years of life lost) – potential years of life lost following premature deaths

[7] DALY (disability-adjusted life years) – years of life adjusted based on incapacity. A health indicator summing up the loss of life years by premature deaths and years of diseases or accidents-based.

[8] YLL (years of life lost) - years of life lost following premature deaths

4. Lack of physical activity	257,4	*228,2*	607,9	*512,3*	**4.** Alcohol use
5. Smoking	226,6	*190,9*	450,5	*372,7*	**5.** Increased BMI
6. Hyperglycaemia a jeun	185,2	*127,0*	284,9	*261,9*	**6.** Lack of physical activity
7. Increased total cholesterol	171,1	*160,3*	240,6	*190,6*	**7.** Hyperglycaemia a jeun
8. Alcohol use	166,7	*148,2*	231,9	*222,5*	**8.** Environmental pollution (particulate matter)
9. Environmental pollution (particulate matter)	154,4	*140,0*	222,2	*212,4*	**9.** Increased total cholesterol
10. Pollution of home air	130,7	*118,9*	170,5	*163,9*	**10.** Pollution of home air
11. Occupational hazards	50.2	*4,4*	114,2	*45,0*	**11.** Occupational hazards
12. Lead exposure	47,9	*45,4*	60,1	*58,0*	**12.** Lead exposure
13. Domestic violence	37,1	*9,6*	41,6	*10,6*	**13.** Drug use
14. Iron deficiency	35,6	*0,6*	30,1	*0,6*	**14.** Iron deficiency
15. Drug use	19,1	*4,5*	22,4	*9,7*	**15.** Low bone.min.density

Source: Institute for Health Metrics and Evaluation, 2013-http://www.healthmetricsandevaluation.org

Disability-adjusted life years (DALY[9]). After cardiovascular diseases, the neuropsychiatric conditions at women are the second highest cause of potential disability-adjusted life years lost through disability or premature death (Table 4)[10], due to the fact that, per se, neuropsychiatric diseases are usually severe, debilitating and have a long clinical evolution. Compared to women, men have a higher probability to be confronted with the disability or premature death, basically for all the important pathologies.

The main determinants of the health status

At sub-national level, there are major inequities regarding the profile of the health determinants (social-economic, behavioural, physical environmental, work-related factors, and individual characteristics). Amending the harmful determinants of the health status is mostly the responsibility of the experts in health promotion and primary care.

a. Social-economic determinants have (directly or indirectly) an important role in modelling the population health status, including the wider scope of the health concept, as seen by the WHO, largely influencing the access to health services. The health sector represents an important pillar in the multi-dimensional approach aimed at contributing to the reduction of poverty and social exclusion[11], important objective of the European Strategy of Growth until 2020[12].

Romania is one of the European countries with the highest poverty levels. Approximately 42% of the Romanian population is at risk of poverty and social exclusion, being surpassed only by Bulgaria [Eurostat, AROPE, 2013]. Relative poverty rate reached 17.9% in 2011, after a relative stable evolution in 2009-2010 [MMFPSPV, 2011][13]. During the crises period, the absolute poverty rate increased from 4.4% in 2009 at 5% of the population in 2011. In 2011, 3.81 million Romanian were under the threshold of relative poverty[14] and 1.08 million were affected by severe poverty. The rate of extreme poverty decreased from 0.9% to 0.6% during 2010-2011.

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[9] DALY - disability-adjusted life years

[10] WHO, *Disease and injury country estimates, BURDEN OF DISEASE*, February, 2009. Accessed on October 10th, 2013 la http://www.who.int/healthinfo/global_burden_disease/ estimates_country/en/

[11] EHMA, *The role of health care sector in tackling poverty and social exclusion in Europe*, 2004

[1212] Regulation *(EU) No 282/2014 of the European Parliament and of the Council of 11 March 2014 on the establishment of a third Programme for the Union's action in the field of health (2014-2020) and repealing Decision No 1350/2007/EC (1) Health for Growth 2014-2020 programme*, European Commission

[13] MMFPSPV, *Analiza datelor statistice privind indicatorii de incluziune sociala din anul 2011*

[14] Poverty thresholds in 2011: relative - 530.4 RON, absolute – 288.4 RON, severe – 199.2 and food poverty 164.3 RON.

Poverty is more pregnant in the rural area (3 times higher risk of poverty), in certain geographic regions (+23-25% in NE and SE), at self-employed persons, including those active in agriculture (+ 38%), at women, in households with dependent children especially those with 2-3 children (almost double), at children under 15 years of age (+43%) and at persons over 65 years (only before social transfers). Most notably, population groups with a important poverty and social exclusion risk in many European countries are also the ethnic minorities (Roma), the persons with mental health problems and immigrants.[15] The single-parent families and households with three or more children have a 1.5-2 times higher risk of poverty. The degree of material deprivation of the households with 2-3 children increased substantially during the last years.

In 2011, the money expenses within the household were encumbered by the high weight of those for food consumption (36%) and services (29%).

A few social-medical indicators which evolution reflects an improvement of the social inclusion between 2010 and 2011 are the incidence of tuberculosis, hepatitis and infant mortality. The case differs for weight of births at minor mothers or assisted births.

Practising some healthy behaviours starting from the earliest ages is extremely important for the reduction of the disease burden in the population. It shouldn't be omitted that in the population segments with disadvantaged social status, the insufficiency of educational and/or material resources can explain at great extent an apparent resistance to change. Often, for those disadvantaged, the healthy behaviour and investment in prevention does not represent or is not seen as an option, which is relevant for the Romanian context. A classical example is that of oral health and hygiene, an area chronically neglected in Romania. Especially when aimed at those vulnerable of disadvantaged, the health policies must be finely tuned with the reality and sustained in time to reach the envisaged objectives of health and quality of life.

b. Occupational and environmental factors

The proper management of health in relation with the environment constitutes the label of a modern civilized society. After EU accession, Romania benefited from the common environmental policy, but the health benefits can be collected especially on long term. There still remain a lot of issues to be settles, and not lastly the health inequities related to the environment.

The classical environmental determinants contribute with 17% to the burden disease in Romania, which is the equivalent of 30 DALY/1000 population per year [WHO, 2004][16]. Recent studies show that 4 of the first 15 risk factors according to the disease burden in the population are directly environment-related [17] (Table 4.). The main pathologies known to have also an environmental cause are: respiratory, cardio-vascular and neurologic diseases, but also some cancers. More than that, the burden on health associated with climate changes, accidents and disasters – less studied and quantified – can be important, especially in the context of recent climate transformations, hence its possible nature as emerging priority.

The number of reported *occupational diseases* decreased compared to 2007. Occupational morbidity for 2012 (879 cases of professional illnesses) was governed by the overload of the locomotion system, silicosis and asbestosis (on an increasing trend compared to the previous

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[15] EHMA, *The role of health care sector in tackling poverty and social exclusion in Europe*, 2004

[16] WHO, *Country profiles of Environmental Burden of Disease – Romania,* Public Health and the Environment, Geneva 2009 . Accessed on October 15th, 2013 at http://www.who.int/quantifying_ehimpacts/national/countryprofile/romania.pdf

[17] Exposure to particulate matters, the quality of air in the household, occupational risks and exposure to lead.

year). Source-industries best represented are, in decreasing order: automotive manufacturing, electrical devices manufacturing and mining.

c. Individual behavioural factors

The major behavioural factors with well-known impact on the health status (smoking, alcohol use, diet/obesity and physical inactivity) are majorly influencing men and women's health in Romania, adults and children, but the profile of the health impact differs according to the gender (Table 5.).

Tobacco use. Smoking is on the third place in men and fifth place in women after the disease burden expressed in DALY. The estimated percentage of smoking adults in Romania is of 30% and the ex-smokers of 20%, with an average country risk regarding the risks associated with the tobacco use, compared to other European countries. The evolution of the tobacco use between 2006 and 2009 is a bit improved[18], but the degree of exposure to smoking at the age of 15 is relatively high, especially in males (15%) [OECD, 2013].[19] About 4/10 students declare they smoked at some point in their life, more frequently at males, and the weight of youth who ever smoked increases by age (31% at 13 years old, la 55 % at 15 years old). More than that, about 5/10 student who never smoked (47%) and 8/10 smoker students (77%) are exposed to passive smoking.

Alcohol use estimated among the Romanian adults is the highest in Europe (RO: 16.3 litres/adult[20], EU27: 12.45 l/adult in 2012), exceeding by 30% the European average[21]. According to PNESS, 16.4% of men consume alcohol in excess (10 - 24%), 5 times more compared to women. The use is higher at men in rural area than those in urban. Up to 6% of the children aged 15-18 declare they consumed alcohol in the previous month. Alcohol exposure begins early (47% at 15 year old males).[22] It is very difficult to quantify the societal global burden by direct and indirect expenses associated with the excessive alcohol use. The available data regarding the health sector – number of discharges assignable to alcohol (over 70 thousand/year), total and average hospitalization duration, etc. – indicates an important health problem.[23] Since the alcohol use trend and pattern in Romania does not follow the decrease which can be noticed in the Central and Western EU, it is necessary the development of a specific policy and identification of the administrative measures, of primary and secondary prevention needed to amend the situation, targeting the vulnerable groups, such as the youth. A special attention should be given to alcohol use associated with driving.

Physical inactivity is associated with the 4th biggest disease burden in Romanian women – expressed in DALY – but in absolute values, men are actually more affected by physical inactivity than women (Table 5). About 1/10 students do not participate at the physical education classes in school and less than 1/10 student participate at sports activities except the physical education classes [INSP, 2011][24]. With the age, adolescents adopt more extensively a sedentary life-style [WHO/HSBC, 2010].[25]

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[18] EC, *Special Eurobarometer 385, ATTITUDES OF EUROPEANS TOWARDS TOBACCO*, May 2012

[19] OECD, *Health at a Glance*, Europe 2012

[20] Out of which approximately 3 litres is consumption officially not registered

[21] Anderson P, *Alcohol in the European Union Consumption, harm and policy approach*es, WHO & EC, 2012

[22] OECD, *Health at a Glance Europe 2010*

[23] The Romanian Association for Health Promotion, *Study regarding the Economic Impact of the Harmful Alcohol Consumption upon the Health System in Romania*, 2012

[24] MS, INSP, CNEPSS, *National Health Report of Children and Youth in Romania*, 2011. Accessed on November 4th 2013 la http://www.insp.gov.ro/

[25] WHO, *Social determinants of health and well-being among young people : Health Behaviour in School-Aged Children (HBSC) study : international report from the 2009/2010 survey*

Inappropriate diet. According to PNESS, a great deal of Romanian exceedingly uses salt (53%), saturated fats (32%) and/or red meat (27%). The prevalence of the daily consumption of fruits at school-aged children is higher in girls (54%) compared to boys (43%), but in general is higher than in most countries [WHO/HSBC, 2010].

Overweight/obesity. The prevalence of obesity in adults is relatively low in Romania (~8%), being so far considered the lowest in EU27, more than 3 times lower than the European peaks (over 26% in Hungary and UK).[26,27] According to the PNESS 2007 results, 54% of those evaluated by the family doctor were overweight, and 5% had severe obesity. The excess weight is more frequent in Romanian boys (20% overweight and obesity), and the general trend is of worsening. Nonetheless, the obesity increase rate in children in Romania is one of the highest in Europe (5% in 8 years).

High blood pressure is considered rather a treatable risk factor than a chronic condition. That is why strengthening the individual risk assessment and management in primary care can contribute substantially at minimizing the effects associated with this risk factor, and not only. The prevalence of the arterial hypertension in Romanian adults is about 40% [SEPHAR I and II studies][28]. According to SEPHAR, the population group with the highest HBP are middle aged women, in urban area, from the South region, with average education (high-school) and low income, non-smoking and with sedentary life-style.

Health priority areas

Romania has a health profile specific to the developed countries, meaning that it has a relative high burden of chronic diseases, but the epidemiologic profile of the chronic diseases is more unfavorable than in EU27. Because of the higher burden in Romania of certain communicable diseases (e.g. TB, hepatitis B and C, HIV/AIDS inherited prevalence) we can actually speak about a double burden of the disease in the national population. [29]

a. Woman and child health. The health problems appeared at mother and child represent, in any civilized society, major public health priorities. The available evidence indicates a health care gap during the prenatal period at primary care level, especially but not only in the case of vulnerable women, as well as an excess of surgical services as tertiary level, reflected by the excess of C-section births, which has no justification by the profile of pregnant women din Romania [UNICEF 2005, DRG, Europeristat, 2012].[30,31] The rates of high infantile and maternal mortality reflect in great measure the suboptimal quality of the services.[32,]

The maternal mortality by abortion had a slightly swinging but favourable evolution in the last years (15 cases in 2003, 3 deaths in 2012). We have to consider the fact that about 10%

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[26] Eurostat, *Overweight and obesity – BMI statistics,* noiembrie 2011. Accessed on 4th November 2013 at http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Overweight_and_obesity_-_BMI_statistics

[27] OECD, *Health at a Glance: Europe 2012*, Accessed on November 4th, 2013 at http://www.oecd-ilibrary.org

[28] The Romanian Society of Hypertension, *Studiul de Prevalenţă a Hipertensiunii Arteriale şi evaluare a riscului cardiovascular în România (SEPHAR), Copiilor si Tinerilor din Romania*, 2011. Accessed on 4 November 2013 la http://www.sephar.ro/; Dorobantu M et co., *Profile of the Romanian Hypertensive Patient, Data from SEPHAR II Study*, ROM. J. INTERN. MED., 2012, 50, 4, 285–296

[29] Bygbjerg IC, *Double burden of non-communicable and infectious diseases in developing countries.* Science. 2012 Sep 21;337(6101):1499-501

[30] SNSPMPDSB, The Center for Research and Evaluation of the Health Services – DRG (Diagnosis Related Groups), accessed on 22nd September at www.drg.ro (unpublished results)

[31] Europeristat, *EUROPEAN PERINATAL HEALTH REPORT, Health and Care of Pregnant Women and Babies in Europe in 2010*

[32] IOMC, The Ministry of Health, UNICEF*, Socio-medical causes of mortality in under-5 children dying at home and within 24 hours of hospitalization*, 2005

of the total number of abortions registered annually in the official statistics appear at 15-19 years old girls, (11% in 2005, 9,6% in 2010) [NSI, 2011][33] and about 4000 abortions per year appear at girls under 15. The relative high incidence of the by-request abortion (about. 1 abortion for each 2 live newborns), more than 2 times higher than the average EU27, reflects a gap of the family planning services, especially in vulnerable groups.

About 10% of births are at girls under 19 years old. Prevention of unwanted pregnancies is even more important since early motherhood, especially with an unwanted pregnancy (infantile abandonment, school drop-out and further risk of social exclusion). A demographic phenomenon with important social-economic and health implications is the weight increase of the births outside marriage, from 15% (1992) to almost 28% (2010). The percentage is higher in the rural area (33%) which seems to have lost the reproductive traditionalism [NSI, 2012].[34]

On the background of a static evolution after 2004, the prevalence of iron-deficiency anaemia at pregnant women of 41% (2010) puts Romania in the category with "average" gravity according to WHO standards [IOMC,2011].[35, 36] The severe anaemia forms are more frequent at 15-19 years old mothers and women in the rural area.

The percentage of approximately 9% of premature births/reduced weight at birth is higher than the European average (6.5%).[37] Also, the average weight at birth is about 200 g smaller compared to the countries in Western Europe.

The percentage of breast-feeding continued at 12 month is improved (21.3% in 2010), but the percentage of exclusive breast-feeding is clearly lower at children from poor/extremely poor households [UNICEF, 2012].[38] Diet diversification at children under 1 year old is frequently inappropriate, and about 40% of the children in Roma households are undernourished. An important percentage of children have nutritional deficits regarding micronutrients and small body size for their age, while the severe nutritional deficit at the child under 5 years old worsened, the prevalence of reduced weight for the body size reaching 10.4% (IOMC, 2010).[39] This means that *in 2010 the critical threshold of 10% at which UNICEF considers that "a country has an acute and significant problem regarding the food access and/or child disease which needs an urgent answer"* was surpassed. Anaemia prevalence at children improved in 2010, but remains over 40% at 12 and 24 months. The prophylaxis of vitamin D rickets at 24 months old covers 92% of the children, but is smaller at children in rural area (89%). The percentage of Roma children receiving vitamin prophylaxis at 12 months is under 50%, according to IOMC.

b. Major non-communicable diseases. The standardized rate of mortality by chronic diseases is about 2 times higher in Romania compared with UE27 (225 deaths ‰00 compared to 116,2‰00) [Eurostat]. A plausible explanation for the excess of mortality by cardiovascular diseases observed in Romania is the lack of concentration on risk evaluation, early detection of the cardiovascular pathologies and/or inappropriate therapeutic control at the primary care level. In this regard, the National Health Status Evaluation Programme (PNES) highlighted in 2007 an unfavourable profile of the chronic diseases in the general

[33] INS, *Anuarul statistic* 2011

[34] INS, *Evoluţia natalităţii si fertilităţii in România*, 2012

[35] IOMC, MS, UNICEF, *Evaluarea eficienţei intervenţiilor incluse în programele naţionale privind nutriţia copiilor sub 2 ani*, November 2011

[36] Bruno B et. Co, *Worldwide prevalence of anaemia 1993–2005, WHO Global Database on Anaemia*, WHO, 2006

[37] Save the Children apud The Romanian Association of Neonatology, 2011.

[38] Stanculescu MS, *Copil in Romania - O diagnoza multidimensionala,* UNICEF, 2012

[39] IOMC, UNICEF, *Final Report, 2010* (unpublished)

population. Only 3/7 of the hypertensive adults were aware of having this health problem. Thus, at the moment of the diagnostic, over 57% of them already had infra-clinical alterations of the target-organs [SEPHAR I and II]. More than that, the coverage rate with specific medication is quite low (6/10 per total, 7/10 in women) and the percentage of the patients under therapeutic control varies significantly based on regional criteria (2 times lower in the South-Western region compared to the richest region, Bucureşti-Ilfov) and is lower at those with low income.

The mortality rate standardized for the main forms of cancer (e.g. bronchopulmonary, colon-rectal) is higher in Romania compared to the Member States, with the exception of breast cancer in women.

Risks of illness *(PNESS, 2007)*

40%	Cardiovascular disease risk
9.1%.	High risk of CVD risk
12%.	Average risk of SD type II in adult
3,5%	Breast cancer risk
1,9%	Cervix cancer risk (>5% in some counties)
9%	Percentage of women with Pa-smear test in the last 3 years

Romania performs suboptimal in the area of prevention, including for the detection of the cervix cancer, mortality of this disease being on an increasing trend or stable.[40] The recently established national screening program for the cervix cancer requires quite a few years to be implemented, sustained funding, performance increase according to the specific standards before the first significant signs of stable impact on mortality. Due to the high morbidity and mortality rates, the primary prevention of the cervix cancer through vaccination against Papilloma Virus (HPV) represent a highly relevant and necessary intervention in Romania, considering that HPV strains 16 and 18 are responsible for about 70% of the cervix cancers, and the benefits of vaccination are already well documented.[41] The same time, it is necessary to prepare the implementation of the long-postponed interventions for early detection by population screening for the other two frequent cancer forms (colon-rectal and breast), according to the European guideline.

In the context of the wide spread of the hepatitis B and C viruses and the high prevalence of the increased risks behaviours (smoking, alcohol abuse), the incidence of liver cancer in the national population is high – the 3rd highest rate in Europe at men, according to ECDC. More than that, liver cirrhosis is the third cause of premature death at both genders, being responsible for an important number of YLLs, especially at Romanian males (Table 3).

Sugar diabetes, invalidating illness and highly resources consuming, is a spread condition in Romania (about 1.5 million patients, out of which more than 100.000 are insulin dependent).[42] Thus, according to the number of patients, Romania is on the 9th place in the European region; the prevalence of the diseases in adults is higher than the European average (~9.3% compared to 8.4%).

Romania is a country with high death rate by respiratory diseases (Table 1) and frequent hospitalizations for the pathologies included in this group (11.7% of the total hospital releases in 2012).

From the endocrine diseases category, iodine-deficiency disorders need to be mentioned as public health priority, especially in certain endemic areas; also, the burden of the osteoporosis disease is worth mentioning.

[40] World Bank, *Romania, Functional Review Health Sector , Final Report 2011*

[41] OMS, *Immunization, Vaccines and Biologicals, Human papillomavirus (HPV).* Accessed on 28 February 2014 at http://www.who.int/immunization/topics/hpv/en/

[42] International Diabetes Federation, *IDF DIABETES ATLAS UPDATE 2012. 5th ed*. Accessed on 5 January 2013 at: http://www.idf.org/diabetesatlas

Trauma. Even is not itself a disease, trauma represents one of the major causes of preventable premature death, especially at active ages. More than that, it is associated with the development of invalidity and disability within young population. The trauma cases become vulnerable from the point of view of access in the health system because of the infrastructure and the organization of hospitals network at present. There is a major difference between the level and quality of care which can be provided to those with severe traumatisms among different regions of Romania, including differences among university centres. Trauma based mortality risk, especially in the case of people under 50 years of age, is major, requiring concrete and coherent actions of reorganization and upgrading the emergency hospital services, including the infrastructure (e.g. by reducing the number of buildings and the mono-profile hospitals and merging them in integrated units).

Muscoskeletal diseases have a significant impact upon the work capacity and productivity of the individuals, being registered an increase of the years of disability and the number of premature deaths determined by them (Table 4).[43]

The available statistic data indicate a very unfavourable profile in the area of oral health, which is settled at early ages. 3/4 of the children cu ages between 5 and 13 years old have caries on the deciduous teeth, usually untreated (75%), 4/10 have caries on the permanent teeth, and about the same number have significant dental plaque.[44] Since the oral pathology is strongly related with the chronic diseases – sharing common risk factors and having a bidirectional determinism between them – WHO recommends „integration of the oral health in the general health promotion strategies and the evaluation of the oral health needs with social-dental approaches".

c. Communicable diseases

The communicable diseases which can be prevented through vaccination represent a public health priority of European interest. In the area of basic prevention services represented by the routine compulsory immunizations, according to the national vaccination calendar, national results have a good track record. Generally and historically, it was succeeded to meet the coverage targets for key-compulsory immunizations and the epidemiologic evolution of the infectious diseases was greatly controlled via the national immunization program. Nonetheless, in the last years it was noticed a decrease of the vaccine coverage for immunizations included in the national vaccination calendar, the same time with the appearance of a great number of cases of vaccination-preventable diseases.[45]

There are certain sub-groups/communities – especially in the rural area, in certain counties – where de recommended program performance parameters (population coverage and complete immunization according to the age) are difficult to meet, especially in children up to 12 months[46] [NPHI].[47,48] Besides some recent issues due to shortcomings of the financing

[43] Research and innovation in the area of muscoskeletal diseases is supported through the Framework Program for Research and Innovation – Orizont 2020 of the EU. Accessed on 25 July 2014 at: http://ec.europa.eu/programmes/horizon2020/en/area/health

[44] Dumitrache MA, *Studiul Zâmbeste România pentru evaluarea stării de sănătate orală la populaţia şcolară din România*. UMF Carol Davila, Bucuresti,2013

[45] WHO/Regional Office for Europe, *European Health for All Database (HFA-DB).* Accessed on 20 September 2014 la http://data.euro.who.int/hfadb/

[46] According to INSPB, the vaccination cover degree at 12 months old children in July 2012 was: 84.7% for BCG 1, 81.2% for HEP B 3, 23.0% for DTP 4, 22.5% for VPI 4, 22.5% for Hib 4 and 60,4% for ROR 1.

system and public procurement for certain types of vaccines, important causes of incomplete vaccination of children according to the age are failure to come to the doctor and vaccination refusal. The resistance or indifference towards vaccination of some parents still persists in certain sub-groups, and indicates an eventual risk of increase of the number of persons "contaminated" with the phenomenon, but also that the need of information/behaviour change interventions beneficiary-centred for the adoption of attitudes and practices favourable to individual and collective health is not adequately covered by specialised services/interventions.[49]

An additional challenge in the present context in Romania is represented by the large number of persons engaged in temporary cross-border migration, on a regular basis, which makes the age specific vaccination difficult to certain children. Due to low profile of certain communicable diseases, the health policy and practices from some countries regarding certain compulsory immunizations are different, which can determine a high vulnerability degree for the children returned in the country after a period of time, with incomplete vaccinations (e.g. BCG, B hepatitis vaccine).

Tuberculosis. Starting with 2002, the tuberculosis incidence decreased constantly down to 68.2new cases ‰₀₀ population in 2011 [NSI], but the TB burden is still very large in Romania. TB incidence in Romania is the highest in EU27, for new cases and relapses as well.[50, 51] In 2012, Romania contributed with 29% of the total TB cases prevalent in EU 27 area, Lichtenstein and Norway.

The most affected population groups are those in rural area, in poor areas, men and Roma population. About 4.3% of the new cases are in children, while one third of the new cases culture positive appears at 15-34 years old. At national level, the death risk is about 6 times higher than the European average (cca. 6 ‰00 in 2011-2012) [*NSI, WHO/HFA-DB, Eurostat]*.

In the last years, the case management was improved, reflected by the increase of the therapeutic success rate of the smear positive pulmonary incident cases (85% in 2009 and 85,7% in 2011) and the decrease of the default rate with 44.3% (from 7% in 2002 to 3.9% in 2011). An important challenge for the Romanian health sector is related to the quite high percentage of the relapses and the burden of the drug resistant forms – MDR TB, 3% of the new cases and 11% from the prevalent ones – and the extensively drug-resistant forms (XDR TB, cca. 10-12% of the multidrug resistant cases).[52] The values place Romania among the 18 WHO priority countries, but also on the first most unfavourable place in EU27.

B and C viral hepatitis. Considering lack of homogeny of the national reporting, according to the incidence of B (HVB) and C (HVC) hepatitis viruses, Romania was on the second place in Europe in 2011 and 2010, respectively, even during 2000-2010 the incidence of infectious hepatitis decreased substantially[53], reaching at 1/5 of the 2000 incidence for HVB and at 1/4

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[47] The National Public Health Institute, The National Centre for Surveillance and Control of Communicable Diseases, Yearly reports regarding communicable diseases for 2007-2011. Accessed on 11 October 2014 at http://www.insp.gov.ro/

[48] ECDC, *Annual epidemiological report. Reporting on 2010 surveillance data and 2011 epidemic intelligence data*, 2012

[49] Stefanoff P et Co., *Tracking parental attitudes on vaccination across European countries: The Vaccine Safety, Attitudes, Training and Communication Project (VACSATC)*, Vaccine 08/2010; 28(35):5731-7.

[50] ECDC, WHO, *SURVEILLANCE REPORT: Tuberculosis surveillance and monitoring in Europe 2012*

[51] ECDC, *Special Report: Progressing towards TB elimination A follow-up to the Framework Action Plan to Fight Tuberculosis in the European Union,* 2010

[52] MoH, *Proposal for the National TB Control Strategy in Romania 2013-2017* (unpublished document)

[53] From 12 %000 to 2.4 %000 for HVB and from 76 to 2.4 %000 for HVC.

of the initial value for HVC.[54] Nonetheless, the burden of the hepatitis infection goes beyond the incident cases of clinical manifest disease which enters the health care system. Extremely important is the "hidden" prevalence of the viral infection in the population, which causes the risk of infection and illness of the healthy population. The prevalence studies show that Romania is a country with high risk for HVB and HVC infection (the 2nd highest prevalence in EU for HVB and number one for HVC).[55]. The acute burden of the disease in the population is still amplified by the severe secondary chronic pathology (cirhossis and liver cancer).

HIV/AIDS. Romania is one of the few countries Central and South-Eastern Europe with a high number of people living with HIV/AIDS, as a consequence of the epidemic peak from the beginning of the 90s.[56] At the end of 2011, out of the 17.435 HIV/AIDS cases ever registered in Romania, 10,903 persons were alive. The estimated prevalence of the disease for 2011 is of 56 cases ‰00 persons.[57,58]

During 2005-2011, HIV incidence in Romania fluctuated on a general increasing trend from 1.05 new cases ‰00 (2005) to 1.84 ‰00 (2011), but maintained under the UE27 values, where the trend was similar (from 2.5‰00 to 2.9/‰00). In Romania, the predominant transmission way is heterosexual (over 60% of the cases in 2011). The increase of HIV incidence observed in the recent years was associated with the epidemic-like increase of the transmission among the drug users (0.8% of the new cases in 2007 to 18.4% in 2011) in the context of practices changes of the drug users and reducing the intensity of syringe-exchange[59] activities, but also due to homosexual transmission (BSB). In 2011, 11 cases of newborns infected by vertical transmission, from the mother to the foetus were registered. The extent of antiretroviral (ARV) treatment coverage to reduce the vertical transmission risk at the HIV-positive pregnant woman is about 88% [UNAIDS, 2011].

Sexually transmitted diseases. Although on an important decreasing trend after 2002, the syphilis incidence remains about two times higher compared to the European average (a little over 10‰00, meaning 2209 cases), and the congenital syphilis is still a reality in Romania (10 cases in 2011). Regarding gonorrhoea and Chlamydia, Romania has some of the lowest rates in EU27, most probably due to under-diagnostic and under-reporting [NSI, 2011].

d. Mental health. In Romania, the frequency of deaths by suicide is 5 times higher at man comparing to women (22.8 ‰00, respectively 4.2 ‰00 in 2010), disregard the age group, and the gender-related relative constant risk indicated the fact that this difference is a phenomenon quite stable in time [Eurostat, NSI. 2011]. The frequency of suicide cases at 15-19 years old youth is about 50% higher than the European average (6.3 deaths ‰00 in 2010), 21% higher at Romanian adults aged 50-54 years (22.2 deaths ‰00), but not at the persons over 85 years old. The increasing rates after 2003 at youth and aged persons indicate a worsening of the mental health at national level, at least at these vulnerable age

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[54] ECDC, *TECHNICAL REPORT Hepatitis B and C in the EU Neighbourhood: prevalence, burden of disease and screening policies*, September 2010

[55] AgHbs prevalence at 3.5% of the persons in the general population and at 3.5% of the new donors; Ac anti-HVC present at 4,3% of the general population and at 3,3% of the new blood donors.

[56] ECDC, *SURVEILLANCE REPORT HIV/AIDS Surveillance in Europe*, 2010

[57] The National Committe to Fight HIV/AIDS *in Romania* – 31 December 2012. Accessed at 12 October 2013, at http://www.cnlas.ro/date-statistice.html.

[58] UNAIDS, *Country Progress Report on AIDS, Reporting period January 2010 – December 2011,* Bucharest, 2012. Accessed at 12 October 2013, la http://www.unaids.org/en/ regionscountries/countries/romania/

[59] Botescu A et. Co., *HIV/AIDS among injecting drug users in Romania Report of a recent outbreak and initial response policies*

groups. In case of psychiatric pathologies, their vast duration of clinical evolution, marked invalidating capacity and limited recovery possibilities determine a high burden of the diseases: more than 3 DALY/100 persons in 2010 (Tables 3 and 4). By their nature, the subjects with mental health problems represent a vulnerable group, sometimes stigmatized and often insufficient integrated in the society.

The interest for mental health area increased in Europe and Romania also in the context of the recent economic crisis. In the context of the massive external migration (with unmeasured negative impact upon the mental health of the children left at home or aged people, left without the support of the close family), but also of the difficult social-economic conditions, promoting mental health and prevention of mental conditions represent a current subject in Romania, even if is quite ignored as public health priority until recently.

The small number of available specialists, scarce infrastructure („*quality of the buildings*" and *„low number of beds in psychiatry hospitals compared to other European countries, under 1 at one thousand population*"), insufficiently developed community services, but also the prevalent model of hospital care *„old, not centred on client"* constitutes important challenges related to the system.[60]

e. Rare diseases. The heterogeneous group of rare diseases, so-called "orphans", gained recently a more important place on the Community and national public health agenda. Although they affect a relative small amount of the general population and have a limited potential of prevention/early diagnostic, especially in the context of a mostly genetic causality (80%), the rare diseases can have a high severity and lethal risk (about 1/5 of the cases with onset before age of 5.

The patients in Romania (about 6-8% of the population, out of which 75% children according to governmental sources) are no exception in confronting with the challenges and deficiencies well-known in other health systems.[61] They need access to early and adequate treatment – sometimes services highly specialized and unavailable nationally – in specialized reference centres, by the support of a large variety of health practitioners, but also the integration of the medical services with the social, educational and family support services. At individual level, the burden of the disease is more important at vulnerable categories, the costs sometimes high of care and specific treatment – when available – disproportionate affect the economical-social disadvantaged population, especially children.[62]

f. Security of the transfusion offered by the national specific network[63] is an essential service under routine conditions, as well as in special situations. During 2005-2011, the centres participating in the program collected/processed in average 17.000 litres of blood and 15.000 litres of plasma, from which over 200.000 patients benefitted yearly [NSI, 2011]. Basically, these , de aceste servicii beneficiază anual echivalentul a circa 1% din populaţia ţării. Fiind vorba de servicii de graniţă și cu valoare strategică menite să asigure un nivel înalt de protecţie a sănătăţii umane în cazul aplicării terapiei transfuzionale, controlul sângelui uman şi al componentelor sanguine pe întreg lanţul transfuzional constituie un domeniu de interes pe plan naţional, dar și pe plan european, ce presupune şi investiţii pe măsură în infrastructura, resursa umană dar şi în educarea populaţiei.

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[60] Netherlands School of Public & Occupational Health (HSPOH), *Plan de acţiune pentru implementarea reformei in sanatatea mintala-Twinning light RO 2003/055.551.0303*, Decembrie 2005

[61] Ministry of Public Health (MSP) and Romanian National Alliance for Rare Diseases (ANBRaRo), *Romanian National Plan for Rare Diseases, 2010-2014,* draft 2010.

[62] Salvati copii, *Analiza serviciilor de sănătate mintală pentru copiii din România-Cercetare socială calitativă*, 2011

[63] Include Institutul Naţional de Hematologie Transfuzională Bucureşti si cele 41 de centre de transfuzie judeţene, Centrul de Transfuzie al Municipiului Bucureşti şi unităţile de transfuzie din spitalele în care se administrează terapie transfuzională

g. Deşi constituie evenimente nefavorabile care sunt sub-raportate în România, dar nu numai, supravegherea și controlul **infecţiilor nosocomiale**, în conjuncţie cu monitorizarea utilizării antibioticelor și supravegherea antibio-rezistenței, constituie un domeniu al sănătăţii publice cu un impact potenţial foarte important asupra calităţii serviciilor de sănătate, dar și asupra eficientizării serviciilor prin scăderea cheltuielilor evitabile (m.a. la nivelul serviciilor spitaliceşti). Controlul infecţiilor nosocomiale este deseori îngreunat de infrastructura spitalicească învechită, fiind numeroase clădirile de spital care nu permit instituirea unor circuite intraspitaliceşti conforme standardelor de calitate actuale.

3.2. Performance of the health care system

Except the global impact on the health status indicators presented previously, whose level is the combined expressed of the determinants within and outside the health sector, the performance of the health system can be appreciated by it direct dimensions:

- the capacity to respond to the beneficiary's needs (responsiveness),
- equity and financial protection;
- efficiency and sustainability.

In Romania, at present, most of the health care services are provided directly in the hospital, this segment being hypertrophyated, while the community services are provided in a much under-seize compared to the necessary (e.g. services to insure the mother and child health, home-care services for the dependent patients, monitoring services for the patients with diabetes etc). The ambulatory must provide an important part of the specialty medical services and to provide an efficient filter in reducing the avoidable hospitalizations.

The vision for 2014-2020 is to reverse this vicious pyramid of services – inherited and inefficient – and to gradually insure a wider coverage of the population health needs through the services at the foundation of the system (community care services, health care services provided by the family doctor and the speciality ambulatory). Like the countries with performing health systems from the efficiency and efficacy point of view, the types of services mentioned before must become capable to solve the main needs related to acute illnesses, as well as to monitor the patients with the main chronic diseases: diabetes mellitus, arterial hypertension, COPD. Resorting to hospital services, implying by default higher costs, must be normally done only when the situations impose providing complex services, not in simple situations such as hospitalization of a chronic patient without acute episodes of the disease for investigations which can easily be done in ambulatory, as is frequently done at present.

This vision is fully supported by the new health services package, which followed the application of evidence-based medicine conditions and providing cost-efficient services, at the lowest level of the system which can correctly solve a health problem.

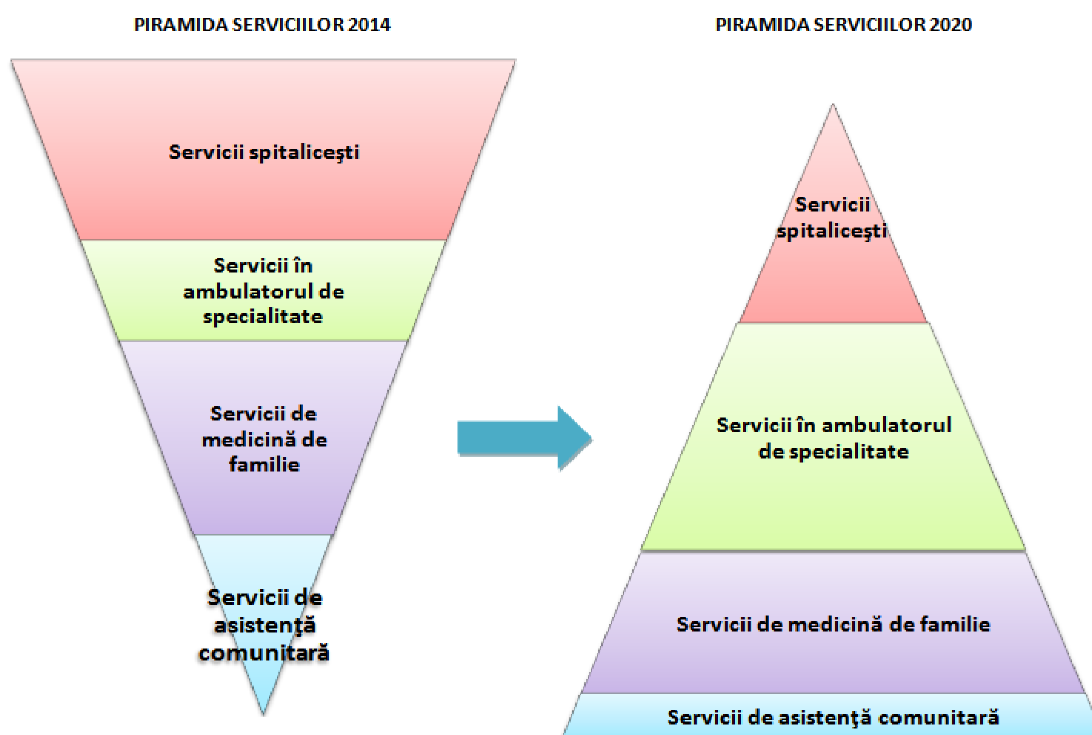

Fig. 1. *Consumption of health services – anticipated evolutions*

3.2.1. Capacity to respond to the beneficiary's needs

Capacity to respond to the beneficiary's needs is an essential aspect of the health system. It is captured by systematic measures of the users satisfaction and perceptions, as well as by its reflection in the public debate and mass-media.

An indicator used for the comparative evaluation of this dimension of the health system is the self-reported percentage of the ***unmet medical care needs*** which at the level of the entire population of Romania is 11.1% in 2011 (compared to 0.4% in Norway and Austria and 7% in Bulgaria), with important differences according to social-economic status: from 14.7% in the first two lowest income quintiles to 4.9% for the 20% of the highest income population (the 5th income quintile) having the highest level in Europe for all income categories (*Source: Eurostat, 2013*). This indicator is defined as percent of the population which perceives an unmet health need (consultation or treatment) for reasons including access problems (can't afford, waiting list, too far away, etc.) as well as aspects reflecting the adequacy of the services offer compared to the needs and expectations of the beneficiaries related to availability, inter-personal dimension, etc. (lack of time, fear, lack of trust and others).

The persistence of informal payments is another aspect which affects the perception of the health system by the beneficiaries and public opinion, not only because of the financial burden placed on the service users, but in the first place because it reflects a lack of consideration for the patient's rights, but also the freedom of providers to decided the level of services quality offered to the patient. According to EHCI 2013, Romania has the highest level of informal payments in Europe (ahead of countries such as Albania and FRY Macedonia), relevant aspect observed in surveys done in the country which are consistent in appreciating this level at over 60% of the patients.

3.2.2. Equity and financial protection

The analysis of the gradului de echitate a sistemului de sănătate scoate în evidență inegalități privind acoperirea cu servicii și starea de sănătate atât pe medii (urban / rural), cât și din punct de vedere teritorial (regiuni, judeţe), precum și existența unor grupuri vulnerabile particulare (de ex. etnia romă).

Acoperirea populaţiei prin sistemul asigurărilor sociale de sănătate a cunoscut așa cum este ea reflectată de evoluţia ponderii asiguraţilor/persoanelor beneficiare ale pachetelor de servicii medicale înscrise pe listele medicilor de familie (Raport Anual CNASS, 2012) tendinţe de creştere şi descreştere; astfel, porneşte de la 87.8% în 2008, crește la 95,9% în 2010 - consecutiv includerii beneficiarilor de pachete medicale minimal și facultativ - şi scade ulterior la 85,3 % în 2012.

Pe toata perioada s-a menținut un gradient semnificativ între de acoperirea din urban și rural cu până la 20% mai mare în urban în anul 2012 (acoperire de 94.1% în mediul urban față de numai 74.64 % în mediul rural).

În ceea ce privește acoperirea cu furnizori de servicii medicale, diferența urban – rural este net în favoarea urbanului pentru toate categoriile de funizori. La nivel naţional densitatea medicilor de familie (MF) este de 0,5/1000 locuitori în mediul rural față de 0,73/1000 locuitori în mediul urban, iar restul furnizorilor lipsesc practic din rural. Gradientul urban-rural și inegalităţile teritoriale se reflectă în indicatorii stării de sănătate.

Mortalitatea infantilă (0-1 an), un barometru sensibil al inegalității în starea de sănătate, înregistrează discrepanțe geografice importante (între judeţe/regiuni şi medii) existând un gradient de aproape trei ori între cele mai mici valori (6 sau 6,5/1000 nou născuţi vii, înregistrate în București și Cluj) şi cele mai mari valori (16 sau 19,4/1000 nou născuţi vii, înregistrate în Mehedinți și Sălaj). Mortalitatea infantilă este semnificativ mai mică în urban şi la nivel naţional (7,7/1000) decât în rural (12,3/1000 nou născuţi vii). Într-o o serie de județe (Cluj, Buzău, Dolj, Constanţa, Sălaj şi Vrancea) mortalitatea infantilă în mediul rural este chiar de două până la trei ori mai mare decât în mediul urban. Peste 80% din decesele la copii sub 5 ani la domiciliu şi în primele 24 de ore de la internare survin la copiii din mediul rural[64]. Discrepanțe geografice semnificative se întâlnesc și pentru malnutriţia protein-calorică la copii 0-2 ani, cu variații ale indicilor raportați între 0% în judetul Timiș şi 8,2% în judeţul Mehedinți.

Nivelul de protecţie financiară. Conform Anchetei Bugetelor de Familie (ABF) din 2013, în primul trimestru al anului, cheltuielile familiilor cu sănătatea au reprezentat 4,8% din totalul cheltuielilor familiei - locul patru ca pondere- situându-se după cheltuielile alimentare, de întreținere, transport, dar și pentru alcool și tutun şi devansând cheltuielile cu comunicațiile sau îmbracamintea și încăltamintea.

Conform Băncii Mondiale[65], există diferenţe majore de accesare a serviciilor de sănătate între populaţia aparţinând celei mai mici faţă de ce aparţinând celei mai mari cvintile de venit. Astfel, în cazul bolilor cronice, circa 40 % dintre persoanele cu venituri în cvintila inferioară care se declară ca suferind de o boală cronică nu solicită asistență comparativ cu 17% din cvintila superioară.

În perioada de creștere economică 1996 - 2008 accesul populației la servicii de sănătate a crescut de la 61% la 71% per total. În realitate, creşterea globală a accesului s-a datorat exclusiv evoluției favorabile în randul segmentului de populaţie cu veniturile cele mai mari. (de la 65% la 80%), în timp în cvintila cea mai saracă nu s-a înregistrat niciun progres legat de accesul la servicii. Acest aspect denotă o carență structurală majoră a sistemului.

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[64] Raport UNICEF/IOMC- *Analiza cauzelor medico-sociale ale mortalității la copii sub 5 ani la domiciliu şi în primele 24 de ore de la internare* . UNICEF. 2005

[65] Banca Mondială , *Analiza Funcţională a Sectorului de Sănătate în România*, 2011

Politica se sănătate din Romania bazată pe subvenţionarea serviciilor de sănătate și pe compensarea parțială a unei mari varietăţi de medicamente are ca scop protecţia grupurilor vulnerabile. În fapt, protecţia financiară nu produce efectele dorite cât timp:

- trei din patru pacienţi săraci plătesc din buzunar pentru asistența medicală de care au nevoie,
- 62% dintre săracii care au nevoie de medicamente plătesc pentru acestea din buzunar
- ratele medii de compensare sunt aceleaşi pentru bogați și săraci în condițiile în care serviciile subvenționate sunt sub-utilizate de săraci. Astfel, beneficiile subvenţionării se concentrează în favoarea clasei bogate sau de mijloc. [Banca Mondială, 2011].

3.2.3. Eficiență și sustenabilitate financiară

Confom raportului EHCI 2013, Romania se plasează pe penultimul loc din Europa din perspectiva consumatorului de servicii de sănătate, corelat cu nivelul alocării financiare pentru sănătate pe cap de locuitor. Conform HFA Database, iulie 2013, cheltuiala cu sănătate de sub 1000 USD PPP[66]/cap de loc, plasează România pe antepenultimul loc din Europa, imediat înaintea Albaniei și Republicii Macedonia. În acest context, raportul EHCI Analiza eficienţei cheltuielilor pentru sănătate_ (calculată printr-o formulă care corelează scorul EHCI cu resursele financiare alocate) denotă slaba eficienţă alocativă în sistemul de sănătate din România, care se situează din nou pe o poziţie inferioară (locul 31 din 34) .

Investigarea alocării resurselor în cadrul sistemului, relevă un tipar relativ constant de alocare a resurselor financiare între segmentele sistemului de sănătate cu ponderea dominantă a fondurilor dirijate către spitale şi un procent mic destinat asistenţei extraspitaliceşti. Astfel, în 2010, spitalele au consumat peste 50% din bugetul public pentru sănătate, în timp ce asistența primară a primit mai puţin de 7%, îngrijirile pe termen lung având un procent neglijabil, modelul ce s-a perpetuat şi în anii mai recenţi.

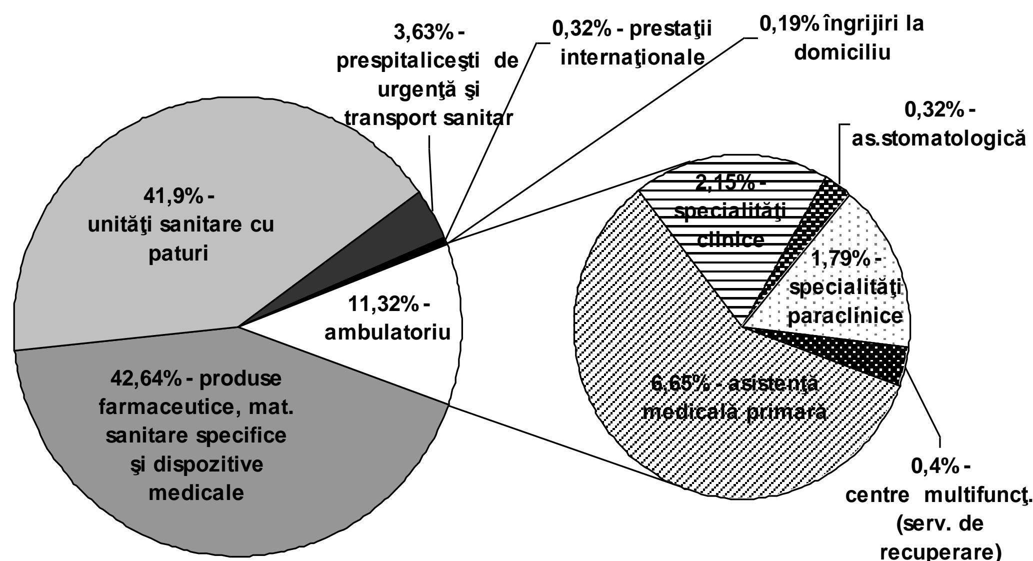

Fig. 2. *Alocările din FNUAS pe tipuri de servicii, anul 2012*
Sursa: Raport CNAS 2012

Concluzia celor mai recente evaluări a eficienței alocative efectuate de experți internaționali este că: "*există o subfinanţare relativă a sectorului de asistenţă primară şi ambulatorie*" iar acest lucru este asociat cu anomalii structurale şi de finanţare care par să fi condus la o

[66] PPP USD - USD la putere paritară de cumparare

„sub-utilizare aparentă a asistenţei medicale primare”, o *„aparentă supra-utilizare a asistenţei medicale spitaliceşti*” şi, ca urmare, la un transfer extins al costurilor cu apariţia de stimulente perverse [NICE, 2012}.[67] Potrivit observațiilor experților NICE, medicii de la toate nivelele de asistenţă nu sunt utilizaţi eficient sau cu efect maxim, iar asistenţa medicală în ambulator și asistența primară în special nu beneficiază de prioritatea adecvată fiind insuficient finanţate faţă de alte sectoare ale asistenţei medicale , pe lângă alte constrângeri care limitează capacitatea de a practica în mod eficient şi eficace a medicilor în ambulator

În absența unei politici și a unui sistem naţional de asigurare şi îmbunătățire a calității, nu există date de performanță clinică care să permită corelarea utilizării serviciilor de sănătate cu rezultate care reflectă contribuția acestora la starea de sănătate.

Utilizarea crescută a serviciilor spitalicesti este atribuită capacității reduse a sectorului extraspitalicesc și în principal eşecului în asigurarea rolului de “*gate-keeping*” al asistenţei primare, în timp ce nivelurile sub-optimale ale unor indicatori cheie ai eficacităţii programelor de sănătate publică pot fi atribuite eşecului asistenţei primare în rolul sau de vector al intervenţiilor de sănătate publică şi medicină preventivă.

Nu au bilet de trimitere de la medicul de familie circa 75 % din cazurile internate în spital şi 50% din pacientii internaţi în regim de urgență, indiferent de cauza de spitalizare [Banca Mondială, 2011]. În plus, datele DRG relevă în mod constant că o proporţie însemnată de internaţi au diagnostice de afecțiuni tratabile în ambulator şi/sau medicină de familie (ex. hipertensiune arterială, BPOC și astm bronșic, diabet zaharat necomplicat, otita medie la copil, etc.) şi astfel rata de spitalizărilor evitabile este mare în Romania**.**

Numărul crescut de medici specialişti din spitale, mai ales pentru anumite specialităţi (ex. cardiologie, ginecologie) şi numărul crescut de entităţi prin care se permite trimiterea către internare/ accesul la servicii spitaliceşti reprezintă factori ce contribuie la numărul crescut de spitalizări nejustificate, evitabile.[68]

Comportamentul de trimitere al medicilor de familie. Rata trimiterilor este de 9% în mediul rural și 12% în mediul urban, diferență ce denotă o influență crescută a ofertei asupra cererii de servicii și o capacitate scăzută a medicilor de familie de a gestiona cererile pacienților. Comparaţiile internaţionale arată că astfel de rate de trimitere sunt foarte mari, însă nu trebuie uitat că o mare parte a trimiterilor în ambulator sunt cauzate şi de regulile impuse prin Contractul Cadru, reguli care restrâng dreptul de prescriere autonomă a unor investigații și tratamente de către medicii de familie.

Utilizarea serviciilor de medicină primară de către populație. România are una dintre cele mai scăzute rate de utilizare a medicului de familie de către populaţia adultă: în medie 2,7 consultaţii/an la cei de peste 15 ani, față de 4,8 consultatii/an în UE. [ECHIM, 2012]. Diferenţa faţă de media europeană este mai marcantă la populația sub 65 ani (1,9 consultaţii/an față de 4,1/consultatii/an în media UE). Fenomenul este influenţat în urban de imposibilitatea lărgirii intervalului de acces orar la cabinet din cauza insuficienței spaţiilor care sunt utilizate în ture de către majoritatea medicilor de familie din mediul urban.

În ceea ce privesc rezultatele activității sectorului reflectate în starea de sănătate (health outcomes), capitolul anterior menționează performanța sub-optimală a sectorului primar în asistența copilului cât și în implementarea Programelor Naţionale de Sănătate. Un alt domeniu clinic afectat de ineficiența sistemului îl reprezintă bolile cronice care sunt tributare în egală măsură diagnosticării tardive (eşecul depistării precoce, absența depistarii active

[67] NICE International*, Romania: Raport Final,* ianuarie 2012

[68] Purdy S. *Avoiding hospital admissions What does the research evidence say?.* KingsFund, Dec 2010. Accesat pe 11 octombrie 2014 la: http://www.kingsfund.org.uk

prin screening) în paralel cu un control deficitar al cazurilor cunoscute. Astfel conform datelor colectate prin pilotul ECHIM în 2012, prevalenţa auto-raportată pentru boli cronice ca HTA, diabetul, astmul şi BPOC, depresia să fie cele mai reduse din EU şi intr-o discrepanţă majoră față de datele furnizate de anchetele de prevalenţă (SEPHAR 2, Ancheta CPSS- SRP asupra BPOC, studiul Mindful al UE, etc). Paradoxal, concomitent cu cele mai reduse prevalențe raportate, România înregistrează cele mai înalte rate de mortalitate şi spitalizare pentru afectiuni cronice.

Financial sustainability**.** The evolution of incomes and expenditures in the public health sector had a continuous increasing dynamic. Thus, between 2005 and 2008 the incomes in the public health sector increased rapidly with an average of approximately 23 % per year, o much rapid increase rate compared to the general public collection. The financing needs of the system increased with a much quicker rate due to the accelerated increase of the number of eligible drugs to be subsidized and elimination of the subsidy limit. According to the World Bank, since the beginning of the financial crises in 2008 and the contraction of public expenditures, the health system was unable to control the expenditures and acquired debts to the providers (especially for drugs). Thus, from surplus executions in 2006 and 2007, NHIH reached to deficits starting with 2008 and 2009. The reserves were insufficient to cover the entire deficit, so that by mid-2010, the level or arrears increased a lot.

In this context, the health system requires a real structural reform which should insure to all citizens, especially to vulnerable groups, equal access to quality and cost-efficient health services.

4. PURPOSE AND GENERAL OBJECTIVES. STRATEGIC PRIORITY AREAS

STRATEGIC AREA OF INTERVENTION 1: "PUBLIC HEALTH"

OG.1. The improvement of the health condition and nutrition of the woman and child

OG 2. The reduction of morbidity and mortality due to communicable diseases, of the impact thereof at individual level and society level

OG 3. The decrease of the rate of morbidity and mortality due to non-communicable diseases and the reduction of the burden of such diseases in the population through national, regional and local preventive health programmes

STRATEGIC AREA OF INTERVENTION 2: "HEALTH SERVICES"

OG 4. Insuring equal access for all the citizens, especially the vulnerable groups, to quality and cost-efficient health care services

STRATEGIC AREA OF INTERVENTION 3: "CROSS-CUTTING MEASURES FOR A SUSTAINABLE AND PREDICTABLE HEALTHCARE SYSTEM" – PRIORITY AREAS

OG 5 . An inclusive, sustainable and predictable healthcare system by implementing priority cross-cutting policies and programmes

OG 6. Streamline the healthcare system using eHealth solutions

OG 7. Development of the health infrastructure at national, regional and local level to reduce unequal access to health services

4.1. STRATEGIC AREA OF INTERVENTION 1: "PUBLIC HEALTH"

The evolution of morbidity and mortality over the last two decades, marked by the increasing burden of chronic diseases, in parallel with the developments in the healthcare system and in the society as a whole, call for a change of paradigm favouring the increase of the role of prevention, detection and intervention regarding chronic diseases as early as possible. This entails the important role and responsibility of health promotion and health education interventions and programmes at individual level and at the level of the community, of community healthcare and of family medicine. These services also have the role of supporting and empowering individuals towards increased accountability for maintaining their own health by adopting an adequate lifestyle and an anticipating behaviour regarding diseases, starting at an early age, instead of a corrective behaviour in the advanced stages of the disease, and aim at preventing the marginalisation of vulnerable persons or their exclusion from the services they are entitled to.

The view of healthcare decision-makers and experts is that the population must have access, through national health programmes, to the widest possible range of primary and secondary prevention services with proven cost-effectiveness and with favourable medium- and long-term effects on the general health condition of the population and, implicitly, on the productivity of the individual and on the expenses in the healthcare and social sectors. The increase of accessibility, quality and effectiveness of preventive services may be achieved as a result of the implementation of a well-synchronised set of critical measures and interventions, depending on the area concerned.

GO.1. Improvement of the health condition and nutrition of the woman and child

SO 1.1. Improvement of the health condition and nutrition of the mother and child and the decrease of the risk of infant and maternal death

The health of the pregnant woman and of the child is a public health priority in any civilised society. The health programme of the Ministry of Health regarding women or children includes a variety of interventions with the following aims: the promotion of breastfeeding; the micronutrient diet supplementation of the pregnant woman and infant baby; the prophylaxis of malnutrition in low birth weight children; the healthy diet and the prevention of child obesity. The main priority concerns the reduction of infant mortality and newborn death risk through increased access to adequate healthcare in regional facilities for newborn children at risk of newborn death, the strengthening of the newborn screening component (phenylketonurea, congenital hypothyroidism, deafness, other metabolic diseases that may be detected in newborn screening, hearing deficiencies, newborn retinopathy). Although such interventions have been conducted under this complex programme structure for a significant number of years, the results obtained are below optimal, as is the coordination between the programmes/sub-programmes implementing interventions that mainly concern the child, and the integrated monitoring and reporting of health benefits obtained through these interventions. From the perspective of the services, one key chain link is at the level of primary medicine, the preventive role of which must be reinforced.

Strategic directions/Measures

a. The improvement of the regulatory framework (e.g. the introduction in the national legislation of the principles related to the marketing of powdered infant formulas, developed by WHO/UNICEF, the updating of the legislation on school hygiene)

b. The increase of the management, monitoring and assessment capacity of the programme, in order to adapt the intervention to the evolution of annual indicators

- the drawing up of annual reports concerning all the public-funded interventions targeting maternal and child health
- the development of an electronic reporting and monitoring system for all the programme components; the conduct of operational surveys/population investigations

c. The improvement of the methodological framework and the increase of the technical capacity of service providers: the update/development of guidelines for community nurses and midwives, including the integrated management of child diseases, the training of primary healthcare professionals, maternities, NGOs, and the introduction in the maternity accreditation scheme of the criteria resulting from the "*Ten Steps to Successful Breastfeeding*" (according to WHO and UNICEF); the harmonisation of guidelines with the interventions contained in the national health programmes;

d. The provision of access to early diagnosis, adequate monitoring and/or quality treatment through the diversification of primary healthcare services, focusing on preventive services provided in the basic service package:

- the establishment of integrated community centres
- the definition of the role of community healthcare, of the family doctor and of community specialists in the early identification of disabilities and of children at risk, and in their referral to specialised services
- the timely procurement of adequate quantities of free-distribution products for the eligible programme beneficiaries (food micronutrients, Rh immunoglobulin);
- the provision of quality pre/post-natal care to the pregnant woman and to the child; increased access of the pregnant woman to regular check-ups, risk stratification in the first quarter of the pregnancy and risk-based pregnancy monitoring;
- capacity-building for pre/postnatal diagnostic of genetic diseases, genetic counselling; the institutionalised screening at national level concerning diseases with potential for detection in newborns
- ensuring the resources needed for the development and operation of perinatal care of the pregnant woman and of the newborn at risk, within a modern regionalised system and within the systems intended for early detection and intervention concerning certain child chronic diseases with potential for secondary and tertiary prevention
- the increase of the national diagnostic and medical and surgical treatment capacity for certain pathologies (e.g. congenital cardiovascular diseases, neurological diseases, early-onset insulin-dependent diabetes) that require intervention at an early age

e. The increase of awareness of the general population and the targeting of increased-risk, vulnerable families and children, through outreach intervention measures for needs-based information, education and counselling.

S.O. 1.2. Reduction of the number of unwanted pregnancies, of the incidence of abortion and of maternal mortality due to abortion

The still high number of unwanted pregnancies that result in abortion, the quite high number of actual elective abortions in girls under 19 years of age, but also the increase, after 2010, of the number of newborn children abandoned in maternities[69] confirm the need yet

[69] 918 cases of abandonment in 2012, compared to 942 in 2011 and 762 in 2010

to be covered for family planning services, especially as regards disadvantaged women. The success of the family planning intervention is to a large extent related to the strengthening of programme management capacity at central level, the continued training of primary medicine doctors and nurses, the access to free contraceptive products for the vulnerable population and the better targeting of this population with the support of community-based healthcare which is currently being developed in Romania. The collaboration with the Ministry of Education is necessary to the extent that the aim is to increase the level of knowledge on reproductive health among young teenagers.

The collaboration with the Ministry of Labour, Family, Social Protection and the Elderly, especially for the development, based on a partnership with the local public authorities, of integrated services, where community-based healthcare is complementary to social services.

Strategic directions/Measures

a. The increase of the programme capacity for planning, forecasting of needs and monitoring of the distribution of free contraceptive products

- the consolidation of the Logistic Management Information System for free distribution contraceptives, through an analysis of the feasibility of introducing electronic reporting for family planning service providers included in the programme, and the review of the structure and functionality of the Inter*CON* 1.0 data reporting application
- the conduct of operational surveys and the assessment of the results by repeating a national investigation of reproductive health/family planning
- the improvement of the regulatory framework (the reporting obligation concerning requested abortions performed in the private sector)

b. The provision of access for eligible persons to free distribution contraceptives at adequate parameters (centralised procurement, continued procurement and distribution, diversity of the range of contraceptive methods available, required for the optimal effectiveness of the intervention)

c. The increase of the territorial coverage of integrated family/planning/reproductive health service providers

- the family planning training of the primary medicine staff, primarily in the areas with disadvantaged population/groups (rural, poor urban, youth/adolescents through service providers prepared to offer age-adapted services, etc.)
- the development of the activity of family planning practices/centres through the allocation of new competences and services in the field of reproductive health

d. The increase of awareness and information of the population concerning reproductive options – including by means of modern IT&C solutions – and the targeting of vulnerable persons/groups facing an increased risk of unwanted pregnancies and needs that are not covered by first line medical services

GO.2. Reduction of morbidity and mortality due to communicable diseases, of the impact thereof at individual level and society level

SO 2.1. Strengthening the capacity of the national communicable disease surveillance, rapid alert and coordinated response system

The regulations in the field of communicable disease surveillance, rapid alert and response are to a great extent the result of the transposition of EU legislation/standards at national

level. The National Public Health Institute (*Institutul Naţional de Sănătate Publică* – INSP)[70] and the local health authorities are part of the EU network for epidemiological and microbiological surveillance of communicable diseases, coordinated by the European Centre for Disease Prevention and Control (ECDC). Maintaining an adequate quality of communicable disease surveillance at national and sub-national level is essential for protecting the population against the threats posed by communicable diseases.

Strategic directions/Measures

a. Maintaining the correlation of the national legislative/regulatory framework with the common European policy

b. Ensuring the capacity for communicable disease surveillance and for the management of national and international alerts at central and local levels

- the modernisation of infrastructure and the improvement of equipment provision, especially for local structures (public health laboratories)
- the updating of guidelines, case definitions and/or procedures (in accordance with the needs and international/European standards)
- the updating/development of IT&C systems for data management, ensuring interoperability
- the provision of the necessary technical assistance to local structures in the context of decentralisation in the health field – methodological coordination of the national communicable disease surveillance system by the INSP, including the update of the knowledge of the human resources involved
- the conduct of prevalence studies and analyses of routine indicators for the improvement of the effectiveness of the surveillance and control of nosocomial infections and of occupational biological hazards for the healthcare staff; the development of methodologies and action plans
- the conduct of studies/analyses for the improvement of the effectiveness of the surveillance and control of nosocomial infections; the review/development of methodologies in accordance with the needs for improvement of the surveillance and control of nosocomial infections, in order to increase the quality of healthcare services, especially in hospitals
- the surveillance of occupational biological hazards for the healthcare staff and the post-exposure prophylaxis

SO 2.2. Protection of the population health against the main diseases that can be prevented by vaccination

The immunisation activity represents the most cost-effective public health intervention, ensuring protection for both the individual, and the community against a series of severe communicable diseases. However, both in Europe and in Romania, the adequate vaccinal coverage for ensuring “collective immunity” faces deficiencies and even the recrudescence of previously controlled pathologies (e.g. measles). Given the importance of this area and the potential cross-border risks, there is need for the strengthening of the national immunisation programme, especially at functional level, as well as for the increase of the population’s vaccination compliance.

Cervical cancer is one of the few cancer forms that can benefit from primary prevention, through anti-HPV (Human Papilloma Virus) vaccination, which is an intervention targeting

[70] In collaboration with the competent national institutes in the case of tuberculosis and HIV/AIDS

prepubertal children, in particular girls. National immunisation programmes against this sexually-transmitted virus have already been implemented in many European countries[71], and in Romania such a public health measure is all the more relevant and necessary.

Strategic directions/Measures

a. The recovery of the national vaccine production capacity through investments in infrastructure, technology and human resources (*infrastructure investment measures included in SO 7.3*)

b. The consolidation/development of the management and/or implementation capacity of the vaccination programme in accordance with the national calendar in force[72] and the provision of the necessary resources for an improved national vaccination calendar[73]

- the timely procurement of vaccines, in accordance with the forecasted needs
- the improvement of the structure and functionality of the national vaccination register (RENV)
- the provision of the necessary technical assistance at sub-national level for ensuring the appropriate performance of the programme in the context of decentralisation; human resource training

c. Ensuring the appropriate performance of the national vaccination programme

- monitoring the performance of immunisation interventions, the conduct of seroprevalence surveys and of attitudinal investigations of the population and service providers as regards vaccination
- the strengthening of the capacity for the surveillance of undesired post-vaccination side effects (RAPI), for rapid information and alert at national level and in the European/international system for special events (clusters, vaccine batches with RAPI effects)

d. The increase of the extent of the population's compliance with the immunisations included in the national vaccination calendar, in particular among vulnerable and disadvantaged groups; the increase of the population's acceptance of the anti-HPV immunisation

SO 2.3. Reduction of TB morbidity and mortality and the maintenance of adequate detection and treatment success rates

Tuberculosis is a major public health problem, given the heavy burden of the disease, including through the severe forms (MDR/XDR TB). In accordance with the directions established by WHO's "Stop TB Strategy", the National Strategic Plan for Tuberculosis Control 2014-2020, which is under development, aims at eradicating the disease in Romania until 2050, with important milestones concerning the reduction of TB prevalence and mortality by 50% until 2020 and the maintenance of adequate detection rates (70%), and of notification and successful treatment rates (85%) for incident cases of microscopy positive

[71] European Centre for Disease Prevention and Control. *Introduction of HPV vaccines in EU countries – an update*. Stockholm: ECDC; 2012.

[72] In 2013, it includes: *mandatory vaccinations* (Hep B paediatric, BCG, DTPa-VPI-Hib-HB, DTPa-VPI-Hib, DTPa, MMR, conjugate pneumococcal vaccine, dT VPI) and *optional vaccinations* for risk groups (dT pregnant women, tetanus adsorbed vaccine pregnant women, MMR outbreak, flu, HPV).

[73] Concerning the pneumococcal and anti-HPV vaccines.

pulmonary TB. Following the same line are the commitments related to the mid-term control of treatment-resistant forms (MDR/XDR TB) which are included in the national plan for the prevention and management of multidrug-resistant tuberculosis in Romania, to be achieved by 2020.

A political commitment-objective proposed in the national strategic plan is related to the adequate and continued multi-annual financing, in order for Romanian to be able by 2020 to take over and fully cover from national resources the cost of interventions needed for TB control.

The increased effectiveness of the TB control activity requires measures that are to a large extent related to the improvement of the diagnostic service capacity, of the information system, the procurement and access to appropriate treatment, the administration of the treatment to TB/MDR TB patients and the support of patients, complementary to the permanent objective of protecting the population through primary prevention through BCG vaccination (SO 2.1.).[74]

Strategic directions/Measures

a. The improvement of the programme and intervention management capacity for the control of TB, particularly of MDR/XDR TB forms

- the development and adoption of the National Strategic Plan for Tuberculosis Control 2014-2020
- the review and updating of the information system for the registration and reporting of TB/MDR TB cases at the level of all TB centres, including the TB laboratories, together with the improvement of registration and reporting of MDR TB cases *(see SO 6.1.c);*
- the increase of the human resources' capacity to ensure the adequate management of TB/MDR TB cases in accordance with the guidelines, through the continued training of the staff within the service chain, including family doctors and nurses
- the monitoring and assessment of the performance and impact of the PNPSCT[75] in accordance with a comprehensive plan and the appropriate epidemiological surveillance of the disease at all the levels (national, regional and county levels), by using programme data and operational researches

b. The increase of the TB/MDR TB laboratory diagnostic capacity and the provision of universal access to quality diagnosis, in accordance with international standards

- the consolidation/optimisation of the reorganised TB laboratory network
- ensuring the human resources necessary for laboratory diagnostic at the quality and quantity parameters adequate for the needs and standards (including rapid drug-sensibility tests)
- the strengthening of the quality assurance/quality control and surveillance component at national and regional level
- the approach of HIV-TB coinfection, from the point of view of diagnostic and treatment, implicitly

c. The improvement of treatment conditions and the provision of the access of all patients to first and second line indicated medication, in accordance with international standards

- centralised procurement of TB medication and appropriate supply in order to avoid out-of-stocks

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[74] WHO/Regional Office for Europe, *Tuberculosis country work summary –Romania,* 2012

[75] The National Programme for Tuberculosis Prevention, Surveillance and Control

- the improvement/maintenance of DOT therapeutic approach in order to cover all patients and maximise treatment compliance, especially for outpatient/home care and for severe disease forms
- the rehabilitation and modernisation of the TB treatment network infrastructure (measure included in SO 7.2)

d. Ensuring an effective social, psychological and information support system for patients and the community, including with the help of community healthcare and non-governmental organisations, for the purposes of early diagnosis, the increase of the treatment success rate through the prevention of the lack of adherence to and abandonment of the treatment, and the prevention of new disease outbreaks in the community.

e. The improvement of TB infection control in competent medical establishments and the minimisation of risks for the medical staff, through methodological and administrative measures (protocols, procedures, equipment/individual protection measures), the training of the staff involved in infection control measures

f. Increased involvement of all healthcare service provides in TB control, through the strengthening of mixed public-public and public-private (PPM) approaches and approaches compliant with the International Standards for Tuberculosis Care (ISTC)

SO 2.4. Reduction of the incidence of priority communicable diseases: HIV/AIDS and the provision of patient access to antiviral treatments

As regards HIV infection, the priority health objective for Romania is the maintenance of the HIV low-incidence country profile through comprehensive measures for the prevention and reduction of risks adapted to the specific needs of priority target groups identified in the National HIV/AIDS Strategy 2011–2015, including through increased access to and coverage of preventive intervention/services essential for the prevention of HIV, HVB, HVC, such as syringe exchange, anonymous voluntary testing, pregnancy monitoring and pregnant woman testing[76]. Recent epidemiological developments regarding HIV infection require the increase of prioritisation of population sub-groups subject to increased risks, represented by injection drug users (IDUs) and homosexual persons. Also, the *continuum* of ARV care and treatment necessary in accordance with practical guidelines must be ensured for all patients diagnosed with HIV/AIDS.

Strategic directions/Measures

a. The improvement of policies/regulatory framework and the support of effective inter-sectorial collaboration and coordination mechanisms (re-establishment of the National Multi-sectorial HIV/AIDS Committee) or between the Ministry of Health institutions (regarding HIV epidemiological surveillance)

b. The improvement of programme and intervention management capacity

- the optimisation of the structure and functionality of programme management structures, including through the support of a programme management and centralised retroviral treatment procurement unit
- the improvement of support information system for the implementation of programmes and the surveillance of these communicable diseases (e.g. HIV), ensuring the integration of the various IT components or the interoperability of the various solutions, as appropriate

[76] UNAIDS, *Report on the global AIDS epidemic,* 2012

- the increase of the usage of available data and the conduct of studies/operational researchers for better substantiation of interventions implemented within the specific programmes/sub-programmes and better monitoring and assessment of the results and the impact thereof at population level
- the development of services integrated at community level (social, medical, educational, psychological), as well as the increase of technical skills of medical staff, where required, with priority for staff working in problem communities

c. The strengthening of primary HIV and STI prevention by targeting vulnerable or disadvantaged at risk individuals or groups[77], ideally through combinations of interventions and approaches adjusted to the needs and specificity of the beneficiaries (e.g. IEA/BCC interventions concerning counselling for the promotion of healthy sexual behaviour and risk reduction, for the promotion of self-referral as early as possible in the case of a disease to the healthcare service provider, anonymous voluntary testing, syringe exchange, prenatal screening, the adequate management of pregnant women and the application of the treatment indicated by guidelines in force. The respect of the rights of sero-positive persons in healthcare settings and combating stigma.

- ensuring universal access of pregnant women to counselling and HIV testing as part of the minimal prenatal care package
- increase of the HIV counselling and testing capacity at the level of all types of medical establishments

d. The provision of access to secondary prevention services, where appropriate, to clinical and biological monitoring, treatment and nutritional programmes, in accordance with the applicable national guidelines

e. The minimisation of occupational biological hazards for the staff in the medical system and in the social service system

SO 2.5. Reduction of the incidence of priority communicable diseases: hepatitis B and C and the provision of patient access to antiviral treatments

The hepatitis viruses B and C infection represents a public health priority in Romania, taking into account the population's unfavourable epidemiological profile (including as regards the high prevalence of certain extremely virulent strains, as shown by the few available studies), the incidence of clinical forms of disease, as well as the important potential for evolution towards highly severe and lethal hepatic pathologies which, moreover, are high resource-consumers (hepatic cirrhosis, hepatic cancer, severe hepatic insufficiency). Through its Global Hepatitis Programmes, WHO emphasises the integrated approach of prevention and control of the global hepatitis pandemics, in order to reduce the transmission of viral agents causing hepatitis, to reduce morbidity and mortality through better services and, last but not least, to reduce the socio-economic impact at individual, community and population levels[78].

While in the case of HVB, the introduction of mandatory vaccination of children has helped the improvement of the epidemiological evolution of the infection with the HVB virus, in the absence of a specific vaccine the prevention measures available for the prevention of the infection with the hepatitis C virus are especially those specific for the prevention and

[77] The general population groups identified through the National HIV/AIDS Strategy 2011–2015 as a priority are young persons, increased risk groups – persons practicing commercial sex, injection drug users (IDUs), men who have sexual intercourse with other men (MSM), persons in the penitentiary system, persons from disadvantaged communities, roma, and pregnant women.

[78] OMS, *Prevention and Control of Viral Hepatitis Infection: Framework for Global Action*, 2012

control of hematogenous transmission infectious diseases. Sexual transmission and the opportunity of integrating preventive interventions for HVB, HVC and HIV must not be neglected, especially for increased risk groups (IDUs, etc.) given that the circulation of these viruses in the Romanian population is at a very high level.

Strategic directions/Measures

a. The implementation of interventions for the primary prevention of the transmission of HIV integrated with other STIs, especially in increased risk groups (including voluntary testing and counselling);

b. The increase of the role and capacity of providers of first line medical services for the prevention, early diagnostic and treatment of hepatitis B virus infections, in accordance with the specific competences

c. The provision of access to clinical and biological monitoring, specific antiviral treatment for eligible patients, in accordance with national guidelines

d. The minimisation of occupational biological hazards for the staff in the medical system and in the social services system (including HVB vaccination and free access to post-exposure prophylaxis)

e. The increase of the degree of knowledge regarding the epidemiological profile of the HVB and HVC infection in the general population or in certain population groups, by means of prevalence studies, epidemiological researches, the development of the national register of HVB/HVC patients.

SO 2.6. Provision of the necessary blood and blood components under maximum safety and cost-effectiveness conditions

The services offered by the national blood transfusion system are essential for ensuring population health, the key challenges faced by the national system being the promotion of voluntary blood donation, ensuring human blood and blood component self-sufficiency, as well as ensuring the necessary blood transfusion safety and security levels by applying/extending the quality management systems throughout the transfusion chain. Although it has improved in recent years, voluntary collection still remains an issue. Along with staff deficiencies and certain problems or specific constraints related to collection and processing, the deficits in this sector include computerisation and, implicitly, related issues.

Strategic directions/Measures

a. The strengthening of essential programme parameters of the national blood transfusion system

- the improvement of the legislative/regulatory framework in accordance with EU requirements, and of the operational procedures
- the initiation of the authorisation process of institutions in the transfusion system in accordance with EU requirements
- the strengthening of the control capacity through the organisation of training programmes for state sanitary inspectors, as well as through the development of rules and procedures for the conduct of inspections in the transfusion field
- the development and implementation of a unitary IT system (with a single database)
- the improvement of the capacity for the reporting and monitoring of side effects and post-transfusion incidents
- the regular assessment of blood transfusion centres

b. The provision of good performance parameters in the collection activity, and of self-sufficiency

- the implementation of specific activities/measures for stimulating the voluntary donation behaviour of the population and the increase of the number of blood donors (e.g. informative-educational, the development of mobile collection), as well as for fostering donor loyalty
- the increase of collection efficiency through the design of unitary blood donation protocols, as well as by monitoring the correlation of reactive consumption with the number of collections made
- the strengthening of the mobile collection system and the inclusion of rural areas through regular collection actions, using mobile collection means.

c. The development/upgrading of the processing infrastructure, ensuring the quality standards and the higher usage of the donation potential by means of plasma fractionation (modern testing and storage equipment) *(see SO. 7.1.c).*

d. The increase of the technical capacity of the human resources

- the development of a national training programme – initial and continued – for all categories of staff in the field and the compensation of the human resources deficit
- the recognition of the transfusion medicine competence
- e-training/distance training of family doctors regarding the monitoring of blood donors and of prescription doctors regarding the legislation in force

GO 3. Decrease the rate of morbidity and mortality due to non-communicable diseases and the reduction of the burden of such diseases in the population through national, regional and local preventive health programmes

SO 3.1. Increase the effectiveness and of the role of health promotion in the reduction of the burden of disease in the population in the priority fields

Beyond the classical definition according to which *health promotion* is the process whereby individuals are helped to increase their control over their own health – in order to maintain or to improve it – this means not only a science, but an art of cultivating individual and community health by facilitating awareness, motivation and the building of the necessary skills enabling the adoption, change and maintenance of a certain lifestyle and practices favourable to health preservation or recovery. The field of health promotion does not only serve the reduction of the chronic disease burden for the individual and for the society, being therefore essential for reaching GO1 and GO2 simultaneously, but it also has been included under this objective precisely in order to underline its higher potential to contribute to the reduction of avoidable early morbidity and mortality due to non-communicable diseases.

Given the unfavourable profile and evolution in the Romanian population of the health condition and of major determinants of chronic diseases – smoking, excessive alcohol consumption, physical inactivity, improper diet, obesity, AHT, hypercholesterolemia, risky sexual behaviour, etc. – it is all the more necessary to ensure the needed capacity and resources for implementing effective information-education-awareness/behaviour change communication interventions (IEA/BCC). Interventions aimed at forming and strengthening healthy behaviours in pre-school and school children have proven to be effective for maintaining a good heath condition throughout the entire life.

At present, IEA/BCC interventions are relatively numerous, covering a wide range or health-relevant themes, but in essence they are rather fragmented and specific and are oriented towards awareness-raising/information, without high chances of inducing significant behaviour changes, being insufficiently adapted to the changing needs of an increasing percentage of the population that uses the IT&C facilities for information. Moreover, these interventions are insufficiently based on quantity and quality studies that generate data and evidence, and the results and impact of such studies are rarely assessed at an optimal level. The mobilisation of resources existing in the society and in the community is insufficient, given the limited, rather non-programme-based cooperation with the non-governmental sector, the local public authorities and the local and national media. A more coherent and more effective approach is needed with regard to heath education/the promotion of a healthy lifestyle.

Strategic directions/Measures

a. The increase of the capacity to carry out effective health promotion activities at national and sub-national level

- the optimisation/streamlining of the use of available financial resources for health promotion, involving the definition of evidence-based interventions, the prioritisation of intervention areas in an integrated multi-annual national plan that pragmatically takes into account the major health issues at national and sub-national level
- ensuring the effectiveness of health promotion activities by using underlying quantity and/quality surveys of the IEA/BCC interventions (needs assessment, including the adaptation of messages and of communication means to the needs and specificity of the population and to the current level of development of the society), the better knowledge of the health condition and of disease determinants, and the appropriate assessment of immediate/long-term results
- the training/re-training of the staff involved at central, regional or local level, especially in the context of regionalisation

b. The increase of the degree of information, awareness and accountability of the population through a number of strategically chosen IEA/BCC interventions, adapted to the age and needs of the beneficiaries, in order to reduce the avoidable burden of priority diseases (e.g. the promotion of vaccination with potential for the prevention of chronic diseases, the promotion of healthy behaviours/primary prevention for major non-communicable diseases, the promotion of oral health integrated with chronic diseases), focusing on vulnerable groups and young ages; the increase of the access to quality information, including in the online environment.

c. The review/updating of the legislation on health hygiene and the updating of the health education programme by the Ministry of National Education, in order to effectively implement interventions aimed at health promotion and health education in school children.

d. The increase of the role and capacity of first line medical services (family doctor, family medicine nurse, community nurse, school medicine doctor) to identify the risk of non-communicable chronic diseases, to respond to the individual needs of information and counselling, especially as regards high risk individuals and disadvantaged persons, including the training of service providers by means of e-training solutions.

SO 3.2. Reduction of the cancer burden by detection at an early stage of the disease and the medium- and long-term reduction of the specific mortality by means of organised screening interventions

The start in 2011 of the national early cervical cancer detection programme was a necessity derived from the extremely unfavourable epidemiological profile of this malignant pathology among women in Romania, namely the incidence and mortality three or four time higher than European averages. An organised screening programme entails complex interventions and measures, coupled with massive and exemplary mobilisation of financial, human and material resources, in order to attain the performance levels expected in accordance with European standards.

Being at a relatively incipient stage, the cervical cancer screening programme has yet to reach the necessary degree of maturity, but there is need of continued financial support in order for the specific activities to be carried out, as well as of efforts for the consolidation of the various programme pillars, and of possible readjustments where necessary. The main operational objective is to ensure adequate population coverage during a screening cycle, in accordance with the recommendations and good practices in the field. The Ministry of Health has planned to start the gradual roll-out of pilot screening projects for breast cancer in women and colorectal cancer in both women and men.

Strategic directions/Measures

a. The increase of the planning and coordination capacity in the field of cancer control, including the screening component (the drawing-up of a multi-annual plan concerning prevention/early detection of cancer, as part of the National Integrated Cancer Control Plan; the establishment of a multidisciplinary and multi-sectorial national committee and the organisation of functional thematic working groups for the key areas

b. The consolidation of the cervical cancer screening programme in order to achieve in the shortest time possible the minimum programme performance standards recommended at European level, and the implementation of this programme at national level, in parallel with interventions aimed at the primary prevention of this form of cancer through HPV vaccination (*see SO. 2.2*)

- the identification of solutions for compensating the insufficient processing capacity for the adequate volumes of samples in the cytopathology laboratories
- the development of the IT application necessary for the monitoring/assessment of the intervention, in conjunction with the regional population-based cancer registries and other databases
- the review/development of guidelines and procedure manuals; quality assurance/quality control along the screening service chain
- the training of the staff involved and the compensation of the deficit of laboratory staff by means of training for the cytotechnician occupation
- the mobilisation of beneficiaries for inclusion and keeping in the screening programme, by means of appropriate and sustained awareness-raising among the target population and the monitoring of problem cases, together with the provision of fair access for women who are marginalised due to socio-economic, ethnic, geographic or other reasons
- the strengthening of the population-based cancer registration in order to assess the performance of screening programmes – national coverage by means of regional cancer registries

c. The implementation of population-based pilot projects for the development of the technical and organisational capacity in the field of early detection of breast and colorectal cancers in accordance with the European guidelines (2014-2016) and the appropriate assessment of these interventions prior to national or sub-national roll-out (2017-2020)

SO 3.3. Improvement of the mental health of the population

Given particularly the challenges of modern society, the promotion of mental health and the prevention of mental diseases need to be taken into account throughout the entire life of an individual. A good mental health of the population has a favourable contribution to the economic prosperity of the society but, beyond the economic dimension, it represents a value in itself, it is a fundamental right of the individual, assumed by the European Pact of 2008.

Ensuring the mental health of the population involves access to adequate and effective mental disorder prevention, treatment and rehabilitation services that can minimise the number of persons with a poor mental health, improve the health condition of persons already diagnosed, and reduce the number of suicide cases, especially in increased-risk groups.

The national mental health programme is structured into two sub-programmes, of which one concerns prophylaxis in psychiatric and psychosocial pathology. The sectorial policy of the Ministry of Health is aimed at the improvement of the mental health of the population, the development of mental disorder prevention programmes, the diagnosis and adequate treatment of psychiatric conditions at community level, the increase of the health system capacity to provide relevant accessible and quality services, but also the support for the social integration of individual by means of horizontal collaborations with other relevant institutions and the promotion of good practice models. The bases of mental health are set starting from the first years of life. Up to 50% of mental disorders have their onset during adolescence. Mental health problems may be identified in 10% to 20% of young people, with higher rates among disadvantaged population groups. The Strategy for the mental health of children and teenagers 2014-2020 sets out the priorities and the inter-institutional and inter-sectorial collaboration framework in order to attain the proposed objectives, focusing on the preventive and early diagnostic component, and on the age-specific problems (e.g. the early detection of autism spectrum disorders, child abuse, depression and suicide risk in teenagers and young people, etc.), which are meant to respond to the needs identified for this important population group. As such, priority will be given to the following: programmes aimed at strengthening parental capacities, the promotion of the training of professionals involved in health and education, the promotion of social and emotional aspects in curricular and extracurricular activities, as well as in school and pre-school culture; programmes for the prevention of abuse, bullying and violence against young people and their exposure to social exclusion;

Strategic directions/Measures

a. Evidence-based mental health policy; the generation and use of quality evidence in order to adjust interventions and services to the needs of beneficiaries (e.g. children, elderly people, etc.), and for the assessment of the results and impact of interventions on the population.

b. The increase of access to and quality of services involved in the prevention/identification/recovery and maintenance of mental health, in early diagnostic and treatment of persons with mental health problems (adults and children):

- the drawing up of standards for mental health services, the drawing up/review of practice guidelines and protocols addressing mental health specialists, including the promotion of working in multi-disciplinary teams and the collaboration between specialists and family doctors

- the updating of the knowledge of all persons involved in the prevention, identification and treatment of persons with mental health disorders, including those in the educational sector; attracting, training and motivating human resources within the psychiatric services, including at community level; the review of the graduate and post-graduate curriculum (residency and lifelong medical training) for specialist physicians, paediatricians and family doctors
- the continuation of the activities aimed at the rehabilitation of the mental healthcare system, in order to ensure adequate diagnostic and treatment capacity
- the respect of the rights of persons diagnosed with psychic disorders in the public health service settings

c. The diversification of the available range of services, through:

- the increase of the role of first line medical services in the identification and treatment of psychic disorders – primary medicine and community healthcare, and the creation of mechanisms for methodological referral of such persons to specialists
- the development of needs-adapted mental health services (services for children whose parents have left the country, for persons diagnosed with chronic diseases, for traumatised persons, for elderly persons, etc.) and the increase of access to psychological services and specialised assistance in the public sector through the development of community-based mental health centres
- the development of specialised programmes for children with psychic disorders (e.g. autism spectrum disorders, ADHD, etc.) focusing on outpatient and community care and the implementation of needs-based interventions in pre-school and school establishments, for children, young persons and parents
- the development of the offer of alternative services and the promotion of good practice models in mental health services at community level, including those implemented by NGOs
- the implementation of information-education-communication/behaviour change communication interventions for the promotion of mental health, the prevention of disease and suicide in vulnerable age groups/populations by means of measures adapted to their needs (children, teenagers, elderly persons) and combating stigma (national and local campaigns, educational workshops, information sessions), including by adopting modern technologies, solutions and approaches validated through practice in other countries for the promotion of the mental health of the population[79], including the preparation of information materials, methodological support and/or mental health standards at the workplace for the employers in the public and private sectors, in order to promote occupational mental health.

Drug addiction and alcohol addiction

The sub-programme aimed at the prevention and treatment of drug addiction is the programme instrument that directs the allocated public funding to the hospital units involved in the programme (6 in 2010) in order to ensure the access of drug users to specialised clinical services (the provision of opioid agonist substitution therapy, metabolite testing and detoxification treatment), with a view to the recovery of the beneficiaries and their social reintegration.

An important area from the mental health perspective, but not only, the preventive potential of which has yet to be tapped, is alcohol abuse in adults and teenagers, which is a

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[79] Examples are: online tools for self-screening, e-training, telemedicine, internet-based services for the prevention and identification of the problems of children and teenagers seeking informal online help, hotline for assisting persons with moderate depression and anxiety, etc.

public health problem that requires enhanced attention and the definition of an effective strategy/action plan.

d. Ensuring the access of drug users to integrated social and medical services for social insertion/reinsertion

e. the increase of the system's capacity to approach the problems of harmful alcohol consumption by preparing and implementing specific interventions according to key system components (e.g. counselling, detoxification, social integration services for alcohol consumers)

OS 3.4. Protection othe population health against environmental risks

Domeniul larg al sănătăţii în relaţie cu mediul este unul complex nu doar din perspectiva tematiciii de acoperit, dar şi din cea pluridiciplinarităţii necesare pentru abordarea problematicii specifice la parametrii adecvaţi. Evaluarea riscurilor pentru sănătatea umană asociate poluării factorilor de mediu (ex. din aer, apa, sol, aliment, mediul ocupaţional, radiaţii, s.a.) prin diferiţii agenţi poluanţi şi al efectelor diversilor stresori de mediu şi climatici constituie un serviciu esenţial pentru sănătatea comunitară. Cunoaşterea hazardurilor şi a riscurilor legate mediu permite prevenirea/minimizarea efectelor pe sănătate pe termen scurt, mediu şi lung şi prezervarea unei stări de sănătate cât mai bune în populaţia generală, inclusiv la grupurile populaţionale cele mai vulnerabile (ex. copiii).
Monitorizare şi supravegherea stării de sănătate în relaţie cu poluanţii din mediu, caracterizarea riscurilor şi mai ales comunicarea către populaţie a riscurilor legate de mediu revin în sarcina Ministerului Sănătăţii, prin Institutului Naţional de Sănătate Publică/CNMSRMC[80] în colaborare şi coordonare cu autorităţile sau structurile responsabile de sănătate şi mediu de la nivel subnaţional.

Strategic directions/Measures

a. Corelarea cadrului normativ şi a practicilor naţionale la politica comunitară în domeniul sănătăţii în relaţie cu mediul, în contextul alocării resurselor necesare acestui domeniu important pentru sănătatea, siguranţa şi securitatea individului de orice vârstă

b. Întărirea capacităţii tehnice la nivel naţional şi subnaţional de a răspunde adecvat necesităţilor

- formarea personalului pe ariile/temele prioritare legate de sănătatea mediului, sănătatea ocupaţională, siguranţa alimentelor; creşterea gradului de pregătire şi a capacităţii de răspuns la problemele şi ameninţările legate de mediu, inclusiv cele asociate domeniului emergent al schimbărilor climatice
- modernizarea şi dotarea laboratoarelor de sănătate publică ce monitorizează riscul chimic şi radiologic asociat factorilor de mediu (ex. echipamente/aparatură esenţială precum cea de monitorizare a calităţii apei potabile, a expunerii la radiaţii, vezi OS 7.4.a)
- modernizarea şi dotarea unităţilor sanitare pentru a asigura complianţa la standardele şi legislaţia din domeniul protecţiei mediului privind gestionarea adecvată a deşeurilor medicale, complementar creşterii capacităţii tehnice a personalului (vezi OS 7.4.c.)
- o mai bună articulare a cercetării în domeniu la metodologiile de evaluare a riscurilor de calitate disponibile bazate pe abordări epidemiologice dar şi toxicologice şi o cât mai bună armonizare metodologică în plan regional şi global în scopul asigurării unei validităţi, comparabilităţi şi implicit a utilităţii mai înalte a rezultatelor procesului de caracterizare a riscurilor pe sănătate legate de mediu de viaţă şi muncă

[80] Centrul Național de Monitorizare a Riscurilor din Mediul Comunita

- actualizarea/dezvoltarea sistemelor informatice sau informaţionale de suport astfel încât bazele de date ce sunt esenţiale în cercetarea/evaluarea în domeniul sănătăţii şi mediului să fie la îndemâna specialiştilor în domeniu, să fie mai bine valorificate şi corelate cu alte baze de date relevante (ex. cu informaţi socio-economice) pentru creşterea potenţialului şi a capacităţii evaluative în domeniu

c. Comunicarea mai eficace a riscurilor pentru sănătate către populaţie şi asigurarea accesului cetăţenilor la informatii adaptate privind determinanţii sănătăţii/riscurile legate mediu şi măsurile de protejarea a sănătăţii, inclusiv la grupurile vulnerabile şi la expusul ocupaţional. În contextul descentralizării este necesară asigurarea resurselor metodologice şi/sau a asistenţei tehnice de specialitate pentru conştientizarea autorităţilor locale privind problemele din comunităţile lor, identificarea măsurilor de protejare a sănătăţii în relaţie cu mediul ce le stau la îndemână şi pot fi aplicate ţinând cont de responsabilităţile lor legale.

OS 3.5. Insuring acces to diagnostic and/or treatment services for special pathologies

3.5.1. Rare diseases

Politica MS în domeniul bolilor rare vizează consolidarea capacităţii sistemului de a oferi servicii de sănătate de calitate pentru pacienţii cu boli rare, un acces cât mai bun în măsura posibilităţilor la produsele medicamentoase orfane (PMO) şi apropierea performanţei sistemului din România de standardele şi recomandările promovate de politica europeană comună şi structurilor europene de profil (de exemplu, EUCERD, Orphanet).

La nivelul anului 2013, intervenţiile specifice din fondurile MS se regăsesc în Programul naţional de tratament pentru boli rare (ex. fenilcetonuria la adulţi), dar şi în Sub-subprogramul de sănătate a copilului - intervenţii ce finanţează screening-ul, diagnosticul şi/sau tratamentul pentru un număr de patologii rare precum: fenilcetonuria, hipotiroidismul congenital, fibroza chistică/mucoviscidoza, intoleranţa congenitală la gluten, alte boli înnăscute de metabolism, imunodeficienţe primare, deficitul auditiv congenital, hemofilie, talasemie).

În domeniul bolilor rare se doreşte, acolo unde este posibil, promovarea practicii pe bază de evidenţe, precum este cazul tratamentului pacienţilor cu hemofilie cărora o abordare terapeutică corectă le poate asigura o speranță de viață și o calitate de viață asemănătoare populației generale sau ca a celorlalţi pacienţi cu hemofilie din UE. În plus, o terapie corectă contribuie la evitarea costurilor indirecte foarte mari cu managementul morbidităţii secundare, pentru ajutor social sau de handicap, pensie de boală, etc).

Strategic directions/Measures

a. Îmbunătățirea calității îngrijirii pacientului cu boli rare pe tot lanţul de îngrijiri

- organizarea serviciilor specifice în cadrul unei reţele funcţionale de centre de competenţă şi de referinţă conform practicii recomandate pe plan european şi definirea mecanismelor de colaborare între acestea
- îmbunătăţirea infrastructurii, prioritar pentru laboratoarele de referinţă, pentru creşterea capacităţii de diagnostic aprofundat, inclusiv pre/post natal
- extinderea utilizării soluţiilor ICT în înregistrarea bolilor rare la nivel naţional și realizarea registrelor de boli rare, inclusiv registrul de hemofilie (*conform OS 6.1. c*)
- implicarea serviciilor medicale de prima linie în îngrijirea pacientului cu boli rare şi stimularea colaborării cu serviciile sociale din comunitate şi organizaţiile de pacienţi

b. Asigurarea accesului pacienţilor cu boli rare la terapia specifică şi alimente cu destinaţie medicală specială

- identificarea de mecanisme / soluţii de finanţare mai eficace pentru produsele medicamentoase orfane (PMO) în cadrul unei politici transparente de alocare a resurselor disponibile
- revizuirea ghidurilor/protocoalelor de tratament pentru pacienţii cu hemofilie în lumina evidenţelor recente şi a recomadărilor structurilor europene de profil şi regândirea modalităţilor de asigurare a tratamentul specific, fundamentat pe principii de cost-eficacicate, cu implicarea organizațiilor de pacienți

c. Îmbunătăţirea cadrului metodologic şi a competenţelor tehnice a specialiştilor prin elaborarea de ghiduri de practică, formare continuă, elaborarea de recomandări periodice ale comisiilor de specialitate ale MS de actualizare a planurilor de educaţie ale unităţilor de învăţământ superior pe baza de evidenţe, creşterea gradului de implicare a specialiştilor români în iniţiativele europene şi internaţionale de schimb de informaţii şi între specialişti şi de cercetare.

- elaborarea de protocoale terapeutice temporare, în funcţie de evidenţele disponibile
- definirea unui sistem de *"compassionate use"* a medicamentelor orfane pentru pacienţii cu boli rare, conform recomandării de EUCERD şi in linie cu cerinţele EMEA

3.5.2. Transplant de organe ţesuturi şi celule de origine umană

Din 1999 România este reprezentată în Comisia de Transplant a Consiliului Europei, ceea ce a facilitat transpunerea în legislaţia naţională a prevederilor europene în domeniu. Activitatea de transplant se desfăşoară în cadrul Programului naţional de transplant de organe, ţesuturi şi celule de origine uman, coordonat tehnic de a Agenţia Naţională de Transplant (ANT) - care menţine şi listele de aşteptare pentru diferitele tipuri de transplant - şi derulat prin unităţile sanitare acreditate în condiţiile legii. Cele două sub-programe existente vizează transplantul de organe, ţesuturi şi celule de origine umană şi transplantul de celule stem hematopoetice periferice şi centrale.

Activitatea de transplant de organe, ţesuturi şi celule de origine umană este una intens consumatoare de resurse, deci şi foarte sensibilă la constrângerile bugetare în contextul resurselor financiare limitate şi a priorităţilor competitive din sănătate, pe lângă limitările legate de acceptabilitatea în rândul populaţiei a donării de organe. Notabil, în perioada recentă s-a înregistrat o creştere considerabilă a numărului donărilor de la subiecţi în moarte cerebrală.

Strategic directions/Measures

a. Alinierea cadrului normativ la prevederile comunitare în domeniu, precum şi a celui metodologic la bunele practici şi evidenţele disponibile

b. Promovarea în rândul populaţiei a unei atitudini favorabile donării de organe, ţesuturi şi celule de origine umană de la donatori vii, donatori aflaţi în moarte cerebrală sau donatori fără activitate cardiacă

c. Consolidarea capacitaţii reţelei naţionale de transplant şi susţinerea activităţilor ANT în vederea creşterii accesului nediscriminatoriu al pacienţilor cu indicaţie de transplant la servicii de calitate

- îmbunătăţirea mecanismelor şi procedurilor de monitorizare a calităţii şi siguranţei organelor destinate transplantului

- implementarea unor mecanisme şi proceduri care să permită derularea cu transparentă maximă a selecţiei receptorilor de organe
- înfiinţarea de bănci regionale de sânge şi de bănci pentru transplantul de celule şi ţesuturi la nivel naţional

d. Dezvoltarea/consolidarea registrelor specifice - lansarea și operaționalizarea Registrului Naţional al Donatorilor Voluntari de Organe; dezvoltarea şi întărirea rolului Registrului Naţional al Donatorilor Voluntari de Celule Stem Hematopoetice (RNDVCS)(*vezi OS 6.1.c)*

4.2. STRATEGIC AREA OF INTERVENTION 2: “HEALTH SERVICES”

OG. 4. Insuring equal access to quality and cost-effective health services, especially for vulnerable groups

The health services system requires a structural reform. There are still rural-urban inequities as regarding the access to health services, as well as within vulnerable population groups. The basic services at the level of communities are not developed, thus the descentralization is both an opportunity and a risk. The primary medical care, through transforming general medicine doctors into family doctors as not achieved its purpose in covering the primary medical care services specially in rural areas, partly due to insufficient and ever-changing regulations, flawed infrastructure and limited funding which reduced the motivation of medical universities graduates to opt-in for this specialty and to practice it, especially in rural areas, but also due to lack of public policies to determine or stimulate family doctors to deploy proactive action in families and communities, focused on primary, secondary and tertiary prevention. Within this context there’s an overload of the hospital aid, as this is predominant both in the structure of the health services offer and respectively financial resources in the health field, as well as population preferences. The ambulatory specialty aid is insufficiently developed and involves generally long waiting lists or extra costs, direct and/or indirect, which patients, especially those from rural areas or certain vulnerable groups cannot afford. The specialized recovery services, for instance those for chronic diseases with increasing prevalence, such as cardiovascular or neurological diseases are not well enough developed, while hospitals for acute diseases serve mainly chronic patients. Alternative services, just as efficient but much more cost-effective, such as rehabilitation, recovery and long-term care services (for instance services of home care or palliative care) are insufficiently organized, coordinated, controlled and financed. A responsible public policy, cantered around patients needs shall be able to promote decreasing the infrastructure of bed-based care only by offering alternative health options to the population, accessible and quality ones but much less expensive costs compared to hospital services.

Traditionally, in Romania the curative services, especially the hospital ones have drawn most of the attention of decision makers and health allocations, detrimental to those with preventive role and favourable cost – benefit ratio proven in time. At least for the case of chronic diseases, the prevalent model of health care is more likely focused on treating the acute episodes of the disease instead of proper disease management by early discovery and recurrent, systemic and quality care, to decrease the risk of evolution towards severe stages and complications. The poor relation between the family doctor and patient, economic, educational, cultural barriers and medical bureaucracy are all factors that influence the fulfilment of the gatekeeper role of family medicine. The result of absence of a culture of prevention both at individual level and health supplier level involves a big burden of the disease among the population and over-using the tertiary level of services due to poor route of the patient within the health care system.

The structural reform in organizing, funding and supply of health services is all the more justified by the current regionalization process stated in The Governance Program 2013 – 2016, which promotes balancing regions, development of sustainable social policy which free and equal access of the population to health services, defining a long-term strategy which combines the increase in efficiency of the health sector with gradual increase of public funding, with a strong impulse to develop private funding, including development of

private insurances for those who afford them and establishing compensatory measures for the poor ones.

Astfel, restructurarea sistemului serviciilor de sănătate este prevăzută pe niveluri de îngrijiri, promovând descentralizarea şi regionalizarea asistenţei medicale, analizând după caz soluţia optimă pentru fiecare componentă, dezvoltarea de servicii de sănătate de bază, accesibile tuturor, de calitate şi cost-eficace, cu accent pe prevenţie şi promovare a unui stil de viaţă sănătos, integrarea asistenţei medicale şi crearea de reţele de îngrijiri şi reorganizarea serviciilor spitaliceşti, punând bazele unui sistem de sănătate care să răspundă echitabil nevoilor de sănătate ale populaţiei şi în special ale populaţiilor vulnerabile.

S.O. 4.1. Development of community care services, integrated and comprehensive, especially for the population in the rural areas and vulnerable groups, including Roma population

Development of community care services represents the cost-effective alternative to grant access of the population, especially in rural areas and vulnerable populations, including Roma ethnics, to basic medical care services, as well as a prerequisite for restructuring of the specialized services. Currently, the community nurse and health mediator work as part of the social public care service[81], while a better functional integration of social and health services offered at community level is needed. The initiative of the Ministry of Health by which the professions of community nurse and health mediator for Roma communities – with personnel later transferred to local authorities but still funded by the state budget through the Ministry of Health – represents the premise from which community centres will be developed to supply services of promoting a healthy life-style, of primary, secondary and tertiary, home-care services and palliative care, as well as services integrated with primary and specialized medical care and by case scenario, with school medical care, with social services regarding deceasing risk of school and family abandonment, risk of social exclusion, combating abuse and neglect of the elderly, fighting domestic violence or fighting discrimination of low-income population.

The measures of service development within the community will be correlated with Sectorial National Strategies with impact on decreasing poverty and promoting social inclusion.

Strategic directions/Measures

a. Granting of a legal and institutional framework that's favourable to development and optimal functioning of community medical care services, functionally integrated with social services, focused mainly on the vulnerable populations in the rural areas, Roma ethnics, patients that require home-based treatment, people with disabilities etc.

- The revision of basic and secondary legislation regarding the functioning of community medical care services / centers and health mediation for Roma population
- Creation of collaboration and coordination mechanisms with other governmental and NGO structures
- Re-definition of types of community medical care services - high-lighting prevention services within the community, especially for vulnerable people – and of collaboration with social services mechanisms
- Development of the extension plan for the community medical care services (needs mapping) and of gradual formation of existing service suppliers as well as newly employed ones.

[81] According to the provisions of art. 8, par. 3 from GEO no. 162/2008.

- Inter-sectorial collaboration to facilitate the implementation to support measures for des-institutionalization
- Diversification of funding and attracting financial resources available at local level

b. Development of model community centre to define best practices and expansion of the health community services at the national level.

- Discovery of infrastructure that can be allocated to integrated centres of community care and rehabilitation *(see O.S. 7.2)* or, by case scenario, identifying sources of financing and their development, as well as finding the human resources necessary
- Insuring functional integration with primary medical care and specialized and social services, education, habitation, occupying etc.

c. Development of the institutional and technical capacity of the suppliers of community services[82]:

- Elaboration of standards and procedures related to supplying community services in an integrated system and of work-tools needed – guides, standards and/ or practice protocols or important areas of health or collaboration
- Development of formation curriculum for the personnel and implementation of basic formation interventions and improvement through continuous education, including e-learning solutions

d. Insuring support and methodological support by central and regional authorities in the area of health and social services.

- Standardising the evaluation methodologies and periodic evaluation of the integrated community services system
- Formation of personnel within central and local authorities in health and social care for the development of integrated community services, according to the community needs

S.O. 4.2. Increasing effectiveness and diversification of primary health care services

The health care services supplied by the family doctor respect the values and principles followed by the World Health Organization (WHO) in their global efforts to support countries as for consolidation of their health systems, to make them more equitable, comprehensive and correct[83]. The primary care system needs to become comprehensive, widely accessible, coordinated with other care levels and to insure continuity of medical care. A special emphasis will be made on increasing quality of services supplied at this level, on evaluating individual risk factors, managing acute episodes, but also monitoring of chronic patients. Moreover the legal and normative framework will be adapted to the process of descentralization and regionalization, with new funding mechanisms, strategies to attract the human resources, which would insure practices and medical facilities both well coordinated and monitored, but also equipped with equipments and proper technologies. All in all, implementation of the recommendations of „Strategy for development of primary medical care" (Ministry of Health / World Bank, 2012) will be pursued.

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[82] Suppliers of community services are personnel / specialists from the public sector which offer medical services (the community nurse, mediatorul sanitar pentru romi), social services, education, habitation etc.

[83] WHO –Report on Global Health 2008 re-iterates the commitment towards improvement of the global health state, especially for the most disadvantaged populations; countries are asked to consolidate basic health services – as the most effective, correct and cost-effective way to manage a health system. The title of the report emphasizes on the urgent character or its message: basic medical services – now more than ever.

An increase of access to primary health care services is also considered by piloting and development of telemedicine services in remote rural areas, as well as providing the necessary infrastructure (according to *SO 6.2.b*).

Strategic directions/Measures

a. Insuring continuity of care in the primary health care and its integration with community health services and with specialized ambulatory care.

- Re-modelling the package of services in the primary medical care, by increasing the proportion of primary, secondary and tertiary prevention services for adults and children – including those in vulnerable communities / groups – diagnose, monitoring and early treatment of the chronic patients (ex. HTA, diabetes) within the community.
- Redefining the basic medical care package and introduction of payment mechanisms based on performance criteria
- Development of methodologies / standards to insure continuity of care
- Elaboration of the methodologies and procedures for the „therapeutic route" for the first 20 most frequent pathologies
- Introduction of a system to collect and report at patient level, of all services supplied by basic medical care and decreasing excessive bureaucracy (introduction of the WONCA/ICPC-2 classification, accepted by the WHO[84])
- Introduction of the clinical audit in primary medical care and improvement of the mechanisms of monitoring and control of the family medicine activity.
- By 2020, ensuring he population with health services available 24 hours a day outside the hospital

b. Insurance of the equitable territorial distribution of primary care services

- Identification and implementation of sustainable interventions to attract and keep doctors in primary care, especially in rural areas, with the financial participation of the local authorities
- Diversification of the forms of organization of primary medical care and an increase in the capacity of accessing European funds for development and equipping cabinets with equipment and medical technologies
- Improvement and support of the primary care services in schools and at workplace.

c. Continuous development of the knowledge and abilities of suppliers in the primary medical care sector

- Revision of the curriculum for residency in family medicine for the development of competencies related to early diagnose and intervention
- Revision of the basic formation curriculum of nurses and introduction of qualifications / specializations for nurses.
- Organisation of varied medical formation / education, centred on population's and communities needs and around implementation of guides and clinical protocols; focusing the formation programs around the main mortality and morbidity causes

d. Consolidation of the school medicine network, as part of the primary medical care addressed to children and youth, both in urban and rural areas

- Revision of the legal framework of the school medical care

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[84] World Organization of Family Doctors /International Classification of Primary Care

- Development of unified standards, methodologies and procedures
- Insuring support and methodological control by central and regional authorities regarding school medicine.

  Developing mechanisms to evaluate the performance of the providers of school medicine

O.S. 4.3. Consolidation of the specialized ambulatory services in order to increase the proportion of cases solved in the specialized ambulatory and reducing the burden on continuous hospitalization

The rationing of the capacity of hospitals was initiated by the Ministry of Health by implementing the National Plan 2011 – 2013 to reduce the number of beds in public and private hospitals contracted by FNUASS. Thus, a significant number of beds have been reduced (from 129 524 beds in 2011 to 123,127 in 2013), Romania having in 2013 around 5.8 beds for 1000 inhabitants, with values close to those in the EU. Still, while reducing the number of beds the need for specialized services and an increase in the offer for ambulatory services were not reconsidered in those areas where the hospitals have been reduced. To insure the access of the population to specialized medical services, a re-organization of the specialty ambulatories is needed.

Strategic directions/Measures

a. Development of the network of specialty ambulatories (specialty ambulatory care, paraclinic specialties, imagistic services, laboratory, functional explorations)

- The integration of clinical hospital services and of technical diagnose platforms with the ambulatory services
- Organizational re-definition – the definition of service plans for the specialty ambulatory as part of the local health services
- Improvement in the infrastructure of the specialty ambulatory (see *O.S. 7.2*)
- Implementation of IT&C solutions to improve reporting systems in specialty ambulatory, while insuring inter-operability within the health's information system.

b. Increasing the capacity of the medical staff to provide specialized ambulatory services in an integrated manner with the other care levels and according to practice guides, clinical protocols and procedures for "therapeutic route" for the first 20 most frequent pathologies.

S.O. 4.4. Improvement of population's access to emergency medical services by consolidating the integrated emergency system and continuing its development

The emergency medical care has developed a lot in the past ten years, in a coherent manner and integrated with the emergency medical care, and is considered by the population and the decision makers at central and local level as a best practice model within the health system. The emergency medical care works integrated both at pre-hospital level (ambulance services and the emergency services serviced by firemen with paramedics and integrated teams with emergency doctors as part of SMURD in cooperation with the Ministry of Internal Affairs) and with emergency hospitals through units and departments of emergency arrivals, as doctors in the emergency arrival units provide emergency medical care also pre-hospital through units integrated with the firemen as part of SMURD.

The population accesses the emergency system either by calling the unique emergency number 112, either by going directly to the units or compartments for emergency arrivals at

the hospital level) which answer in a non-discriminatory manner, equally and fast to all calls. Keeping the same standard of emergency services requires permanent investments in human resources and in the specialized infrastructure at pre-hospital and hospital level.

The same time it is necessary to create optimal conditions for continuing the treatment of the patients arrived in emergency arrivals units as well as in specialized departments from emergency hospitals, while maintaining a high level of services until completion of patient's care.

Strategic directions/Measures

a. The integrated regime of functioning of the emergency medical care with the increased intervention capacity by:

- Multi annual programs to equip the ambulance and SMURD services (see OS 7.3); insuring the necessary equipment for collective accidents and calamities; rehabilitation and proper equipping of the units and compartments for emergency arrivals, to replace periodically the outdated equipment
- Reforming of the dispatching system and rationing of the number of dispatches through their integration with ones within firemen units and by reducing their number and dispatch regionalization
- Full informatization of the emergency system from the moment of the call and until hospitalization or patient release from the UPU/CPU os 6
- Revision of the monitoring mechanisms of the activity in the emergency sector, as well as of the way funds from the state budget are being used.
- Development of the telemedicine system and encouragement in using it at pre-hospital level, and also at the inter-hospital level.

b. Diversification of the competencies of the medical, paramedical and operative staff involved in the emergency care, through:

- Development of the guides and standardized work procedures
- Increase access of medical and paramedical staff to continuous medical education programs as well as improvement ones, diversified and centered on development needs.
- Dispatch professionalization to manage calls and intervention resources correctly and efficiently.
- Development of learning and simulation centers to further train the staff in the emergency system.

O.S. 4.5. Performance and quality improvement of the health services, through regionalization / concentration of the hospital medical care

There are 360 hospitals currently in Romania (decentralized to the local authorities, except for tertiary hospitals which remained under the jurisdiction of the Ministry of Health), from university hospitals which supply with tertiary services at the highest level, placed in Bucharest and six other university centers to small hospitals with two-three specializations or even one.

Also there's a great variability in the number of qualified hospital staff or as concerns the infrastructure and diagnose and treatment technical platforms, and respectively in hospitals capacity to provide quality, cost-effective and safe medical services for the patient. Some cases that are treated in hospitals (especially in small hospitals) are in fact simple pathologies that are considered „avoidable hospitalizations" which could be treated in

ambulatory, while the more complicated cases are systematically transferred to county hospitals and mostly to clinic/ university hospitals.

The reform of bed-based medical care needs to include re-evaluation of hospitals, their rationing as well as revising the classification criteria of hospitals, their implementation and respectively re-organization of hospitals on competence levels which would include criteria for the integrated care of critical patients and complex cases, with regional hospitals of high performance – with adequate staff, infrastructure and funding. Replacement with alternative services (day-care hospitalization and ambulatory treatment) of the offer of non-performing hospital services is desirable, which offer the service continuum necessary as well as cost-effective consolidation of long-term care (ex. home-treatment) as it can be done at community level.

Fig. 3. The vision of the regional network of hospital services

Strategic directions/Measures

a. Revision, approval and implementation of the Competence-based classification list of hospitals (level and treatment category to insure optimal care for emergency cases as well as for complex cases that are not emergencies)

- Definition of the bed structure, staff and technical platform standards.
- Establishment of the professional collaboration methodologies and technical „patronage" between hospitals that are classified through the List (at regional level/university hospitals, county and local level)
- Creation of inter-hospital platforms for joint use of human and technological resources, including the continuation of development of the inter-hospital telemedicine system as well as the one that connects the hospitals with pre-hospital and the system that provides primary and ambulatory medical care.
- Revision / improvement of the legal framework related to inter-hospital transfer of the ill and access to diagnose medical technologies that are unique within a territory

b. Insuring efficacy and cost-control of the hospital service package by:

- Funding from the social health insurance budget of cost-effective services, while complying with methodologies and procedures of the "therapeutic route" for the 20 most frequent pathologies as well as insuring continuity of care
- Diversification of income sources for the hospital staff as well as diversification of competences, attributions and responsibilities of the medical staff.

- Implementation of a rigorous system to monitor service quality and performance
- Insure control and transparency of hospital public spending, together with diversification of the funding sources for hospital services and legal organization of hospitals
- Elaboration and implementation of hospital management standards to increase management performance in parallel with the increase in the role of the local authorities in health issues through descentralization
- Increase of access of the staff to improvement programs (a) according to practice guides, clinical protocols and „therapeutic route" procedures; (b) of planning, management and administration of units with beds.
- Insure targeted funding for diseases whose treatment is expensive and effective, such as infarct, trauma, stroke, etc.

c. Development of the hospitals capacity to deliver day-time hospitalization services and an increase in their share in the services offered

S.O. 4.6. Increase access to quality rehabilitation services, palliative and long-term care, adapted to the demographic phenomenon of population aging and the epidemiologic profile of morbidity

The health sector needs to start preparing for the amplification of the burden of chronic diseases as the population ages, by progressively adjusting its capacity, including with the preparation to answer needs. Beyond hospital closure the rationing of hospital capacity means identification and provision of complete and complementary care services, acute, of rehabilitation and recovery for chronic conditions, which would offer patients access to quality services proper for the elderly. The differentiation of hospital services is required, as well as insuring continuity of the treatment till full resolution of the case, as is the case with patient recovery after the resolution of the acute phase, for instance in cardio-vascular or neurological illness – services that are currently scarce in Romania. Furthermore, deployment of interventions meant to support a healthy and active aging is necessary. Initiatives meant to meet the health services requirements specific to disabled people, adults and children, need to follow the inter-sectorial, integrative approaches designed for this category of vulnerable people, according to WHO and World Bank recommendations.[85]

The current classification of hospitals will be added-upon to also define hospitals that provide rehabilitation, recovery or long-term hospitalization services for chronic diseases. Restructuring and rationing of the bed-based medical care needs to be approached systematically – by defining service packages, their respective costs and establishment of the legal framework – but also interdisciplinary, in partnership with local authorities and specialized social care services. Development plans for hospital health services, which would include rehabilitation, recovery or long-term hospitalization services for chronic diseases will be developed at national, regional and local level. These need to focus on supply with human resources and infrastructure proper to providing services.

Strategic directions/Measures

a. Development of e medium and long-term Plan regarding rehabilitation, palliative and long-term medical care – consolidated around county and regional plans, according to demographic profile (as part of Consolidate Health Services Plan)

[85] WHO, The World Bank. *World Report on Disability*. WHO, 2011

- Revision of the legal framework regarding organizing, funding and supply of long-term medical services
- Reorganization of the chronic diseases and medical-social hospital network; classification of the providers of long-term medical care according to levels and types of care, together with further reducing the number of beds for acute cases to 4,5 to 1000 inhabitants tops by 2020.
- Diversification of the financing sources, including by accessing reimbursable and non-reimbursable funds or by supporting private investments in the building and equipment of the units providing long-term medical care.

b. Implementation of the National Plan regarding rehabilitation, palliative and long-term care

- Identification, reorganization and rehabilitation of the chronic diseases hospitals, rehabilitation centers infrastructure at county / regional/ national levels according to demographic profile and morbidity and in conformity of the National Plan on medium and long term regarding rehabilitation, recovery and long-term hospitalization services
- Increase in access to diversified continuous medical education programs and improvement centered around development needs as well as around the needs of the served patients.
- Development and implementation of organizing and functioning standards, practice guides and „therapeutic route" procedures
- Development of inter-institutional mechanisms, standards or work procedures, which would provide an integrated and efficient answer regarding rehabilitation of adults and children with disabilities

S.O. 4.7. Creation of local, county and regional networks of providers of medical care

The fragmentation of health services represents one of the big issues of the health system, with a negative impact both on the population's access to adequate health services and upon the costs for the health system, as many times services reimbursed from public money are uselessly doubled for the same case (for instance repeated paraclinic investigations in short time-span, made at different levels of care), or patients who access costly emergency pre-hospital and hospital services for minor illness, due to lack of adequate and cost-effective alternative services.

The creation of local, county and regional networks of medical care providers, the differentiation and integration of services supplied in community centers, primary care, multifunctional centers and specialized ambulatories, hospitals on services categories, as they were formerly introduced. Such an approach, centered on patient's needs shall produce at national level a better cost control, transparency and predictability. Besides, a good coordination and a performing integrated management of the suppliers of health services at county level represent the premises of a health system that places the patient at the center of its preoccupation.

Strategic directions/Measures

a. Coordination of health care by insuring optimal routes for the patients, based on categories of illnesses

- Implementation of „therapeutic route" procedures for the first 20 most frequent illnesses
- Creation of functional networks of healthcare providers at local, county and regional levels, emphasizing on ambulatory services and concentration of the bed units at county and regional level.

- Establishment of the reference regional networks between hospitals of different competence category so as to have a reference center IA graded and at least two graded IIA according to the classification of hospitals for treating critical and complex cases on regional level, considering the 8 development regions.
- Development of telemedicine services o insure public access, especially in rural and isolated communities to quality medical services.

b. Insuring a performing management of decentralized health services and increase in local, county and regional capacities to handle integrated health services *(see SO 5.1.b)*

5. STRATEGIC AREA OF INTERVENTION 3: "CROSS-CUTTING MEASURES FOR A SUSTAINABLE AND PREDICTABLE HEALTHCARE SYSTEM" – PRIORITY AREAS

G.O. 5: An inclusive, sustainable and predictable healthcare system by implementing priority cross-cutting policies and programmes

S.O. 5.1. Strengthening the administrative capacity at national, regional and local level and change communication

Increasing the performance of the healthcare system requires an improved capacity of the management structures at all levels as well as a redefined area of competence across the Ministry of Health (MoH) and the regional and local management structures. The policies developed and the decision-making process should be based on evidence and information on the state of health and the health services. There is a need for greater transparency in decision-making and the performance of the health services.

Ensuring the control capacity of the Ministry of Health in the area of competence shall be achieved in an independent, impartial and transparent manner, through the activity of the State Sanitary Inspection. It shall ensure the quality and consistency of inspections at all levels by identifying risks to public health, risk management by way of identifying, assessing, analyzing and monitoring the risk to mitigate or eliminate it, and risk communication to stakeholders.

The monitoring activity/supervision of the state of health and the main determinants – socio-economic, individual behavioural, environmental or related to access to and quality of the services – is essential for a better understanding by the population of the burden of chronic disease and the relevant national, regional and local policies being based on evidence and proof. This activity lies with the Ministry of Health, the National Institute of Public Health/National Centre for Environmental Monitoring of Risks in the Community, the specialized structures at regional and local level and the local authorities. The monitoring and the reporting of community health indicators that are part of the European common indicator shall be mandatory for the relevant national health structures.

Strategic directions/Measures:

a. Increased capacity to prepare and put in place evidence-based health policies and to promote more advanced management of the national healthcare system:

- Increased capacity for analysis and forecasting, planning and strategic management
- Analyse and review the responsibilities and powers of public health institutions at all levels of the healthcare system and recruit/develop staff in line with the redefined powers;
- Introduce budgeting by programme in the health sector to ensure predictability and sustainability of funding; monitor and assess how funding helps achieve the proposed objectives
- Review the national health programmes to improve the structure, the management and operation, the performance monitoring and assessment of the national health programmes and to achieve better prioritization of resource allocation (cover mainly the needs of the most vulnerable, the preventive/early detection interventions for the

health priority areas); assess the effectiveness and performance of health programmes on an annual basis

- Build the planning and strategic management capacity at central, regional and local level, including supporting the regionalization policy of health services that is meant to ensure continuity thereof and integrating them in a performing and cost-effective system capable of providing reliable and quality services.
  - Defining, with the participation of local public authorities, the integrated regional/county health service plans (based on standard methodology subject to regular review) and, at national level, the Consolidated Health Service Plan (CHSP), subject to regular review
  - Training the staff within the specialized structures at central, regional, county and local level to be able to identify health needs, and to plan, organize and manage the health services
- Promote among hospital managers the use of modern management tools, the internal management protocols and the systematic assessment of their performance
- Define the competence and the mandates of the Ministry of Health and its subordinate and coordinate institutions
- Draw up methodologies, cost and/or quality standards for sectorial public services
- Build the supervision capacity of health determinants, the monitoring, the evaluation and research capacity – including the compliance with the European Community Health Indicators – to support the evidence-based decision-making process through:
  - Technical capacity-building of healthcare professionals (human resources, ITC support) at central and local level
  - Implementing research projects, studies or surveys on health determinants and the burden of disease on the population
  - Technical/methodological support to local authorities for better knowledge of community health and proper prioritization in health, to define local health policies tailored to the needs of the community, according to their specific decision-making expertise
- Build the state inspection and control capacity; develop an efficient and effective capacity-building strategy of the network of laboratories involved in state control and the accreditation thereof
- Improve the quality and efficiency of public services, by promoting public integrity and accountability

b. Planning and implementing communication interventions (campaigns) for the reform measures and the expected results to ensure acceptability and increased adherence to change by the population, patient and professional associations and to reach political consensus.

S.O.5.2. Implement a sustainable policy ensuring human resources in the health sector

The existence of a well-trained and motivated staff is a prerequisite for providing quality services. In recent years, there has been a tendency for the healthcare professionals to migrate to other countries due to the attraction of better employment, income or professional recognition. Sustainability in health human resources can be achieved through retention policies aimed at granting financial incentives and improving professional development prospects of healthcare professionals. In addition, incentives are required for those professionals practicing in disadvantaged areas or poorly staffed specialties, and the

staff training capabilities will have to be tailored to the need for specialists of the healthcare system.

Strategic directions/Measures:

a. Developing the political and regulatory framework for optimizing health human resources, both in clinical services and public health areas

- Analyse the situation of healthcare professionals (existing, deficit, forecast needs in territorial terms and by types of staff, etc. and defining a strategy/development plan for health human resources, prepared in collaboration with professional associations, trade union structures, institutions involved in initial and/or ongoing training, ministries or other relevant bodies
- Identify and implement – including with the involvement of local authorities – sustainable strategies to attract and retain doctors and nurses in the Romanian healthcare system, especially in poorly staffed specialties and areas, such as:
  - Organizing the residency exam and facilities from local communities
  - Facilities granted upon opening medical practices to general practitioners and ambulatory physicians, multifunctional centres, including reducing fees to an acceptable level and the co-payment for utilities
  - Providing further motivating conditions for the opening of medical practices in disadvantaged areas
- A HR policy to ensure employment, retention and professional career development for the staff of public health institutions, including residency graduates in public health and health management and other specialists
- Develop unitary criteria on the standardization, quality, equipment, evaluation and monitoring of the staff activity, the ongoing training/qualification of technical staff and decision makers, the use of ITC tools and an improved regulatory framework
- Review the wage system towards increasing flexibility and stimulating performance and competitiveness by excluding healthcare professionals (doctors, nurses and midwives) from the budget staff category

b. Ensuring training for an adequate number of staff – mainly for poorly staffed clinical and public health specialities[86] – to cover staffing needs in priority healthcare areas[87]

- Reform the residency training programmes in terms of admission, training and obtaining the specialist qualifications, the certificates of complementary studies for physicians specialized in adults and paediatricians
- Introduce new specializations/qualifications in the basic training of nurses, according to the needs
- Organize interventions/specific training programs for the ongoing training of health workers, including e-training solutions

S.O. 5.3. Implement a sustainable policy ensuring financial resources for health, cost control and financial protection for the population

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[86] The poorly staffed specialties that are currently a matter of priority, where residency training is to be primarily provided are anaesthesia and intensive care, neurosurgery, paediatric surgery, cardiovascular surgery, vascular surgery, emergency medicine, radiotherapy, psychiatry – including paediatric psychiatry, etc.

[87] Including provision of emergency care, primarily in regional IA class hospitals and zone IIA class hospitals.

According to the World Bank[88], in Romania, total health expenditure slightly exceeds 5% of GDP, as compared to a European average[89] of 6.5% and an EU average of 8.7%. The difference is apparent, on the one hand, from relatively low public health expenditure, but also from the small share of private expenditure on health compared to other countries[90], the lack of tax incentives and the financial crisis having also contributed to the stagnation of the private insurance market.

There is a need for a long-term strategy for the health sector in order to ensure sustainable financing hereof. In the proposed strategic directions it is necessary to combine an action plan to increase the efficiency of the health sector with more advanced cost control measures, sustainable growth of public funding and defining a regulatory framework to stimulate private forms of funding in health, namely developing private insurance, individual health accounts for those who can afford them, on the one hand, and establishing compensatory measures for the poor, on the other hand.

Strategic directions/Measures:

a. Sustainable growth of health revenues

- Develop the legal framework for introducing the additional health services package, the measures on the extent to which private health insurance – creating individual health accounts – can be deducted; create the framework for developing private health insurance forms, developing the legal framework for changing the status of hospitals, by allowing them to exit the category of budgetary institutions and organize themselves as non-profit foundations or business entities, to enable them to have a more flexible structure, organize themselves according to management principles, based on efficiency and performance criteria
- Create the legal framework for developing public-private partnership in health

b. Increased financial access to health services with the diversification of health services provided to uninsured vulnerable people/groups:

- Introduce a comprehensive and diversified minimum health service package for vulnerable/uninsured groups
- Restructure the national health programs, the less cost-effective interventions and shifting them towards evidence-based interventions
- Run information/education campaigns on the rights to health services, especially among vulnerable groups, and on the benefits of different types of insurance

c. Reviewing the health service funding and reimbursement and cost control system:

- Update the national health accounts
- Develop cost methodologies and set the price of health services by category of services/service providers
- Introduce performance-based payment mechanisms, while stimulating primary and secondary prevention services and identifying within the social health insurance system of additional financial resources for access to free medicines by certain vulnerable groups (defined based on revised eligibility criteria)
- Review hospital services agreements and putting in place payment mechanisms to capitalize the approach through functional networks of health service providers at the

[88] World Bank, *Analiza funcţională a sectorului de sănătate din România (Functional review of the Romanian Health Sector); Final Report*, April 2011

[89] WHO Europe region

[90] 18 % in Romania, as compared to 41 % in Bulgaria and 28 % in Poland

level of a population pool, by implementing the "therapeutic course" procedures starting with the most common pathologies

d. Putting in place a rigorous control of public expenditure along with introducing measures to reduce informal payments:

- Improve the information/IT system to build the capacity of the financial/accounting department of MoH, while developing the human resource and introducing standardized monitoring and control tools
- Increase the internal audit capacity of MoH
- Establish the regulatory framework and define/implement a functional audit system for public and private health service providers, based on incentives and penalties, and on prevention and control of the claims of hospital service providers
- Increase the transparency of public spending by counties/regions, by way of annual reports prepared by NHIH and MoH
- Review the legislation regarding direct payments and run local public information campaigns on health services people are entitled to at no cost, the amount of co-payments and other direct (official) payments, and the institutions they can contact in case of informal payments, the conditioning of services via informal payments.

e. Increasing the share of supplementary health insurance and developing the public-private health partnership – defining public policy options on the development of private insurance, developing and implementing the regulatory framework with assistance from international organizations and the involvement of local partners

S.O. 5.4. Ensure and monitor the quality of public and private health services

In the context of post-1990 reforms, the institutional capacity and the control mechanisms across the healthcare system have developed insufficiently. Therefore, the medical practice was liberalized, in particular at the level of primary and outpatient healthcare; territorialisation was replaced by the freedom of choosing the service provider; competences between levels of care and types of providers were incompletely defined, making it possible to duplicate the services; preferential access to hospital/emergency services or access to high technology based on questionable criteria, at the expense of equity, quality and efficiency.

For health service providers, quality monitoring is not a systematic concern. For example, there are still significant shortcomings in identifying, reviewing, controlling and monitoring hospital infectious risk. Hospital-acquired infections or occupational infectious risk incidents/accidents are underreported. Restraining measures of self-administration and antibiotic abuse are insufficiently promoted and investigated, and the surveillance/monitoring of the antibiotic resistance phenomenon have long been suboptimal.

In this context, it is even more necessary that the limited resources of the healthcare system – especially public funds – are channelled to advanced and quality health services and used as efficiently as possible.

Strategic directions/Measures:

a. Implementing quality assurance mechanisms (by level of healthcare and type of health service providers) and the accreditation of public and private health service providers.

- Build the institutional capacity for assessing/promoting quality and evidence-based medicine in health policies
- Improve the quality regulatory system, review the regulatory framework for the assessment of providers and the accreditation of all patient units
- Implement a procedure for developing and updating clinical guidelines; prepare, develop and update any practice guidelines, clinical protocols by healthcare level and "therapeutic course" procedures; consistent/standardized monitoring of implementation to reduce variability in practice in health service providers contracted by the National Unique Social Health Insurance Fund (NUSHIF)
- Develop a functional system, institutionalize the performance evaluations focusing on quality and quality control of the services provided by health service providers at all levels of care
- Implement the clinical governance concept/system
- Introduce quality management mechanisms for public and private health service providers (quality monitoring, improved quality with a focus on continued care, the doctor-patient relationship and the communication between professionals and the observance of patient rights)
- Build the central and local capacities to monitor and assess the performance of health service providers and the consistent/standardized analysis and response procedures to deviations from minimum standards
- Implement a mechanism to monitor and assess health service providers
- Define and put in place a classification of medical devices and materials
- Put in place a formal mechanism to ensure the involvement of patients/patient associations and civil society representatives in the issue of quality and make sure their degree of satisfaction is taken into account; conduct regular surveys/studies regarding the satisfaction/opinion of the patients and the population on health service providers

b. Increased patient safety and quality of medical services in healthcare units by:

- Introducing routine performance assessment (quality assessments focused on results) at all levels of care, based on performance assessment protocols by level of care (PHC, outpatient treatment facilities and hospitals); defining and implementing a technical audit scheme including incentives and penalties
- Implementing the concept of patient safety and the related tools/procedures at national level, based on evidence/international best practices (WHO, EU)
- Developing and putting in place a national strategic plan containing specific measures to improve patient safety – identifying clinical and organizational management priorities regarding patient safety, developing the organizational culture of patient safety by involving quality structures across healthcare units, developing and implementing reporting and investigation programmes and adverse events learning programmes, developing education and training programmes on patient safety for medical staff, developing information and involvement campaigns for patients on improving the safety of medical services, developing patient safety research programmes
- Revising and improving the regulatory framework for implementing clinical trials on human subjects conducted in the Romanian health sector, in line with the EU policy and the standards of good practice in the field
- Improving the regulatory framework for hospital infection control and the implementing provisions of universal precautions (e.g., through, but not limited to, a dedicated budget line in the healthcare unit budget)

- Build the monitoring and assessment capacity at central and/or local level in the field of nosocomial infections and antibiotic resistance, including the training and evaluation of healthcare professionals, the information exchange and the methodological cooperation within the EARS-Net network, studies such as sentinel studies, etc.
- Upgrading hospital infrastructure and circuits, in particular across operating units, intensive care and postoperative units (see GO 7.)
- Informing and educating the population against antibiotic abuse

S.O. 5.5 Develop and implement an evidence-based drug policy ensuring equal and sustainable access to medication for the population

WHO believes that the access of the population to essential drugs is part of the human rights with direct reference to the field of health. Like other countries, Romania has difficulties in drafting an optimized drug policy, as many shortcomings have persisted for many years, while the entire sector has a significant potential impact on sustainability.

The sectorial strategy aims at regularly reviewing the list of drugs according to the EU regulations in the field, while developing the legal and institutional framework and the health technology assessment (HTA) capacity. A better risk sharing is also required between the payer system and the pharmaceutical companies through a closer cooperation between the public and the private sectors and an appropriate regulatory framework. The strategic directions envisaged by national health authorities are consistent with the NICE International Report[91] and the recommendations made by international bodies, which are an important part of the health reform. Public education on the use of drugs and the prescriptive behaviour of the suppliers of adequate services help support the implementation of a policy on drugs and medical devices as appropriate to the existing needs and resources as possible.

Strategic directions/Measures:

a. Improving the policy on drugs, settlement/payment mechanisms and monitoring

- Develop an integrated and sustainable national drug policy and review the list of compensated drugs/price adjustment in the social health insurance system based on efficacy and cost-effectiveness criteria
- Implement the health technology assessment (HTA) system as a main drug settlement criterion in the social health insurance system, to ensure the cost-effectiveness of interventions funded by public sources, along with the HTA capacity-building at central level
- Diversify the settlement/copayment system of outpatient prescription drugs for increased access to drugs
- Introduce and consolidate the mandatory budget impact assessment, regulate the participation of companies producing drugs and medical technologies and make use of the risk-sharing mechanisms (AIR) and cost-volume regulations for all new drugs for which high costs or increased use are expected
- Bi-annual review of the reference prices of drugs
- Monitor the prescribing behaviour of physicians

b. Introducing the consumer awareness campaigns on the safety and quality of generic drugs, the actual cost of drugs and the possibilities for consumers to save money by choosing generic drugs in the pharmacy;

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[91] Ruiz F, Lopert R, Chalkidou K. Romania: *Raport final şi recomandări: următoarele masuri (Final Report and Recommendations: Further Measures)*, NICE International. January 2012

S.O. 5.6. Promote research and innovation in the health sector

Romania spent in 2011 0.5% of GDP on research and development (Eurostat), this being the lowest percentage among EU Member States (except Cyprus). There is no information available on health research expenditure. Apart from poor funding, there are many other issues on health research related to health visibility as a priority for research, the adequacy of the research priorities defined, the transfer and effective use of research findings in clinical practice, the existing institutional research capacity, and the complexity of the research accreditation process, at least for non-public entities.

Beyond the formally recognized research activity, there are multiple needs across the healthcare system for assessing the state of health, health risks (prevalence, trends), the efficiency and effectiveness of health interventions (e.g. national health programmes) and health services (consumption required, actual consumption, quality, health impact, etc.). These dimensions are only partially covered by national research priorities and are insufficiently achieved through the research projects. On the other hand, the healthcare system currently has insufficient institutional capacity and/or no mechanisms for carrying out these activities.

In the medium and long term, Romania is required to invest more and adequately in research and innovation, given that research and innovation generally contribute not only to better health, but also to prosperity and higher quality of life, as well as to obtaining global public goods. Besides, research and innovation are outstanding priorities in the Europe 2020 Strategy, given their role in promoting “smart, sustainable and inclusive growth”. Health occupies a top position on the list of Romanian research priorities, which leads to a greater increase of competitiveness in this sector. Under the future National Research, Development and Innovation Strategy for 2014-2020 (NRDIS 2020), medical research areas can be found under the national priorities, in thematic areas relevant from a national and European perspective, which are also eligible for funding from EU funds. At the same time, health is one of the four public priority areas for the strategic cycle 2014-2020, along with heritage, cultural identity and new and emerging technologies. As a result, the health sector is seamlessly integrated in several research programmes of the future National RDI Plan 2014-2020, the main implementing instrument for NRDIS 2020.

Strategic directions/Measures:

a. Building the research, development and innovation capacity for the health sector aimed at results that could be put in practice

- Attract, maintain and support the Romanian researchers involved in national and/or international health projects
- Turn institutional research infrastructure in health into poles of excellence in research/competitive institutional structures on the research market/establishing/promoting clusters having as main objective the development of formal mechanisms for the transfer of research findings into clinical practice (databases, platforms, partnerships)
- Assessment studies of the implementation of clinical protocols

b. Developing research in public health and health services to draw up evidence-based health policies:

- Launch the sectorial research plan coordinated by the Ministry of Health and developed through the Academy of Medical Sciences to develop and implement multi-annual plans concerning the applied research priorities in public health and health services

- Build the population research capacity of specialized institutes within the healthcare system, research that will substantiate public health intervention
- Create formal mechanisms for conducting studies, by developing mechanisms for collaborative research with academia and/or NGOs experienced in health research
- Support by research topics the national priorities that can be achieved with the new health infrastructure developed so far, including with structural funds[92]
- Design and implement public health interventions in areas such as:
  - Assessment of morbidity and mortality – health needs analyses for the population within the sentinel ambulatory system
  - Assessment of the state of health and its determinants; monitoring the state of health in children/vulnerable people, assessing the equitable provision of health services/access to health services/putting in place a GIS data identification system (Geographic Information System)
  - Assessment of the public health capacities (needs for services, human and financial resources),
  - Analysis of the background, the needs and the efficiency and effectiveness of public health interventions, which are either European public health priority areas (communicable diseases, screening for some cancers) or national public health priority areas (TB, reproductive health, HIV/AIDS, immunizations, etc.); health risk/risk behaviour assessment studies (physical inactivity, tobacco use, alcohol use, unhealthy diet, etc.) and develop a plan to fight against them.
  - Studies on the usage of health services, healthcare system performance, health service pricing, patient/public satisfaction.
  - Assessment of the management and leadership capacity of the healthcare system (assessment of the management processes having a role in the management of the healthcare system and the evaluation of the HR policy in the healthcare system) and implementation of the recommendations
  - Assessment of the health services financing (assessment of resource allocation in the healthcare system, comparative evaluation of the financing arrangements for health services)
  - Studies on the use of health services, health system performance studies, studies establishing the cost of health services, patient/public satisfaction studies
  - Financial impact studies of the various health policy proposals
  - Studies on the comparative effort dedicated to different types of conditions (for example, communicable as compared to non-communicable diseases)
  - Assessment of the outcome of health services (e.g. readmissions, cancer diagnosed in a late stage, avoidable complications such as the number of lower limb amputations due to diabetes)
  - Studies on patient safety in health services

S.O. 5.7. Intersectorial cooperation for better health status of the population, especially vulnerable groups

[92] In the 2007-2013 programming period, a number of 33 public infrastructure projects in health were financed under SOP-IEC – Axis 2 RTDI.

The health of the population is fundamentally influenced by the lifestyle, the level of education (including health education) and the access to health services, especially preventive health services; from this perspective, preventing disease and preserving the health are goals with higher efficacy than treating disease. On the other hand, if access to curative health services is almost exclusively the responsibility of the health sector, primordial and primary prevention interventions for preserving the health always require intersectorial partnerships, this being most often the responsibility of several ministries.

On the other hand, complex socio-economic issues prevent actual access of certain population groups to health services, even if these groups rightfully belong to the category of insured persons.

Finally, the healthcare system, through healthcare providers, is in some cases the only/last alternative for managing some complex social issues, which leads to the misuse of resources designed for health, at the expense of the insured (e.g. the elderly or people with chronic diseases come to be hospitalized longer for acute cases because they have no alternative access to outpatient services or because the basic homecare needs are not covered; abandoned children are also hospitalized for an extended period in acute hospitals; domestic violence victims are hospitalized in acute hospitals for temporary shelter; or homeless people are admitted in acute hospitals to overcome adverse weather conditions). In all cases above alternate forms of community services are required that adequately meet such eminently social needs and relieve the healthcare system of its social role, enabling the focus on the quality of the medical act, the performance and a better response to the actual health needs.

Strategic directions/Measures:

Considering the intersectorial nature of some preventive interventions in health, on the one hand, and the decentralization of certain competence and public services, on the other hand, the measures associated to this objective need to be structured on two levels: national central level and community level (regional/county, local).

a. Developing and implementing intersectorial national programs for preventing disease and maintaining health by way of implementing HiAP (Health in All Policies) tailored to the specific needs of local vulnerable groups:

- Develop and formalize institutional partnerships at the level of the central/local administration, NGOs, professional associations and define some routine cooperation mechanisms to ensure a coordinated response to public health risks/threats
- Develop joint intervention strategies/action plans to tackle public health issues and the needs of vulnerable groups
- Implement national programmes or projects with the relevant ministries (Ministry of National Education, Ministry of Labour, Family, Social Protection and the Elderly, Ministry of Regional Development and Public Administration, etc.) that meet the complex needs of vulnerable groups (e.g. development of the healthcare network – including psychological – in schools, developing a coherent national system for health education in all educational establishments, joint programmes regarding the integration in community centres, the provision of social assistance to disabled patients, etc).

b. Fostering cooperation between decentralized institutions at regional, county and local level to support the integrated provision of health and social services addressed to vulnerable populations

- Include in the Development Plans 2014-2020 covering the integrated health and social services at local/county/regional level – tailored to the needs of the population, in particular vulnerable groups, and in line with the national priorities
- Put in place mechanisms to consistently monitor the provision of integrated health and social services at county and community level and ensure the institutional capacity for this purpose;
- Develop and implement measures to monitor the acts of segregation and discrimination against vulnerable patients, including Roma.

G.O. 6. Streamline the healthcare system by accelerating the use of information technology and modern communication (eHealth*)*

S.O. 6.1. Develop the Integrated Health Information System by implementing sustainable eHealth solutions

Progress has been made in eHealth[93] , but the full potential of ITC has not yet been reached in the Romanian health sector[94]. For example, the Unique Integrated Information System of the National Health Insurance House (UIIS)[95], the electronic health insurance card and the electronic health record are essential projects in various stages of development. In recent years, there has been an increase in the level of computerization of the health services, including at hospital level, but it still is suboptimal in several areas. In addition, the management of the national health programmes requires either to consolidate the disease registries or to establish new ones and efficient and effective IT solutions for monitoring the results of the national health programs. Overall, the capacity of the system to collect, process, analyze and report data in the existing IT and information systems, as well as the use of the data and information available in public policies are poor, while the communication component to/access to relevant information for the patient and the population is underdeveloped.

In the near future, the Romanian health system will need to accelerate the adoption of eHealth solutions, including mHealth, in order to increase overall system efficiency and, ultimately, increase access to quality services and reduce inequities in health. Additional efforts need to be undertaken to develop an Integrated Public Health Information System (iPHIS)[96], with a comprehensive and integrative architecture enabling an efficient and optimal use of the data and information. An advanced horizontal and vertical information system is envisaged integrating all components of the healthcare system (including human resources, financial management, etc). Because of the integrated platform-based production, storage, review and dissemination, duplication is excluded and access to valid data and information is ensured. ITC can substantially help increase competitiveness of the health sector, including in terms of its effective and efficient e-governance. An iPHIS with an

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[93] Within the Community meaning, eHealth „(1) shall refer to the tools and services using the Information Technology and Communications (ITC) that can improve prevention, diagnosis, treatment, monitoring and management; benefits the entire community by improving access to and quality of services by streamlining the health sector; involves the sharing of information and data between patients and service providers, between health professionals and health information networks; incorporates the electronic record of the patient, telemedicine services, portable patient monitoring devices, surgery scheduling software, robotic surgery, blue-sky research in virtual human physiology.

[94] Stroetmann KA, *European countries on their journey towards national eHealth infrastructures*, eHealth Strategies. EC/DGISMU. Accessed on 3 October 2013 at http://www.ehealth-strategies.eu

[95] A system providing the control of payments to health and pharmaceutical service providers from the National Unique Social Health Insurance Fund (NUSHIF)

[96] Governance Programme 2013-2016, http://gov.ro/ro/obiective/programul-de-guvernare-2013-2016

integrative architecture, based on interoperable IT applications enables quality information to be generated and used effectively in the development of health policies and the efficient system management.

Strategic directions/Measures

a. Ensuring standardization, integration and interoperability within the health sector IT system

- Implement the necessary measures to integrate at national and community level and to ensure organizational, technical and semantic interoperability of existing and future applications across the health sector
- Adopt the European or international standards and data classifications in force such as: the International Classification of Primary Care of the World Organization of Family Doctors (ICPC/WONCA), the ICD-10 classification *et seq.* in outpatient specialty services, the nomenclatures for the classifications and codification of laboratory procedures or the applicability and usefulness in clinical practice (HL7, SNOMED CT, LOINC)
- Support eHealth-specific research, development and innovation

b. Developing the IT support required for the management of certain key aspects for health, useful for better e-governance of the sector and increased efficiency in managing the sector, such as, but not limited to, those below:

- Develop special systems/registers (e.g. National Register of Medical Devices, registers of medical staff and service providers, public procurement IT system, etc.)
- Develop Intranet systems to be used within the Ministry of Health and its subordinate and coordinate institutions, the IT support necessary for better management of business, streamline the administrative processes and the interaction with the citizens
- Implement a drug traceability system (Directive 62/2012)
- In parallel, improved digital skills to support the eHealth measures are required, including by creating integrated e-learning platforms for the employees in the health system (improved administrative and/or technical capacity) and those in related fields outside the system such as those used for enhancing inclusion through horizontal integrated interventions)

c. Consolidating the disease or existing procedure registries and establishing new registries in uncovered areas to be used in assessing clinical outcomes ("outcome registries"), managing the health programmes and drawing up sectorial health policies at national, regional and local level and/or in epidemiological research, as appropriate (regional registries for cancer, diabetes, TB, HIV/AIDS, psychiatry, for transplant or hematopoietic stem cell donor volunteers, the national registry of vaccinations, rare diseases, including haemophilia, etc.)

d. Strengthening or developing the ITC solutions on health services under eHealth projects, but not only

- expand the Electronic Health Record (EHR) and the Electronic Medical Prescription (EMP) – if possible, with embedding in the EMP the category of uncompensated prescriptions and adding in the EMP the facilities for processing referral slips and medical certificates
- complete the project on the National Health Insurance Card (NHIC)
- improved valorisation of the Unique Integrated Information System (UIIS) by further building the capacity around this complex platform

- develop or, where appropriate, improve information and IT systems in primary healthcare and specialized ambulatory care and equalize differences in terms of the degree of computerization in health (between hospital and non-hospital services or at regional level)
- develop the interoperability of reporting systems for medical services provided to the levels of care (primary healthcare – specialized ambulatory care – hospital)

e. Improving the use of ITC solutions in emergency services

- develop IT solutions/communications for the integrated emergency dispatchers (regional or sub-regional) in collaboration with the MIA and other institutions involved
- develop a “paper free” system between the pre-hospital emergency sector and the emergency units by electronic data transfer and management
- extend and modernize the telecommunications, voice and data system for ambulance services and SMURD (Mobile Emergency Service for Resuscitation and Extrication) in collaboration with MIA/IGSU (General Inspectorate for Emergency Situations) and other institutions involved

S.O. 6.2. Increasing access to health services through the use of telemedicine services

Innovative and inclusive telemedicine-related solutions help reduce the unequal access to health services experienced by vulnerable populations in isolated communities in terms of high efficiency and quality. The area of telemedicine has evolved in recent years in Romania, with applications in emergency healthcare sector and, more recently, with the testing of the collaboration between primary care in hard to reach rural areas (the Danube Delta) and the specialized ambulatory professionals by using mobile telemedicine equipment incorporating innovative technology solutions. Due to the significant value added by these telemedicine solutions, existing initiatives should be continued and, if possible, their applicability broadened, all the more so as they help compensate for the human resource shortage in certain specialties or hard to reach areas.

Strategic directions/Measures

a. Implementing Phase II of the Integrated telemedicine programme within the emergency system; developing and implementing telemedicine solutions on the structure of the regional system of hospital services

b. Developing innovative and inclusive telemedicine solutions, by implementing the telemedicine system in primary and ambulatory care with a focus on rural areas/permanent centres (complete the telemedicine model and expand the solution)

G.O. 7. Development of the health infrastructure at national, regional and local level to reduce unequal access to health services

S.O. 7.1. Improvement of hospital infrastructure in the context of the necessary remodelling of the hospital network through restructuring and rationalization

The health sector is based on an infrastructure designed 50-60 years ago, when the need for healthcare services was different from today’s realities. The hospital network is often fragmented (many pavilion hospitals, sometimes located at great distances, requiring

transfer by ambulance between units of the same hospital), using old buildings (some over 100 years old), which do not allow for an optimal integration of hospital circuits and often raise major difficulties in adopting new technologies due to the inherent physical limitations of the buildings, and lack the facilities for physical access (e.g. for disabled people). Therefore, adapting the infrastructure to the needs of the current health services (non-communicable diseases, accumulation of complex health problems, with co-morbidities, the existence of complex technologies, etc.) is, in many cases, impossible or much more expensive than constructing a new building to transfer the current activity of some hospitals. In addition, the control of nosocomial infections is deficient, especially in old hospitals with poor circuits, therefore affecting patient safety and avoidable expenses. The endowment with necessary equipment is still far from the standards in developed European countries and the territorial distribution of equipment is often poorly balanced and calibrated according to the needs.

The Ministry of Health identified the hospitals that are part of the strategic network where the necessary infrastructure investments are to be concentrated, according to the vision on development and the priorities in financing investments in the health sector in the period 2014-2010 to contribute to the performance objective proposed for this level of services (SO 4.5). The type of measures envisaged for certain types of hospitals depends on their position in the hierarchy of patient units in Romania (national, regional, county and local level).

The financial resources considered not only for improving hospital infrastructure, but, in general, for similar investments in the sector are the national budget, local budgets and foreign sources attracted (structural funds, the Norwegian Government, the Swiss Government, World Bank, etc.).

Strategic directions/Measures

a. Streamlining and transforming local hospitals

- Invest in the local hospital infrastructure in small and medium-sized urban areas designed to support their streamlining and transformation into units providing ambulatory care, day hospitalization or care services for chronic patients, including with the contribution of local authorities
- Rehabilitate, within available resources, certain patient units functioning as local hospitals that are intended to be transferred to the local authorities

b. Developing and streamlining county hospitals (rehabilitation to increase the energy efficiency and refurbishing to improve physical access for disabled people and endowment)

c. Developing and streamlining regional and national hospitals – the process will include the rationalization of hospitals by reducing the number of buildings, pavilions and single-profile hospitals and integrating them into new or rehabilitated and modernized buildings within the regional hospitals to reduce the number of redundant beds, streamlining the integrated patient-oriented services and the treatment of complex pathologies requiring an integrated approach

- Build and equip three regional emergency hospitals (Iaşi, Cluj, Craiova)
- Streamline and endow the medical units that will serve as regional emergency hospitals in the context of the regionalization of hospital services, including the development of new departments where missing (e.g. paediatrics, cardiology, cardiovascular surgery)
- Reorganize underperforming hospitals as multifunctional ambulatory centres or as rehabilitation and long-term care hospitals

- Rehabilitate and develop the investigational platforms within specialized ambulatory centres and emergency hospitals, intensive care units in regional, zonal and county emergency hospitals
- Rehabilitate and endow, where applicable, the emergency units within county emergency hospitals, especially regional and zonal hospitals
- Prevent seismic risks, in particular in key institutes or units at national or regional level
- Rehabilitate/endow a number of clinical departments of obstetrics and gynaecology and neonatology, and intensive care units – including paediatric and neonatal cardiac surgery in at least 4 regions – emergency units, burns units in 3 regions;
- Make the necessary investments to improve the TB diagnosis and treatment infrastructure (specialized hospitals)
- Establish blood, organ, tissue and cell banks

d. Bring the radiotherapy and oncology service infrastructure in line with modern operation standards, with increased access to specialized services

- Refurbish and provide with modern equipment a number of units within the radiotherapy network, and build a bunker
- Strengthen the oncology network through investments to increase the diagnosis and/or treatment capacity of oncology institutes and other hospitals;

S.O. 7.2. Improvement of ambulatory healthcare service infrastructure through community healthcare, family medicine and specialised ambulatory care

At present, the existing buildings for providing services inferior to hospital services are in poor condition as well. The quality and optimum use of various ambulatory care services is also affected by the inadequate equipment and endowment of family medical practices and even polyclinics, which otherwise would ensure an efficient modern medical care. As such, patients tend to prefer the admission into hospital for investigations that could normally be performed in ambulatory centres or by way of short-term hospitalisation, but at much lower costs (X-rays, CT, NMR, ultrasound scan, laboratory tests, endoscopy, etc.). Moreover, the ambulatory services segment has the recognised potential given by its immediate and large contribution to improving public health, particularly for socio-economically disadvantaged persons; this is also the reason why investments are channelled towards services provided at the base of the health sector pyramid. The improved ambulatory services infrastructure may impact the service quality because of the extended contact time with the patient spent by the service provider, by eliminating, as much as possible, the use of shifts in medical practices.

Strategic directions/Measures

a. Providing the infrastructure necessary for the gradual development of the community care service network at national level through the rehabilitation of community centres and the construction of new ones (*in conjunction with SO 4.1*)

b. Streamlining the family medicine infrastructure (primary healthcare practices, permanent centres built and/or endowed)

c. Continuing the modernising the infrastructure of the diagnosis and treatment ambulatory services through rehabilitation, endowment/equipping – including the development of cancer diagnosis and treatment centres (*in order to achieve SO 4.3*)

d. Supporting the implementation of long-term care services for patients suffering from neurological diseases requiring mechanical ventilation or other chronic diseases, as well as palliative care and long-term medico-social services through specific investments

e. Making the necessary investments to build the early diagnosis (screening) capacity for cervical, breast and colorectal cancer

- Purchase mobile screening units to ensure equal access to quality screening services for the disadvantaged population
- Provide cytopathologic diagnosis equipment in regional reference cytopathology laboratories participating in the screening

S.O. 7.3. Development of an integrated emergency service infrastructure

Improved access for the population to emergency healthcare services through the consolidation of the integrated emergency system (*SO 4.4*) requires that the emergency healthcare functions as an integrated system and that the intervention capacity is maintained within optimal parameters. This implies continued investments required in this strategic sector.

Strategic directions/Measures

a. Endowing ambulance and SMURD services with specific equipment for emergency transportation (ambulances, non-emergency transport vehicles, helicopters, up to 1 helicopter per region)

b. Completing the extension of SMURD infrastructure at national level (provide SMURD teams in rural areas in order to increase efficiency, with the participation of local authorities and in cooperation with the ambulance services)

S.O. 7.4. Improvement of the public health service infrastructure

The network ensuring the monitoring of the public health sector also suffers from poor equipment and endowment. Strategic areas such as the national production of vaccines or other pharmaceutical products, protection of public health against environmental risk factors will be considered by decision-makers also in terms of infrastructure investments, where these are required.

a. Improving the national and/or sub-national infrastructure of public health laboratories involved in the supervision of communicable diseases, exposure to ionizing radiations and water quality (drinking and bathing water) and drug quality monitoring

b. Making investments in infrastructure, technology and equipment necessary to resume the national vaccine production within the "Cantacuzino" National Institute for Research-Development for Microbiology and Immunology, in line with Community standards

c. Providing the adequate infrastructure for healthcare waste management within healthcare units with priority beds, in line with the European and national environmental policy

5. Implementation mechanisms. Monitoring and evaluation

5.1. Implementation mechanisms

The National Health Strategy 2014-2020 targets ambitious reform objectives, namely to develop new services, such as community health services, better connected to the needs of vulnerable and disadvantaged groups in public health key-areas; to strengthen also the role played by other services, such as primary and ambulatory care, and care provided in particular to the elderly – as an anticipative response to the expected demographic challenges – and to transversally increase the system quality and efficiency by adopting solutions related to investments in e-Health technologies, human resources and infrastructure.

Therefore, it is all the more important to properly manage the planned programmes and interventions, as well as to monitor and evaluate, with systematically reviewing the progress in implementing the planned measures, achieving the medium-term objectives and the targets planned for 2020. The *Strategy Action Plan* gives an overview of the responsibilities that lie ahead of health professionals and decision makers and others by 2020. At least in certain key-areas, the Plan will be supported by annual and/or multi-annual *specific implementation plans* prepared at national and/or sub-national level. The utility of such plans consists in the possibility to tailor them to the remaining needs identified through continuous communication and cooperation with the intervention coordinators and the institutions involved, and to foster the participation of relevant stakeholders involved.

In some priority areas, besides our European commitments and obligations, it is essential to develop *sectorial strategies and/or strategic plans* tailored to current needs in Romania, which can only help strengthen the global health sector strategy.

In order to prepare and support the implementation of the Strategy at central level, the Ministry of Health considers providing an adapted and effective organisational framework intended to improve performance by critical components such as health programme management, monitoring and evaluation, procurement and investments and health technology assessment.

In the context of the intended decentralisation of the health sector that will bring closer to the citizen's needs not only the decision and the resources, but also the responsibility for the decision, the sub-national (regional, county and local) health authorities and the local authorities at the same levels will play an important role. The National Health Insurance House will also play a key-role by converting the purchasing activity of health services – based on the new service packages – into a strategic activity as a proactive purchaser of an optimal volume of services evidenced to be beneficial for people's health. The key-implementation instruments available to the Ministry of Health remain the National Health Programmes, which need to be redefined, funded, managed, monitored and assessed so as the concurrent effects of such programmes adequately contribute to pursuing the vision on the health of Romanians, as defined in this Strategy, and to accomplishing the mission undertaken by the Ministry of Health.

The decision and responsibility should be brought closer not only to the citizens, but also to the professionals in the field – public health and management experts, clinicians – and to the representatives of professional associations and NGOs. It is, therefore, desirable to involve such parties in expert workgroups and functional committees to contribute to a greater extent to the definition and implementation of sectorial health policies and, in particular, to the monitoring and evaluation of the performance achieved.

5.2. Monitoring and evaluation (M&E)

In any health sector, the monitoring and/or the evaluation of the relevance and performance of programmes and interventions carried out depends on the provision of quality data on resources and system inputs, processes developed, immediate or long-term results and impact achieved. At this level, Romania still has a long way to go, and the Strategy and the implementing Action Plan grant particular importance to this area, including in terms of compatibility with the community requirements, through the development and improvement of the ITC infrastructure, thus providing improved quality and accessibility to morbidity and mortality data and information on processes developed at different health care service levels. Moreover, in order to achieve the expected results, there is a need to stimulate the establishment of a framework and organisational and systemic culture favourable for monitoring and evaluation, through the active co-participation of the various relevant institutional stakeholders.

Where necessary, surveys, studies and operations research – either quantitative and/or qualitative, prior and subsequent to the intervention, at public level or among service providers, etc. – may generate solutions to be used for broadening the knowledge base on the initial situation with a view to adapting the interventions to the actual needs and evaluating the post-intervention outcome.

Indicators of different levels included in the Action Plan will be taken into account throughout the implementation of the strategy. The evolution of such indicators will be analysed on an annual basis and in the case of the anticipated independent interim evaluation to be conducted halfway through the implementation (2017/2018), depending also on the progress in accessing additional funding from external sources and the final evaluation (2021).

6. Sectorial strategic priorities

Parts of the strategic objectives listed above are regrouped in different strategic plans developed by the Ministry of Health:

6.1. National Prevention Plan

Primary prevention of communicable and chronic non-communicable diseases through information – education – communication/behavioural change interventions (*SO 3.1.*), together with the secondary prevention of cancerous disease (*SO 3.2.*), and the active approach of preventive topics by community nurses and family doctors (the latter will apply, for each listed person, the clinical prevention guide included in the minimal service package and the basic service package) are included in the National Prevention Plan.

The role of health education starting from a young age also needs to be increased through closer collaboration with the education authorities. Health education should focus on priority themes related to prevention and fight against risky behaviours, depending on age-specific issues, by increasing awareness among students in order to adopt a healthy and responsible lifestyle.

6.2. National Cancer Control Plan

The disease registries established *(SO 6.1.)* together with the primary prevention of chronic non-communicable diseases *(SO 3.1)*, the secondary prevention of cancerous disease *(SO 3.2.)*, the treatment provided under the National Cancer Plan, the palliative services *(SO 4.6.)*

and the radiotherapy services *(SO 7.1 d)* are an integral part of the National Cancer Control Plan.

6.3. National Diabetes Control Plan

The disease registries established *(SO 6.1.)* together with the primary prevention of non-communicable diseases *(SO 3.1)*, the patients' treatment, the patient self-monitoring support and the monitoring of the therapeutic response by dosing glycated haemoglobin (HbA 1c) are an integral part of the National Diabetes Control Plan.

6.4. National Cardiovascular Disease Control Plan

The disease registries established *(SO 6.1.)* together with the primary prevention of non-communicable diseases *(SO 3.1),* and the health programme for critical patients, including the health program for installing stents, are an integral part of the National Cardiovascular Disease Control Plan.

6.5. National Plan for Rare Diseases

The disease registries established *(SO 6.1.)* together with the primary prevention of non-communicable diseases *(SO 3.1),* the emphasis on the genetic risk during the preventive examination by the family doctor, the clinical guidelines (e.g., haemophilia) and the clinical pathways developed, and the provision of rehabilitation/palliative services (SO 4.6) are activities under the National Plan for Rare Diseases.