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THE NECESSITY OF INTRODUCTION THE DRUG INSURANCE SYSTEM IN ARMENIA

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ABSTRACT

The increase in the cost of the medicinal component of the treatment, the spread of chronic diseases, and the maintenance of socio-economic inequality in access to health services require the provision of adequate access to medicines. These issues create prerequisites for the improvement of the state health policy and, first, the drug supply system, which is an integral part of the treatment process. The financing of healthcare in Armenia is mainly formed from budget allocations and out of pocket expenditures of the population. Reducing the financial burden on the state and ensuring the rational use of drugs contributes to improving the health of the population. The implementation of a drug insurance scheme, which partially or fully cover the cost of drugs in RA, is one of the solutions for resolving the issue of access to medicines. This article studies the problems of financing healthcare system in Armenia and highlights the need of introduction a drug insurance system in Armenia.

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Introduction. Everyone has the fundamental right to receive high-quality medical technologies, including medications. The goal of universal health coverage is to provide all citizens of the country with adequate and affordable health services and medicines designed to promote health, prevent disease, provide effective and adequate quality treatment, rehabilitation and palliative care, when using these

services can't set the person in a difficult financial spot¹. In this context, basic drugs that cover the population's health needs are essential. Operating health systems must ensure that the necessary medicines can be obtained at any time, in sufficient quantity, in an appropriate dosage, in guaranteed quality, and at a price that is acceptable both to the individual patient and to the entire community². A high level of out-of-pocket payments, including co-payments for the cost of drugs financed by health insurance funds, create a risk of reducing the consumption of necessary drugs. To this end, the World Health Organization (WHO) offers several approaches and tools to support government decision-making in developing appropriate drug access policy options. One of such approach is the concept of essential medicines and WHO essential drugs model lists, which reviewed every two years. The cornerstone of carrying out these lists is the precise selection of drugs for purchase and reimbursement by public payers based on a comprehensive comparison of efficacy, safety, and cost-effectiveness³.

The list of social or special groups of the population for whom drugs are reimbursed with full or partial compensation of their cost is defined by Armenia's government's N 642 resolution⁴.

There are also some insurance companies on the market that offer drug coverage insurance, which is part of a voluntary health insurance contract or a separate option, which provides the full or partial compensation for the price of prescription drugs.

Therefore, the state budget is severely impacted by these payments. In parallel with this, most of the population pays for the purchased medicines from their pocket. With consideration of the above, it is indeed important for the RA healthcare system to be able to implement alternative modes for the collection and distribution of financial resources in the area of drug provision and healthcare in order to continue to address the challenge of universal access. Along with this, the public and private systems of pharmaceutical sector's financing and cost reimbursement are also important. To make health-financing systems more equitable and to allow bigger groups of the population to access health services, many low- and middle-income countries are exploring ways to strengthen such systems, by introducing various health insurance models.

In this context, health insurance is the basis for building fair and resilient health systems that will provide high-quality, safe, comprehensive, integrated, accessible, and affordable health care for all, especially the most vulnerable groups.

The purpose of the article is to study the existing models of the drug insurance system, to analyze the health costs, their funding sources, to compare the out-of-pocket expenses of the citizens for health services according to the countries, to highlight the necessity of implementing the drug insurance system in RA.

Literature review.

According to Л.Д. Попович (2019) there are many different models of drug insurance in the world. The main differences between them are who pays and for whom. Obviously, the spending of insurance funds (both state and private) must be strictly controlled.

Г.Т. Глембоцкая, С.А. Богатырев (2009, p. 107-112) study found the following: in the vast majority of developed countries, reimbursement for drug therapy is carried out on an insurance basis. So, for example, in all EU member states, insurance companies, state insurance funds, non-profit mutual insurance societies, etc. are involved in this process to one degree or another. Therefore, it is important for every country to introduce a drug insurance system. According to World Health Organization (2018, p.1-200) the case studies on the CIS countries and confirm the need to apply different policies, including price regulation.

In their scientific article, Tuan Anh Nguyen, Rosemary Knight, Elizabeth Ellen Roughead, Geoffrey Brooks and Andrea Mant (2013, p.267-280) highlighted that low- and middle-income countries (LMICs) usually have less regulated pharmaceutical markets and often lack feasible pricing or purchasing strategies, notwithstanding their wish to effectively manage medicine budgets but most high-income countries have policies directed at pricing or purchasing.

¹ Global Monitoring Report on Universal Health Coverage 2021 (as of 12th December 2021)

https://cdn.who.int/media/docs/default-source/world-health-data-platform/events/tracking-universal-health-coverage-2021-global-monitoring-report_uhc-day.pdf?sfvrsn=fd5c65c6_5&download=true

² Варианты политики в сфере возмещения стоимости лекарственных средств в Европе (2018)

<https://apps.who.int/iris/bitstream/handle/10665/350653/9789289056106-rus.pdf> p. 31

³ Варианты политики в сфере возмещения стоимости лекарственных средств в Европе (2018)

<https://apps.who.int/iris/bitstream/handle/10665/350653/9789289056106-rus.pdf>

⁴ <https://www.arlis.am/documentview.aspx?docid=131343>

Catherine Mateu Armengaud Guerlain (2019, p. 1-22) in his study mentioned that the French health system is often considered one of the best and is envied by the whole world. It is characterised by a financing model based mainly on activity-based pricing that favours the amount of care produced, which varies greatly according to the care sectors.

In their scientific article, Surachat Ngorsuraches, WeiMeng, Bo-YeonKim Vithaya Kulsomboon (2011, p. 120-125) discussed the health-care systems in the Asia-Pacific region. They noted that one of the major changes among countries in the region has been health insurance coverage. While their health insurance systems have aimed for an increase in access to health-care services, health-care policymakers need to ensure efficient resource allocation because of limited resources. These countries have established their own evidence-based mechanisms for making decisions in various processes. Among these processes, drug reimbursement is one of the most powerful tools formulated by policymakers because it financially affects providers and, in turn, could affect patients.

According to Piotr Ozieranski & Lawrence Peter King (2017, p. 577-610) the Polish reimbursement system includes two major schemes: open reimbursement and therapeutic programs. Like the entire healthcare governance system in Poland, the institutional framework of drug reimbursement has undergone numerous changes over the course of transition. They analyzed a recent period between two legislative reforms in 2009 and 2012.

Nona Hayrapetyan (2018, p. 1-121) in her research have highlighted that one of the most important components of the inaccessibility of health services in RA is the financial difficulties of purchasing medicines for most of the population, especially the rural population. In contrast to the capital, the poverty level is higher in the regions of the Republic of Armenia. In the general context of availability of services, the peculiarity of the issue of financial inaccessibility (high prices) of medicines is that even within the framework of health care programs guaranteed by the state, during both hospital and ambulatory polyclinic care, the majority of medicines are purchased by patients out of their own pocket.

Thus, from the analysis of the literature review on health insurance and drug reimbursement in different countries, it can be seen that each country has its own unique implementation and improvement over time of health insurance schemes and drug reimbursement systems, which are regularly reformed.

Materials and Methods.

The research on the drug insurance system and the necessity of its implementation in the Republic of Armenia was accompanied by a comparative analysis of international and local professional literature. Considering the purpose of this article, the methods of description, comparative studies, general scientific analysis, and grouping were mainly applied. The source of information was the statistical data of ARMSTAT, the World Health Organization, World Bank and other organizations and their relevant databases, official publications, and specialized scientific researches conducted in the sector.

Results and discussion.

Health systems are already under pressure, and diseases caused by the COVID-19 pandemic have made them less effective. The spread of the coronavirus is a serious challenge for healthcare systems across the world. There are numerous issues, including the equipment, hospital beds, protective gear, lack of professionals, etc. In line with pandemic health care systems are now dealing with issues like population aging, the spread of diseases caused by unhealthy food and lifestyle, as well as the spread of non-infectious diseases¹. Probably, the deterioration in financial protection will persist in the medium term unless active policy efforts are made to increase public spending on health, strengthen social protection support, expand and strengthen primary care coverage, and more.

There are different models of drug insurance around the world. In most developed countries, compulsory health insurance is operating (Germany, Austria, France, Switzerland, etc.), in some countries the health system is based on budget financing (Great Britain, Sweden, Spain, Australia, etc.), while in the USA, private health insurance is developed.

Global spending on health has doubled in real terms over the past two decades, reaching US\$8.5 trillion in 2019, accounting for 9.8% of global GDP (8.5% in 2000). High-income countries account for about 80% of health care spending (only the US 40%), these countries allocate 12.53 percent of the GDP to health expenditures². Health spending in upper-middle-income countries was 5.85% of GDP, and

¹ <https://asue.am/upload/files/amberd/2020.2.pdf>

² Global expenditure on health: public spending on the rise? Geneva: World Health Organization; 2021. Licence: CC BY-NC-SA 3.0 IGO.

5.33% in middle-income countries. Health spending in Armenia was 11.34% in 2019¹. In middle-income and upper-middle-income countries, the share of domestically financed health expenditure has increased over the past 20 years, in parallel with a commensurate decline in out-of-pocket expenditure. This proves that the countries are gradually moving towards mandatory prepaid sources of healthcare financing (for example, general state budgets, mandatory medical insurance)².

In 2019, the global average health expenditure per capita was US\$1,105, but there was a large difference between income groups, with an average per capita expenditure of US\$39 in low-income countries, US\$119 in lower-middle-income countries, and US\$119 in middle-income countries and 472 USD in high-income countries³.

The healthcare financing systems in middle-income countries are fragmented, mainly inefficient, although health spending account for 6-7 percent of GDP, and heavily rely on out-of-pocket costs. These countries also contend with issues related to illiteracy, education, work, and employment, as well as poverty and income inequality. In these countries, it's crucial to increase risk sharing, income and coverage balance, financial security, and health system effectiveness.

In recent years, the volume of healthcare financing has started to increase in RA, with the exception of 2018: state spending on healthcare decreased by 4.4%, but in 2020, compared to 2018, spending increased by about 87%. due to the Covid-19 pandemic (see table 1).

Table 1. Expenditures of State Budget and Health of RA⁴

	2014	2015	2016	2017	2018	2019	2020
General expenses including health	1235.1	1409.0	1449.1	1504.8	1 447.1	1 629 .4	1 894.6
Expenditures of health to state budget of RA (in percent)	76.6	86.1	88.6	83.2	79.6	99.3	148.6
	6.2	6.1	6.1	5.5	5.5	6.1	7.8

Comparative and comparable indicators of expenditure, such as current health care expenditures to GDP, direct payments of households, and other indicators are essential to obtain a more complete picture of current health expenditure, as well as to perform relevant analyses.

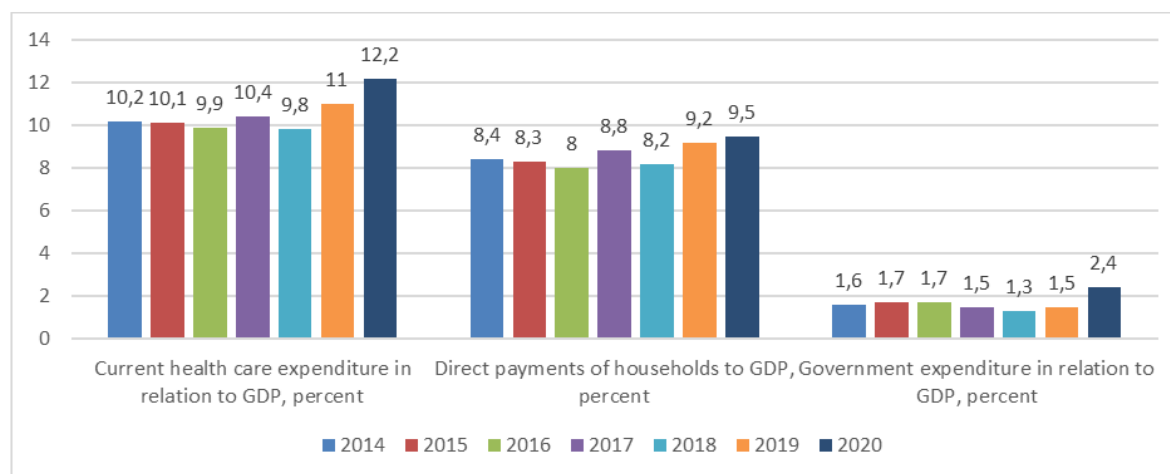


Fig. 1. Health Expenditure to GDP by Financing Sources, Republic of Armenia 2014-2020, percent

This structure of financing schemes is a clear reflection of the fact that more than 80% of health financing actually comes from direct household payments. The above-mentioned indicators are

¹ Current health expenditure (% of GDP). World Health Organization Global Health Expenditure database (apps.who.int/nha/database). The data was retrieved on January 30, 2022.

² Global expenditure on health: public spending on the rise? Geneva: World Health Organization; 2021. Licence: CC BY-NC-SA 3.0 IGO.

³ Global expenditure on health: public spending on the rise? Geneva: World Health Organization; 2021. Licence: CC BY-NC-SA 3.0 IGO.

⁴ Compiled by the authors according to the following source: Finance Statistics of Armenia 2015-2020, https://www.armstat.am/file/article/finansner_2021_1.pdf

quite worrying. In addition, citizens pay about 80% of the cost of medical services in RA (see Fig. 2), which is about 13% of their expenses¹.

From this point of view, there is a problem of increasing the state costs of health care financing, because these indicators indicate not only the poor accessibility of health services, but about other issues such as the sector’s workforce (in 2018, the number of medical workers per 10,000 people in RA was 45), technical support, quality management and other problems. Pharmaceutical, medical, and orthopedic products comprise the highest percentage of non-food goods accounting for 14.88 percent of retail non-food turnover².

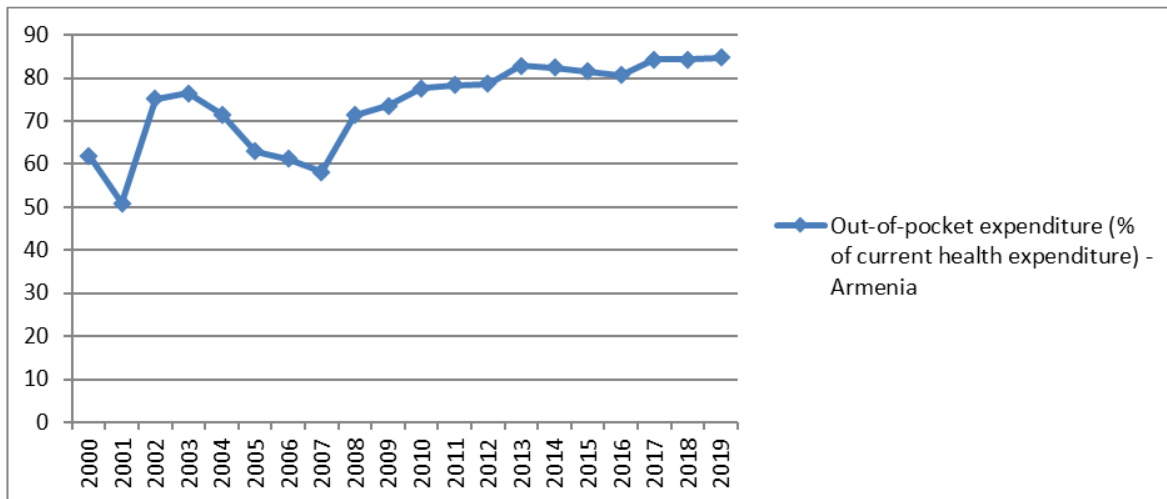


Fig. 2. Out-of-pocket expenditure (% of current health expenditure) – Armenia, from 2000 to 2019³

It should be noted that among the member states of the CIS, Armenia is in the first place with the highest indicator of out-of-pocket expenditures on medical services 84.7 percent, the second place is Tajikistan - 71.2 percent, and the third is Azerbaijan - 68 percent. And the lowest indicator was recorded in Belarus-25.7 percent (Fig. 3).

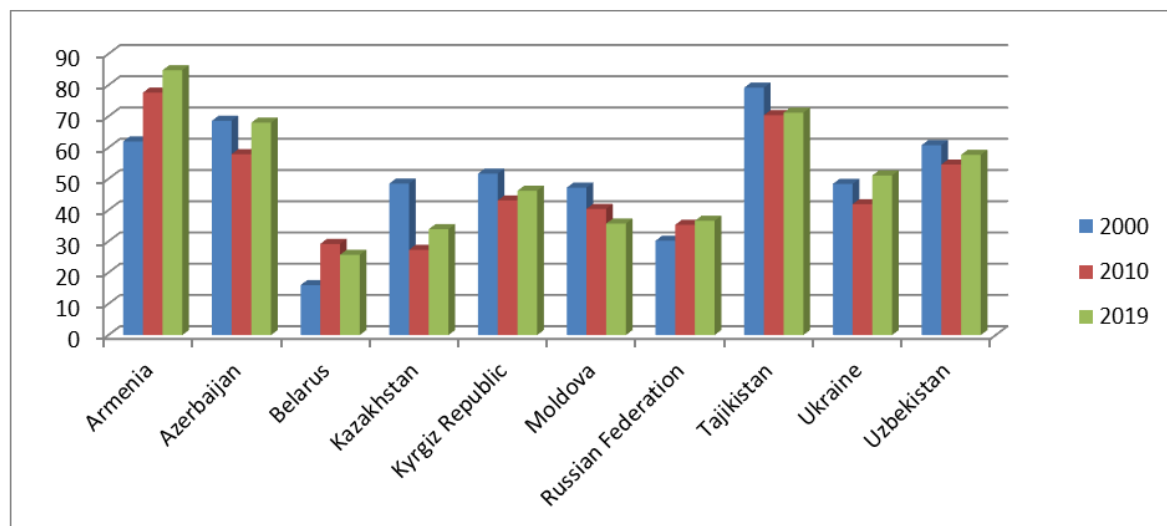


Fig. 3. Out-of-pocket expenditures (% of current health expenditure) in CIS countries, from 2000 to 2019⁴

¹ <https://asue.am/upload/files/amberd/2020.2.pdf>

² <https://asue.am/upload/files/amberd/2020.2.pdf>

³ Compiled by authors according to the following source:

https://data.worldbank.org/indicator/SH.XPD.CHEX.GD.ZS?fbclid=IwAR1Ti0CNhRMBi3Y6hXBky4EO_Aw-hOSiv75BNYtDGIjVstb-itYqdwOTw&locations=AM

⁴ Compiled by authors according to the following source:

https://data.worldbank.org/indicator/SH.XPD.OOPC.CH.ZS?fbclid=IwAR1PGk-4k1sVmQJkxGMOZvcJcKg5AATDqqbLiQLXNXmCIHI0qdeLa0wx_8Q

In addition, Armenia's index is the highest not only in the CIS countries, but also in the whole world¹. The world average level of out-of-pocket expenditures (% of current health expenditure) is 18% (Fig. 4). In contrast to high-income countries, this indicator is 3.5 times higher in lower middle income countries.

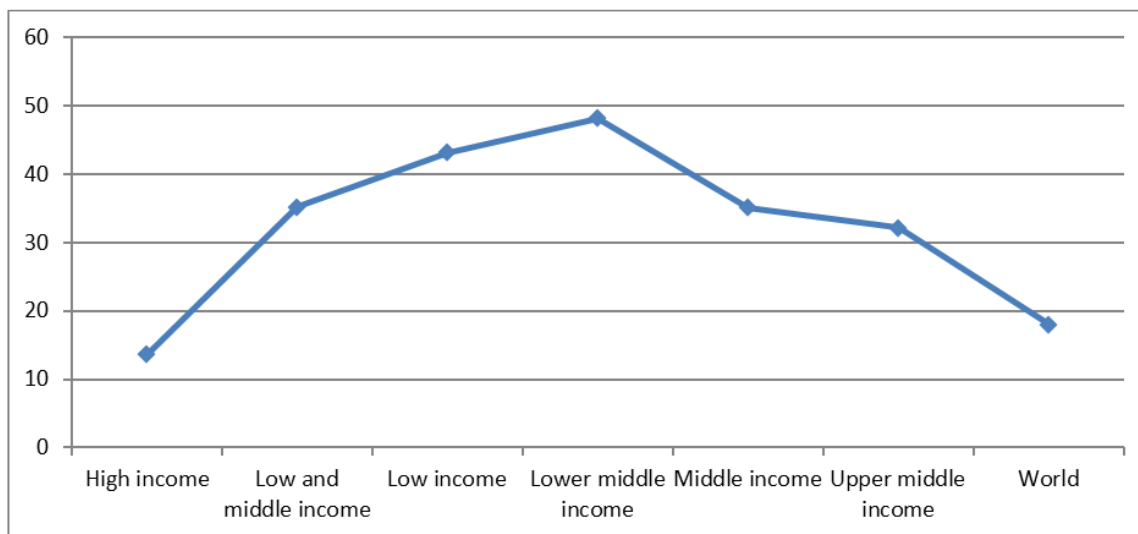


Fig. 4. The out-of-pocket expenditures (% of current health expenditure) in the world and countries according to income classification²

In parallel, ensuring the availability of medical products is a serious issue worldwide, taking into account the high prices of pharmaceutical products and medical supplies, which increase pressure on the limited resources of states³.

Reconciliation of nominal and real costs is also important in terms of cost growth and increasing access to health services. A comparison of changes in the consumer price index and the health care price index in Armenia shows that the gap between nominal and real health care prices is increasing year by year. Comparing the healthcare price index to the consumer price index reveals that, in 2019, the cost of medical services and prescription drugs grew by roughly 24.8% when compared to 2010. High inflation makes health care less accessible to the poor and to some social groups, resulting in catastrophic expenses.

High inflation reduces the availability of health services for the poor population and certain social groups, which causes catastrophic and pro-poor costs.

Figure 4 demonstrates that since 2011, the real costs of healthcare services have increased considerably, or, the cost of healthcare services is still growing at a constant rate⁴.

¹ Compiled by authors according to the following source:
https://data.worldbank.org/indicator/SH.XPD.OOPC.CH.ZS?fbclid=IwAR1PGk-4k1sVmQJkxGM0ZvcJcKg5AATDqqbLiQLXNXmCIHI0qdeLa0wx_8Q

² Compiled by authors according to the following source:
https://data.worldbank.org/indicator/SH.XPD.OOPC.CH.ZS?fbclid=IwAR1PGk-4k1sVmQJkxGM0ZvcJcKg5AATDqqbLiQLXNXmCIHI0qdeLa0wx_8Q

³ <https://asue.am/upload/files/amberd/2020.2.pdf>

⁴ <https://nih.am/assets/pdf/atvk/af1c36a476d2ad4a41609a5fde974319.pdf>

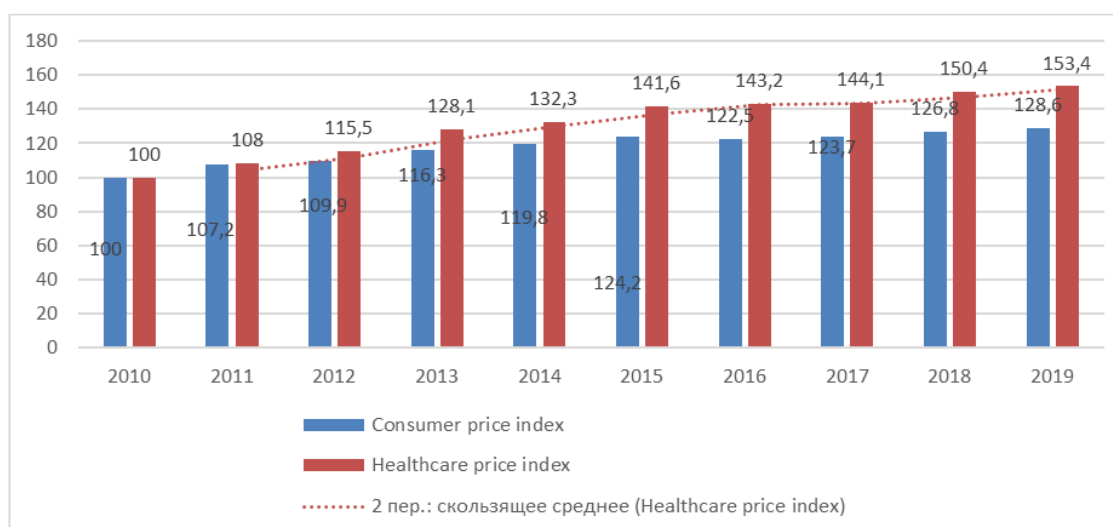


Fig. 5. The comparison of consumer price and healthcare price indexes in Armenia, 2010-2019¹

Fig. 5 shows that since 2011, the real prices of healthcare services have increased or, in other words, healthcare services continue to increase in price at a progressive rate. The lack of funding, reliance on different financial sources, the population's sustained high level of poverty involve significant risks to healthcare system and highlight the necessity of implementing a medical insurance system in the healthcare system in Armenia. In this context, middle and upper-middle income countries, including Armenia, should try to combine different mechanisms as follows:

- subsidizing the insurance premiums of the poor and those employed in the informal sector at the expense of general incomes,
- expansion of the scope of insured persons with mandatory inclusion of other groups and integration of private medical insurance funds.

Thus, it is important for Armenia to implement such reforms that will allow the transition from the budgetary system of health care financing to an integrated system, mainly by introducing the social medical insurance mechanism. Social health insurance is seen as an easy and efficient way to raise resources to offset health care costs, since payroll deductions are believed to be easier to collect than general taxes².

When introducing healthcare insurance mechanism, the state should define the main characteristics of the system: the conditions, the content of the insurance package, the procedure for calculating and collecting payments. However, no model of universal health insurance is widely accepted, and there may not be universal health coverage, so a number of countries are debating private and public insurance implementation schemes from the perspective of equity, efficiency, and sustainability.

It is also important that the chosen mechanisms are consistent with the economic, institutional and cultural characteristics of the country³.

As we can see, drug insurance is one of the elements of the health insurance system, within the framework of which the population is provided with free medicines or a part of their cost is reimbursed, with the aim of solving such problems as disease prevention among the working population, increasing the life expectancy of citizens, population abandonment from self-medication, saving on expensive medicines, maintaining income and diverting means for other needs.

Conclusions. The RA healthcare system needs reforms. The COVID-19 pandemic has shown that the health care system in any foreseeable situation does not have adequate capacities to face the challenges that arise, such as equipment, hospital beds, protective equipment, professional capacity, etc. In middle-income countries, existing health financing relies on "out-of-pocket costs". A study of foreign countries' health care financing costs shows that countries are gradually moving towards compulsory prepaid sources of healthcare financing.

¹ Compiled by authors according to the following source:

<https://nih.am/assets/pdf/atvk/af1c36a476d2ad4a41609a5fde974319.pdf>

²Berkeley, B. (2017) Relationship between Health Provider Status and Social Interaction. Open Access Library Journal, 4, 1-7. doi: 10.4236/oalib.1103708

³ Gottret, P., and G. Schieber. 2006. Health Financing Revisited: A Practitioner's Guide. Washington, D.C.: World Bank. <http://site.resources.worldbank.org/INTHSD/Resources/topics/Health-Financing/HFRFull.pdf>

From the analysis of out-of-pocket costs of healthcare services of the CIS member states, it was found that the highest index of out-of-pocket costs was recorded in Armenia, Tajikistan and Azerbaijan, and the lowest in Belarus.

The comparison of consumer and the health care prices indexes showed that the deviation between the nominal and real prices of health care is increasing year by year, and reduces the availability of healthcare services for the poor population and certain social groups.

Health insurance schemes are convenient for both the citizens and their governments as they help manage the financial burden by sharing the overall cost of health care among different partners. Policymakers need to assess the most appropriate mechanisms for pooling health risks, as low- and middle-income countries have high levels of out-of-pocket costs, and choosing the right mechanisms for interaction between the public and private sectors can ensure a high level of health protection.

REFERENCES

1. Berkeley, B. (2017) Relationship between Health Provider Status and Social Interaction. Open Access Library Journal, 4, 1-7. DOI: 10.4236/oalib.1103708
2. Mateu C, Guerlain A. (2019) Global Legal Insights - Pricing & Reimbursement 2019, Second Edition, pp. 65-83. Retrieved from https://www.acc.com/sites/default/files/resources/upload/GLI_P%26R19_E-edition_.pdf
3. Current health expenditure (% of GDP). World Health Organization Global Health Expenditure database (apps.who.int/nha/database). The data was retrieved on January 30, 2022.
4. Finance Statistics of Armenia 2015-2020. Retrieved from https://www.armstat.am/file/article/finansner_2021_1.pdf
5. Global expenditure on health: public spending on the rise? Geneva: World Health Organization; 2021. Licence: CC BY-NC-SA 3.0 IGO.
6. Gottret, P., and G. Schieber. 2006. Health Financing Revisited: A Practitioner's Guide. Washington, D.C.: World Bank, pp.340. Retrieved from <http://siteresources.worldbank.org/INTHSD/Resources/topics/Health-Financing/HFRFull.pdf>
7. Hayrapetyan N. (2018), State regulation of the health sector and contemporary problems of management in the RA, pp.121. Retrieved from <http://dspace.paara.am/xmlui/handle/123456789/108>
8. Tracking universal health coverage, Global Monitoring Report on Universal Health Coverage 2021 (as of 12th December 2021), pp. 103. Retrieved from https://cdn.who.int/media/docs/default-source/world-health-data-platform/events/tracking-universal-health-coverage-2021-global-monitoring-report_uhc-day.pdf?sfvrsn=fd5c65c6_5&download=true
9. Nguyen T, Rosemary Knight, Roughead E, Brooks G. and Mant A. (2013) Policy options for pharmaceutical pricing and purchasing: issues for low- and middle-income countries, Health Policy and Planning 2015;30:267–280 doi:10.1093/heapol/czt105, Published by Oxford University Press in association with The London School of Hygiene and Tropical Medicine, pp. 267-280. Retrieved from <https://www.jstor.org/stable/48508608>
10. Ozieranski P. & King L. (2017) Governing drug reimbursement policy in Poland: The role of the state, civil society, and the private sector, Theor Soc (2017) 46:577–610 <https://doi.org/10.1007/s11186-017-9300-8>, pp. 577-610. Retrieved from <https://link.springer.com/content/pdf/10.1007/s11186-017-9300-8.pdf>
11. Ngorsuraches S, Meng W., Kim B., Kulsomboon V. (2011) Drug Reimbursement Decision-Making in Thailand, China, and South Korea, Volume 15, Issue 1, Supplement, January–February 2012, p. 120-125, <https://doi.org/10.1016/j.jval.2011.11.002> Get rights and content, Under an Elsevier user license. Retrieved from <https://www.sciencedirect.com/science/article/pii/S109830151103539X>
12. S. Aghajanyan (2020). Will Armenia's Healthcare System Hold the Impact of a Protracted Pandemic?, Amberd Bulletin 2020/2, pp. 32-37, Retrieved from <https://artsaklib.am/2020/06/22/%d5%af%d5%a4%d5%ab%d5%ab%d5%b4%d5%a1%d5%b6%d5%a1%d5%9e-%d5%a1%d6%80%d5%a4%d5%b5%d5%b8%d6%84-%d5%b0%d5%b0-%d5%a1%d5%bc%d5%b8%d5%b2%d5%bb%d5%a1%d5%ba%d5%a1%d5%b0%d5%a1%d5%af%d5%a1%d5%b6-%d5%b0%d5%a1%d5%b4/>
13. World Bank Data, Retrieved from https://data.worldbank.org/indicator/SH.XPD.CHEX.GD.ZS?fbclid=IwAR1Ti0CNhRMBi3Y6hXBky4EO_Aw-hOSiv75BNYtDGIFKjVstb-itYqdwOTw&locations=AM
14. World Health Organization (2018) Medicines Reimbursement Policies in Europe, pp. 200, <https://apps.who.int/iris/bitstream/handle/10665/342220/9789289053365-eng.pdf?sequence=1&isAllowed=y>
15. Варианты политики в сфере возмещения стоимости лекарственных средств в Европе (2018) <https://apps.who.int/iris/bitstream/handle/10665/350653/9789289056106-rus.pdf> p. 31
16. Попович Л. (2019) Лекарственное страхование – выбор пути, с. 6-16. DOI: <https://doi.org/10.21518/1561-5936-2019-04-6-16>. Retrieved from <https://cyberleninka.ru/article/n/lekarstvennoe-strahovanie-vybor-puti/viewer>
17. Глембоцкая Г., Богатырев С. (2009) Страхование лекарственного обеспечения как средство повышения качества медицинской помощи, ВЕСТНИК ВГУ, серия: химия. биология. фармация, 2009, № 1, ст. 107-112, Retrieved from <http://www.vestnik.vsu.ru/pdf/chembio/2009/01/2009-01-20.pdf>
18. Retrieved from <https://nih.am/assets/pdf/atvk/af1c36a476d2ad4a41609a5fde974319.pdf>