

## Healthcare System and Problems of Medical Personnel in Georgia

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### Abstract

*Healthcare is a specific sector, being one of the largest and rapidly growing industries in the world. Georgia spends for health care almost as much – 8-9% (total healthcare expenditures) from its economy as advanced European countries. In the recent years the state subsidies allocated to health care sector have increased significantly. State expenses for health care grow every year in relation with GDP but they are still much lower than average for 53 Western European, European Union and European states. Significance of human resources is indeed great, in the strategic vision "Health 2030" developed by the Parliament of Georgia, the problem of medical professionals is mentioned as a very painful one; as well as lack of highly qualified human resources; uneven geographical distribution; lack of the nurses and general physicians; ration of numbers of physicians and nurses. The set of measures is provided to improve current situation in stages.*

**Key words:** Health system, healthcare expenditures, human resources, medical personnel problems.

**J.E.L. classification:** I10

### 1. Introduction

Healthcare is a complex set of socioeconomic relations and implemented medical activities. It is a specific sector of economy comprising one of the largest and rapidly growing industries all over the world.

According to WHO definition, healthcare system is "set of all measures with the primary goal of health support, restoration and maintenance". For achievement of the best health status, complex, effective and smooth operation of so called six system units of healthcare system – medical services, human resources, medical remedies and technologies, healthcare funding system, information system and leadership and management – is required.

"Best health" includes various indicators: expected life time, improvement of life quality, reduction of morbidity and mortality etc. Certainly, higher is the level of country's development, more resources are used and more amounts are spent for healthcare and hence, better is the population's health status.

In Georgia, healthcare expenditures are increased every year, indicating improvement of payment ability and increase of demand for medical services. Georgia spends for health care almost as much – 8-9% (total health care expenditures) from its economy as advanced European countries do. In the recent years the state subsidies allocated for healthcare sector have increased significantly (2012 – GEL 450 million – 2015 – GEL 913 million). Among them, the state expenses as GDP percentage increase from year to year (2012 – 1.7% - 2015 – 2.9%) though Georgia is still far behind the average indicators of the Western European (EU15) – 8%, European Union (EU28) – 7.3% and 53 European states – 5.7%. According to WHO and World Bank

assessments, by implementation of the cost effective reform the country has improved access to healthcare and ensured better financial protection of the population.

Though, the reforms, as such (that permanently takes place from mid 90s in Georgian healthcare system), can say nothing; here the resources are of greatest significance.

## 2. Healthcare resources and health expenditure in Georgia

Resources are of paramount importance for the development of any system, which are always limited due to certain objective or subjective factors. Since the mid-1990s, in addition to reform, health resources are gradually improving; especially it should be noted the state health program, which was launched in 2013. But the country will have to take even more important steps, as evidenced by the relative data of Georgia, the European region and CIS (table 1)

*Table no 1. Key indicators for health resources, use of health services and health expenditure Georgia, WHO European Region and CIS, 2014*

<b>Indicator</b>	<b>Georgia, 2014</b>	<b>Percent change since 2000</b>	<b>WHO European Region</b>	<b>CIS</b>
Hospital beds per 100 000	313.3	-34.8%	553.9	715.7
Physicians per 100 000	517.0	+36.5%	322.3	309.98
Dentists per 100 000	57.7	+69.6%	53.4	33.2
Nurses per 100 000	413.6	-10.9%	740.4	622.3
Midwives per 100 000	16.3	-61.3%	39.9	45.2
Inpatient care discharges per 100	10.5	+125.8%	17.9	19
Average length of stay, all hospitals (days)	5.2	-48.6%	8.7	11.0
Outpatient contacts per person per year	3.5	+150.0%	7.6	8.9
Total health expenditure as percentage of GDP (WHO estimates)	7.4	+6.9%	8.2	6.6
Total health expenditure, PPP (US\$) per capita (WHO estimates)	627.7	+274.9%	2574.7	1233.1
Public-sector health expenditure as percentage of total health expenditure	20.9	+23.1%	67.9	51.1
Private household out-of-pocket payments as percentage of total health expenditure	58.6	-29.0%	26.6	46.2

*Source:* (Georgia. Profile of health and well-being. WHO. 2017, 22)

Information about healthcare resources in Georgia as of year 2016 is provided in Table 2.

*Table no 2. Healthcare resources in Georgia, 2016*

<b>Number of physicians</b>	<b>29895</b>	<b>Number of inpatient institutions</b>	<b>278</b>
Number of physicians per 100.000 population	803.8	Number of ambulatories/outpatient institutions	1043
Number of nurses	19376	Number of institutions providing antenatal services	274
Number of nurses per 100.000 population	521.0	Number of emergency medical stations	79
Number of hospital beds	13840	Number of blood transfusion stations	19
Number of hospital beds per 100.000 population	372.1	Number of baby homes	1
Number of visits to physicians	12.081.494	Number of S/R institution	5
Home visits by the physicians	272.910	Number of rural physicians (Physical persons)	1258

*Source:* (Healthcare. Statistic Reference Book. Georgia 2016, 13)

Discussing healthcare policies of the state, primarily, it is significant to analyze the health expenditure; the data are provided in Table 3.

Table no 3. Health expenditure

	Expenditure	2012	2013	2014	2015
1	Total expenditure on health (GEL million)	2 191	2 254	2 460	2 518
1.1	State expenditure for healthcare (GEL million)	450	547	693	913
	Among them, the territorial units	41	43	41	51
1.2	Private expenditure on health (GEL million)	1 690	1 655	1 720	1 559
1.2.1	Out-of-pocket payments (GEL million)	1 609	1 557	1 623	1 444
1.2.2	Private insurance (GEL million)	81	98	97	115
1.3	International assistance and grants (GEL million)	50	51	47	46
2	Percentage of the state expenditure (%)				
2.1.	In total expenditure	20%	24.3%	28.2%	36.3%
2.2	State budget	5.3%	6.3%	7.2%	8.6%
2.3	GDP	1.7%	2.0%	2.4%	2.9%
3	Percentage of total expenditure in GDP	8.4%	8.5%	8.5%	8.5%

Source: (Results of National Health Reports 2001-2015, Georgia 2016, 2)

Information about per capita health expenditure in Georgia is provided in Diagram 1, showing that this indicator grows permanently since 2011, in addition, the state expenses have increased almost three times. According to the data of the Ministry, in 2014-2015, per capita growth of state funding of the healthcare was as follows: 2014 – GEL 186; 2015 – GEL 246.

One can hardly find the country all over the world that is not interested in improvement of the healthcare system. And one of the priority directions is development of human resources in healthcare and improvement of the quality of medical services.

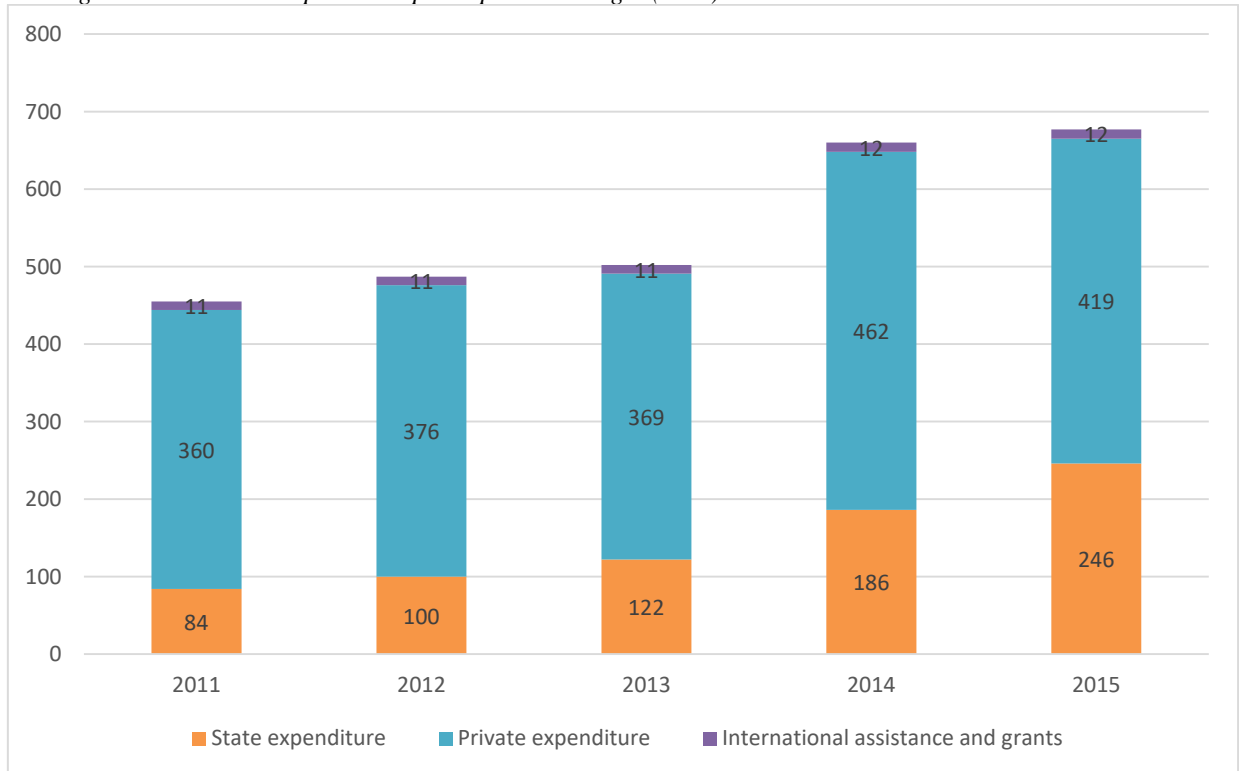
With respect of healthcare effectiveness and productivity, WHO adds particular significance to presence of proper quantities of healthcare resources in the countries.

### 3. The imbalance of human resources in the healthcare system of Georgia, as a challenge and future vision

Strategic Vision developed by the Parliament of Georgia "Healthcare 2030" the problem of medical professionals and their uneven geographical distribution is mentioned as a very painful; as well as lack of nurses staff and general physicians; trend of staff ageing in the rare medical specialties; lack of highly qualified medical personnel is a very serious problem in general; the situation is further aggravated by the imbalance between supply and demand of human resources. In addition, the system of uninterrupted professional development is not effective and it cannot provide medical personnel with the adequate theoretical knowledge and clinical skills and this makes the problem of human resources even more severe.

Key indicators of health care resources provisioning include rates of providing of the physicians and nurses staff to the population (Diagram 2). Since 2006, in Georgia, rates of providing of the physicians to the population increase and in addition, the rates in Georgia are much higher than in the European Region, EU and CIS countries. Rates of providing nurses to the population was characterized with the trend of decrease since 1998 and irrespective of growth in the recent years they are much lower than those in the European Region, EU and CIS countries.

Figure no. 1. Health expenditure per capita in Georgia (GEL)



Source: (Results of National Health Reports 2001-2015, Georgia 2016, 5)

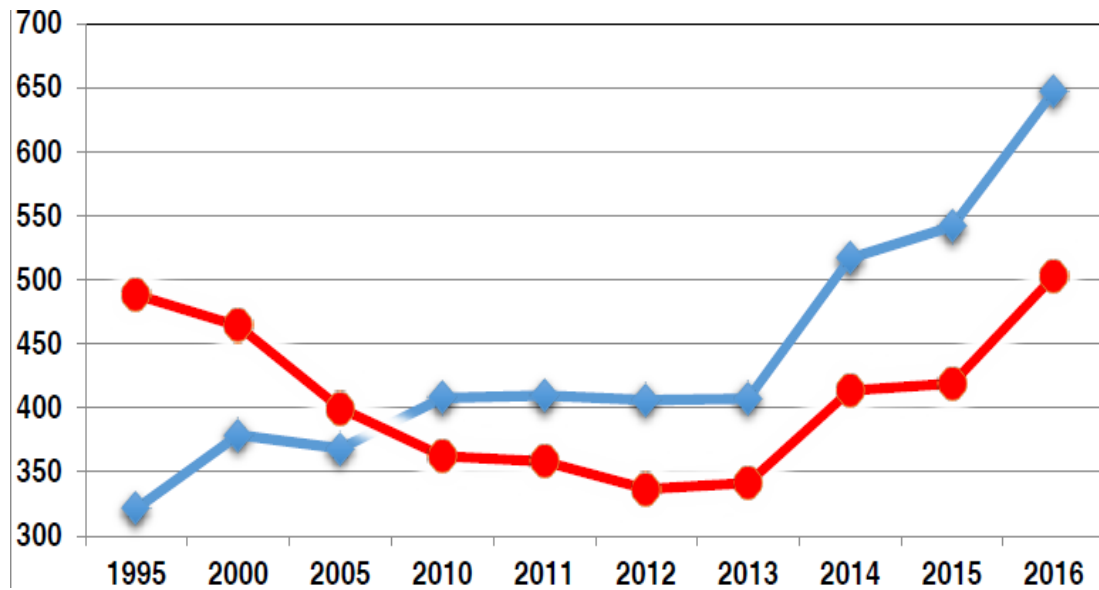
In addition, ratio of numbers of nurses staff and physicians is characterized with the decrease trend. Among 53 countries of the European Region, Georgia, with its relative index of 0.8 is second last (Greece is at the last place), with respect of number of physicians per 100.000 people, Georgia is third with 517.0 index (after San Marino and Greece) while with the number of paramedical staff, it is the third last with 413.6 (Turkey is the last – 251.9 and Greece is second last – 344).

In addition to these data, the following facts are of significance: source: “The Caucasus Business Week”. provides information that of 75 higher education institutions of the country 25 ones work in the healthcare education, among them, 15 institutions offer 6-year education program for the certified medical staff, 5 offer the bachelor’s program for the paramedical (nurses) staff and 20 – professional programs. According to Curatio Healthcare Barometer, in 2016, 684 students have graduated from the education programs for the paramedical staff. It should be noted that Georgia has two times greater number of certified medical staff (Medical Doctor) per 100.000 people than the European and CIS countries.

Annual WHO Report states that any country shall have the proper number of medical personnel of adequate qualification and motivation at needed place and time that would perform the relevant work with the adequate outcome in a cost effective manner. It is proven that the effective, consistent and complex policies for development and education of human resources is properly translated into providing of the high quality medical services and achievement of the best results in the healthcare system.

Parliament, together with the European Union, has developed the strategic vision “Healthcare 2030” and set of complex measures to improve current situation by stages, introduce the instruments for “needs assessment”, balance the numbers of physicians and nurses; promote education of the nurses (state subsidies / stimulation; regarding lack of the nurses, support to the re-training system for the nurses at the transition stage; support to the bachelor’s and master’s programs for the nurses and development of the paramedical sciences; development and introduction of the instruments for regulation of nurses activities; gradual introduction of the nurses registration /certification process; launching of the formalized system of higher vocational education of nurses staff and support its sustainability).

Figure no. 2. Indicators of supply of the professionally active physicians and nurses to the population, Georgia  
(Red line – nurses, blue line – physicians)



Source: (Healthcare. Statistic Reference Book. Georgia 2016, 14)

Strategic Vision provides also for improvement of the mechanism of physicians' certification mechanisms through close cooperation with the sector professional organizations, gradual improvement of the permanent professional development system, development of the effective motivation mechanisms etc.

Table no.4. Target Indicators of the Strategic Vision with Regard of Human Resources  
(Provide the healthcare system with the needed number of motivated and qualified medical staff)

Indicator	Baseline	Target, 2030
Ratio of doctors and nurses	1:0.7 (2016)	1:2 (SDG 3 c)
Ratio of referrals to primary healthcare to the number of doctors in primary healthcare (in a day)	3.8 (2014)	12
Ratio of the number of hospitalizations to the number of doctors in the hospital network (in a year)	42 (2014)	80
Ratio of medical professionals with certificates or diplomas from educational institutions and the number of students accepted at the educational programs for nurses	6:1 (2012)	1.2
Share of medical specialties in which certification exams take place with the use of renewed tools		80%
Share of the nurses employed in the system who have undergone registration/certification	0%	50%
Share of the doctors employed in the system who take part in the system of continuing professional development	N/A	60%

Source: (Vision for Developing the Healthcare System in Georgia by 2030, 2017. 13)

Table 4 provides the targets set as a result of complex activities of Strategic Vision developed by the Parliament. It is notable that there were introduced such indicators that, at current stage, are concerning or that are not present at all.

We hope that further reformation and permanent improvement of the healthcare system, implementation of the relevant activities, by achieving targets for year 2030, would further improve the quality of healthcare services and life quality of the country's population.

#### 4. Conclusions

The reforms in Georgian healthcare system permanently take place from mid 90s; Georgia spends for health care almost as much – 8-9% (total health care expenditures) from its economy as advanced European countries. Per capita health expenditure grows permanently since 2011, and the state expenses have increased almost three times. In addition to reform, health resources are gradually improving; especially it should be noted the state health program, which was launched in 2013. But here the resources are of greatest significance and the country will have to take even more important steps, as evidenced by the relative data of Georgia, the European region and CIS.

Georgian healthcare system has the various problems of medical professionals, such as imbalance of human resources, professional development, ratio of numbers of nurses staff and physicians. The system of uninterrupted professional development is not effective and it cannot provide medical personnel with the adequate theoretical knowledge and clinical skills and this makes the problem of human resources even more severe.

“Healthcare 2030” set of complex measures to improve current situation by stages, provides the targets set as a result of complex activities of Strategic Vision developed by the Parliament. There were introduced such indicators that, at current stage, are concerning or that are not present at all.

Further reformation and permanent improvement of the healthcare system, implementation of the relevant activities, by achieving targets for year 2030, would further improve the quality of healthcare services and life quality of the country’s population.

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