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# NATIONAL HEALTH ACCOUNTS OF ARMENIA **2018**

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# Report

## NATIONAL HEALTH ACCOUNTS OF ARMENIA - 2018

YEREVAN

2018

UDC 614:2 : 338

National Health Accounts: Armenia, 2018/ N. Davtyan, A. Bazarchyan, A. Aghazaryan, L. Hovhannisyan: Yerevan. National Institute of Health after S. Avdalbekyan, RA MoH, 2018, 112 pages.

National Health Accounts (NHA) describes the expenditure flow in health care from both public and private sectors. It represents the sources, use, and flow of health care funds.

In Armenia, health services are funded by the following sources: the RA state budget, local community budgets, foreign donor organizations (international organizations), humanitarian aid funds, private organizations, household resources, and other sources. These funds are directly or indirectly passed to the financing agents and from them to the final health care service providers.

World Health Organization (WHO), taking into account the need for international standardization of health expenditure accounting, in cooperation with the Organization of Economic Cooperation and Development (OECD) and European Statistical Service (Eurostat) has developed a methodological guideline for preparing NHA. Based on this methodology the National Health Accounts have been prepared in Armenia since 2005.

World Health Organization (WHO), in cooperation with the Organization of Economic Cooperation and Development (OECD) and European Statistical Service (Eurostat), has developed the new methodology for System of Health Accounts (SHA, 2011 Edition) as an international standardized methodology for the estimation of health care system expenditure.

In 2015, the RA Ministry of Health and the Head office of the World Health Organization (Geneva, Switzerland) signed the Support Memorandum for the Introduction of the System of Health Accounts New Methodology. In Armenia the National Health Accounts are prepared based on this new methodology starting from the year of 2014.

The report is intended for health care system managers, health care experts, and other professionals working in the field.

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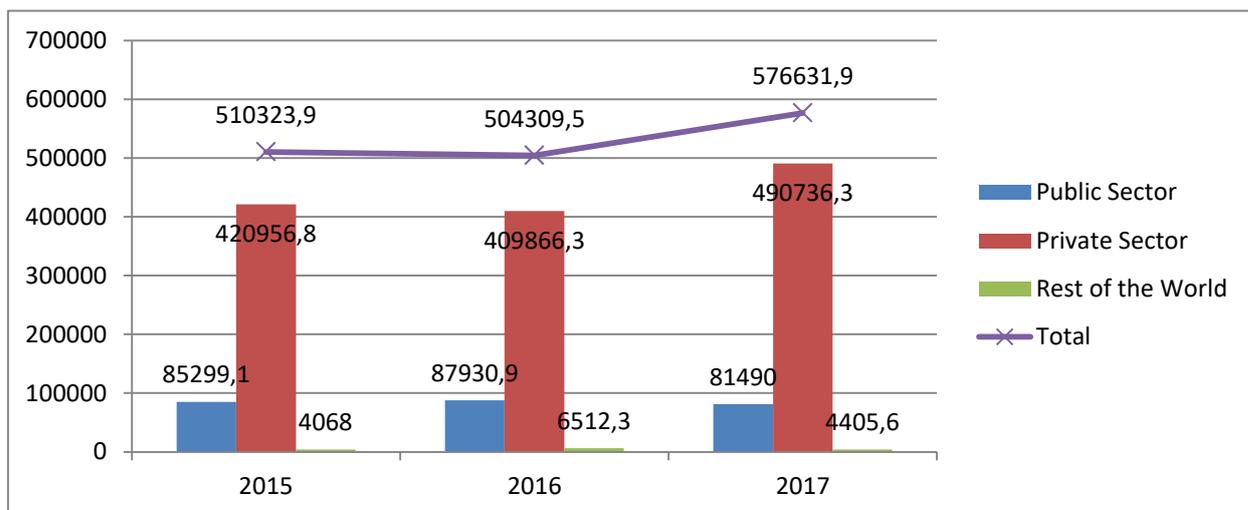
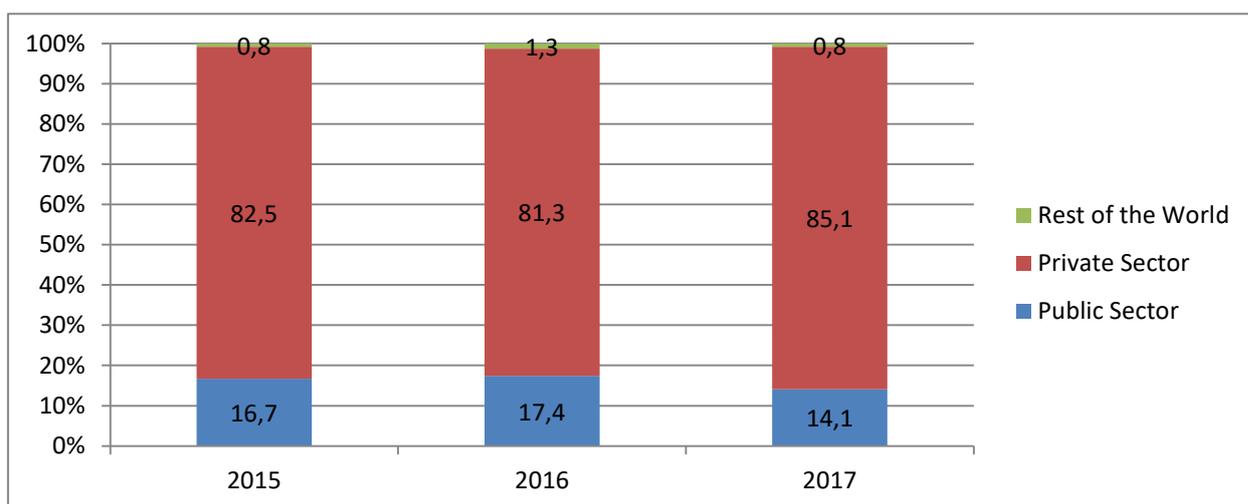
## SUMMARY

National Health Accounts (NHA) Report summarizes the information on financial flows of RA health sector in 2017 and includes data on funding received from public and private sources and the funds received from various international organizations, as well as information about the main directions of resource allocation (Functions) and the role of administrative bodies (Financing Agents) in these flows.

The current expenditure of National Health Accounts by Financing Agents in 2017 are the following:

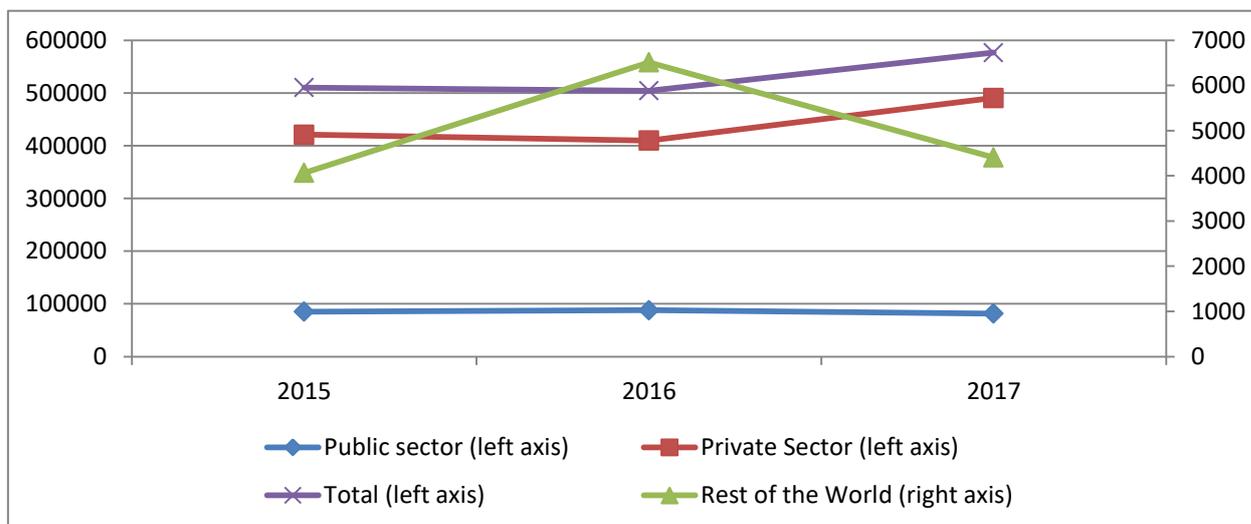
**Table 1 The current expenditure of National Health Accounts (2015-2017):**

Revenues of Financing Schemes (Financing Sources)	2015*		2016		2017	
	Amount (million AMD)	Proportional weight (percentage)	Amount (million AMD)	Proportional weight (percentage)	Amount (million AMD)	Proportional weight (percentage)
Public Sector	85,299.1	16.7	87,930.9	17.4	81,490.0	14.1
Private Sector	420,956.8	82.5	409,866.3	81.3	490,736.3	85.1
Rest of the World	4,068.0	0.8	6,512.3	1.3	4,405.6	0.8
<b>Total</b>	<b>510,323.9</b>	<b>100.0</b>	<b>504,309.5</b>	<b>100.0</b>	<b>576,631.9</b>	<b>100.0</b>

**Figure 1. The current expenditure of National Health Accounts (2015-2017, million AMD)****Figure 2. The structure of the current expenditure of National Health Accounts (2015-2017, %)**

As seen in the table and figures, the combined funding of the current expenditures on healthcare has increased by 14.3% in 2017 compared to the previous year, whereas in 2016, the current expenditure had decreased by 1.2% compared to the previous year. The increase of current expenditure was solely conditioned by an increase in the share of the private sector payments, in particular, by the increase of direct payments of households (by 19.7%). The share of the public sector and the external world financing has decreased by 7.3% and 32.3%, respectively, compared to the previous year, whereas in 2016, they recorded growth by 3.1%, and 60.1%, respectively, compared to the previous year,

**Figure 3. Dynamics of the the current expenditure of National Health Accounts (2015-2017, million AMD)**



## ABBREVIATIONS

NHA	National Health Accounts
HPIU	Health Project Implementation Unit- State Agency of the MoH, RA
WHO	World Health Organization
SNA	System of National Accounts
PRSP	Poverty Reduction Strategy Plan
USA	United States of America
USAID	United States Agency for International Development
MoH	RA Ministry of Health
MoLSA	RA Ministry of Labor and Social Affairs
MoJ	RA Ministry of Justice
MC	Medical Center
MoES	RA Ministry of Education and Science
NHAA	National Health Accounts of Armenia
WB	World Bank
RA	Republic of Armenia
SCoRA	Statistical Committee of the Republic of Armenia
ASRP	Armenia Social Reform Project
P	Providers or Implementers of Health Care Functions
UNDP	United Nations Development Program
UN	United Nations
IDC	Interdepartmental Commission

SHA	State Health Agency, RA MoH
H	Households
F	Function or Health Care Functions
FS	Revenues of Financing Schemes
FA	Financing Agent
MoF	RA Ministry of Finance
ILCS	Integrated Living Conditions Survey

## CHAPTER 1. THE IMPORTANCE AND ROLE OF NHA IN ARMENIA

### 1.1 National Health Accounts in Armenia

The NHA report is intended for health system policy-makers and administrators for the improvement of health system performance and management. The information included in the NHA is useful in the decision-making process as it provides an opportunity to evaluate the utilization of available resources and can be used for comparative analysis of health system of the country with the health systems of other countries. If applied regularly, the NHA provides an opportunity to identify the health expenditure trends, which are important for the health system monitoring and evaluation. Moreover, the NHA methodology can also be used for predicting health system financial needs.

By combining the information in the NHA with non-financial data, such as the morbidity rate, the level of utilization of resources by health care providers, the policy makers have a tool for making justified strategic decisions and avoid potential unfavorable developments.

*It is important to note that the NHA is not only a tool for the policy makers in decision-making process but is also an important tool for the research specialists and the public to evaluate the outcomes of the strategic decisions made by policy makers.*

### 1.2 The Objective of National Health Accounts

The main objective of the National Health Accounts preparation is the organization of the collection of information about the health system expenditures and other expenditure, its systematization and presentation, in order to facilitate the process of planning, policy development and efficiency assessment within the sector.

Meanwhile, the present report, which includes the comparison of the NHA data of several years, enables to assess the following:

- How does the distribution among the financing sources change in parallel with the increase of the state budget allocations? Does the financial burden of population decrease and for which services?

- Does the implementation of the state guarantees for the population improve in parallel with the increase of the state budget allocations, i.e., do medical care or specific types of health care services actually become free of charge for the population?

Structural flexibility of the NHA gives also an opportunity to analyze the obtained results by population target groups or by activities, which are related to specific programs and diseases.

### **1.3 Methodology of National Health Accounts**

Main definitions and terms in the NHA methodology are based on the terms and definitions of the “System of Health Accounts” developed by the Organization of Economic Cooperation and Development (OECD). The OECD- developed “System of Health Accounts” Manual defines the international classification of Health Accounts, where all types of health expenditures are divided by categories.

Despite the fact that the NHA based on the international classification of the “System of Health Accounts”, it also involves sub-categories which come from distinctive characteristics of the health care system of RA. Such flexibility allows the NHA to take into account the diversity of Armenia’s health system structure and performance.

### **1.4 Definition of National Health Expenditure**

In accordance with NHA definitions, national health expenditures are all the expenditures related to economical activities and are aimed at maintaining and improving health care, changing life systems or financing such activities.

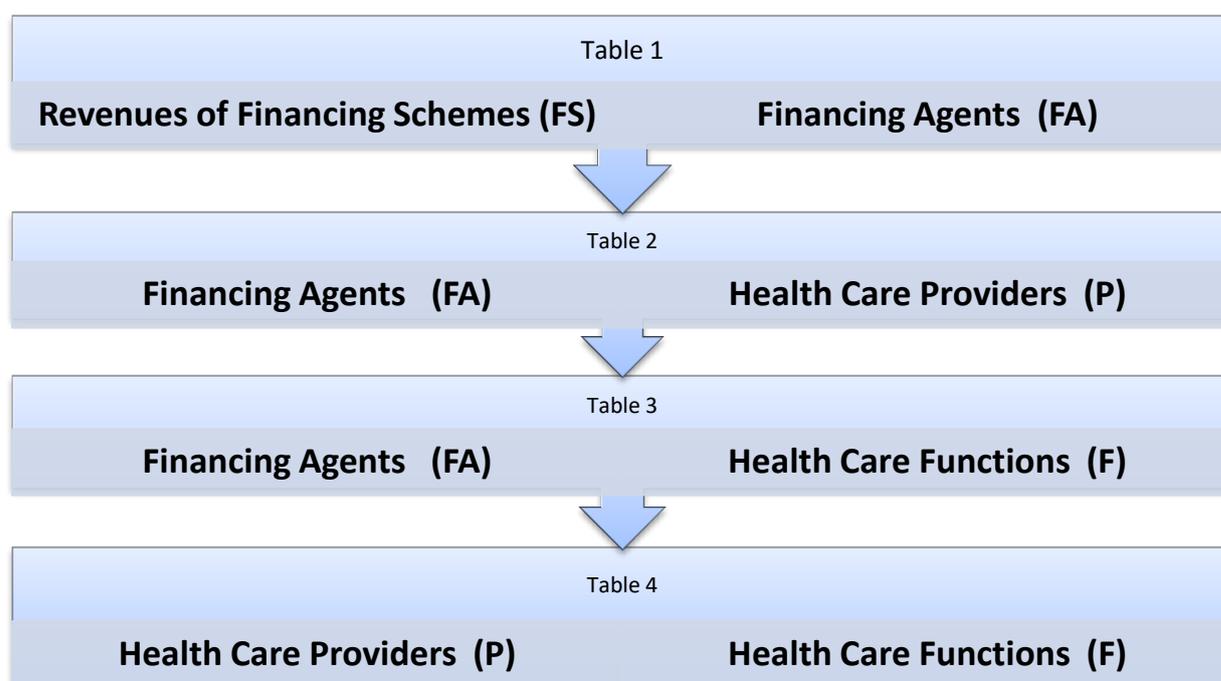
This definition applies to all types of facilities and organizations providing or financing health care services. For instance, the NHA provides an opportunity to include in the health care expenditure estimates the funds allocated by the Ministry of Education and Science for the education and training of medical personnel. In a similar way, not all the activities implemented by the Ministry of Health fall under the definitions of health expenditures and are included in the NHA. Thus, the NHA report is developed based on the aforementioned differentiations and exceptions.

The health functions related to the citizens and residents of the country have been considered when preparing the NHA and not the geographical boundaries of the country. Thus, for instance, the NHA includes health care expenditures made for the citizens and residents temporarily residing abroad and excludes health care expenditures made by the foreign citizens in the country. Health care expenditures made by the international organizations, medical goods and services meant for the residents of the recipient country are also included in the national health expenditures.

### 1.5. The Structure and Classification of National Health Accounts

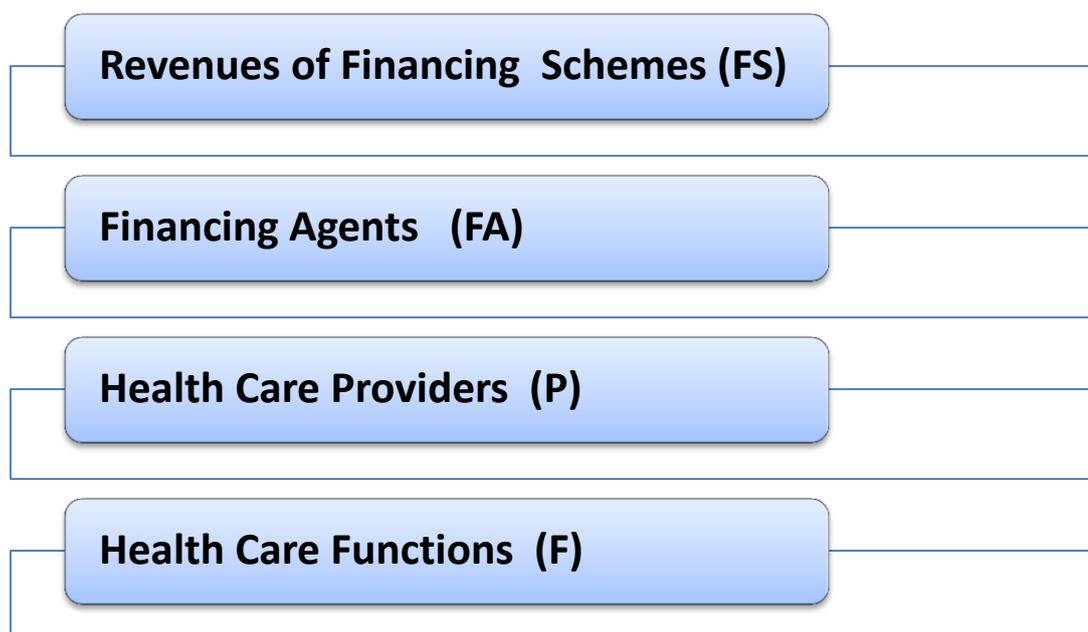
In our country the NHA by its structure describes the health expenditures and is grouped into four main tables. All tables are two-dimensional and reflect financial flows from one category of health care participants to another, i.e., they describe how much has been spent by each participant of the health system and where the funds were directed to. See the structure of NHA tables below:

**Figure 1.1 The Structure of NHA tables**



NHA differentiates four main categories of health system participants.

Figure 1.2 Four main categories of National Health Accounts participants



1. **Financing schemes (FS):** answers to the following question: “Where do the funds come from?” For instance, from RA state budget, households, and international donor organizations.
2. **Financing agents (FA)** (also called financial intermediaries): receive funds from financing sources (schemes) and use them to finance health care services, medical goods (for instance drugs) and activities. This category addresses the following question: “Who controls and organizes the flow of funds?” For instance, if the annual RA State Budget (financing source) provides funds to RA Ministry of Health, then the latter, in its turn, decides on how to distribute the received funds. For this reason, RA Ministry of Health is considered a financial intermediary.
3. **Health Care Providers (P):** are the final users of health system funds. This category addresses the following question: “Whom the funds are allocated to?” Providers are the organizations that provide health care services. For instance, private and public hospitals, polyclinics, rural ambulatories and health centers, pharmacies, etc.
4. **Health Care Functions (F)** are the provided services and implemented activities by the providers within the received funds. This category addresses the following

question: “Which type of service, product or activity has been actually provided or implemented?” Examples are medical care, long-term nursing care, medical goods (for instance drugs), preventive activities and health administration.

The main cluster of tables describes the financial flows between the above mentioned health system categories.

**Moreover, financial flows can be very complex and involve numerous types of participants and links between them.**

## **1.6. The Process of National Health Accounts Preparation**

The preparation of NHA includes the following stages:

1. Collection of data on health expenditure;
2. Comparison, evaluation and analysis of data and information collected from all sources;
3. Entering data into the NHA software and extracting output tables;
4. NHA Data analysis;
5. Preparation of NHA report, dissemination of the obtained results.

## CHAPTER 2. ANALYSIS AND DESCRIPTION OF THE SITUATION

### 2.1. General Description, Composition and Structure of the Health System

#### 2.1.1. Description and Management of Health Sector

RA health sector includes:

1. The RA Ministry of Health;
2. Other RA Public Administrative bodies implementing health services;
3. The system of health care facilities under RA regional administrative bodies;
4. Health care facilities under the local self-governance bodies;
5. Private health care facilities;
6. Local and foreign benevolent organizations and non-governmental organizations (NGOs) implementing projects in the health care sector;
7. Donor countries and international organizations implementing projects in the health care sector.

### 2.2. Health Care Financing

The health system of the Republic of Armenia is financed by the following main internal sources:

1. RA state budget and local budgets;
2. Direct (out-of-pocket) payments of citizens (households), including non-official payments;
3. Official co-payments of the RA health care system;
4. Medical Insurance.

The external sources of health financing is the expenditure made by the Rest of the World in health system of RA in a decentralized way and not reflected in the state budget:

- a. Import and distribution of goods received from the outside world and qualified as benevolent/ humanitarian goods;
- b. Works and services provided within the scope of programs qualified as benevolent and financed by the Rest of the World;

c. Expenditure made by international donor organizations in the health system of RA.

## **CHAPTER 3. INFORMATION COLLECTION METHODS AND DATA SOURCES**

Data sources in different countries have various characteristics. For Armenia the following main sources have been used:

- Annual reports of the state reporting system (annual Budget Execution Report presented to the approval of RA National Assembly, data from the National Statistical committee reports, etc.);
- Official reports of organizations providing health care service and registered in the State Health Agency database;
- Meeting protocols of RA government’s coordination committee of charitable programs and the annual summary report;
- Data from Living standards survey report regularly carried out by the RA Statistical Committee, as well as statistics on the volume of health care services;
- Special sample surveys (2015) conducted in order to gather information on health expenditures by households
- Records of the national, regional and local bodies of the health system;
- Records maintained by insurance companies (including the services provided within the “Social Package” framework), RA Central bank reports;
- Records of healthcare service providers;
- Data on assistance provided by donor organizations.

Simultaneously, data was collected from additional independent sources; similar results were obtained at least from two different sources, and combined for final outcome.

### **3.1 Sample surveys and household expenditure estimation methodology**

During the preparation of Armenia’s National Health Accounts (NHA), the main methodological target is the assessment of the health expenditure of households and its

distribution by providers and functions. It is not difficult to assess the health expenditure from public sources, as there is available a variety of information sources in the existing reporting systems, which allows collecting data on actual public health expenditure. Simultaneously, the state expenditures are reflected in various reports (monthly and annual) of budgetary system by economic and functional classification, as well as by targeted spending. Besides, reports of public expenditure performance are also prepared by program budgeting format.

Data received from special sample surveys conducted among households and from periodic Household's Integrated Living Conditions Survey conducted by the RA Statistical Committee are the sources of information for summary indicators of household health expenditures and its structure by functions and providers.

According to the methodology of Armenia's National Health Accounts, per capita average monthly health expenditure and its structure (by type of health facility and health care services, specialists and payment purposes) derived from the Integrated Living Conditions Survey is the basis for calculation of summary indicators of households health expenditure.

Before the SHA 2011 standards introduction, when preparing NHA for Armenia the total amount of household's health expenditures and its structure was calculated based on data from the NSC "Households' diary" by multiplying the average per capita health expenditure and the number of average annual population. The official statistical data on the volume of provided health services was also used as supplementary source of information.

SHA 2011 recommends a new methodology for the calculation of health expenditure of households, which was used for preparing the National Health Accounts of 2014-2017. According to this methodology, the country's official statistics are considered as necessary source of information for calculating the household's private spending, in particular:

1. The Indicator of the gross output of health services (data) in the Gross Domestic Product structure in accordance with the methodology of National Accounts System of Armenia.

2. Final consumption expenditure index (data) of households in the structure of Gross National Disposable Income (Final Consumption) in accordance with the methodology of the National Accounts System of Armenia
3. Import and export data of health services in the balance of payments.
4. The share of health care expenditure, according to the "Classification of Individual Consumption According to Purpose" (COICOP), in the structure of per capita monthly average consumption expenditure of households calculated by the results of the households' Integrated Living Conditions Survey (ILCS).

In the Report "Social Snapshot and Poverty in Armenia", summarizing the results of Household's Integrated Living Conditions Survey implemented by the RA Statistical Committee in 2017, the structure of households' average monthly per capita consumption expenditure is presented grouped by its purposes, in actual numbers and percentage. According to the survey results, the average monthly per capita health expenditure of households in 2017 was 4,459 AMD of which 5,424 AMD in urban areas and 2,928 AMD in rural areas.

In the total cost structure the share of expenditure on health amounted to 10.0 %, in particular 11.2 % in urban areas and 7.8 % in rural areas<sup>1</sup>

**Table 3.1.1 Structure of Household Nominal Customer Expenditure, (Average Monthly per Capita Expenditure, grouped by purposes<sup>2</sup>, 2016-2017, AMD<sup>3</sup>)**

Expenditure items	Country total		Including			
			Urban communities		Rural communities	
	2016	2017	2016	2017	2016	2017
<b>Consumption expenditure,</b>	<b>43 978</b>	<b>44 413</b>	<b>46 519</b>	<b>48 611</b>	<b>39 539</b>	<b>37 753</b>
Including						
Food and non-alcoholic beverages	17 624	17 965	17 183	17 979	18 396	17 944
Alcoholic beverages and tobacco	1 595	1 970	1 550	2 071	1 674	1 810

<sup>1</sup> "Social Snapshot and Poverty in Armenia, Statistical analytical report, in accordance with the results of Household Living Conditions Integrated Survey 2017", NSC RA, Yerevan 2018, page 135

<sup>2</sup> According to the "Individual Consumption by purpose" national classification, harmonized with the EU Individual Consumption Target Classification (COICOP-HBS)

<sup>3</sup> "Social Snapshot and Poverty in Armenia, 2018", NSC Armenia, 2018, page 137

Clothing and footwear	1 887	1593	1 589	1663	2 409	1 481
Housing, water, electricity, gas and fuels	8 195	6 884	9 211	8 384	6 416	4 504
Furnishings, household equipment and routine household maintenance	1 565	1 320	1 567	1 310	1 560	1 336
<b>Health</b>	<b>4 277</b>	<b>4 459</b>	<b>5 251</b>	<b>5 424</b>	<b>2 575</b>	<b>2 928</b>
Transport	1 803	3 396	2 169	3 719	1 165	2 884
Communication	2 389	1 894	2 635	2 182	1 959	1 438
Recreation and culture	1 049	1 201	1 021	1 444	1 098	816
Education	664	1 047	811	1 301	406	642
Restaurants and hotels	943	528	1 423	774	103	139
Other Services	1 987	2 156	2 109	2 360	1 775	1 831

Source: ILCS 2016 and 2017

In 2017, compared to the previous year, in parallel with the average monthly per capita household's expenditure the household's health expenditures have also increased. Meanwhile, the average per capita monthly health expenditure (353 AMD) of households in rural areas, in absolute terms, is twice more the household expenses in urban areas (173 AMD). In the rural areas, the reduction of per capita total customer expenditure, the increase in health expenditures is alarming, as a result of which the share of the latter has increased by 1.3 percentage points (7.8%).

**Table 3.1.2 Structure of Household Nominal Consumption Expenditure, 2016-2017 (Average Monthly per Capita Expenditures, grouped by Purpose), Percentage<sup>4</sup>**

Expenditure items	Country Total		Including			
	2016	2017	Urban communities		Rural communities	
			2016	2017	2016	2017
<b>Consumption expenditure, including</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Including</b>						
Food and non-alcoholic beverages	40.1	40.4	36.9	37.0	46.5	47.5
Alcoholic beverages and tobacco	3.6	4.4	3.3	4.3	4.2	4.8
Clothing and footwear	4.3	3.6	3.4	3.4	6.1	3.9
Housing, water, electricity, gas and fuels	18.6	15.5	19.8	17.2	16.2	11.9
Furnishings, household equipment and routine household	3.6	3.0	3.4	2.7	4.0	3.5

<sup>4</sup> "Social Snapshot and Poverty in Armenia, 2018", NSS Armenia, 2018, page 138

Expenditure items	Country Total		Including			
			Urban communities		Rural communities	
	2016	2017	2016	2017	2016	2017
maintenance						
Health	<b>9.8</b>	<b>10.0</b>	<b>11.3</b>	<b>11.2</b>	<b>6.5</b>	<b>7.8</b>
Transport	4.1	7.6	4.7	7.7	2.9	7.6
Communications	5.4	4.3	5.7	4.5	5.0	3.8
Recreation and culture	2.4	2.7	2.2	3.0	2.8	2.2
Education	1.5	2.4	1.7	2.7	1.0	1.7
Restaurants and hotels	2.1	1.2	3.1	1.6	0.3	0.4
Other services	4.5	4.9	4.5	4.9	4.5	4.8

**Source: ILCS 2016 and 2017**

Based on the information presented, the total amount of health care expenditures by households, in accordance with SHA 2011 methodology, can be calculated using the share of the health expenditure in the total final household consumption expenditure. In 2017 according to Armenia's National Accounts Household Final Customer Expenditure amounted to 4,288,709.1 million AMD<sup>5</sup> and while the share of healthcare expenditures in the consumer basket was 10.0%<sup>6</sup>, so to calculate the total health expenditure of households we calculate 10.0% of 4.3 trillion AMD. Based on calculation made using this methodology the health expenditures of households (health care services and medicines) amounted to 425,518.3 million AMD in 2017.

The main limitation of this method is the assessment of the healthcare expenditure obtained from the household surveys, which is subject to the potential impact of sample size, household characteristics included in the sample, possible expenditure and other factors and can be changed continuously.

The second important limitation is that when preparing the National Accounts of Armenia the RA Statistical Committee does not provide any information (or does not calculate) on the structure of final consumption expenditures of households, it refers to SHA 2011 standard.

<sup>5</sup> National Accounts of Armenia, statistical bulletin, RA SC, Yerevan, 2018, page 69

<sup>6</sup> "Social Snapshot and Poverty in Armenia, 2018", Statistical analytical report, in accordance with the results of Household Living Conditions Integrated Survey 2017", NSS Armenia, 2018, page 135

Therefore, taking into account SHA 2011 standard recommendations, in order to calculate the household health expenditures the share of the gross health services production in GDP (National Accounts) and the share of export and import of the health care services in the RA Balance of the Payment has been used.

According to Armenia National Accounts, the volume of public health services and social welfare services by the basic prices in 2017 amounted to 333 653.5 million AMD, of which approximately 321,803.0 million AMD is healthcare output. Indicator is presented either at main or producer price. In order to calculate the volume of health services at purchaser price we need to take into account the production taxes and other taxes on production excluding subsidies, commercial and transportation markups. By taking into account the volume of import and export of health services, as well as the expenditure made by the public sector and the Rest of the World the household health care expenditure amounted to **296,536.6** million AMD in 2016<sup>7</sup>.

**Table 3.1.3 Calculation of current expenditures on healthcare services by households, million AMD**

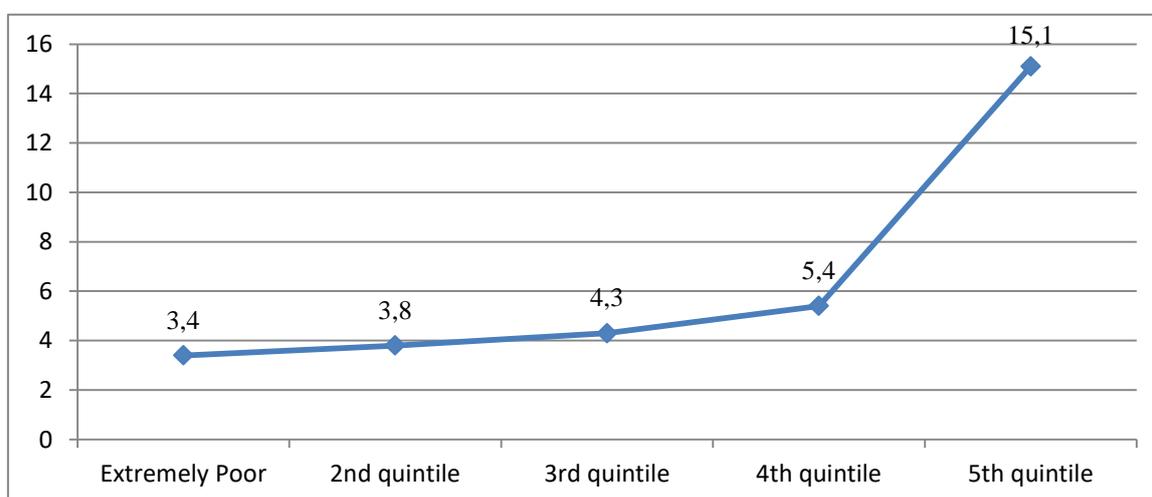
	<b>2017</b>
Provision of Healthcare services and Social Services for Population by Basic Prices, according to Armenia's National Accounts, AMD	321,803.0
Provision of Healthcare services and Social Services for Population by Purchaser Prices, according to Armenia's National Accounts, AMD	386,163.6
Import of health care services, AMD	57,868.5
Export of health care services, AMD	55,440.4
Public expenditure, AMD	81,490.0
Rest of the World expenditure, AMD	4,405.6
Employers resources	1,518.9
Insurance resources	4,640.6
<b>The expenditures of resident households for health care services, AMD</b>	<b>296,536.6</b>

<sup>7</sup> Household expenditure= healthcare services at purchaser prices + import - export - organization fees – charges of the insurance companies - public sector expenditure – rest of the world expenditure.

In addition to medical services, household health care costs include the cost of medicines and medical supplies, information on which is available in the Household Living Conditions Integrated Survey. The Household consumption basket "by Classification of Individual Consumption according to Purpose (COICOP)", calculated per capita includes 17 groups of medicines and medical products/devices and more than 60 types of provided medical services in the primary health care level and hospitals.<sup>8</sup>

In the structure of expenses of surveyed households expenditure incurred for the purchase of medicines amounted to 4.4% or 1 956 AMD; moreover, for the non-poor 2,312 AMD, for the poor 874 AMD and the extremely poor spend 373 AMD. Monthly per capita expenditure for purchasing medicine for the non-poor are 2.6 times higher than the similar costs of the poor, and are 6.2 times bigger than the per capita amount spent monthly by the extremely poor.<sup>9</sup> It is noteworthy that the share of expenditure on healthcare services in the general population consumption aggregate varies significantly by quintile groups.

**Figure 3.1.1 Share of Expenditure on Healthcare Services to Total Population consumption aggregate by Quintile Groups, 2017 (percent)<sup>10</sup>**



Source. *ILCS 2016թ.*

<sup>8</sup> According to the "Individual Consumption of products and services by purpose, 2014" national classification <http://armstat.am/am/?nid=452>

<sup>9</sup> Social Snapshot and Poverty in Armenia, 2018", RA SC, 2018, page 158

<sup>10</sup> Same place:

In 2017 according to Armenia's National Accounts Household Final Consumption Expenditure amounted to **4,288,709.1** million AMD and purchase of medicines and medical supplies amounted to around 4.4% of total expenditure, thus, according to the methodology used for calculations, the total expenditure of medicines and medical supplies will be **188,040.2** million AMD.

As a result the current health expenditures of Armenian households in 2017 amounted to **484,576.8** million AMD.

**Table 3.1.4 The current health expenditure of households, 2017**

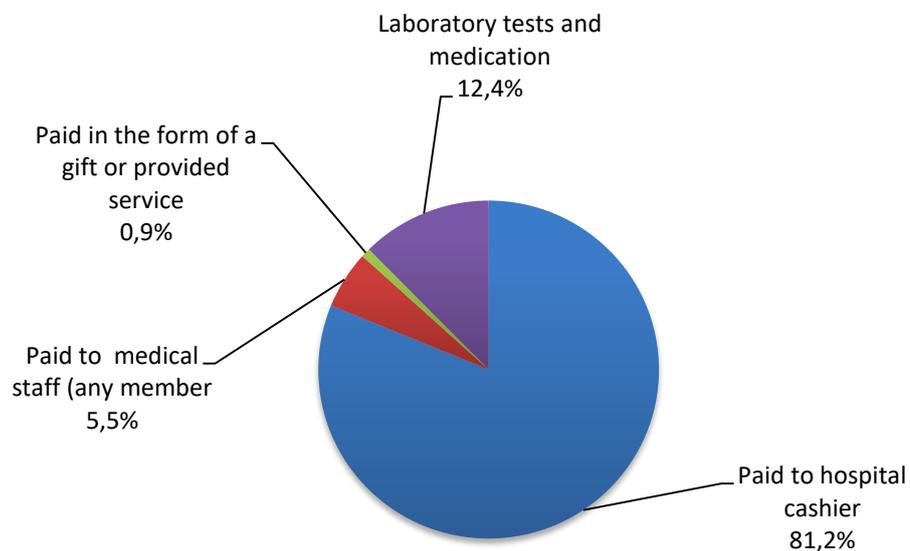
<b>Expenditure accounts</b>	<b>Million AMD</b>	<b>%</b>
<b>Households expenditure on medical services</b>	296,536.6	61.2
<b>Households expenditure on medicine and medical supplies</b>	188,040.2	38.8
<b>Total Households health expenditure</b>	<b>484,576.8</b>	<b>100.0</b>

During the 12 months of the 2017 household survey, the ill population applied to hospitals for an average of 2.4 times. 46.4% population has stayed for night during the last visit, and stayed in the hospital on an average of 7.7 days. The hospitalized population, according to the duration of stay was distributed as follows: 65.1% less than a week, 24.1% over a week up to two week and 9.8 % over two weeks.

According to the aforementioned survey results, each patient of the surveyed month of the 2017 paid 81.2% of the total amount of money spent to the hospital to the cashier of the hospital, 5.5% paid to immediate medical staff, in addition 0.9% was given in a form of present, 12.4% paid in the form of other payments (laboratory and X-ray studies or medications). Thus, 81.2% of patients' expenditure in hospitals paid to the cashier. The highest share of cashier payments was recorded by surgeons, cardiologists, and urologists. The highest percentage of direct payments to medical staff was observed by obstetrician-gynecologists and gastroenterologists. The largest share of expenditure for laboratory and X-ray studies or medication has been recorded by therapists, gastroenterologists, endocrinologists, and

oncologists.<sup>11</sup>

**Figure 3.1.2 The structure of direct payments made by individuals in the hospitals during the last visit in 2017, percentage**

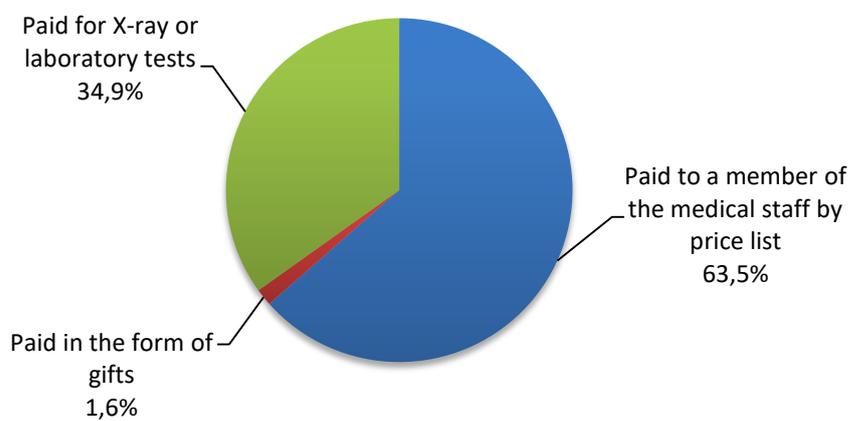


During the last visit of the surveyed month the population which attended PHC facilities has paid on average the 63.5 % of its expenditure to any staff member by the price list, only 1.6% has paid in a form of gifts, and 34.9% has paid for X-ray or laboratory tests.<sup>12</sup>

<sup>11</sup> Social Snapshot and Poverty in Armenia, 2018”, RA SC, 2018, page 156

<sup>12</sup> Social Snapshot and Poverty in Armenia, 2018”, RA SC, 2018, page 155

**Figure 3.1.3 The structure of direct payments made by individuals in the PHC facilities during the last visit in 2017, percentage**



## CHAPTER 4. THE MAIN RESULTS OF NHA 2016

### 4.1 Summary results of NHA

In 2017 the current health expenditure of all financing sources (Public and Private sectors, Rest of the World), amounted to **576,631.9** million AMD, which exceeds the same indicator of the previous years by 14.3 % (it was **504,309.4** million AMD in 2016) and the capital expenditure (investments) were **3,767.3** million AMD, which decreased by 48.1% compared to the previous year (it was **7,255.8** million AMD in 2016).

**Table 4.1.1 The funding of health care system by sources, 2015, Million AMD**

Financing sources		Expenditure type	2014	2015	2016	2017	Nominal growth, %
Rest of the World	International donor organizations	Current	3,316.2	2,064.4	3,369.5	2,376.7	70.5
		Capital	217.1	623.0	288.8	34.6	12.0
	NGOs	Current	2,917.7	2,003.6	3,142.7	2,028.8	64.6
		Capital	250.3	392.1	293.2	309.3	105.5
	Total	Current	<b>6,233.9</b>	<b>4,068.0</b>	<b>6,512.3</b>	<b>4,405.6</b>	<b>67.7</b>
		Capital	<b>467.4</b>	<b>1,015.1</b>	<b>582.0</b>	<b>343.9</b>	<b>59.1</b>
Total			<b>6,701.3</b>	<b>5,083.1</b>	<b>7,094.3</b>		<b>66.9</b>
Private sector	Employers	Current	917.1	1,518.9	1,518.9	1,518.9	100.0
	Insurance payments		4,640.6	5,151.0	3,360.3	4,640.6	138.1
	Households payments		403,107.9	414,286.9	404,987.1	484,576.8	119.7
	Total		<b>408,665.7</b>	<b>420,956.8</b>	<b>409,866.3</b>	<b>490,736.3</b>	<b>119.7</b>
Public sector	Current	76,596.4	85,299.1	87,930.9	81,490.0	92.7	
	Capital	3,002.9	4,057.8	6,673.7	3,423.5	51.3	
	Total	<b>79,599.3</b>	<b>89,356.9</b>	<b>94,604.7</b>	<b>84,913.4</b>	<b>89.8</b>	
Total	Current	<b>491,495.9</b>	<b>510,323.9</b>	<b>504,309.4</b>	<b>576,631.9</b>	<b>114.3</b>	
	Capital	<b>3470.3</b>	<b>5,072.9</b>	<b>7,255.8</b>	<b>3,767.3</b>	<b>51.9</b>	
Total health expenditure			<b>494,966.2</b>	<b>515,396.8</b>	<b>511,565.2</b>	<b>99.3</b>	<b>113.5</b>

As a result of changes in expenditure volumes due to the share of current and capital expenditure in general health expenditures, the total health expenditures compared to the

previous year increased by 13.5% in 2017 and amounted to **580,399.2** million AMD (511,565.2 million AMD in 2016).

The 14.3% increase of the current expenditures of the healthcare in 2017 was solely conditioned by the increase in the volumes of private sector financing 19.7%), since the financing of the private sector and the financing of the Rest of the World have decreased by 10.2% and 33.1% respectively. Changes in the private sector subsection are following; direct payments to households increased by 19.7%, insurance payments by 38.1%, and employers' funds remained unchanged as a result of the methodology used.

The volume of current financing of the Rest of the World has decreased by 32.3%, but capital expenditures have decreased by 40.9%.

The current and capital expenditures made by the public sector has decreased by 7.3% and 48.4% respectively.

As a result, current expenditures of the health system in 2016 have decreased by 1.2% and the capital expenditures have increased by 48.4%.

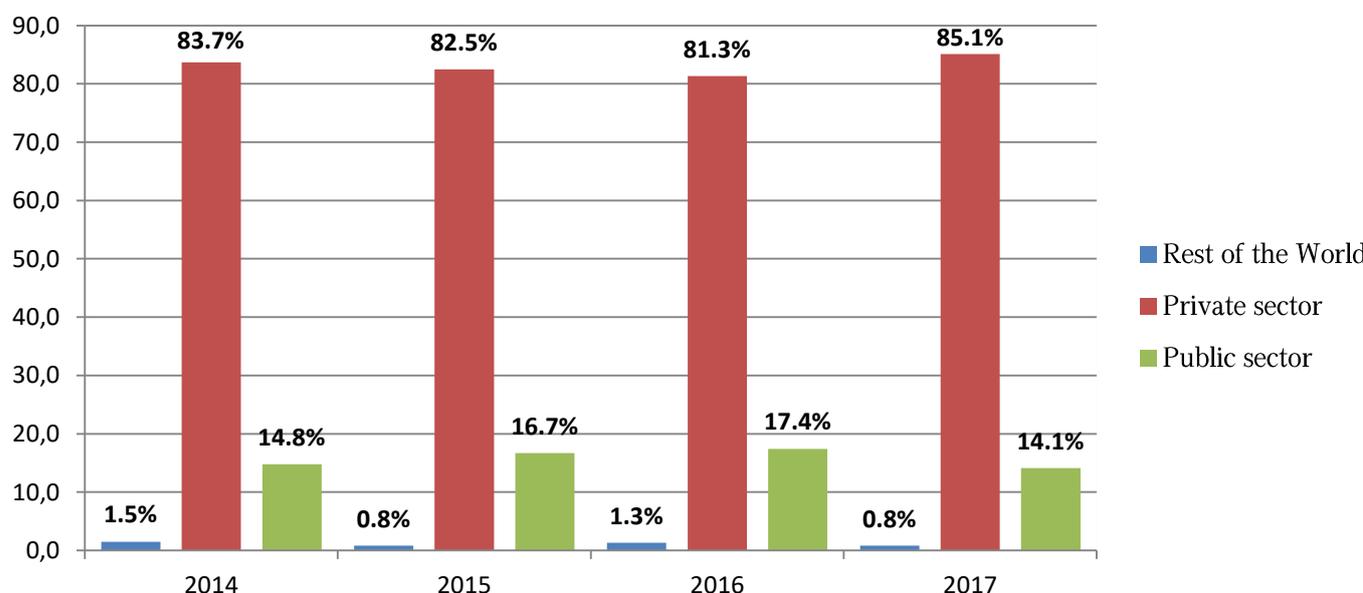
As a result of the growth in the private sector and especially households, and the decrease of funding provided by the public and the rest of the world, the share of private sector amounted to 85.1% or has increased by 3.8% compared with the previous year, and the public sector has decreased by 3.3% and the share of the Rest of the World has decreased by 0.5% and amounted to 14.1% and 0.8% respectively.

It is clear from Table 4.1.1 that, unlike the prevailing trends in the structure of health care expenditures for 2014-2016, the exact opposite picture was recorded in 2017, in the background of the growth in current expenditures and the share of private sector, the funding and the share of the other two sources has decreased.

Simultaneously, some changes have been observed in the economic structure of expenditures. If from 2014 to 2016, the expenditures were between 99% and 98.6 and capital expenditure was around 1% and 1.4%, then in 2017 this ratio was already 99.4% and 0.6%. The current and capital expenditure ratios do not reflect the real picture, as the result of the

absence of the private sector capital expenditure recording system and the initial information.

**Figure 4.1.1 The structure of financing by sources, percentage**



## 4.2 Comparative analysis of health expenditure indicators

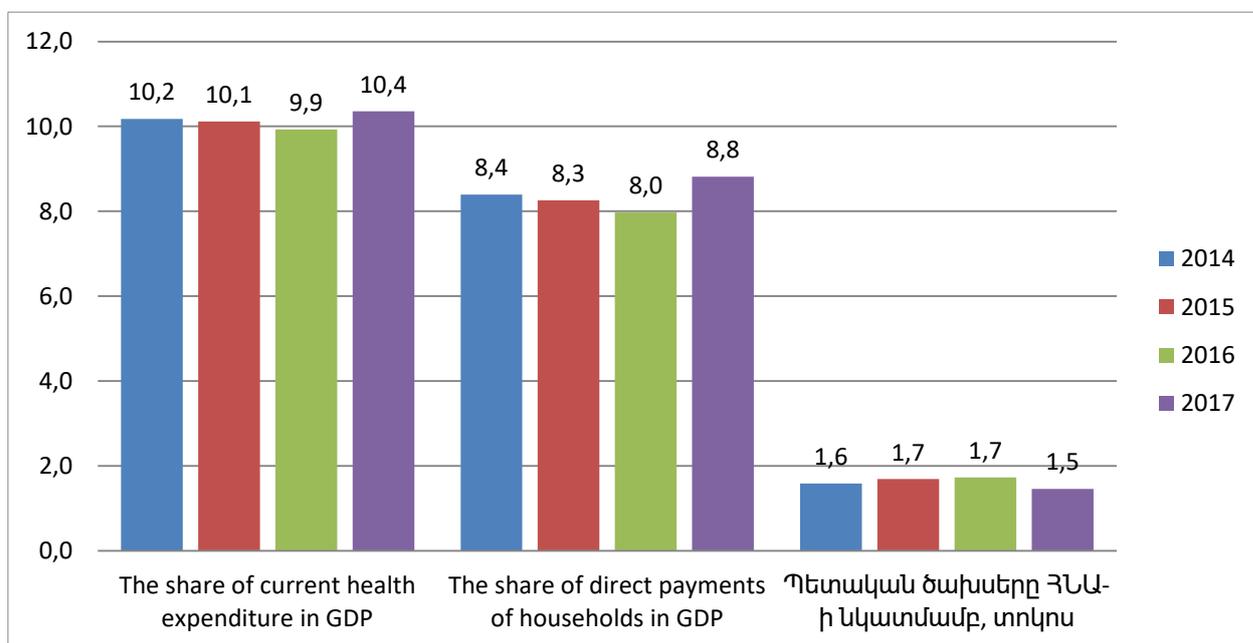
To have a more comprehensive understanding of current health expenditures, as well to make relevant analysis it is essential to have comparative and comparable cost indicators such as expenditure as share of GDP, per capita expenditure, etc. (see Table 4.2.1). The more important nationwide comparative indicators of healthcare expenditure is the ratio of expenditure to GDP, which is 10% or more in Armenia. At first glance, the current healthcare expenditure as share of GDP seems to be a fairly large and inexplicable for the middle-income country, as it is typical for industrialized countries. However, such apparent inequality is reasonable and explicable, as in the case of Armenia, the impact of the net foreign income and net current transfers on the income and consumption expenses of the population is significant. For instance, the net volume of such money transfers from abroad in 2014-2016 made up 11.1%, 9.6% and 9.3 of GDP, respectively, which is more than the share of the household health expenditures in GDP. These and a number of other factors can

be used to analyse, explain, and justify, in particular, the size and dynamics of household expenditure.

**Table 4.2.1 Comparable indicators of current health expenditures**

	2014	2015	2016	2017
The share of current health expenditure in GDP (%)	10.2	10.1	9.9	10.4
The share of direct payments of households in GDP(%)	8.4	8.3	8.0	8.8
The share of public health expenditure in GDP (%)	1.6	1.7	1.7	1.5
The share of public health expenditure in GNDI (%)	1.4	1.5	1.6	1.5
Average annual per capita current health expenditure, AMD	163,073	169,838	168,536	193,540
Average monthly per capita current health expenditure, AMD	13,589	14,153	14,045	16,128
Average annual per capita direct payments of households, AMD	134,505	138,639	135,343	163,247
Average monthly per capita direct payments of households, AMD	11,209	11,553	11,279	13,604
Average annual per capita current health expenditure, USD	392.1	355.4	350.8	400.9
Average monthly per capita current health expenditure, USD	32.7	29.6	29.2	33.4
Average annual per capita direct payments of households, USD	323.4	290.1	281.7	338.2
Average monthly per capita direct payments of households, USD	26.9	24.2	23.5	28.2

**Figure 4.2.2 The share of health expenditure in GDP, %**



### 4.3 Analysis of NHA results

#### 4.3.1 The account of Revenues of Healthcare Financing Schemes (FS) and Financing Schemes (HF)

This account gives a notion of the sources of funding or income for each financing scheme- an institutional body or sector (See section 4.4, Tables 4.4.1).

The total amount of funding from all sources of income amounted to **576,631.9** million AMD in 2017 (504,309.4 million AMD in 2016); there was 14.3% increase compared to the previous year. The sources of revenue for financing schemes are: FS.1 Transfers from government domestic revenue, FS.2 Transfers distributed by government from foreign origin, FS.5 voluntary prepayments, FS.6 other domestic revenues, FS.7 direct foreign transfers, FS.nec Unspecified revenues of health care financing schemes.

**Figure 4.3.1 The revenues of health financing schemes by category 2014-2017, million, AMD**

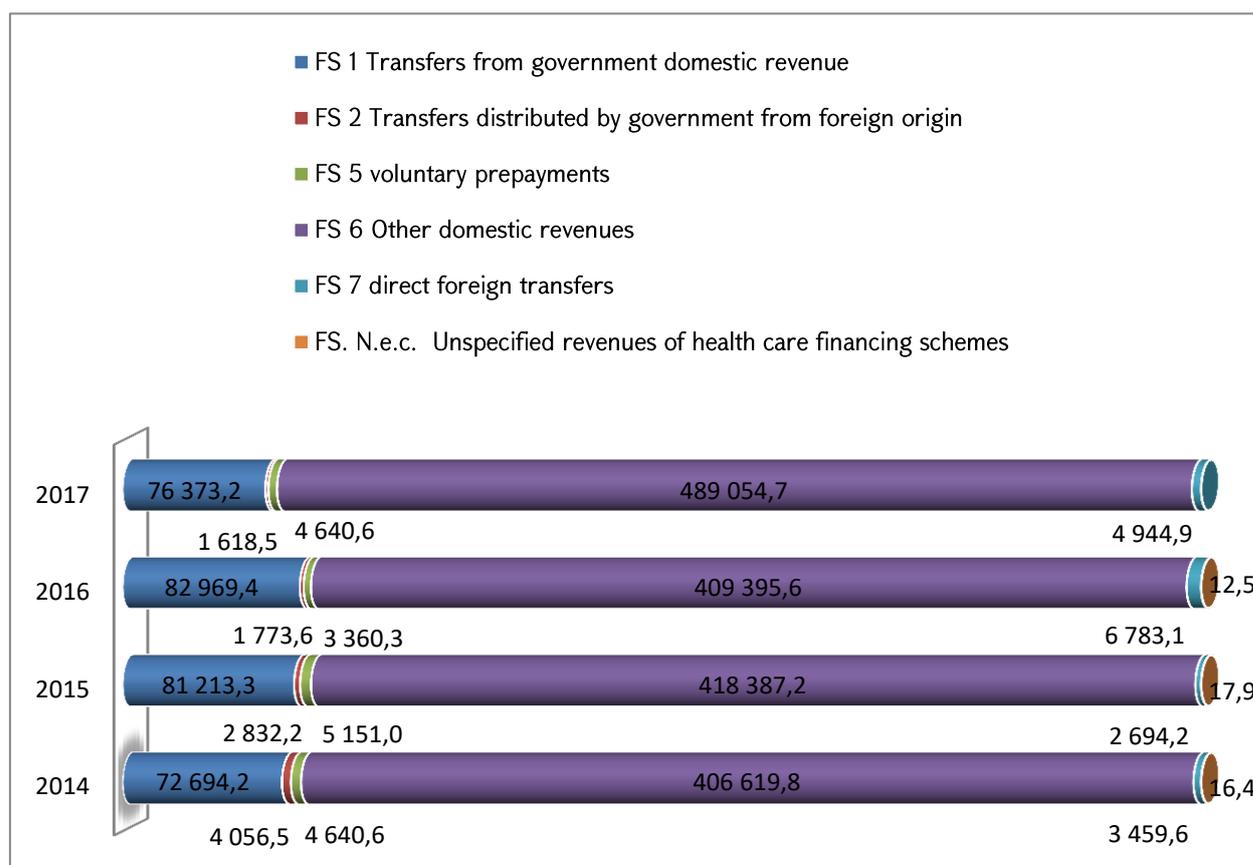
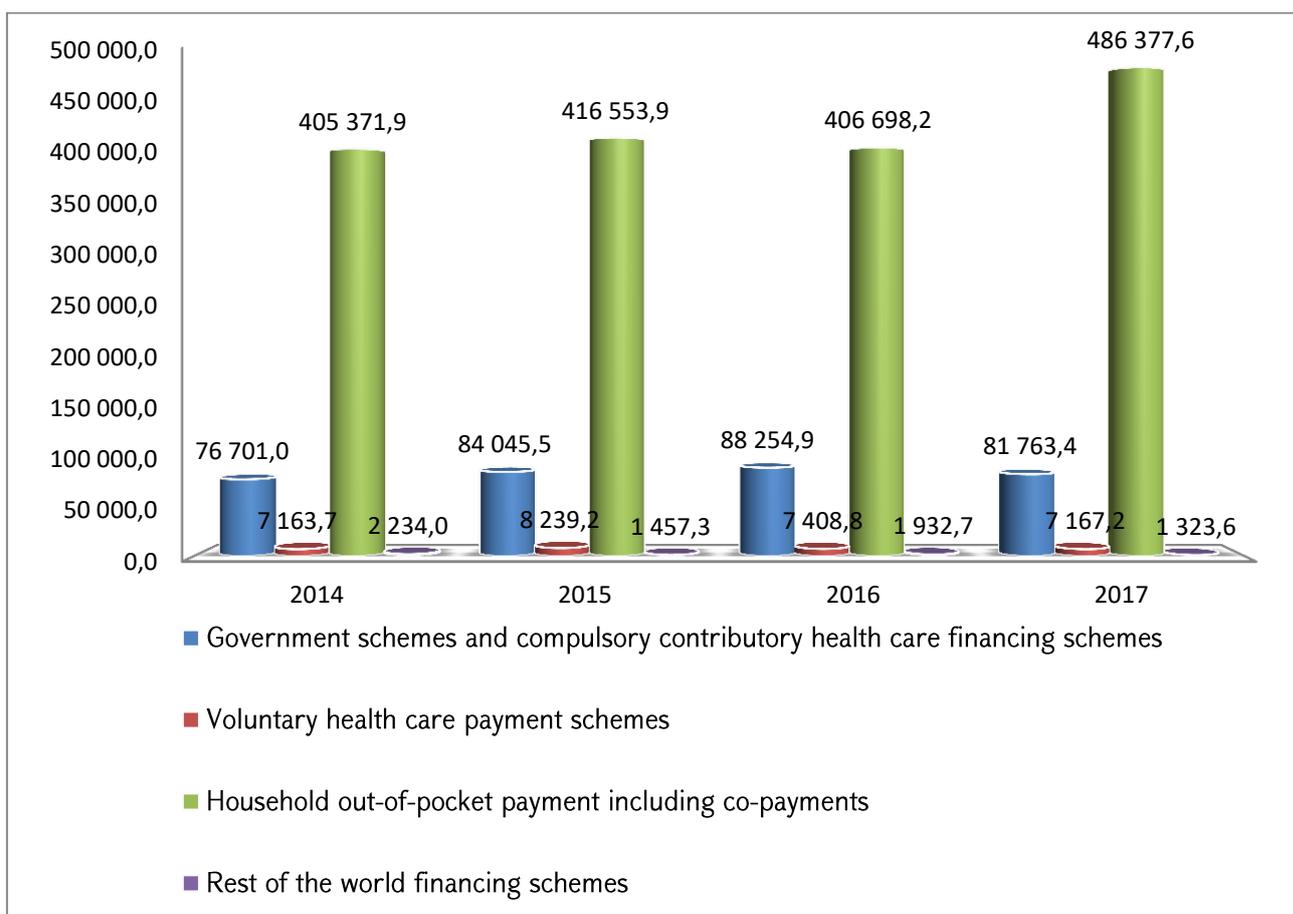
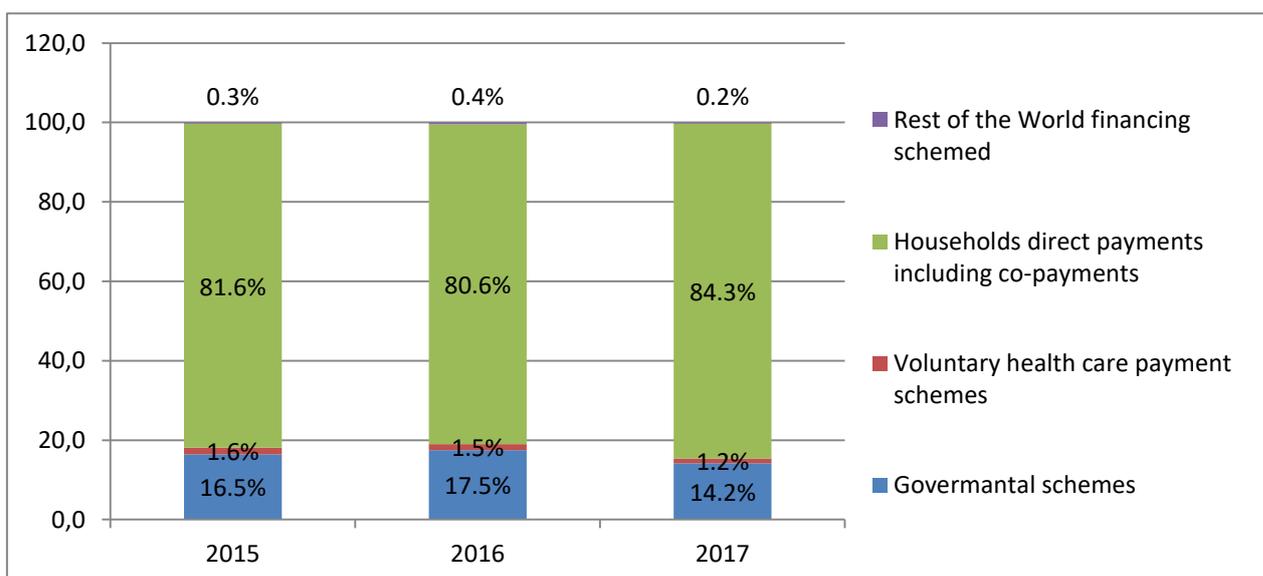


Figure 4.3.2 HF Volume of financing schemes by Category 2014-2017, million, AMD



The change in financing in 2017 has also changed the share of categories of financing schemes in the total structure.

Figure 4.3.3 The structure of financing schemes by Category 2014-2017, million, AMD



Compared with 2016 in 2017 the share of household's direct payments has increased by 3.7%, which was accompanied by the reduction of the share of other funding schemes, in particular the voluntary prepayments have reduced by 0.3%, the government schemes have decreased by 3.3%, and financial schemes of the Rest of the World have decreased by 0.2%. This structure of financing schemes is a clear reflection of the fact that more than 80% of health care financing actually contributed by direct payments of households. This situation and the high level of poverty in Armenia highlight the utmost importance of the analyze of the healthcare system financing, financial burden distribution, catastrophic costs and pro-poor spending and the development of the relevant policies.

#### 4.3.2 The account of Financing Agents (FA) and Financing Schemes (HF)

Funds allocated by the financing schemes are distributed to the following financial agents, FA.1 General Government, FA.2 Insurance Corporations, FA.3 Corporations (other than insurance corporations), FA.4 Non-Profit Institutions serving households, FA.5 Households, and FA.6 Rest of the World (See Section 4.4, Tables 4.4.2).

**Table 4.3.1 Distribution of funding by financial agents in 2014-2017.**

	<b>Financing agents</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
		Funding, million AMD			
1.	FA 1 General government	76,701.0	84,045.5	88,254.9	81,763.4
2.	FA 2 Insurance corporations	4,640.6	5,151.0	3,360.3	4,640.6
3.	FA 3 Corporations (Other than insurance corporations)	917.1	1,518.9	1,518.9	1,518.9
4.	FA 4 Non-profit institutions serving households	2,144.4	2,485.5	3,465.8	2,013.4
5.	FA 5 Households	405,371.9	416,553.9	406,698.2	486,377.6
6.	FA 6 Rest of the World	1,695.6	541.1	996.4	317.9
	<b>Total</b>	<b>491,470.6</b>	<b>510,295.9</b>	<b>504,294.5</b>	<b>576,631.9</b>
		Funding structure, %			
1.	FA 1 General government	15.6	16.5	17.5	14.2
2.	FA 2 Insurance corporations	0.9	1.0	0.7	0.8
3.	FA 3 Corporations (Other than insurance corporations)	0.2	0.3	0.3	0.3
4.	FA 4 Non-profit institutions serving households	0.4	0.5	0.7	0.3
5.	FA 5 Households	82.5	81.6	80.6	84.3
6.	FA 6 Rest of the World	0.3	0.1	0.2	0.1
	<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

### 4.3.3 The account of Financing Schemes (HF) and Health Providers (HP)

This section presents how the funds from financing sources are distributed among the health care providers.

Compared to the previous year, in 2017, the volume of funding for all providers has increased. “The long-term care services by the place of residence” has continued, though was smaller than in 2016. Changes in funding volumes in 2017 were largely due to the increase in direct household spending, which is particularly noticeable in “Hospitals” (25,758.0 billion AMD) and “Resellers and other suppliers of medical products” groups (17,147.1 billion AMD).. The reduction of the volumes of funding for other suppliers are not significant (see Section 4.4, Table 4.4.3).

**Table 4.3.2 The distribution of funds by medical service providers, 2014-2016**

	<b>HP Health care providers</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
		Financing, Million AMD			
HP.1	Hospitals	195,382.1	201,241.9	193,701.6	219,459.6
HP.2	Providers of ambulatory health care	-	-	2,103.6	1,982.9
HP.3	Providers of ancillary services	86,654.8	91,141.2	89,415.0	116,788.9
HP.4	Retailers and Other providers of medical goods	31,690.6	32,673.2	32,018.4	37,676.1
HP.5	Providers of preventive care	165,888.0	173,488.0	171,987.4	189,134.5
HP.6	Providers of health care system administration and financing	830.3	535.0	5,191.4	6,161.0
HP.7	Rest of economy	8,287.9	7,407.1	7,319.6	2,411.5
HP.8	Rest of the world	2,548.4	3,805.0	2,557.4	3,017.5
HP.9	Hospitals	188.4	4.5	0	00
<b>Total</b>		<b>491,470.6</b>	<b>510,295.9</b>	<b>504,294.5</b>	<b>576,631.9</b>
		The structure of financing, %			
HP.1	Hospitals	39.8	39.4	38.4	38.1
HP.2	Providers of ambulatory health care	0	0	0.4	0.3
HP.3	Providers of ancillary services	17.6	17.9	17.7	20.3
HP.4	Retailers and Other providers of medical goods	6.4	6.4	6.3	6.5
HP.5	Providers of preventive care	33.8	34.0	34.1	32.8
HP.6	Providers of health care system administration and financing	0.2	0.1	1.0	1.1
HP.7	Rest of economy	1.7	1.5	1.5	0.4
HP.8	Rest of the world	0.5	0.7	0.5	0.5
HP.9	Hospitals	0.0	0.0	0	0

<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100</b>
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#### 4.3.4 The account of Financing Schemes (HF) and Health Care Functions (HC)

According to this account in 2017 the funds are distributed among the health care functions as follows: more than half of the funding (58.6%) goes to medical services, which was increased by 2.4% compared to the previous year and 32.8% goes to medical products, which was decreased by 1.3%. The third group, with the share of 5.8%, is supplementary medical services or the laboratory-instrumental diagnostic services (See Section 4.4, Table 4.3.3).

**Table 4.3.3 The distribution of funds by health care functions, 2014-2016**

	<b>HC Health care functions</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
		Financing, Million AMD			
HC.1	Curative care	280,123.5	292,275.4	284,288.0	337,903.4
HC.2	Rehabilitative care	6,899.5	7,773.2	6153.8	7,323.4
HC.3	Long-term care (health)	6.6	0	0.2	92.5
HC.4	Ancillary services (non-specified by function)	27,802.5	28,543.2	27,989.5	33,510.0
HC.5	Medical goods (non-specified by function)	166,828.0	173,488.0	171,987.4	189,134.5
HC.6	Preventive care	6,724.9	5,389.6	11,075.4	6,571.6
HC.7	Governance, and health system and financing administration	3,085.6	2,826.5	2,679.4	1,972.9
HC.9	Other health care services not elsewhere classified (n.e.c.)	-	-	-	123.7
<b>Total</b>		<b>491,470.6</b>	<b>510,295.9</b>	<b>504,294.5</b>	<b>576,631.9</b>
		The structure of financing, %			
HC.1	Curative care	57.0	57.3	56.4	58.6
HC.2	Rehabilitative care	1.4	1.5	1.2	1.3
HC.3	Long-term care (health)	0.0	0.0	0.0	0.0
HC.4	Ancillary services (non-specified by function)	5.7	5.6	5.6	5.8
HC.5	Medical goods (non-specified by function)	33.9	34.0	34.1	32.8
HC.6	Preventive care	1.4	1.1	2.2	1.1
HC.7	Governance, and health system and financing administration	0.6	0.6	0.5	0.3
HC.9	Other health care services not elsewhere classified (n.e.c.)	-	-	-	0.0
<b>Total</b>		<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100</b>

Changes in the cost structure of health care services are conditioned by a greater increase in the population's payments for health services compared to medications.

#### 4.3.5 The account of Financing Agents (HF) and Diseases (DIS)

The distribution of funding by disease groups is very valuable information for the analysis of financial flows and the development of policies and programs in health care sector. The information on public expenditure by the major groups of diseases was received from the State Health Agency, and the information on private expenditure was received through a special sample survey conducted among the households in 2015.

**Table 4.3.4 The distribution of funding by major disease groups, 2014-2017**

	DIS Classification of diseases / conditions	2014	2015	2016	2017
		Financing, Million AMD			
DIS.1	Infectious and parasitic diseases	24,631.9	25,375.7	28,687.9	30,094.1
DIS.2	Reproductive health	17,608.9	18,671.0	17,709.5	17,709.1
DIS.3	Nutritional deficiencies	17,005.6	19,187.4	18,986.9	20,616.6
DIS.4	Non-communicable diseases	203,732.3	210,218.7	202,377.1	250,476.5
DIS.5	Injuries	17,498.9	17,745.8	17,391.8	20,052.7
DIS.6	Non-disease specific	6,123.9	7,166.8	7,183.9	2,319.5
DIS.nec	Other and unspecified diseases/conditions (n.e.c.)	204,869.1	211,930.5	211,957.4	235,363.4
<b>Total</b>		<b>491,470.6</b>	<b>510,295.9</b>	<b>504,294.5</b>	<b>576,631.9</b>
		The structure of financing, %			
DIS.1	Infectious and parasitic diseases	5.0	5.0	5.7	5.2
DIS.2	Reproductive health	3.6	3.7	3.5	3.1
DIS.3	Nutritional deficiencies	3.5	3.8	3.8	3.6
DIS.4	Non-communicable diseases	41.5	41.2	40.1	43.4
DIS.5	Injuries	3.6	3.5	3.4	3.5
DIS.6	Non-disease specific	1.2	1.4	1.4	0.4
DIS.nec	Other and unspecified diseases/conditions (n.e.c.)	41.7	41.5	42.0	40.8
<b>Total</b>		<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

In 2017, compared with the previous year, a sharp increase in the volume of spending has been recorded. The volume of the expenditure on the non-communicable diseases has increased by around 48 billion drams. The expenditure reduction was recorded only for other and unspecified diseases/conditions. In the other groups of diseases, there was also an

increase of expenditure by around 2-3 billion drams. However there are no significant changes in diseases cost structure (see section 4.4, Table 4.4.6).

#### 4.3.6 The funding distribution by disease type and patients' age

In 2017 higher spending was made in two groups of diseases among the children of 0-4 years old (excluding unspecified diseases): infectious and parasitic diseases and non-communicable diseases. Compared with 2016, spending increase has been recorded only in infectious and unspecified groups by 7.5% and 10.6%, respectively. In the age group of 5 and above the main spending is on non-communicable diseases, compared with the previous year the volume increase by almost 24.4% compared to the previous year. It is noteworthy that in this age group compared to the previous year, there was only a reduction in expenses that are not related to illness.

**Table 4.3.5 The funding distribution by disease groups and age of patients, 2014-2016, million AMD**

	DIS Classification of diseases / conditions	Age					
		AGE.1		AGE.2		Total	
		< 5 years old		≥ 5 years old			
		2016	2017	2016	2017	2016	2017
DIS.1	Infectious and parasitic diseases	5,560.2	5,976.9	23,127.6	24,117.2	28,687.9	30,094.1
DIS.2	Reproductive health	1,735.9	1,377.0	15,973.7	16,332.1	17,709.5	17,709.1
DIS.3	Nutritional deficiencies	1,392.1	1,287.5	17,594.8	19,329.1	18,986.9	20,616.6
DIS.4	Non-communicable diseases	5,502.9	5,491.3	196,874.2	244,985.2	202,377.1	250,476.5
DIS.5	Injuries	651.0	617.7	16,740.8	19,435.0	17,391.8	20,052.7
DIS.6	Non-disease specific	502.9	162.4	6,681.0	2,157.1	7,183.9	2,319.5
DIS. nec	Other and unspecified diseases/conditions (n.e.c.)	7,725.6	8,541.6	204,231.7	226,821.8	211,957.4	235,363.4
<b>Total</b>		<b>22,221.1</b>	<b>23,070.6</b>	<b>481,223.9</b>	<b>553,177.5</b>	<b>504,294.5</b>	<b>576,631.9</b>

#### 4.3.7 The distribution of funding by disease groups and patients' gender

When analyzing the spending by gender and main disease groups (without taking into account the share of unspecified diseases), we see that among women the 42.7 % of spending is for non-communicable diseases, reproductive health comes second with 4.8 %, which is followed by infectious and parasitic diseases with almost the same share. Among men

similarly 44.2% of the spending is made on non-communicable diseases, which is followed by infectious and parasitic diseases and malnutrition with 5.6 % and 3.9 % respectively. More than 40% of the expenditure in both groups was accounted for "Other and Unspecified Diseases and Conditions".

**Table 4.3.6 The funding distribution by disease groups and by sex of patients, 2015-2016 years, million AMD**

	DIS Classification of diseases / conditions	Sex					
		Female		Male		Total	
		2016	2017	2016	2017	2016	2017
DIS.1	Infectious and parasitic diseases	13,711.0	14,217.1	14,976.8	15,877.1	28,687.9	30,094.1
DIS.2	Reproductive health	13,978.1	14,007.7	3,731.4	3,701.3	17,709.5	17,709.1
DIS.3	Nutritional deficiencies	9,076.0	9,681.6	9,910.9	10,935.0	18,986.9	20,616.6
DIS.4	Noncommunicable diseases	100,720.3	125,648.6	101,656.8	124,827.9	202,377.1	250,476.5
DIS.5	Injuries	8,580.5	9,976.9	8,811.3	10,075.8	17,391.8	20,052.7
DIS.6	Non-disease specific	3,750.0	1,210.8	3,433.9	1,108.7	7,183.9	2,319.5
DIS. nec	Other and unspecified diseases/conditions (n.e.c.)	107,781.6	119,607.2	104,175.7	115,756.2	211,957.4	235,363.4
<b>Total</b>		<b>257,597.5</b>	<b>294,349.8</b>	<b>246,696.8</b>	<b>282,282.1</b>	<b>504,294.5</b>	<b>576,631.9</b>

#### 4.4. NHA Main Accounts 2017

Table 4.4.1 The Account of FS Revenues of health care financing schemes and HF Financing schemes, 2017 (Million AMD)

Code	HF Financing schemes	FS Revenues of health care financing schemes					
		FS.1	FS.2	FS.5	FS.6	FS.7	Total
		Transfers from government domestic revenue (allocated to health purposes)	Transfers distributed by government from foreign origin	Voluntary prepayment	Other domestic revenues n.e.c.)	Direct foreign transfers	
<b>HF.1</b>	Government schemes and compulsory contributory health care financing schemes	<b>76,373.2</b>	<b>1,618.5</b>			<b>3,771.7</b>	<b>81,763.4</b>
HF.1.1	Government schemes	76,373.2	1,618.5			3,771.7	81,763.4
HF.1.1.1	Central government schemes	76,089.8	1,618.5			3,771.7	81,480.0
HF.1.1.1.1	MoH scheme	71,367.0	1,618.5			3,312.9	76,298.4
HF.1.1.1.2	MoL&S scheme	3,112.7					3,112.7
HF.1.1.1.3	MoDef scheme	41.1					41.1
HF.1.1.1.6	MoJust scheme	1,344.6					1,344.6
HF.1.1.1.7	NatSec scheme	21.9					21.9
HF.1.1.1.8	PoliceServ scheme	63.4					63.4
HF.1.1.1.9	MoEmergSituat scheme	21.0					21.0
HF.1.1.1.nec	Other Central government schemes	118.1				458.8	576.9

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Code	HF Financing schemes	FS Revenues of health care financing schemes					Total
		FS.1	FS.2	FS.5	FS.6	FS.7	
		Transfers from government domestic revenue (allocated to health purposes)	Transfers distributed by government from foreign origin	Voluntary prepayment	Other domestic revenues n.e.c.)	Direct foreign transfers	
HF.1.1.2	State/regional/local government schemes	283.4					283.4
<b>HF.2</b>	Voluntary health care payment schemes			<b>4,640.6</b>	<b>1,818.9</b>	<b>707.7</b>	<b>7,167.2</b>
HF.2.1	Voluntary health insurance schemes			4,640.6			4,640.6
HF.2.1.nec	Unspecified voluntary health insurance schemes (n.e.c.)			4,640.6			4,640.6
HF.2.2	NPISH financing schemes (including development agencies)				300.0	707.7	1,007.7
HF.2.2.1	NPISH financing schemes (excluding HF.2.2.2)				300.0	618.4	918.4
HF.2.2.2	Resident foreign agencies schemes					89.3	89.3
HF.2.3	Enterprise financing schemes				1,518.9		1,518.9
HF.2.3.1	Enterprises (except health care providers) financing schemes				1,518.9		1,518.9
<b>HF.3</b>	Household out-of-pocket payment				<b>486,377.6</b>		<b>486,377.6</b>
HF.3.1	Out-of-pocket excluding cost-sharing				484,588.7		484,588.7
HF.3.2	Cost sharing with third-party payers				1,788.9		1,788.9

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Code	HF Financing schemes	FS Revenues of health care financing schemes					Total
		FS.1	FS.2	FS.5	FS.6	FS.7	
		Transfers from government domestic revenue (allocated to health purposes)	Transfers distributed by government from foreign origin	Voluntary prepayment	Other domestic revenues n.e.c.)	Direct foreign transfers	
HF.3.2.1	Cost sharing with government schemes and compulsory contributory health insurance schemes				1,788.9		1,788.9
<b>HF.4</b>	Rest of the world financing schemes (non-resident)				<b>858.1</b>	<b>465.5</b>	<b>1,323.6</b>
HF.4.2	Voluntary schemes (non-resident)				858.1	465.5	1,323.6
HF.4.2.2	Other schemes (non-resident)				858.1	465.5	1,323.6
HF.4.2.2.1	Philanthropy/international NGOs schemes				858.1	235.3	1,093.4
HF.4.2.2.2	Foreign development agencies schemes					64.8	64.8
HF.4.2.2.nec	Unspecified other non-resident voluntary schemes (n.e.c.)					165.4	165.4
<b>Total HF</b>			<b>1,618.5</b>	<b>4,640.6</b>	<b>489,054.7</b>	<b>4,944.9</b>	<b>576,631.9</b>

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**Table 4.4.2 The Account of FA Financing Agents and HF Financing schemes, 2017 (Million AMD)**

Code	HF Financing schemes	FA Financing agents						Total
		FA.1	FA.2	FA.3	FA.4	FA.5	FA.6	
		General government	Insurance corporations	Corporations (Other than insurance corporations) (part of HF.RI.1.2)	Non-profit institutions serving households (NPISH)	Households	Rest of the world	
<b>HF.1</b>	<b>Government schemes and compulsory contributory health care financing schemes</b>	<b>81,763.4</b>						<b>81,763.4</b>
HF.1.1	Government schemes	81,763.4						81,763.4
HF.1.1.1	Central government schemes	81,480.0						81,480.0
HF.1.1.1.1	MoH scheme	76,298.4						76,298.4
HF.1.1.1.2	MoL&S scheme	3,112.7						3,112.7
HF.1.1.1.3	MoDef scheme	41.1						41.1
HF.1.1.1.6	MoJust scheme	1,344.6						1,344.6
HF.1.1.1.7	NatSec scheme	21.9						21.9
HF.1.1.1.8	PoliceServ scheme	63.4						63.4
HF.1.1.1.9	MoEmergSituat scheme	21.0						21.0
HF.1.1.1.nec	Other Central government schemes	576.9						576.9
HF.1.1.2	State/regional/local government schemes	283.4						283.4
<b>HF.2</b>	<b>Voluntary health care payment schemes</b>		<b>4,640.6</b>	<b>1,518.9</b>	<b>1,007.7</b>			<b>7,167.2</b>
HF.2.1	Voluntary health insurance schemes		4,640.6					4,640.6

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Code	HF Financing schemes	FA Financing agents						Total
		FA.1 General government	FA.2 Insurance corporations	FA.3 Corporations (Other than insurance corporations) (part of HF.RI.1.2)	FA.4 Non-profit institutions serving households (NPISH)	FA.5 Households	FA.6 Rest of the world	
HF.2.1.nec	Unspecified voluntary health insurance schemes (n.e.c.)		4,640.6					4,640.6
HF.2.2	NPISH financing schemes (including development agencies)				1,007.7			1,007.7
HF.2.2.1	NPISH financing schemes (excluding HF.2.2.2)				918.4			918.4
HF.2.2.2	Resident foreign agencies schemes				89.3			89.3
HF.2.3	Enterprise financing schemes			1,518.9				1,518.9
HF.2.3.1	Enterprises (except health care providers) financing schemes			1,518.9				1,518.9
<b>HF.3</b>	<b>Household out-of-pocket payment</b>					486,377.6		486,377.6
HF.3.1	Out-of-pocket excluding cost-sharing					484,588.7		484,588.7
HF.3.2	Cost sharing with third-party payers					1,788.9		1,788.9
HF.3.2.1	Cost sharing with government schemes and compulsory contributory health insurance schemes					1,788.9		1,788.9
<b>HF.4</b>	<b>Rest of the world financing schemes (non-resident)</b>				1,005.7		317.9	1,323.6
HF.4.2	Voluntary schemes (non-resident)				1,005.7		317.9	1,323.6
HF.4.2.2	Other schemes (non-resident)				1,005.7		317.9	1,323.6
HF.4.2.2.1	Philanthropy/international NGOs schemes				969.0		124.4	1,093.4

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Code	HF Financing schemes	FA Financing agents						Total
		FA.1 General government	FA.2 Insurance corporations	FA.3 Corporations (Other than insurance corporations) (part of HF.RI.1.2)	FA.4 Non-profit institutions serving households (NPISH)	FA.5 Households	FA.6 Rest of the world	
HF.4.2.2.2	Foreign development agencies schemes				36.7		28.1	64.8
HF.4.2.2.nec	Unspecified other non-resident voluntary schemes (n.e.c.)						165.4	165.4
<b>Total</b>			<b>4,640.6</b>	<b>1,518.9</b>	<b>2,013.4</b>	<b>486,377.6</b>	<b>317.9</b>	<b>576,631.9</b>

**Table 4.4.3 The Account of HF Financing schemes and HP Health care providers 2017 (Million AMD)**

Code	HP Health care providers	HF Financing schemes				Total
		HF.1 Government schemes and compulsory contributory health care financing schemes	HF.2 Voluntary health care payment schemes	HF.3 Household out-of-pocket payment	HF.4 Rest of the world financing schemes (non-resident)	
<b>HP.1</b>	Hospitals	<b>41,453.6</b>	<b>4,542.4</b>	<b>172,471.6</b>	<b>992.0</b>	<b>219,459.6</b>
HP.1.1	General hospitals	28,408.1	2,545.5	87,622.5	32.8	118,608.9
HP.1.2	Mental health hospitals	622.2		252.5		874.6
HP.1.3	Specialized hospitals (Other than mental health hospitals)	12,393.5	1,996.8	84,596.6	959.2	99,946.1

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Code	HP Health care providers	HF Financing schemes				Total
		HF.1	HF.2	HF.3	HF.4	
		Government schemes and compulsory contributory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world financing schemes (non-resident)	
HP.1.nec	Unspecified hospitals (n.e.c.)	29.8				29.8
<b>HP.2</b>	Residential long-term care facilities	<b>1,982.9</b>				<b>1,982.9</b>
HP.2.1	Long-term nursing care facilities	1,982.9				1,982.9
<b>HP.3</b>	Providers of ambulatory health care	<b>25,744.1</b>	<b>1,339.4</b>	<b>89,692.1</b>	<b>13.3</b>	<b>116,788.9</b>
HP.3.1	Medical practices	260.6	4.0			264.6
HP.3.1.1	Offices of general medical practitioners	260.6				260.6
HP.3.1.3	Offices of medical specialists (Other than mental medical specialists)		4.0			4.0
HP.3.2	Dental practice		1,186.3	69,430.2		70,616.5
HP.3.4	Ambulatory health care centers	25,483.5	149.1	20,261.8	13.3	45,907.7
HP.3.4.5	Non-specialized ambulatory health care centers	25,483.5	149.1	20,261.8	12.6	45,907.0
HP.3.4.9	All Other ambulatory centers				0.7	0.7
<b>HP.4</b>	Providers of ancillary services	<b>3,513.4</b>	<b>894.1</b>	<b>33,268.7</b>		<b>37,676.1</b>
HP.4.1	Providers of patient transportation and emergency rescue	3,246.4		964.3		4,210.8

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Code	HP Health care providers	HF Financing schemes				Total
		HF.1	HF.2	HF.3	HF.4	
		Government schemes and compulsory contributory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world financing schemes (non-resident)	
HP.4.2	Medical and diagnostic laboratories	253.0	894.1	32,304.3		33,451.4
HP.4.9	Other providers of ancillary services	14.0				14.0
<b>HP.5</b>	Retailers and Other providers of medical goods	870.3	204.6	188,040.2	19.3	<b>189,134.5</b>
HP.5.1	Pharmacies		147.9	188,040.2		188,188.1
HP.5.2	Retail sellers and Other suppliers of durable medical goods and medical appliances	870.3			19.3	889.6
HP.5.9	All Other miscellaneous sellers and Other suppliers of pharmaceuticals and medical goods		56.8			56.8
<b>HP.6</b>	Providers of preventive care	<b>5,813.2</b>	<b>73.2</b>		<b>274.5</b>	<b>6,161.0</b>
<b>HP.7</b>	Providers of health care system administration and financing	<b>2,274.1</b>	<b>113.5</b>		<b>24.0</b>	<b>2,411.5</b>
HP.7.1	Government health administration agencies	2,233.1			14.3	2,247.4
HP.7.9	Other administration agencies	41.0	113.5		9.7	164.1
<b>HP.8</b>	Rest of economy	<b>111.9</b>		<b>2,905.0</b>	<b>0.6</b>	<b>3,017.5</b>
HP.8.1	Households as providers of home health care				0.6	0.6
HP.8.2	All Other industries as secondary providers of health care	28.0		2,905.0		2,933.0

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Code	HP Health care providers	HF Financing schemes				Total
		HF.1	HF.2	HF.3	HF.4	
		Government schemes and compulsory contributory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world financing schemes (non-resident)	
HP.8.3	Community health workers (or village health worker, community health aide, etc.)	83.9				83.9
<b>Total</b>			<b>7,167.2</b>	<b>486,377.6</b>	<b>1,323.6</b>	<b>576,631.9</b>

**Table 4.4.4 The Account of HF Financing schemes and HC Health care functions, 2017, (Million AMD)**

Code	HC Health care functions	HF financing schemes				Total
		HF.1	HF.2	HF.3	HF.4	
		Government schemes and compulsory contributory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world financing schemes (non-resident)	
<b>HC.1</b>	Curative care	<b>72,048.3</b>	<b>5,859.3</b>	<b>259,066.3</b>	<b>929.5</b>	<b>337,903.4</b>
HC.1.1	Inpatient curative care	39,650.2	4,491.0	168,637.3	920.9	213,699.4
HC.1.1.1	General inpatient curative care	27,181.5	2,545.5	80,710.0	9.5	110,446.6
HC.1.1.2	Specialized inpatient curative care	12,297.1	1,945.5	87,927.3	911.4	103,081.2
HC.1.1.nec	Unspecified inpatient curative care (n.e.c.)	171.5				171.5

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Code	HC Health care functions	HF financing schemes				Total
		HF.1	HF.2	HF.3	HF.4	
		Government schemes and compulsory contributory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world financing schemes (non-resident)	
HC.1.2	Day curative care	1,412.9	38.7	420.7		1,872.3
HC.1.2.1	General day curative care	565.6		180.7		746.3
HC.1.2.2	Specialized day curative care	835.8	38.7	240.0		1,114.5
HC.1.2.nec	Unspecified day curative care (n.e.c.)	11.5				11.5
HC.1.3	Outpatient curative care	25,775.9	1,329.6	89,044.1	8.6	116,158.2
HC.1.3.1	General outpatient curative care	17,940.8	100.9	13,660.2	3.3	31,705.1
HC.1.3.2	Dental outpatient curative care	644.6	1,228.7	75,383.9	5.3	77,262.5
HC.1.3.3	Specialized outpatient curative care	5,300.5				5,300.5
HC.1.3.nec	Unspecified outpatient curative care (n.e.c.)	1,890.0				1,890.0
HC.1.4	Home-based curative care	5,209.3		964.3		6,173.6
<b>HC.2</b>	Rehabilitative care	<b>346.9</b>	<b>9.8</b>	<b>6,966.7</b>		<b>7,323.4</b>
HC.2.1	Inpatient rehabilitative care	68.5		3,413.7		3,482.1
HC.2.3	Outpatient rehabilitative care	278.4	4.0	648.0		930.4

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Code	HC Health care functions	HF financing schemes				Total
		HF.1	HF.2	HF.3	HF.4	
		Government schemes and compulsory contributory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world financing schemes (non-resident)	
HC.2.4	Home-based rehabilitative care		5.8	2,905.0		2,910.8
<b>HC.1+HC.2</b>	Curative care and rehabilitative care	<b>72,395.2</b>	<b>5,869.1</b>	<b>266,033.0</b>	<b>929.5</b>	<b>345,226.8</b>
HC.1.1+HC.2.1	Inpatient curative and rehabilitative care	39,718.7	4,491.0	172,050.9	920.9	217,181.5
HC.1.2+HC.2.2	Day curative and rehabilitative care	1,412.9	38.7	420.7		1,872.3
HC.1.3+HC.2.3	Outpatient curative and rehabilitative care	26,054.3	1,333.6	89,692.1	8.6	117,088.6
HC.1.4+HC.2.4	Home-based curative and rehabilitative care	5,209.3	5.8	3,869.4		9,084.4
<b>HC.3</b>	Long-term care (health)				<b>92.5</b>	<b>92.5</b>
HC.3.3	Outpatient long-term care (health)				<b>92.5</b>	92.5
<b>HC.4</b>	Ancillary services (non-specified by function)	<b>311.5</b>	<b>894.1</b>	<b>32,304.3</b>		<b>33,510.0</b>
HC.4.1	Laboratory services	277.5	326.2	14,763.1		15,366.8
HC.4.2	Imaging services		567.9	17,541.3		18,109.2

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Code	HC Health care functions	HF financing schemes				Total
		HF.1	HF.2	HF.3	HF.4	
		Government schemes and compulsory contributory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world financing schemes (non-resident)	
HC.4.3	Patient transportation	20.0				20.0
HC.4.nec	Unspecified ancillary services (n.e.c.)	14.0				14.0
<b>HC.5</b>	<b>Medical goods (non-specified by function)</b>	<b>870.3</b>	<b>204.6</b>	<b>188,040.2</b>	<b>19.3</b>	<b>189,134.5</b>
HC.5.1	Pharmaceuticals and Other medical non-durable goods		147.9	188,040.2		188,188.1
HC.5.1.1	Prescribed medicines		9.7			9.7
HC.5.1.2	Over-the-counter medicines		138.2	188,040.2		188,178.5
HC.5.2	Therapeutic appliances and Other medical goods	870.3	55.1			925.4
HC.5.2.1	Glasses and Other vision products		55.1			55.1
HC.5.2.3	Other orthopaedic appliances and prosthetics (excluding glasses and hearing aids)	798.4				798.4
HC.5.2.9	All Other medical durables, including medical technical devices	71.9				71.9
HC.5.nec	Unspecified medical goods (n.e.c.)		1.7		19.3	21.0
<b>HC.6</b>	<b>Preventive care</b>	<b>6,212.6</b>	<b>85.9</b>		<b>273.1</b>	<b>6,571.6</b>

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Code	HC Health care functions	HF financing schemes				Total
		HF.1	HF.2	HF.3	HF.4	
		Government schemes and compulsory contributory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world financing schemes (non-resident)	
HC.6.1	Information, education and counseling (IEC) programmes		12.7		139.0	151.7
HC.6.1.1	Addictive substances IEC programmes				21.7	21.7
HC.6.1.1.1	Tobacco IEC programmes				15.1	15.1
HC.6.1.1.nec	Other and unspecified addictive substances IEC programmes (n.e.c.)				6.5	6.5
HC.6.1.nec	Other and unspecified IEC programmes (n.e.c.)		12.7		117.3	130.0
HC.6.2	Immunisation programmes	1,746.9			60.6	1,807.5
HC.6.3	Early disease detection programmes	122.5			42.0	164.5
HC.6.4	Healthy condition monitoring programmes	25.8			5.4	31.2
HC.6.5	Epidemiological surveillance and risk and disease control programmes	4,205.9			26.1	4,232.1
HC.6.5.1	Planning & Management	543.3				543.3
HC.6.5.2	Monitoring & Evaluation (M&E)	779.4				779.4
HC.6.5.3	Procurement & supply management	40.7				40.7

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Code	HC Health care functions	HF financing schemes				Total
		HF.1	HF.2	HF.3	HF.4	
		Government schemes and compulsory contributory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world financing schemes (non-resident)	
HC.6.5.4	Interventions	40.7				40.7
HC.6.5.4.nec	Other and unspecified interventions (n.e.c.)	2,842.6			26.1	2,868.8
HC.6.5.nec	Unspecified epidemiological surveillance and risk and disease control programmes (n.e.c.)	111.4	73.2			184.6
<b>HC.7</b>	Governance, and health system and financing administration	<b>1,850.1</b>	<b>113.5</b>		<b>9.3</b>	<b>1,972.9</b>
HC.7.1	Governance and Health system administration	1,850.1	113.5		9.3	1,972.9
HC.7.1.1	Planning & Management	1,572.6			6.1	1,578.7
HC.7.1.2	Monitoring and evaluation				3.2	3.2
HC.7.1.3	Procurement & supply management	5.0				5.0
HC.7.nec	Unspecified governance, and health system and financing administration (n.e.c.)	272.6	113.5			386.0
<b>HC.9</b>	Other health care services not elsewhere classified (n.e.c.)	<b>123.7</b>				<b>123.7</b>
<b>Total</b>			<b>7,167.2</b>	<b>486,377.6</b>	<b>1,323.6</b>	<b>576,631.9</b>

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**Table 4.4.5 The Account of HP Health care providers and HC Health care functions, 2017 (Million AMD)**

Code	HC Health care functions	HP Health care providers								Total
		HP.1	HP.2	HP.3	HP.4	HP.5	HP.6	HP.7	HP.8	
		Hospitals	Residential long-term care facilities	Providers of ambulatory health care	Providers of ancillary services	Retailers and Other providers of medical goods	Providers of preventive care	Providers of health care system administration and financing	Rest of economy	
<b>HC.1</b>	Curative care	<b>215,853.9</b>	<b>1,982.9</b>	<b>115,848.0</b>	<b>4,190.7</b>				<b>28.0</b>	<b>337,903.4</b>
HC.1.1	Inpatient curative care	213,699.4								213,699.4
HC.1.1.1	General inpatient curative care	110,446.6								110,446.6
HC.1.1.2	Specialised inpatient curative care	103,081.2								103,081.2
HC.1.1.ne c	Unspecified inpatient curative care (n.e.c.)	171.5								171.5
HC.1.2	Day curative care	1,872.3								1,872.3
HC.1.2.1	General day curative care	746.3								746.3
HC.1.2.2	Specialised day curative care	1,114.5								1,114.5
HC.1.2.ne c	Unspecified day curative care (n.e.c.)	11.5								11.5
HC.1.3	Outpatient curative care	282.2		115,848.0					28.0	116,158.2
HC.1.3.1	General outpatient curative care	278.7		31,408.4					18.1	31,705.1
HC.1.3.2	Dental outpatient curative care	3.5		77,255.5					3.5	77,262.5
HC.1.3.3	Specialised outpatient curative			5,294.1					6.4	5,300.5

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Code	HC Health care functions	HP Health care providers								Total
		HP.1	HP.2	HP.3	HP.4	HP.5	HP.6	HP.7	HP.8	
		Hospitals	Residential long-term care facilities	Providers of ambulatory health care	Providers of ancillary services	Retailers and Other providers of medical goods	Providers of preventive care	Providers of health care system administration and financing	Rest of economy	
	care									
HC.1.3.ne c	Unspecified outpatient curative care (n.e.c.)			1,890.0						1,890.0
HC.1.4	Home-based curative care		1,982.9		4,190.7					6,173.6
<b>HC.2</b>	Rehabilitative care	<b>3,482.1</b>		<b>936.2</b>					<b>2,905.0</b>	<b>7,323.4</b>
HC.2.1	Inpatient rehabilitative care	3,482.1								3,482.1
HC.2.3	Outpatient rehabilitative care			930.4						930.4
HC.2.4	Home-based rehabilitative care			5.8					2,905.0	2,910.8
<b>HC.1+HC.2</b>	Curative care and rehabilitative care	<b>219,336.0</b>	<b>1,982.9</b>	<b>116,784.2</b>	<b>4,190.7</b>				<b>2,933.0</b>	<b>345,226.8</b>
HC.1.1+H C.2.1	Inpatient curative and rehabilitative care	217,181.5								217,181.5
HC.1.2+H C.2.2	Day curative and rehabilitative care	1,872.3								1,872.3
HC.1.3+H C.2.3	Outpatient curative and rehabilitative care	282.2		116,778.4					28.0	117,088.6
HC.1.4+H C.2.4	Home-based curative and rehabilitative care		1,982.9	5.8	4,190.7				2,905.0	9,084.4

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Code	HC Health care functions	HP Health care providers								Total
		HP.1	HP.2	HP.3	HP.4	HP.5	HP.6	HP.7	HP.8	
		Hospitals	Residential long-term care facilities	Providers of ambulatory health care	Providers of ancillary services	Retailers and Other providers of medical goods	Providers of preventive care	Providers of health care system administration and financing	Rest of economy	
<b>HC.3</b>	Long-term care (health)			0.7			91.7			<b>92.5</b>
HC.3.3	Outpatient long-term care (health)			0.7			91.7			92.5
<b>HC.4</b>	Ancillary services (non-specified by function)				33,485.4		24.6			33,510.0
HC.4.1	Laboratory services				15,342.2		24.6			15,366.8
HC.4.2	Imaging services				18,109.2					18,109.2
HC.4.3	Patient transportation				20.0					20.0
HC.4.nec	Unspecified ancillary services (n.e.c.)				14.0					14.0
<b>HC.5</b>	<b>Medical goods (non-specified by function)</b>						<b>189,134.5</b>			<b>189,134.5</b>
HC.5.1	Pharmaceuticals and Other medical non-durable goods						188,188.1			188,188.1
HC.5.1.1	Prescribed medicines						9.7			9.7
HC.5.1.2	Over-the-counter medicines						188,178.5			188,178.5
HC.5.2	Therapeutic appliances and Other						925.4			925.4

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Code	HC Health care functions	HP Health care providers								Total
		HP.1	HP.2	HP.3	HP.4	HP.5	HP.6	HP.7	HP.8	
		Hospitals	Residential long-term care facilities	Providers of ambulatory health care	Providers of ancillary services	Retailers and Other providers of medical goods	Providers of preventive care	Providers of health care system administration and financing	Rest of economy	
	medical goods									
HC.5.2.1	Glasses and Other vision products					55.1				55.1
HC.5.2.3	Other orthopaedic appliances and prosthetics (excluding glasses and hearing aids)					798.4				798.4
HC.5.2.9	All Other medical durables, including medical technical devices					71.9				71.9
HC.5.nec	Unspecified medical goods (n.e.c.)					21.0				21.0
<b>HC.6</b>	Preventive care	<b>83.8</b>		<b>4.0</b>			<b>6,044.7</b>	<b>438.6</b>	<b>0.6</b>	<b>6,571.6</b>
HC.6.1	Information, education and counseling (IEC) programmes	36.0		4.0			96.5	14.7	0.6	151.7
HC.6.1.1	Addictive substances IEC programmes			4.0			17.7			21.7
HC.6.1.1.1	Tobacco IEC programmes						15.1			15.1
HC.6.1.1.ne	Other and unspecified addictive			4.0			2.5			6.5

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Code	HC Health care functions	HP Health care providers								Total
		HP.1	HP.2	HP.3	HP.4	HP.5	HP.6	HP.7	HP.8	
		Hospitals	Residential long-term care facilities	Providers of ambulatory health care	Providers of ancillary services	Retailers and Other providers of medical goods	Providers of preventive care	Providers of health care system administration and financing	Rest of economy	
c	substances IEC programmes (n.e.c.)									
HC.6.1.ne c	Other and unspecified IEC programmes (n.e.c.)	36.0					78.8	14.7	0.6	130.0
HC.6.2	Immunisation programmes						1,807.5			1,807.5
HC.6.3	Early disease detection programmes	42.0					81.5	41.0		164.5
HC.6.4	Healthy condition monitoring programmes						31.2			31.2
HC.6.5	Epidemiological surveillance and risk and disease control programmes	5.8					3,843.3	382.9		4,232.1
HC.6.5.1	Planning & Management						160.3	382.9		543.3
HC.6.5.2	Monitoring & Evaluation (M&E)						779.4			779.4
HC.6.5.3	Procurement & supply management						40.7			40.7
HC.6.5.4	Interventions						40.7			40.7
HC.6.5.4.ne	Other and unspecified	5.8					2,863.0			2,868.8

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Code	HC Health care functions	HP Health care providers								Total
		HP.1	HP.2	HP.3	HP.4	HP.5	HP.6	HP.7	HP.8	
		Hospitals	Residential long-term care facilities	Providers of ambulatory health care	Providers of ancillary services	Retailers and Other providers of medical goods	Providers of preventive care	Providers of health care system administration and financing	Rest of economy	
c	interventions (n.e.c.)									
HC.6.5.ne c	Unspecified epidemiological surveillance and risk and disease control programmes (n.e.c.)						184.6			184.6
<b>HC.7</b>	<b>Առողջապահության համակարգի ֆինանսավորման կառավարում</b>							<b>1,972.9</b>		<b>1,972.9</b>
HC.7.1	Governance and Health system administration							1,972.9		1,972.9
HC.7.1.1	Planning & Management							1,578.7		1,578.7
HC.7.1.2	Monitoring and evaluation							3.2		3.2
HC.7.1.3	Procurement & supply management							5.0		5.0
HC.7.nec	Unspecified governance, and health system and financing administration (n.e.c.)							386.0		386.0
<b>HC.9</b>	<b>Other health care services not elsewhere classified (n.e.c.)</b>	<b>39.8</b>							<b>83.9</b>	<b>123.7</b>

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Code	HC Health care functions	HP Health care providers								Total
		HP.1	HP.2	HP.3	HP.4	HP.5	HP.6	HP.7	HP.8	
		Hospitals	Residential long-term care facilities	Providers of ambulatory health care	Providers of ancillary services	Retailers and Other providers of medical goods	Providers of preventive care	Providers of health care system administration and financing	Rest of economy	
<b>Total</b>			1,982.9	116,788.9	37,676.1	189,134.5	6,161.0	2,411.5	3,017.5	576,631.9

**Table 4.4.6 The Account of FS Financing scheme L DIS classification of diseases/conditions, 2017፬ . (million AMD)**

Code	DIS Classification of diseases / conditions	FS financing schemes					Total
		FS.1	FS.2	FS.5	FS.6	FS.7	
		Transfers from government domestic revenue (allocated to health purposes)	Transfers distributed by government from foreign origin	Voluntary prepayment	Other domestic revenues n.e.c. )	Direct foreign transfers	
<b>DIS.1</b>	Infectious and parasitic diseases	<b>15,052.2</b>	<b>467.4</b>	<b>12.1</b>	<b>10,657.2</b>	<b>3,905.1</b>	<b>30,094.1</b>
DIS.1.1	HIV/AIDS and Other Sexually Transmitted Diseases (STDs)	1,503.4	3.6		1,603.6	754.2	3,864.8
DIS.1.1.1	HIV/AIDS and Opportunistic Infections (OIs)	400.9	3.4		46.4	686.5	1,137.3
DIS.1.1.1.1	HIV/AIDS	308.6			46.4	609.1	964.1
DIS.1.1.1.2	TB/HIV					1.2	1.2
DIS.1.1.1.3	Other OIs due to AIDS	56.0	2.1				58.1
DIS.1.1.1.nec	Unspecified HIV/AIDS and OIs (n.e.c.)	36.4	1.4			76.2	113.9

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Code	DIS Classification of diseases / conditions	FS financing schemes					Total
		FS.1	FS.2	FS.5	FS.6	FS.7	
		Transfers from government domestic revenue (allocated to health purposes)	Transfers distributed by government from foreign origin	Voluntary prepayment	Other domestic revenues n.e.c. )	Direct foreign transfers	
DIS.1.1.2	STDs Other than HIV/AIDS	1,102.4	0.1		1,557.2		2,659.8
DIS.1.1.nec	Unspecified HIV/AIDS and Other STDs (n.e.c.)					67.7	67.7
DIS.1.2	Tuberculosis (TB)	1,714.7	50.2		444.4	784.7	2,994.1
DIS.1.2.1	Pulmunoray TB	1,376.1	46.9		148.1		1,571.2
DIS.1.2.1.1	Drug-Sensitive Tuberculosis (DS-TB)	14.9					14.9
DIS.1.2.1.nec	Unspecified Pulmunoray Tuberculosis (n.e.c.)	1,361.2	46.9		148.1		1,556.3
DIS.1.2.2	Extra pulmunoray TB	124.1	2.6		75.5		202.2
DIS.1.2.nec	Unspecified tuberculosis (n.e.c.)	214.5	0.7		220.8	784.7	1,220.6
DIS.1.4	Respiratory infections	3,796.5	326.7		0.4	42.0	4,165.6
DIS.1.5	Diarrheal diseases	3,311.7	35.5		3,336.0		6,683.2
DIS.1.6	Neglected tropical diseases	160.1	5.9		3.0		169.0
DIS.1.7	Vaccine preventable diseases	161.3	4.1		1.4	2,298.1	2,464.8
DIS.1.nec	Other and unspecified infectious and parasitic diseases (n.e.c.)	4,404.5	41.5	12.1	5,268.5	26.1	9,752.7
<b>DIS.2</b>	<b>Reproductive health</b>	<b>10,984.3</b>	<b>282.9</b>	<b>56.1</b>	<b>6,192.7</b>	<b>193.0</b>	<b>17,709.1</b>
DIS.2.1	Maternal conditions	6,195.0	231.3	56.1	3,130.9	104.7	9,718.0
DIS.2.2	Perinatal conditions	2,856.7	51.6			57.9	2,966.2
DIS.2.3	Contraceptive management (family planning)	1,932.6			3,061.8	30.4	5,024.9

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Code	DIS Classification of diseases / conditions	FS financing schemes					Total
		FS.1	FS.2	FS.5	FS.6	FS.7	
		Transfers from government domestic revenue (allocated to health purposes)	Transfers distributed by government from foreign origin	Voluntary prepayment	Other domestic revenues n.e.c. )	Direct foreign transfers	
DIS.2.nec	Unspecified reproductive health conditions (n.e.c.)	8,771.5	15.3		11,817.1	12.7	20,616.6
<b>DIS.3</b>	<b>Nutritional deficiencies</b>	<b>30,359.8</b>	<b>779.3</b>	<b>3,212.9</b>	<b>215,887.9</b>	<b>236.7</b>	<b>250,476.5</b>
<b>DIS.4</b>	<b>Noncommunicable diseases</b>	2,595.7	95.7	106.4	6,397.6	8.2	9,203.6
DIS.4.1	Neoplasms	3,944.9	62.3	67.9	5,001.8	5.8	9,082.7
DIS.4.2	Endocrine and metabolic disorders	2,564.5	43.2		3.8	5.8	2,617.3
DIS.4.2.1	Diabetes	1,380.4	19.1	67.9	4,998.1		6,465.5
DIS.4.2.nec	Other and unspecified endocrine and metabolic disorders (n.e.c.)	9,495.6	262.1	544.7	31,352.8	2.9	41,658.0
DIS.4.3	Cardiovascular diseases	1,873.8	41.1		233.1	2.9	2,150.9
DIS.4.3.1	Hypertensive diseases	7,621.8	221.0	544.7	31,119.6		39,507.1
DIS.4.3.nec	Other and unspecified cardiovascular diseases (n.e.c.)	5,135.3	78.0	45.9	5,760.3	4.5	11,024.0
DIS.4.4	Mental & behavioural disorders, and Neurological conditions	2,236.1	28.2		1,478.3	3.2	3,745.8
DIS.4.4.1	Mental (psychiatric) disorders	1,070.8	7.3		1,291.5		2,369.6
DIS.4.4.2	Behavioural disorders	1,139.8	42.5	43.1	2,407.7		3,633.0
DIS.4.4.3	Neurological conditions	688.6		2.8	582.8	1.3	1,275.6
DIS.4.4.nec	Unspecified mental & behavioural disorders and neurological conditions (n.e.c.)	1,123.4	41.7	163.8	9,105.1		10,433.9
DIS.4.5	Respiratory diseases	1,881.8	69.2	621.9	34,654.7		37,227.6

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Code	DIS Classification of diseases / conditions	FS financing schemes					Total
		FS.1	FS.2	FS.5	FS.6	FS.7	
		Transfers from government domestic revenue (allocated to health purposes)	Transfers distributed by government from foreign origin	Voluntary prepayment	Other domestic revenues n.e.c. )	Direct foreign transfers	
DIS.4.6	Diseases of the digestive	2,899.9	107.8	303.4	16,946.1		20,257.2
DIS.4.7	Diseases of the genito-urinary system	917.6	26.1	74.4	4,454.2	178.4	5,650.8
DIS.4.8	Sense organ disorders	765.7	4.5	806.5	75,384.0	8.2	76,969.0
DIS.4.9	Oral diseases	1,599.9	31.9	478.0	26,831.3	28.6	28,969.7
DIS.4.nec	Other and unspecified noncommunicable diseases (n.e.c.)	<b>2,452.4</b>	<b>63.1</b>	<b>305.5</b>	<b>17,231.6</b>		<b>20,052.7</b>
<b>DIS.5</b>	<b>Injuries</b>	<b>2,272.7</b>				<b>46.8</b>	<b>2,319.5</b>
<b>DIS.6</b>	<b>Non-disease specific</b>	<b>6,480.3</b>	<b>10.5</b>	<b>1,053.9</b>	<b>227,268.1</b>	<b>550.5</b>	<b>235,363.4</b>
<b>DIS.nec</b>	Other and unspecified diseases/conditions (n.e.c.)		<b>1,618.5</b>	<b>4,640.6</b>	<b>489,054.7</b>	<b>4,944.9</b>	<b>576,631.9</b>

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**Table 4.4.7 The Account of FA Financing Agents and DIS Classification of diseases / conditions, 2017 (Million AMD)**

Code	DIS Classification of diseases / conditions	FA Financing agents						Total
		FA.1	FA.2	FA.3	FA.4	FA.5	FA.6	
		General government	Insurance corporations	Corporations (Other than insurance corporations) (part of HF.RI.1.2)	Non-profit institutions serving households (NPISH)	Households	Rest of the world	
DIS.1	Infectious and parasitic diseases	19,291.4	12.1	5.9		10,651.3	133.4	30,094.1
DIS.1.1	HIV/AIDS and Other Sexually Transmitted Diseases (STDs)	2,256.5				1,603.6	4.7	3,864.8
DIS.1.1.1	HIV/AIDS and Opportunistic Infections (OIs)	1,086.2				46.4	4.7	1,137.3
DIS.1.1.1.1	HIV/AIDS	914.2				46.4	3.5	964.1
DIS.1.1.1.2	TB/HIV						1.2	1.2
DIS.1.1.1.3	Other OIs due to AIDS	58.1						58.1
DIS.1.1.1.nec	Unspecified HIV/AIDS and OIs (n.e.c.)	113.9						113.9
DIS.1.1.2	STDs Other than HIV/AIDS	1,102.6				1,557.2		2,659.8
DIS.1.1.nec	Unspecified HIV/AIDS and Other STDs (n.e.c.)	67.7						67.7
DIS.1.2	Tuberculosis (TB)	2,549.7				444.4		2,994.1
DIS.1.2.1	Pulmunoray TB	1,423.1				148.1		1,571.2
DIS.1.2.1.1	Drug-Sensitive Tuberculosis (DS-TB)	14.9						14.9
DIS.1.2.1.nec	Unspecified Pulmunoray Tuberculosis (n.e.c.)	1,408.2				148.1		1,556.3
DIS.1.2.2	Extra pulmunoray TB	126.7				75.5		202.2
DIS.1.2.nec	Unspecified tuberculosis (n.e.c.)	999.9				220.8		1,220.6
DIS.1.4	Respiratory infections	4,123.2				0.4	42.0	4,165.6
DIS.1.5	Diarrheal diseases	3,347.2				3,336.0		6,683.2

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Code	DIS Classification of diseases / conditions	FA Financing agents							Total
		FA.1	FA.2	FA.3	FA.4	FA.5	FA.6		
		General government	Insurance corporations	Corporations (Other than insurance corporations) (part of HF.RL.1.2)	Non-profit institutions serving households (NPISH)	Households	Rest of the world		
DIS.1.6	Neglected tropical diseases	166.0				3.0		169.0	
DIS.1.7	Vaccine preventable diseases	2,402.8				1.4	60.6	2,464.8	
DIS.1.nec	Other and unspecified infectious and parasitic diseases (n.e.c.)	4,446.0	12.1	5.9		5,262.5	26.1	9,752.7	
<b>DIS.2</b>	<b>Reproductive health</b>	<b>11,267.2</b>	<b>56.1</b>	<b>27.5</b>		<b>351.3</b>	<b>5,865.2</b>	<b>141.7</b>	<b>17,709.1</b>
DIS.2.1	Maternal conditions	6,426.3	56.1	27.5		3,103.4	104.7	9,718.0	
DIS.2.2	Perinatal conditions	2,908.3				38.6	19.3	2,966.2	
DIS.2.3	Contraceptive management (family planning)	1,932.6				312.7	2,761.8	17.7	5,024.9
DIS.2.nec	Unspecified reproductive health conditions (n.e.c.)	<b>8,786.8</b>				<b>12.7</b>	<b>11,817.1</b>		<b>20,616.6</b>
<b>DIS.3</b>	<b>Nutritional deficiencies</b>	<b>31,139.1</b>	<b>3,212.9</b>	<b>1,178.4</b>		<b>1,086.0</b>	<b>213,851.3</b>	<b>8.8</b>	<b>250,476.5</b>
<b>DIS.4</b>	<b>Noncommunicable diseases</b>	2,691.4	106.4	52.1		3.3	6,345.5	5.0	9,203.6
DIS.4.1	Neoplasms	4,007.2	67.9	33.3		5.8	4,968.6		9,082.7
DIS.4.2	Endocrine and metabolic disorders	2,607.7				5.8	3.8		2,617.3
DIS.4.2.1	Diabetes	1,399.5	67.9	33.3			4,964.8		6,465.5
DIS.4.2.nec	Other and unspecified endocrine and metabolic disorders (n.e.c.)	9,757.7	544.7	266.7		2.9	31,086.1		41,658.0
DIS.4.3	Cardiovascular diseases	1,914.9				2.9	233.1		2,150.9
DIS.4.3.1	Hypertensive diseases	7,842.8	544.7	266.7			30,852.9		39,507.1
DIS.4.3.nec	Other and unspecified cardiovascular diseases (n.e.c.)	5,213.3	45.9	22.5		287.1	5,452.0	3.2	11,024.0
DIS.4.4	Mental & behavioural disorders, and	2,264.3					1,478.3	3.2	3,745.8

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Code	DIS Classification of diseases / conditions	FA Financing agents							Total
		FA.1	FA.2	FA.3	FA.4	FA.5	FA.6		
		General government	Insurance corporations	Corporations (Other than insurance corporations) (part of HF.RL.1.2)	Non-profit institutions serving households (NPISH)	Households	Rest of the world		
	Neurological conditions								
DIS.4.4.1	Mental (psychiatric) disorders	1,078.1				1,291.5		2,369.6	
DIS.4.4.2	Behavioral disorders	1,182.3	43.1	21.1		2,386.6		3,633.0	
DIS.4.4.3	Neurological conditions	688.6	2.8	1.4	287.1	295.7		1,275.6	
DIS.4.4.nec	Unspecified mental & behavioral disorders and neurological conditions (n.e.c.)	1,165.0	163.8	80.2		9,024.9		10,433.9	
DIS.4.5	Respiratory diseases	1,951.0	621.9	304.5		34,350.1		37,227.6	
DIS.4.6	Diseases of the digestive	3,007.7	303.4	148.6		16,797.6		20,257.2	
DIS.4.7	Diseases of the genito-urinary system	943.7	74.4	36.5	464.2	4,132.0		5,650.8	
DIS.4.8	Sense organ disorders	770.2	806.5		8.2	75,384.0		76,969.0	
DIS.4.9	Oral diseases	1,631.8	478.0	234.1	314.5	26,310.6	0.7	28,969.7	
DIS.4.nec	Other and unspecified non-communicable diseases (n.e.c.)	<b>2,515.6</b>	<b>305.5</b>	<b>149.6</b>		<b>17,082.0</b>		<b>20,052.7</b>	
<b>DIS.5</b>	<b>Injuries</b>	<b>2,272.7</b>			<b>41.6</b>		<b>5.2</b>	<b>2,319.5</b>	
<b>DIS.6</b>	<b>Non-disease specific</b>	<b>6,490.8</b>	<b>1,053.9</b>	<b>157.5</b>	<b>521.8</b>	<b>227,110.6</b>	<b>28.7</b>	<b>235,363.4</b>	
<b>DIS.nec</b>	Other and unspecified diseases/conditions (n.e.c.)		<b>4,640.6</b>	<b>1,518.9</b>		<b>2,013.4</b>	<b>486,377.6</b>	<b>317.9</b>	<b>576,631.9</b>

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**Table 4.4.8 The Account of FS.RI Institutional units providing revenues to financing schemes and DIS Classification of diseases / conditions, 2017 (Million AMD)**

Code	DIS Classification of diseases / conditions	FS.RI Institutional units providing revenues to financing schemes					
		FS.RI.1.1	FS.RI.1.2	FS.RI.1.3	FS.RI.1.4	FS.RI.1.5	Total
		Government	Corporations	Households	NPISH	Rest of the world	
<b>DIS.1</b>	<b>Infectious and parasitic diseases</b>	<b>15,052.2</b>	<b>5.9</b>	<b>10,663.4</b>		<b>4,372.6</b>	<b>30,094.1</b>
DIS.1.1	HIV/AIDS and Other Sexually Transmitted Diseases (STDs)	1,503.4		1,603.6		757.8	3,864.8
DIS.1.1.1	HIV/AIDS and Opportunistic Infections (OIs)	400.9		46.4		690.0	1,137.3
DIS.1.1.1.1	HIV/AIDS	308.6		46.4		609.1	964.1
DIS.1.1.1.2	TB/HIV					1.2	1.2
DIS.1.1.1.3	Other OIs due to AIDS	56.0				2.1	58.1
DIS.1.1.1.nec	Unspecified HIV/AIDS and OIs (n.e.c.)	36.4				77.6	113.9
DIS.1.1.2	STDs Other than HIV/AIDS	1,102.4		1,557.2		0.1	2,659.8
DIS.1.1.nec	Unspecified HIV/AIDS and Other STDs (n.e.c.)					67.7	67.7
DIS.1.2	Tuberculosis (TB)	1,714.7		444.4		834.9	2,994.1
DIS.1.2.1	Pulmonary TB	1,376.1		148.1		46.9	1,571.2
DIS.1.2.1.1	Drug-Sensitive Tuberculosis (DS-TB)	14.9					14.9
DIS.1.2.1.nec	Unspecified Pulmonary Tuberculosis (n.e.c.)	1,361.2		148.1		46.9	1,556.3
DIS.1.2.2	Extra pulmonary TB	124.1		75.5		2.6	202.2
DIS.1.2.nec	Unspecified tuberculosis (n.e.c.)	214.5		220.8		785.4	1,220.6
DIS.1.4	Respiratory infections	3,796.5		0.4		368.6	4,165.6
DIS.1.5	Diarrheal diseases	3,311.7		3,336.0		35.5	6,683.2

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Code	DIS Classification of diseases / conditions	FS.RI Institutional units providing revenues to financing schemes					
		FS.RI.1.1	FS.RI.1.2	FS.RI.1.3	FS.RI.1.4	FS.RI.1.5	Total
		Government	Corporations	Households	NPISH	Rest of the world	
DIS.1.6	Neglected tropical diseases	160.1		3.0		5.9	169.0
DIS.1.7	Vaccine preventable diseases	161.3		1.4		2,302.2	2,464.8
DIS.1.nec	Other and unspecified infectious and parasitic diseases (n.e.c.)	4,404.5	5.9	5,274.6		67.6	9,752.7
<b>DIS.2</b>	<b>Reproductive health</b>	<b>10,984.3</b>	<b>27.5</b>	<b>6,221.4</b>		<b>475.9</b>	<b>17,709.1</b>
DIS.2.1	Maternal conditions	6,195.0	27.5	3,159.6		335.9	9,718.0
DIS.2.2	Perinatal conditions	2,856.7				109.5	2,966.2
DIS.2.nec	Unspecified reproductive health conditions (n.e.c.)	1,932.6		3,061.8		30.4	5,024.9
<b>DIS.3</b>	<b>Nutritional deficiencies</b>	<b>8,771.5</b>		<b>11,817.1</b>		<b>28.0</b>	<b>20,616.6</b>
<b>DIS.4</b>	<b>Non-communicable diseases</b>	<b>30,359.8</b>	<b>1,178.4</b>	<b>217,064.3</b>	<b>858.1</b>	<b>1,015.9</b>	<b>250,476.5</b>
DIS.4.1	Neoplasms	2,595.7	52.1	6,451.9		104.0	9,203.6
DIS.4.2	Endocrine and metabolic disorders	3,944.9	33.3	5,036.5		68.1	9,082.7
DIS.4.2.1	Diabetes	2,564.5		3.8		49.0	2,617.3
DIS.4.2.nec	Other and unspecified endocrine and metabolic disorders (n.e.c.)	1,380.4	33.3	5,032.7		19.1	6,465.5
DIS.4.3	Cardiovascular diseases	9,495.6	266.7	31,630.7		265.0	41,658.0
DIS.4.3.1	Hypertensive diseases	1,873.8		233.1		44.0	2,150.9
DIS.4.3.nec	Other and unspecified cardiovascular diseases (n.e.c.)	7,621.8	266.7	31,397.6		221.0	39,507.1
DIS.4.4	Mental & behavioral disorders, and Neurological conditions	5,135.3	22.5	5,498.0	285.8	82.5	11,024.0
DIS.4.4.1	Mental (psychiatric) disorders	2,236.1		1,478.3		31.4	3,745.8
DIS.4.4.2	Behavioral disorders	1,070.8		1,291.5		7.3	2,369.6

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Code	DIS Classification of diseases / conditions	FS.RI Institutional units providing revenues to financing schemes					
		FS.RI.1.1	FS.RI.1.2	FS.RI.1.3	FS.RI.1.4	FS.RI.1.5	Total
		Government	Corporations	Households	NPISH	Rest of the world	
DIS.4.4.3	Neurological conditions	1,139.8	21.1	2,429.7		42.5	3,633.0
DIS.4.4.nec	Unspecified mental & behavioral disorders and neurological conditions (n.e.c.)	688.6	1.4	298.5	285.8	1.3	1,275.6
DIS.4.5	Respiratory diseases	1,123.4	80.2	9,188.7		41.7	10,433.9
DIS.4.6	Diseases of the digestive	1,881.8	304.5	34,972.0		69.2	37,227.6
DIS.4.7	Diseases of the genito-urinary system	2,899.9	148.6	17,101.0		107.8	20,257.2
DIS.4.8	Sense organ disorders	917.6	36.5	4,206.4	285.8	204.6	5,650.8
DIS.4.9	Oral diseases	765.7		76,190.5		12.7	76,969.0
DIS.4.nec	Other and unspecified non-communicable diseases (n.e.c.)	1,599.9	234.1	26,788.6	286.6	60.5	28,969.7
<b>DIS.5</b>	<b>Injuries</b>	<b>2,452.4</b>	<b>149.6</b>	<b>17,387.6</b>		<b>63.1</b>	<b>20,052.7</b>
<b>DIS.6</b>	<b>Non-disease specific</b>	<b>2,272.7</b>				<b>46.8</b>	<b>2,319.5</b>
DIS.nec	Other and unspecified diseases/conditions (n.e.c.)	<b>6,480.3</b>	<b>157.5</b>	<b>228,164.5</b>		<b>561.1</b>	<b>235,363.4</b>
<b>Total</b>			<b>1,518.9</b>	<b>491,318.3</b>	<b>858.1</b>	<b>6,563.4</b>	<b>576,631.9</b>

**Table 4.4.9 The Account of HK Gross capital formation , 2017p. (Million AMD)**

<b>HK.1</b>	<b>Gross fixed capital formation</b>	<b>3,767.3</b>
HK.1.1	Infrastructure	3,767.3
HK.1.1.1	Residential and non-residential buildings	2,221.9
HK.1.1.1.1	Other structures	2,192.1

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HK.1.1.1.2	Machinery and equipment	29.7
HK.1.1.2	Medical equipment	1,540.6
HK.1.1.2.1	Gross fixed capital formation	276.5
HK.1.1.2.2	Transport equipment	1,264.1

**Table 4.4.10 The Account of HK Gross capital formation by Financing agents, 2017 (Million AMD)**

Code	HK Capital Account	HK.1	including																	
			HK.1.1	HK.1.1.1	HK.1.1.1.1	HK.1.1.1.2	HK.1.1.2	HK.1.1.2.1	HK.1.1.2.2	HK.1.1.2.3	HK.1.1.2.4									
												Gross fixed capital formation	Infrastructure	Residential and non-residential buildings	Other structures	Machinery and equipment	Medical equipment	Transport equipment	ICT equipment	Machinery and equipment n.e.c.
	<b>FA Financing agents</b>																			
FA.1	General government	<b>3,423.5</b>	3,423.5	2,149.3	2,149.3		1,274.1	10.1	1,264.1											
FA.1.1	Central government	<b>3,423.5</b>	3,423.5	2,149.3	2,149.3		1,274.1	10.1	1,264.1											
FA.1.1.1	Ministry of Health	<b>2,107.8</b>	2,107.8	843.7	843.7		1,264.1		1,264.1											
FA.1.1.2	Other ministries and public units (belonging to central government)	<b>1,315.7</b>	1,315.7	1,305.6	1,305.6		10.1	10.1												

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Code	HK Capital Account	HK.1	including																	
			HK.1.1	HK.1.1.1	HK.1.1.1.1	HK.1.1.1.2	HK.1.1.2	HK.1.1.2.1	HK.1.1.2.2	HK.1.1.2.3	HK.1.1.2.4									
												Gross fixed capital formation	Infrastructure	Residential and non-residential buildings	Other structures	Machinery and equipment	Medical equipment	Transport equipment	ICT equipment	Machinery and equipment n.e.c.
	<b>FA Financing agents</b>																			
FA.4	Non-profit institutions serving households (NPISH)	<b>276.3</b>	276.3	72.6	42.8	29.7	203.7	203.7												
FA.6	Rest of the world	<b>67.6</b>	67.6				62.8	62.8		4.8		4.8								
<b>Total</b>		<b>3,767.3</b>	<b>3,767.3</b>	<b>2,221.9</b>	<b>2,192.1</b>	<b>29.7</b>	<b>1,540.6</b>	<b>276.5</b>	<b>1,264.1</b>	<b>4.8</b>		<b>4.8</b>								

Table 4.411 Distribution of Financing by Classification of diseases / conditions and Age groups 2017 (Million AMD)

Code	DIS Classification of diseases / conditions	Age		Total
		AGE.1	AGE.2	
		< 5 years old	> 5 years old	
<b>DIS.1</b>	<b>Infectious and parasitic diseases</b>	5,976.9	24,117.2	30,094.1
DIS.1.1	HIV/AIDS and Other Sexually Transmitted Diseases (STDs)	185.5	3,679.3	3,864.8
DIS.1.1.1	HIV/AIDS and Opportunistic Infections (OIs)	73.6	1,063.7	1,137.3
DIS.1.1.1.1	HIV/AIDS	66.2	897.9	964.1
DIS.1.1.1.2	TB/HIV		1.2	1.2
DIS.1.1.1.3	Other OIs due to AIDS		58.1	58.1
DIS.1.1.1.nec	Unspecified HIV/AIDS and OIs (n.e.c.)	7.4	106.5	113.9
DIS.1.1.2	STDs Other than HIV/AIDS	107.2	2,552.6	2,659.8
DIS.1.1.nec	Unspecified HIV/AIDS and Other STDs (n.e.c.)	4.7	63.0	67.7
DIS.1.2	Tuberculosis (TB)	111.9	2,882.1	2,994.1
DIS.1.2.1	Pulmonary TB	31.3	1,539.9	1,571.2
DIS.1.2.1.1	Drug-Sensitive Tuberculosis (DS-TB)		14.9	14.9
DIS.1.2.1.nec	Unspecified Pulmonary Tuberculosis (n.e.c.)	31.3	1,525.0	1,556.3
DIS.1.2.2	Extra pulmonary TB	6.1	196.1	202.2
DIS.1.2.nec	Unspecified tuberculosis (n.e.c.)	74.5	1,146.1	1,220.6
DIS.1.4	Respiratory infections	3,127.0	1,038.6	4,165.6
DIS.1.5	Diarrheal diseases	958.8	5,724.4	6,683.2
DIS.1.6	Neglected tropical diseases	0.2	168.8	169.0
DIS.1.7	Vaccine preventable diseases	705.7	1,759.2	2,464.8
DIS.1.nec	Other and unspecified infectious and parasitic diseases (n.e.c.)	887.9	8,864.9	9,752.7
<b>DIS.2</b>	<b>Reproductive health</b>	1,377.0	16,332.1	17,709.1
DIS.2.1	Maternal conditions	167.7	9,550.3	9,718.0
DIS.2.2	Perinatal conditions	1,112.3	1,853.9	2,966.2
DIS.2.nec	Unspecified reproductive health conditions (n.e.c.)	97.0	4,927.9	5,024.9
<b>DIS.3</b>	<b>Nutritional deficiencies</b>	1,287.5	19,329.1	20,616.6
<b>DIS.4</b>	<b>Non-communicable diseases</b>	5,491.3	244,985.2	250,476.5
DIS.4.1	Neoplasms	218.7	8,984.9	9,203.6
DIS.4.2	Endocrine and metabolic disorders	265.7	8,817.0	9,082.7
DIS.4.2.1	Diabetes	102.3	2,514.9	2,617.3
DIS.4.2.nec	Other and unspecified endocrine and metabolic disorders (n.e.c.)	163.4	6,302.1	6,465.5
DIS.4.3	Cardiovascular diseases	742.3	40,915.8	41,658.0

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Code	DIS Classification of diseases / conditions	Age		Total
		AGE.1	AGE.2	
		< 5 years old	> 5 years old	
DIS.4.3.1	Hypertensive diseases	50.8	2,100.1	2,150.9
DIS.4.3.nec	Other and unspecified cardiovascular diseases (n.e.c.)	691.4	38,815.7	39,507.1
DIS.4.4	Mental & behavioral disorders, and Neurological conditions	623.4	10,400.6	11,024.0
DIS.4.4.1	Mental (psychiatric) disorders	149.0	3,596.8	3,745.8
DIS.4.4.2	Behavioral disorders	126.2	2,243.5	2,369.6
DIS.4.4.3	Neurological conditions	202.8	3,430.3	3,633.0
DIS.4.4.nec	Unspecified mental & behavioral disorders and neurological conditions (n.e.c.)	145.5	1,130.1	1,275.6
DIS.4.5	Respiratory diseases	399.9	10,034.1	10,433.9
DIS.4.6	Diseases of the digestive	1,159.6	36,068.0	37,227.6
DIS.4.7	Diseases of the genito-urinary system	569.2	19,688.0	20,257.2
DIS.4.8	Sense organ disorders	321.8	5,329.1	5,650.8
DIS.4.9	Oral diseases	449.5	76,519.4	76,969.0
DIS.4.nec	Other and unspecified non-communicable diseases (n.e.c.)	741.4	28,228.3	28,969.7
<b>DIS.5</b>	<b>Injuries</b>	617.7	19,435.0	20,052.7
<b>DIS.6</b>	<b>Non-disease specific</b>	162.4	2,157.1	2,319.5
DIS.nec	Other and unspecified diseases/conditions (n.e.c.)	8,541.6	226,821.8	235,363.4
<b>Total</b>			<b>553,177.5</b>	<b>576,631.9</b>

**Table 4.4.12 The Distribution of Financing by Classification of diseases / conditions and Gender, 2017 (Million AMD)**

Code	DIS Classification of diseases / conditions	Gender		Total
		Female	Female	
<b>DIS.1</b>	<b>Infectious and parasitic diseases</b>	<b>14,217.1</b>	<b>15,877.1</b>	<b>30,094.1</b>
DIS.1.1	HIV/AIDS and Other Sexually Transmitted Diseases (STDs)	2,307.9	1,556.9	3,864.8
DIS.1.1.1	HIV/AIDS and Opportunistic Infections (OIs)	520.7	616.7	1,137.3
DIS.1.1.1.1	HIV/AIDS	442.8	521.3	964.1
DIS.1.1.1.2	TB/HIV	0.3	0.9	1.2
DIS.1.1.1.3	Other OIs due to AIDS	0.1	57.9	58.1
DIS.1.1.1.nec	Unspecified HIV/AIDS and OIs (n.e.c.)	77.4	36.5	113.9
DIS.1.1.2	STDs Other than HIV/AIDS	1,751.9	907.8	2,659.8
DIS.1.1.nec	Unspecified HIV/AIDS and Other STDs (n.e.c.)	35.3	32.4	67.7
DIS.1.2	Tuberculosis (TB)	1,307.5	1,686.6	2,994.1

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Code	DIS Classification of diseases / conditions	Gender		Total
		Female	Female	
DIS.1.2.1	Pulmonary TB	644.2	927.0	1,571.2
DIS.1.2.1.1	Drug-Sensitive Tuberculosis (DS-TB)	1.3	13.6	14.9
DIS.1.2.1.nec	Unspecified Pulmonary Tuberculosis (n.e.c.)	642.9	913.4	1,556.3
DIS.1.2.2	Extra pulmonary TB	75.3	126.9	202.2
DIS.1.2.nec	Unspecified tuberculosis (n.e.c.)	588.0	632.6	1,220.6
DIS.1.4	Respiratory infections	1,795.1	2,370.5	4,165.6
DIS.1.5	Diarrheal diseases	3,324.2	3,359.0	6,683.2
DIS.1.6	Neglected tropical diseases	2.0	167.0	169.0
DIS.1.7	Vaccine preventable diseases	1,089.2	1,375.6	2,464.8
DIS.1.nec	Other and unspecified infectious and parasitic diseases (n.e.c.)	4,391.1	5,361.6	9,752.7
<b>DIS.2</b>	<b>Reproductive health</b>	<b>14,007.7</b>	<b>3,701.3</b>	<b>17,709.1</b>
DIS.2.1	Maternal conditions	8,109.8	1,608.2	9,718.0
DIS.2.2	Perinatal conditions	2,398.8	567.4	2,966.2
DIS.2.nec	Unspecified reproductive health conditions (n.e.c.)	3,499.1	1,525.7	5,024.9
<b>DIS.3</b>	<b>Nutritional deficiencies</b>	<b>9,681.6</b>	<b>10,935.0</b>	<b>20,616.6</b>
<b>DIS.4</b>	<b>Non-communicable diseases</b>	<b>125,648.6</b>	<b>124,827.9</b>	<b>250,476.5</b>
DIS.4.1	Neoplasms	4,912.9	4,290.7	9,203.6
DIS.4.2	Endocrine and metabolic disorders	4,851.8	4,231.0	9,082.7
DIS.4.2.1	Diabetes	1,522.1	1,095.1	2,617.3
DIS.4.2.nec	Other and unspecified endocrine and metabolic disorders (n.e.c.)	3,329.6	3,135.8	6,465.5
DIS.4.3	Cardiovascular diseases	20,221.4	21,436.7	41,658.0
DIS.4.3.1	Hypertensive diseases	1,206.6	944.3	2,150.9
DIS.4.3.nec	Other and unspecified cardiovascular diseases (n.e.c.)	19,014.8	20,492.3	39,507.1
DIS.4.4	Mental & behavioral disorders, and Neurological conditions	4,694.8	6,329.2	11,024.0
DIS.4.4.1	Mental (psychiatric) disorders	1,570.8	2,174.9	3,745.8
DIS.4.4.2	Behavioral disorders	917.3	1,452.4	2,369.6
DIS.4.4.3	Neurological conditions	1,623.3	2,009.7	3,633.0
DIS.4.4.nec	Unspecified mental & behavioral disorders and neurological conditions (n.e.c.)	583.4	692.2	1,275.6
DIS.4.5	Respiratory diseases	5,339.8	5,094.2	10,433.9
DIS.4.6	Diseases of the digestive	18,764.3	18,463.3	37,227.6
DIS.4.7	Diseases of the genito-urinary system	10,183.1	10,074.1	20,257.2
DIS.4.8	Sense organ disorders	2,849.9	2,800.9	5,650.8
DIS.4.9	Oral diseases	39,025.0	37,943.9	76,969.0
DIS.4.nec	Other and unspecified non-communicable diseases (n.e.c.)	14,805.7	14,164.0	28,969.7

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Code	DIS Classification of diseases / conditions	Gender		Total
		Female	Female	
DIS.5	Injuries	9,976.9	10,075.8	20,052.7
DIS.6	Non-disease specific	1,210.8	1,108.7	2,319.5
DIS.nec	Other and unspecified diseases/conditions (n.e.c.)	119,607.2	115,756.2	235,363.4
<b>Total</b>			282,282.1	576,631.9

**DIS.3 Nutritional deficiencies includes following diagnosctics**

1. Thyroid disease associated with iodine deficiency,
2. Diffuse (endemic) goiter associated with iodine deficiency,
3. Multinodular goiter associated with iodine deficiency,
4. Iron deficiency anemia,
5. Vitamin B12 - deficiency anemia,
6. Anemia associated with food,
7. Protein-energy deficiency

## **ANNEX 1. Healthcare expenditure by disease groups- non-communicable diseases**

According to the World Health Organization (WHO) data, NCDs are the leading cause of morbidity and mortality globally, in particular circulatory system diseases (CSD), malignancies, diabetes mellitus (DM), chronic obstructive pulmonary (COPD), mental health disorders. Each year NCDs take nearly 40 million human lives. The NCDs mortality burden in the total structure of deaths in the European Region varies from 60% to 85%. Moreover, 75% of deaths (28 million cases) occur in low- to middle income countries. It should be noted that 17 million deaths from NCDs are recorded in the age group of 70 years, of which 87% are registered in low and middle income countries. In the European Region, NCDs accounts for 77% of the burden of illness, this is a serious challenge for the healthcare systems, socio-economic development, demographic status and welfare of a large proportion of the population.<sup>13</sup>

The data of evidence-based medicine indicates that NCDs development largely depends on lifestyle. Main causes of mortality in the world include hypertension (accounts for 13% of mortality due to all causes), smoking tobacco (9%), high level of glucose (6%), physical inactivity (6%), as well as overweight and obesity (5%).

Recognizing the problem of increasing NCDs burden and the latter's sizeable economic and social consequences, in 2012 the WHO member states committed to achieve 25% reduction of premature mortality from NCDs by 2025. In 2017 the WHO conducted a global conference on NCDs aimed at promoting cross-sectoral cooperation and implementation of a unified policy to facilitate achievement of health target 3.4 of the Sustainable Development Goals: "to reduce by one-third pre-mature mortality from non-communicable diseases (NCDs) through prevention and treatment".

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<sup>13</sup> Non-communicable disease, key facts, WHO, 2017 (<http://www.who.int/mediacentre/factsheets/fs355/en/>, visited 01/02/2018)

NCDs also have significant macroeconomic impact and exacerbate poverty. Most NCDs are chronic and require repeated medical interactions which in its turn lead to medical expenses, causing catastrophic poverty. It has been estimated that the loss of productivity due to NCDs is significant: for every 10% increase in NCDs mortality, economic growth is reduced by 0.5%.<sup>14</sup>

### **The situation of NCDs s in Armenia**

Like elsewhere in the world the non-communicable diseases have a huge burden on healthcare system. To assess the NCDs burden in population of Armenia, since 2007 the country has started observing the prevalence of NCDs risk factors, their health impact and correlations.

Studies and analysis of NCDs risk factor prevalence in 15 and older population was implemented within the framework of Health System Performance Assessment Surveys (2007-2016) and the findings were published in corresponding Health System Performance assessment (HSPA) Reports.

The 2016 HSPA data show below NCDs risk factor prevalence in 15 and older population of Armenia

- ✓ AH prevalence-28.6%
- ✓ Overweight and obesity- 51.2%,
- ✓ Prevalence of smoking- 26.2%, proportion of daily smoking males- 53.4%, females 2.4%,
- ✓ Number of males who consume the daily equivalent of 20g or more of alcohol- 16.3%,
- ✓ Number of physically inactive people - 13.9%,
- ✓ High level of cholesterol (>6.2 mm/L) in 35 and older population 35
- ✓ High level of glucose (>6.1 mm/L ) in 35 and older population:<sup>15</sup>

**Table 1. Mortality by disease group 2013-2017, unit<sup>16</sup>**

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<sup>14</sup> Health System Performance Assessment, Armenia 2017/ D. Andreyan, Al. Bazarchyan, S. Manukyan, Sh. Sargsyan, A. Torosyan, P. Zelveian. National Institute of Health named after academician S. Avdalbekyan, MoH, RA, 2017, page 11

<sup>15</sup> Same place, page 15:

<sup>16</sup> Socio-Economic Situation of RA, RA, SC, Yerevan. 2018, page 374-378

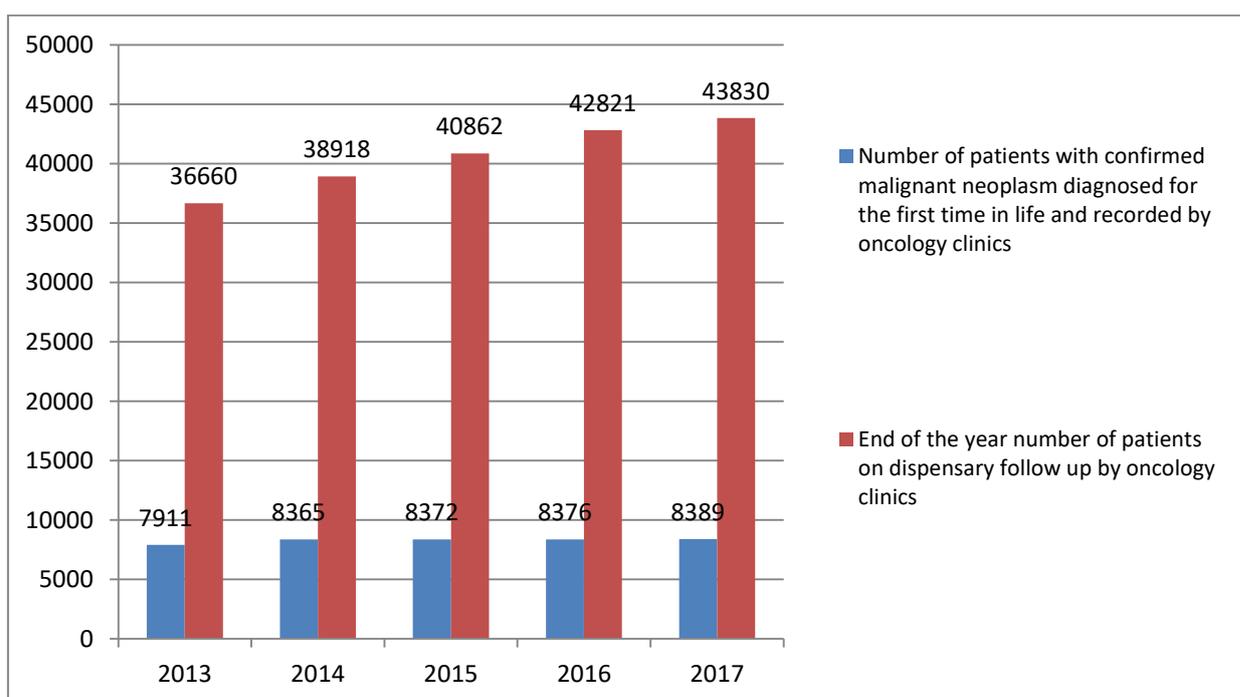
## National Health Accounts, 2017

	2014	2015	2016	2017
Certain infectious and parasitic diseases	87 055	87 641	86 959	84 636
Neoplasms	48 697	52 052	54 408	55 689
Endocrine, nutritional and metabolic diseases	100 528	111 337	120 894	124 603
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	20 168	20 723	21 767	22 339
Mental and behavioral disorders	64 813	62 229	63 141	63 171
Diseases of nervous system	55 954	58 571	59 688	61 071
Diseases of the eye and adnexa	136 395	138 238	142 683	134 570
Diseases of the ear and mastoid process	49 870	52 900	53 649	53 792
Diseases of the circulatory system	225 571	236 055	246 942	251 107
Diseases of the respiratory system	394 133	387 381	418 565	396 163
Diseases of the digestive system	96 174	96 733	96 822	96 555
Diseases of the genitourinary system	93 998	97 382	98 851	102 490
Complications of pregnancy, childbirth and the puerperium	17 220	21 523	18 394	16 351
Diseases of the skin and subcutaneous tissue	68 296	68 797	69 419	70 634
Diseases of the musculoskeletal system and connective tissue	52 915	54 187	55 628	55 401
Congenital malformations, deformations and chromosomal abnormalities	6 933	6 787	6 765	6 516
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	8 416	9 138	9 201	9 374
Certain conditions originating in the perinatal period	2 770	2 569	2 638	2 379
Injury, poisoning	61 053	60 493	58 904	56 418
<b>Total</b>	<b>1 590 959</b>	<b>1 624 736</b>	<b>1 685 318</b>	<b>1 663 259</b>

Source: "Health and Health Care" Statistical Yearbook, 2014-2018, RA National Institute of Health Named after Academician S. Avdalbekyan

In the five year preceding the 2018, the most progressive growth in non-communicable diseases has been recorded for malignant neoplasms, about 20%.

**Figure 1. Malignant neoplasm prevalence, 2013-2017, person**



Source: “Health and Healthcare” statistical yearbook, 2014- 2018, RA National Institute of Health Named after Academician S. Avdalbekyan

From the point of view of risk factors associated with malignant neoplasms, it is worth noting the fact that there are some regularities in the age and sex groups. Although, in the case of general morbidity the difference between sexes is not significant and the risk of morbidity increases after 45, however, in case of the diseases for the first time diagnosed, the prevalence of women's diseases are dominating in the age groups up to 55 and in older age groups the diseases are dominating among men.

**Table 2. Malignant neoplasm first time diagnosed by sex and age groups, 2017, person**

	Total	Female	Male
0 – 14	35	18	17
15 – 17	8	1	7
18 – 24	43	19	24
25 – 34	168	113	55
35 – 44	416	289	127
45 – 54	959	564	395
55 – 59	1 136	564	572
60 – 64	1 289	597	692
65 and over	4 335	2 004	2 331
<b>Total</b>	<b>8 389</b>	<b>4 169</b>	<b>4 220</b>

Source: “Health and Healthcare” statistical yearbook, 2014- 2018, RA National Institute of Health Named after Academician S. Avdalbekyan

During the observation period the growth trends were also preserved in the other two subgroups (diabetes mellitus and mental and behavioral disorders) of the NCDs. The picture is worrisome in terms of comparable indicators as the increase in number of cases of morbidity and reduction in the number of population lead to 376 people per 100 000 in 2017 compared with 284 per 100 000 in 2013. It is worth noting that the trend of the decrease of the morbidity of the 0-14 age group in 2013 has dramatically increased in 2016-2017

**Table 3. Diabetes mellitus, 2013-2017, person**

	Total	Per 100 000	Adults and teenagers	0-14 y.o
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**National Health Accounts, 2017**

			Total	15 years and adult per 100 000	Total	0-14 y.o per 100 000
2013	68 131	2 254.5	67 847	2 770.6	284	49.5
2014	72 203	2 395.7	71 955	2 955.4	248	42.8
2015	77 307	2 573.0	77 087	3 186.9	220	37.6
2016	82 671	2 762.7	82 336	3 430.7	335	56.6
2017	86 131	2 890.8	85 755	3 600.6	376	62.9

Source: “Health and Healthcare” statistical yearbook, 2014- 2018, RA National Institute of Health Named after Academician S. Avdalbekyan

Almost a similar picture and trends exist in mental and behavioral disorders. For the first three years following the year 2013, there has been a decrease in diagnostic cases, which, however, has dramatically changed in 2017. For the first time, parallel to fluctuation of the diagnosis of the disease, the number of patients registered in the dispensary has increased steadily in the observed period.

**Table 4. Mental and behavioral disorders (without alcoholic psychosis, alcoholism, drug addiction, toxicomania), 2013-2017, person**

	Number of patients diagnosed for the first time in life		Number of patients on dispensary follow up diagnosed for the first time in life		End of the year number of patients on dispensary follow	
	Total	Per 100 000	Total	Per 100 000	Total	Per 100 000
2013	2 698	89.3	2 013	66.6	46 048	1 526.2
2014	1 788	59.3	2 696	89.5	50 395	1 673.9
2015	1 961	65.3	1 926	64.1	51 167	1 706.4
2016	1 682	56.2	1 759	58.8	52 129	1 745.7
2017	2 559	85.9	2 864	96.3	54 025	1 817.3

Source: “Health and Healthcare” statistical yearbook, 2014- 2018, RA National Institute of Health Named after Academician S. Avdalbekyan

In the terms of the cost analysis of non-communicable diseases, it is worth paying attention to the number of laboratory and diagnostic examinations and surveys in the healthcare facilities, with a unit value ranging from 10,000 to 100,000 AMD and more.

**Table 5. Quantity of laboratory-diagnostic examinations performed at the medical facilities by type, 2013-2017, unit**

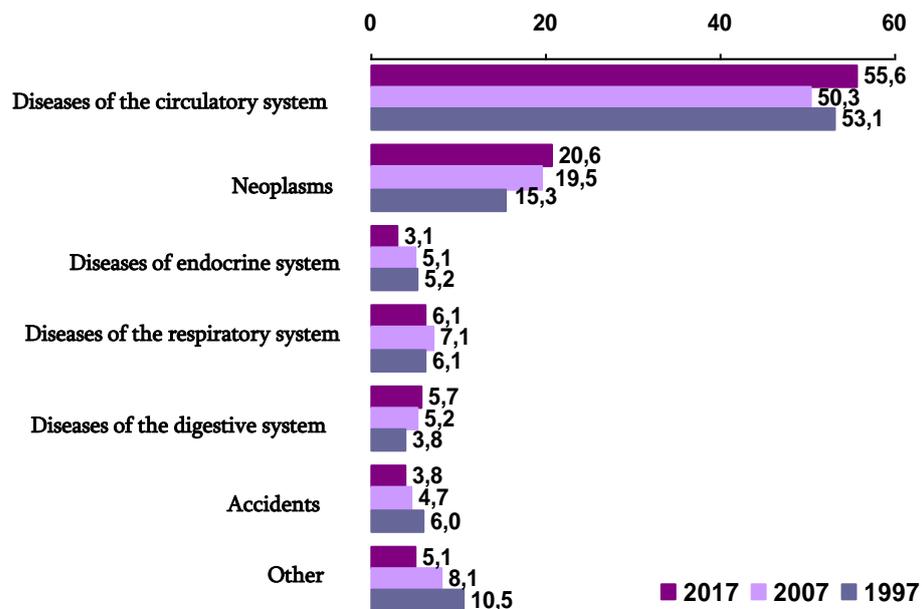
**National Health Accounts, 2017**

		2013	2014	2015	2016	2017
<b>Laboratory-diagnostic examinations performed at the medical facilities</b>	Total	24 805 632	21 236 573	22 755 521	24 029 148	23 733 317
	Hematological	5 917 986	7 372 366	7 606 268	8 243 661	7 919 387
	Cytological	169 568	391 521	196 914	181 587	186 879
	Biochemical	5 792 762	5 388 304	5 980 675	6 175 385	6 242 384
	Microbiological	882 490	919 675	1 023 908	933 533	650 046
	Immunological	1 226 289	1 404 828	1 409 981	1 474 319	1 682 408

Source: “Health and Healthcare” statistical yearbook, 2014- 2018, RA National Institute of Health Named after Academician S. Avdalbekyan

According to the data of the National Health Information Analytical Center of the RA MOH National Institute of Health after academician S.Avdalbekyan and the RA SC data, the burden of death from the most widespread NCDs among population is about 80%, of which the mortality rate in the pyramid of death is the highest in the disease of circulatory system; 48% followed by malignant neoplasms - 20.5%, diabetes mellitus- 4.2%, injuries, poisoning and external causes- 4.5%, chronic obstructive pulmonary disease (bronchitis, asthma, chronic other lung and broncho-skeletal diseases) -4%. The premature mortality rate of the NCDs was 29%, with 25% of deaths recorded in the 35-65 age groups.

**Figure 2. Mortality by causes 1997-2017 (pp) (%)**



Source: Demographic handbook of Armenia, 2018, RA SC, Yerevan. 2018

## **Strategies and programs**

In order to reduce the NCDs burden and to promote population health, in 2000 WHO adopted the Global strategy for the prevention and control of non-communicable diseases. In April 2011 the first global ministerial conference on NCDs prevention and control was held in Moscow. It called for regulation at all level including multidisciplinary and intersectional cooperation to reveal and curb NCDs risk factors and determinants as well as promotion of healthy lifestyle, adoption of legislation on early detection and prevention of NCDs risk factors, as well as improved access to and quality of healthcare. The ‘NCDs Prevention and Control Declaration’ was approved by leaders and representatives of states and governments at the UN General Assembly in September 2011. It is viewed as the main call of the 21st century and the key to achievement of the goals established in the European health strategy Health 2020. Recognizing the responsibility of the states in regards to the NCDs the global community emphasizes the importance of engagement of all level of the society for the effective NCDs prevention and control. At the 2013 World Health Assembly the 190 Member States adopted the WHO Global Action Plan for NCDs Prevention and Control for 2013-2020. In 2014 the UN General Assembly discussed the NCDs prevention and control activities as well as the prior achievements and next steps and goals of the states aimed at reduction of the NCDs burden.

Given that nearly all countries across the world face the challenge of increasing NCDs prevalence and mortality, the WHO has developed universal approaches to implementation of activities, and priority 9 global NCDs targets and 25 indicators for all WHO member states. These targets require cooperation and joint activities involving all stakeholders.<sup>17</sup>

Main approaches to NCDs prevention and control in Armenia are presented and implemented through the following two documents: ‘On approval of the Concept on Prevention, Early detection and Treatment of Most Prevalent Non-communicable Diseases

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<sup>17</sup> Health System Performance Assessment, Armenia 2017/ D. Andreasyan, Al. Bazarchyan, S. Manukyan, Sh. Sargsyan, A. Torosyan, P. Zelveian. National Institute of Health named after academician S. Avdalbekyan, MoH, RA, 2017, page 11.

(NCDs) approved by the RA Government Protocol Decree №3 of 29 January 2010, and 'National Strategic Programs on the Three Most Deadly Diseases – Circulatory System Diseases (cardiovascular), Malignancies and Diabetes Mellitus and the Timeline of Actions approved by the RA Government Protocol Decree №11 of 24 March 2011.

In order to implement these decisions the RA MoH has implemented a number of well-known projects. Screenings were implemented within the framework the Disease Prevention and Control Project from 1st January 2015 NCDS aimed at early detection of cervical cancer, arterial hypertension and diabetes mellitus as well as annual medical preventive examination of the social package beneficiaries. The hospital service providers are implementing the urgent cardiac surgery program that is known among the population as a "life-saving" program. As a result of the aforementioned projects the 1516 patients in 2015 and 702 patients in 2016 have received the urgent cardiac surgery. The 642 thousand surveys were conducted within the framework of screening.

The Government Decree No. 4, dated February 4, 2016, approved document "On the 2016-2020 Action Plan intended to Fight Against the Most Common Non-Contagious Diseases" reflecting the 9 voluntary global goals and achieving 25 indicators. The sample was around 3000.

In Armenia, the WHO STEPS Risk Factor Survey was conducted in three stages: behavioural, physical and biochemical measurements. It includes the entire geography of the country, including the adult population. The sample was around 3000. This tool has already been used in 100 member states of the WTO.<sup>18</sup>

### **The survey objectives**

The main purpose of the analysis is to analyze the costs and benefits related to non-communicable diseases as an opportunity to implement the mandate of public administration

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<sup>18</sup> More in Health System Performance Assessment, Armenia 2017/ D. Andreasyan, Al. Bazarchyan, S. Manukyan, Sh. Sargsyan, A. Torosyan, P. Zelveian. National Institute of Health named after academician S. Avdalbekyan, MoH, RA, 2017, page 13-18

bodies in the health sector. The analysis will enable evaluating the effectiveness of the implemented projects, strategies and expenditure and promoting the goals and targets set by the WTO in the relevant fields.

The information and research gaps revealed as the result of the analysis can be used to develop and introduce data collection research tool which will allow gathering the economic and financial information about the system.

### **Main results**

- ✓ The current social and economic state of the country and its development trends still do not provide satisfactory conditions for progressive improvement of the state of the non-communicable diseases.
- ✓ The level of accessibility and especially affordability of health services is not satisfactory. It is evident that inequality is inevitably deepening, as a result of which most of the services are actually consumed by middle and high income households.
- ✓ In the context of health services consumption, in the background of the poor condition of the four quintile population, the dramatic increase in the share of health care services in the fifth quintile is extremely impressive and worrisome. The presented is evidence of the deepening of the inequality of consumption of health services between groups with different levels of income. **The conclusion is that the problem of health accessibility is becoming more and more aggravated for the larger groups of the population, which is a consequence of the formation of market relations at the progressive pace. Indicators indirectly testify to the violation of the principle of equality of health services, which should be a priority issue in state policy projects and strategies.**
- ✓ On the other hand, the results of households' Living Standards Surveys, based on insufficient sample, do not allow for a better understanding of the population's health expenditures; the volume, direction, structure, and content of population direct payments relating to health and non-communicable diseases
- ✓ From the point of view of further expenditure reduction, it is important to prioritize the objectives of disease prevention and health promotion and improvement among the priorities of public policy.
- ✓ Almost all indicators characterizing the state of non-communicable diseases demonstrate steady growth dynamics with slight variations.

### **Cost calculation and analysis methods**

For the purpose of the analysis, the status and dynamics of non-communicable diseases have been studied in the context of the country's economic, social and demographic development, the scope of key stakeholders and demand changes, health services and supply dynamics, key funding sources, types of expenditure, volume, structure and expenditure burden.

Two approaches has been used to calculate expenditure; First, the expenditure of non-communicable diseases were analyzed based on information of the "National Health Accounts Reports of Armenia", where the health expenditures by disease group of the population has been distributed according to a special sample survey conducted in 2015. The 2014-2017 National Health accounts were used for the structure of the private sector expenditure by disease group.

The second approach is based on household's integrated living survey conducted every year by the RA SC. The average monthly per capita health expenditure, its structure by medical service type, specialists and payment purposes calculated according to the Household Integrated Living Condition Survey are a basis for calculating the summary indicators of household expenditure on health care services.

Based on the ILCS data, the summary of the expenditure incurred by the private sector was calculated using the guideline of the System of the Health Accounts 2011. In the case of this method, the following data are used for calculations: the proportion of expenditure incurred by medical services based on ILCS results in the structure of consumer expenditures (calculated based on "Classification of Individual Consumption according to Purpose") and household final consumption expenditure according to the National Accounts of Armenia.

Taking into account the fact that the structure of consumer expenditure of the households according to the "Classification of Individual Consumption according to Purpose" has been published by RA SC since 2012, the household expenditures on non-communicable diseases have been calculated for 2014-2016.

In the analysis of household expenses related to non-communicable diseases, it is also necessary to take into account the existing limitations due to ILCS peculiarities. Particularly, the Integrated Living Conditions Survey conducted by the RA SC collects information on the health expenditure of surveyed households over the past 30 days, which creates certain difficulties for calculating sampling data and calculating possible uncertainties.

On the other hand, the purpose of this study is to analyze the standard of living in the country and the health care questions are included for the actual consumption basket calculation and non-tangible poverty assessment, as the results the survey results are often insufficient to provide a complete and credible understanding of household health expenditures. The integrity of the information obtained through this survey is also vulnerable to the particular features of individual households included in the sample.

#### **Expenditure related to non-communicable diseases**

The RA State budget laws and budget performance reports, project and strategic documents related to the Ministry of Health of the Republic of Armenia, analytical materials, etc. were sources of information on public expenditure. Public sector expenditure by non-communicable subgroups is fully reflected in the National Health Accounts of Armenia.

The National Health Accounts which provides information on expenditure carried out by commercial, non-profit and insurance organizations are also information source on expenditure private sector organizations or employers.

Expenditure related to non-communicable diseases of households is also reflected in the Health Accounts of Armenia for 2014-2017. The basis for calculation of the volume and structure of the data was the special sample survey conducted by the National Institute of Health of the Republic of Armenia in 2015. Another important source is the micro database of the Integrated Living Standards Surveys, conducted by the RA SC, in particular the average monthly per capita household expenditure of non-food products and services.

In RA state budget expenditures on non-communicable diseases are represented by the following main groups of medical services: outpatient services, hospital services, public

health services and other services not included in the main classes.

The health care services expenditure of the private organizations and households are presented by health care providers, health care functions and diseases in the System of the Health Accounts, and is comparable with the classification of expenditure of the other two sources.

**Table 6. Classification of the expenditure by private organizations and households according to the System of Health Accounts**

N	Disease group	
1	<b>DIS.4</b>	<b>Non-communicable diseases</b> , of which`
2	DIS.4.1	Neoplasm
3	DIS.4.2	Endocrine and metabolic disorders
4	DIS.4.3	Cardiovascular diseases
5	DIS.4.4	Mental & behavioural disorders, and Neurological conditions
6	DIS.4.5	Respiratory diseases
7	DIS.4.6	Diseases of the digestive
8	DIS.4.7	Diseases of the genito-urinary system
9	DIS.4.8	Sense organ disorders
10	DIS.4.9	Oral diseases
11	DIS.4.nec	Other and unspecified noncommunicable diseases (n.e.c.)

*Source: National Health Accounts:*

The second source of data on non-communicable diseases carried by households is the Household's Integrated Living Conditions Survey anonymized microdata database (purchased and consumed food and non-food products)<sup>19</sup> According to the ILCS methodology, household consumption costs include households' payments for food and non-food items and services purchased during the reporting period, as well as non-food products and services received from relatives or other persons free of charge expressed in AMD. Household's consumer expenditure do not include taxes, fundraising, debt repayment,

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<sup>19</sup> <http://www.armstat.am/am/?nid=207>, last accessed` 14.03.2018 :

alimony payments, support to relatives, fines, loans repayment and other non-consumption expenses, accumulations, as well as expenditure related to productive activities of households ( acquisition of seeds, animals, raw material). The structure of consumer expenditure of the households according to the "Classification of Individual Consumption according to Purpose (COICOP)" has been published by RA SC since 2012.

Households' expenditure on non-communicable diseases according to the "Classification of Individual Consumption according to Purpose (COICOP)" are presented by the following groupings in the RA SC database

**Table 7. The articles of expenditure on non-communicable disease according to the "Classification of Individual Consumption according to Purpose (COICOP)"**

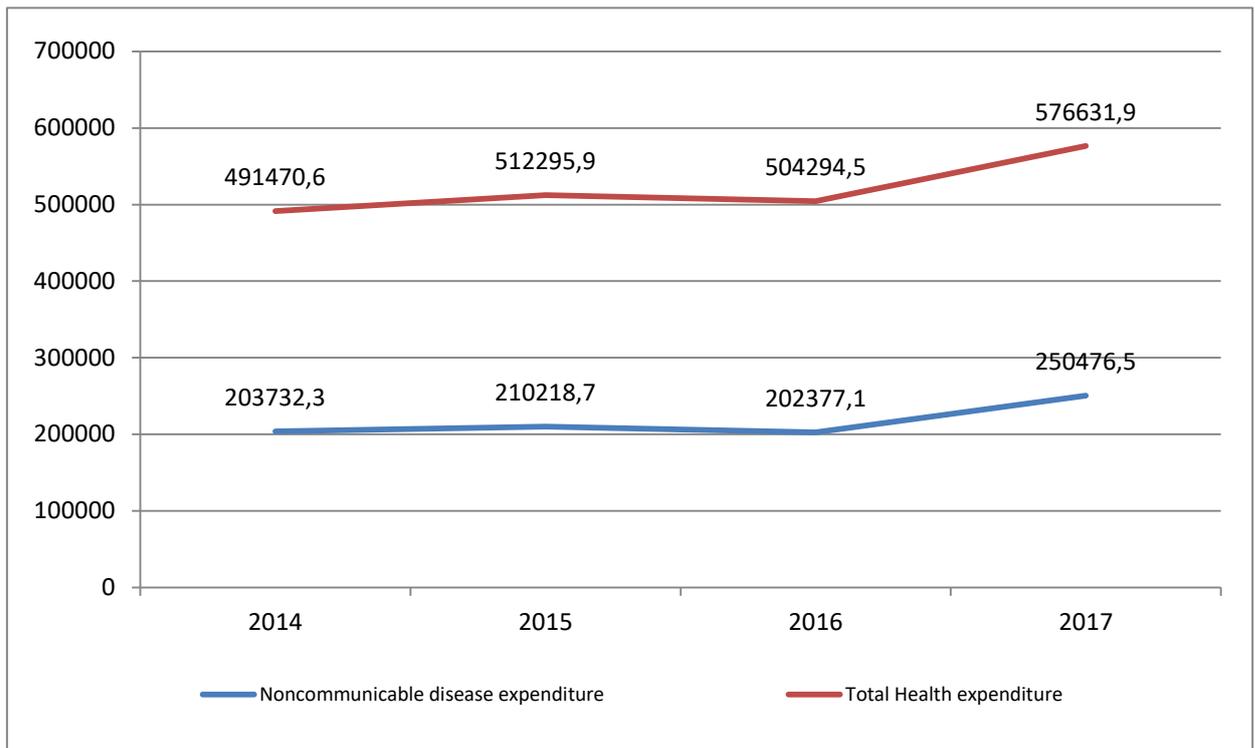
Article COICOP 2014-2016	Name of services and medicines
2824	Cardiovascular medicines
4333	Cardiologist services
4334	Oncologist services
4336	Endocrinologist services
4341	Outpatient services of neurologist
4361	Sonography examination
4362	Computed tomography (CT)
4363	Magnetic resonance tomography ( MRT)
4367	Radiologic and cardiologic examinations
4396	Urological services
4397	Cardiological services
4398	Oncological services
4400	Endocrinological services
4404	Neurological services
4407	Psychological services

**Source`** List of Individual Consumption of Goods and Services According to Purpose 2014-2016, List of Individual Consumption of Goods and Services According to Purpose 2012-2013 <http://www.armstat.am/am/?nid=207> (14.03.2018)

**Dynamics of Expenditure according to National Health Accounts**

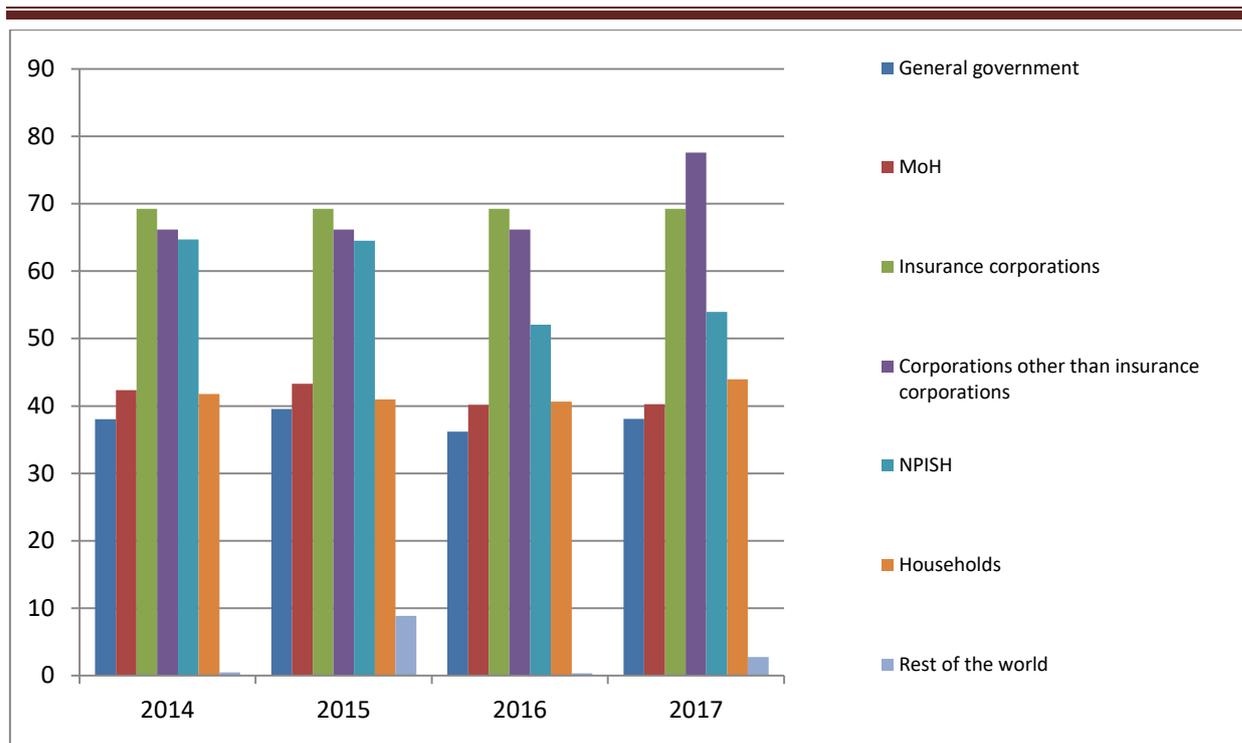
The volumes and dynamics of non-communicable disease in 2014-2017 (Tables 8-11) reflect growing trends of the incidence of diseases, with the exception of 2016, when the reduction of the expenditure has recorded.

**Figure 3. The total healthcare expenditure and healthcare expenditure on non-communicable diseases, 2014-2017, mln AMD**



The burden of non-communicable diseases is quite considerable for almost all financial agents (except for the rest of the world). In 2014-2017, about 40% and more of the expenditure carried out by public and especially by the Ministry of Health and household were directed at treating non-communicable diseases. In the structure of expenditure of insurance companies and other commercial and non-commercial organizations the expenditure on non-communicable disease made almost 60-70%.

**Figure 4. The share of non-communicable expenditure in the structure of expenditure of financial agents and total healthcare expenditure, 2014-2017, %**



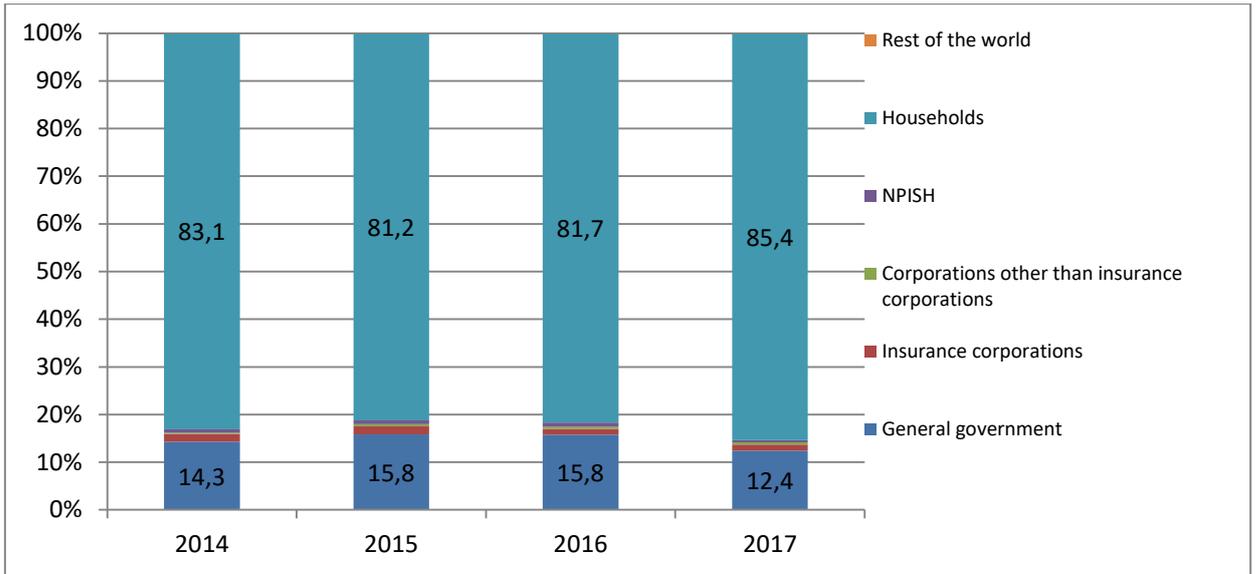
Source: National Health Accounts, 2014-2017:

Such burden on NCDs expenditures essentially reduces the effectiveness of health care expenditure for other diseases and further substantiates the assumption that the reduction of the risk factors can actually reduce expenditure on this direction and address them to increase the further effectiveness of the healthcare system. In other words, instead of spending money on health recovery causes by NCDs, it would be more expedient and cost-effective to direct them for health protection and improvement.

When analyzing the structure of the NCDs expenditure of financial agents, it is evident that the overwhelming part of the expenditure more than 80% accounts for the households' direct payments. The burden on expenditure is too heavy for households' budgets, which in some cases is the cause catastrophic expenditure for households and, in some cases, can lead to expenses leading to poverty. In the second place with the share of expenditure is the public expenditure accounting for 12% - 15% of expenditure.

**Figure 5. The structure of expenditure on non-communicable disease by financial agents, 2014-2017, %**

### National Health Accounts, 2017



National Health Accounts, 2017

Table 8. The expenditure of financial agents on non-communicable diseases, 2014, mln AMD

DIS Classification of diseases / conditions	FA Financial agents	FA.1	FA.1.1	FA.1.1.1	FA.1.1.2	FA.1.1.nec	FA.1.2	FA.2	FA.3	FA.4	FA.5	FA.6	Total
	<i>Mln, AMD</i>	General government	Central government	Ministry of Health	Other ministries and public units (belonging to central government)	Unspecified central government agents (n.e.c.)	State/Regional/Local government	Insurance corporations	Corporations (Other than insurance corporations)	Non-profit institutions serving households (NPISH)	Households	Rest of the world	
DIS.4	<b>Non-communicable diseases</b>	<b>29,188.2</b>	<b>29,083.6</b>	<b>28,466.7</b>	<b>523.6</b>	<b>93.4</b>	<b>104.6</b>	<b>3,212.9</b>	<b>606.9</b>	<b>1,387.2</b>	<b>169,328.9</b>	<b>8.1</b>	<b>203,732.3</b>
DIS.4.1	Neoplasms	1,754.6	1,750.9	1,750.9			3.7	106.4	15.0		5,555.2		7,431.2
DIS.4.2	Endocrine and metabolic disorders	2,738.3	2,731.6	2,658.5	69.2	3.9	6.8	67.9	13.5	16.4	4,258.5		7,094.7
DIS.4.2.1	Diabetes	1,727.4	1,727.4	1,727.4						16.4	3.8		1,747.6
DIS.4.2.nec	Other and unspecified endocrine and metabolic disorders (n.e.c.)	1,010.9	1,004.1	931.0	69.2	3.9	6.8	67.9	13.5		4,254.8		5,347.0
DIS.4.3	Cardiovascular diseases	8,823.1	8,804.1	8,727.8	1.0	75.3	19.1	544.7	76.8		26,916.9		36,361.5
DIS.4.3.1	Hypertensive diseases	1,483.3	1,483.3	1,483.3							194.2		1,677.5
DIS.4.3.nec	Other and unspecified cardiovascular diseases (n.e.c.)	7,339.8	7,320.8	7,244.5	1.0	75.3	19.1	544.7	76.8		26,722.7		34,684.0
DIS.4.4	Mental & behavioral disorders, and Neurological conditions	4,258.4	4,240.7	3,866.5	360.0	14.2	17.6	45.9	15.2	174.6	4,903.2	0.4	9,397.6
DIS.4.4.1	Mental (psychiatric) disorders	1,955.8	1,944.1	1,725.5	208.2	10.4	11.7		5.0		1,230.1	0.4	3,191.2
DIS.4.4.2	Behavioral disorder	850.6	846.3	775.1	67.4	3.8	4.3		3.8		1,090.1		1,944.5

**National Health Accounts, 2017**

DIS Classification of diseases / conditions	FA Financial agents  <i>Mln, AMD</i>	FA.1	FA.1.1	FA.1.1.1	FA.1.1.2	FA.1.1.nec	FA.1.2	FA.2	FA.3	FA.4	FA.5	FA.6	Total
		General government	Central government	Ministry of Health	Other ministries and public units (belonging to central government)	Unspecified central government agents (n.e.c.)	State/Regional/Local government	Insurance corporations	Corporations (Other than insurance corporations)	Non-profit institutions serving households (NPISH)	Households	Rest of the world	
DIS.4.4.3	Neurological conditions	883.5	882.0	881.3	0.7		1.5	43.1	6.1		2,066.3		<b>2,999.0</b>
DIS.4.4.nec	Unspecified mental & behavioral disorders and neurological conditions (n.e.c.)	568.5	568.4	484.6	83.9		0.1	2.8	0.4	174.6	516.7		<b>1,262.9</b>
DIS.4.5	Respiratory diseases	1,528.3	1,522.6	1,522.6			5.7	163.8	23.1		7,808.4		<b>9,523.6</b>
DIS.4.6	Diseases of the digestive	2,332.4	2,310.7	2,309.8	0.8		21.8	621.9	87.7		29,730.5		<b>32,772.5</b>
DIS.4.7	Diseases of the genito-urinary system	3,031.1	3,020.5	3,020.1	0.5		10.6	303.4	42.8		14,744.2		<b>18,121.5</b>
DIS.4.8	Sense organ disorders	783.3	780.7	694.8	85.9		2.6	74.4	10.5	495.3	3,579.0		<b>4,942.5</b>
DIS.4.9	Oral diseases	919.9	919.9	913.7	6.1			806.5	254.9		49,073.0		<b>51,054.2</b>
DIS.4.nec	Other and unspecified non-communicable diseases (n.e.c.)	3,018.8	3,002.0	3,002.0			16.7	478.0	67.4	700.9	22,760.1	7.8	<b>27,032.9</b>
<b>Total healthcare expenditure</b>		<b>76,701.0</b>	<b>76,484.0</b>	<b>67,241.1</b>	<b>4,494.0</b>	<b>4,749.0</b>	<b>217.0</b>	<b>4,640.6</b>	<b>917.1</b>	<b>2,144.4</b>	<b>405,371.9</b>	<b>1,695.6</b>	<b>491,470.6</b>

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Table 9. The expenditure of financial agents on non-communicable diseases, 2015, mln AMD

DIS Classification of diseases / conditions	FA financial agents	FA.1	FA.1.1	FA.1.1.1	FA.1.1.2	FA.1.1.nec	FA.1.2	FA.2	FA.3	FA.4	FA.5	FA.6	Total
	<i>Mln, AMD</i>	General government	Central government	Ministry of Health	Other ministries and public units (belonging to central government)	Unspecified central government agents (n.e.c.)	State/Regional/Local government	Insurance corporations	Corporations (Other than insurance corporations)	Non-profit institutions serving households (NPISH)	Households	Rest of the world	
<b>DIS.4</b>	<b>Non-communicable diseases</b>	<b>33,250.9</b>	<b>33,088.5</b>	<b>32,807.7</b>	<b>263.6</b>	<b>17.2</b>	<b>162.4</b>	<b>3,566.3</b>	<b>1,005.2</b>	<b>1,604.2</b>	<b>170,744.2</b>	<b>47.9</b>	<b>210,218.7</b>
DIS.4.1	Neoplasms	1,939.1	1,933.3	1,933.3			5.8	118.1	24.9		5,560.1		7,642.2
DIS.4.2	Endocrine and metabolic disorders	2,957.0	2,946.5	2,893.9	48.8	3.7	10.5	75.4	22.3	17.9	4,286.8		7,359.4
DIS.4.2.1	Diabetes	1,761.0	1,761.0	1,761.0						17.9	3.8		1,782.8
DIS.4.2.nec	Other and unspecified endocrine and metabolic disorders (n.e.c.)	1,195.9	1,185.4	1,132.9	48.8	3.7	10.5	75.4	22.3		4,283.0		5,576.6
DIS.4.3	Cardiovascular diseases	3,463.5	3,433.9	3,432.8	1.1		29.6	604.6	127.2		26,957.2		31,152.5
DIS.4.3.1	Hypertensive diseases	710.8	710.8	710.8							199.0		909.8
DIS.4.3.nec	Other and unspecified cardiovascular diseases (n.e.c.)	2,752.7	2,723.1	2,722.0	1.1		29.6	604.6	127.2		26,758.2		30,242.7
DIS.4.4	Mental & behavioral disorders, and Neurological conditions	5,365.8	5,338.4	5,119.8	205.1	13.5	27.4	51.0	25.3	287.2	4,960.2		10,689.4
DIS.4.4.1	Mental (psychiatric) disorders	2,414.5	2,396.2	2,229.3	157.1	9.9	18.2		8.2		1,260.4		3,683.1
DIS.4.4.2	Behavioral disorder	1,022.0	1,015.4	964.4	47.3	3.6	6.7		6.3		1,114.7		2,143.1

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DIS Classification of diseases / conditions	FA financial agents	FA.1	FA.1.1	FA.1.1.1	FA.1.1.2	FA.1.1.nec	FA.1.2	FA.2	FA.3	FA.4	FA.5	FA.6	Total
	<i>Mln, AMD</i>	General government	Central government	Ministry of Health	Other ministries and public units (belonging to central government)	Unspecified central government agents (n.e.c.)	State/Regional/Local government	Insurance corporations	Corporations (Other than insurance corporations)	Non-profit institutions serving households (NPISH)	Households	Rest of the world	
DIS.4.4.3	Neurological conditions	1,440.2	1,437.9	1,437.1	0.8		2.3	47.9	10.1		2,068.3		<b>3,566.5</b>
DIS.4.4.nec	Unspecified mental & behavioral disorders and neurological conditions (n.e.c.)	489.1	488.9	488.9			0.2	3.1	0.7	287.2	516.8		<b>1,296.8</b>
DIS.4.5	Respiratory diseases	2,190.8	2,181.9	2,181.9			8.9	181.8	38.3		7,816.0		<b>10,226.8</b>
DIS.4.6	Diseases of the digestive	2,489.5	2,455.8	2,454.8	1.0		33.8	690.3	145.3		29,759.3		<b>33,084.4</b>
DIS.4.7	Diseases of the genito-urinary system	3,455.7	3,439.2	3,438.7	0.5		16.5	336.7	70.9		14,758.3		<b>18,621.5</b>
DIS.4.8	Sense organ disorders	134.5	130.5	130.5			4.0	82.6	17.4	582.4	3,582.4	14.4	<b>4,413.7</b>
DIS.4.9	Oral diseases	1,006.5	1,006.5	999.4	7.1			895.2	422.1		50,281.8		<b>52,605.7</b>
DIS.4.nec	Other and unspecified non-communicable diseases (n.e.c.)	10,248.6	10,222.7	10,222.7			26.0	530.6	111.6	716.7	22,782.2	33.6	<b>34,423.3</b>
<b>Total healthcare expenditure</b>		<b>84,045</b>	<b>83,709</b>	<b>75,776</b>	<b>3,173</b>	<b>4,760</b>	<b>337</b>	<b>5,151</b>	<b>1,519</b>	<b>2,486</b>	<b>416,554</b>	<b>541</b>	<b>510,295.9</b>

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Table 10. The expenditure of financial agents on non-communicable diseases, 2016, mln AMD

DIS Classification of diseases / conditions	FA financial agents  <i>Mln, AMD</i>	FA.1	FA.1.1	FA.1.1.1	FA.1.1.2	FA.1.1.nec	FA.1.2	FA.2	FA.3	FA.4	FA.5	FA.6	Total
		General government	Central government	Ministry of Health	Other ministries and public units (belonging to central government)	Unspecified central government agents (n.e.c.)	State/Regional/Local government	Insurance corporations	Corporations (Other than insurance corporations)	Non-profit institutions serving households (NPISH)	Households	Rest of the world	
<b>DIS.4</b>	<b>Non-communicable diseases</b>	<b>31,958.6</b>	<b>31,864.4</b>	<b>31,197.2</b>	<b>472.8</b>	<b>194.3</b>	<b>94.2</b>	<b>2,326.5</b>	<b>1,005.2</b>	<b>1,804.7</b>	<b>165,278.8</b>	<b>3.3</b>	<b>202,377.1</b>
DIS.4.1	Neoplasms	2,604.3	2,601.0	2,601.0			3.4	77.0	24.9	1.4	5,264.2		7,971.8
DIS.4.2	Endocrine and metabolic disorders	3,688.7	3,682.6	3,588.8	93.8		6.1	49.2	22.3	12.5	4,145.7		7,918.3
DIS.4.2.1	Diabetes	2,272.6	2,272.6	2,272.6						12.5	0.2		2,285.3
DIS.4.2.nec	Other and unspecified endocrine and metabolic disorders (n.e.c.)	1,416.1	1,410.0	1,316.2	93.8		6.1	49.2	22.3		4,145.5		5,633.0
DIS.4.3	Cardiovascular diseases	9,402.1	9,384.9	9,383.8	1.1		17.2	394.4	127.2		26,015.6		35,939.3
DIS.4.3.1	Hypertensive diseases	1,124.2	1,124.2	1,124.2							195.8		1,320.0
DIS.4.3.nec	Other and unspecified cardiovascular diseases (n.e.c.)	8,277.9	8,260.8	8,259.7	1.1		17.2	394.4	127.2		25,819.9		34,619.4
DIS.4.4	Mental & behavioral disorders, and Neurological conditions	5,998.4	5,982.5	5,500.4	369.4	112.7	15.9	33.2	25.3	287.1	4,684.0	1.0	11,028.9
DIS.4.4.1	Mental (psychiatric) disorders	2,546.0	2,535.5	2,258.2	277.3		10.6		8.2		1,235.4	1.0	3,790.6
DIS.4.4.2	Behavioral disorder	1,001.8	997.9	906.5	91.3		3.9		6.3		1,001.2		2,009.3
DIS.4.4.3	Neurological conditions	1,822.6	1,821.3	1,820.5	0.8		1.4	31.2	10.1		1,986.1		3,850.0
DIS.4.4.nec	Unspecified mental & behavioral disorders and neurological conditions (n.e.c.)	628.0	627.9	515.2		112.7	0.1	2.0	0.7	287.1	461.3		1,379.1

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DIS.4.5	Respiratory diseases	1,689.4	1,684.2	1,684.2			5.2	118.6	38.3		7,534.6		<b>9,380.8</b>
DIS.4.6	Diseases of the digestive	1,944.7	1,925.1	1,924.1	1.0		19.6	450.3	145.3		28,689.3		<b>31,229.6</b>
DIS.4.7	Diseases of the genito-urinary system	3,013.1	3,003.5	3,003.0	0.5		9.6	219.7	70.9		14,148.8		<b>17,452.4</b>
DIS.4.8	Sense organ disorders	911.0	908.6	827.1		81.6	2.3	53.9	17.4	657.5	3,509.7		<b>5,149.5</b>
DIS.4.9	Oral diseases	958.2	958.2	951.1	7.1			584.0	422.1	7.2	49,301.6		<b>51,273.1</b>
DIS.4.nec	Other and unspecified non-communicable diseases (n.e.c.)	1,748.8	1,733.8	1,733.8			15.1	346.1	111.6	839.0	21,985.3	2.4	<b>25,033.2</b>
<b>Total healthcare expenditure</b>		<b>88,254.9</b>	<b>88,059.5</b>	<b>77,700.9</b>	<b>2,414.1</b>	<b>7,944.5</b>	<b>195.4</b>	<b>3,360.3</b>	<b>1,518.9</b>	<b>3,465.8</b>	<b>406,698.2</b>	<b>996.4</b>	<b>504,294.5</b>

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Table 11. The expenditure of financial agents on non-communicable diseases, 2017, mln AMD

DIS Classification of diseases / conditions	FA financial agents	FA.1	FA.1.1	FA.1.1.1	FA.1.1.2	FA.1.1.nec	FA.1.2	FA.2	FA.3	FA.4	FA.5	FA.6	Total
	<i>Mln, AMD</i>	General government	Central government	Ministry of Health	Other ministries and public units (belonging to central government)	Unspecified central government agents (n.e.c.)	State/Regional/Local government	Insurance corporations	Corporations (Other than insurance corporations)	Non-profit institutions serving households (NPISH)	Households	Rest of the world	
<b>DIS.4</b>	<b>Non-communicable diseases</b>	<b>31,139.1</b>	<b>31,002.5</b>	<b>30,456.2</b>	<b>343.1</b>	<b>203.2</b>	<b>136.6</b>	<b>3,212.9</b>	<b>1,178.4</b>	<b>1,086.0</b>	<b>213,851.3</b>	<b>8.8</b>	<b>250,476.5</b>
DIS.4.1	Neoplasms	2,691.4	2,686.6	2,686.6			4.9	106.4	52.1	3.3	6,345.5	5.0	9,203.6
DIS.4.2	Endocrine and metabolic disorders	4,007.2	3,998.3	3,932.3	66.0		8.8	67.9	33.3	5.8	4,968.6		9,082.7
DIS.4.2.1	Diabetes	2,607.7	2,607.7	2,607.7						5.8	3.8		2,617.3
DIS.4.2.nec	Other and unspecified endocrine and metabolic disorders (n.e.c.)	1,399.5	1,390.7	1,324.7	66.0		8.8	67.9	33.3		4,964.8		6,465.5
DIS.4.3	Cardiovascular diseases	9,757.7	9,732.8	9,731.7	1.1		24.9	544.7	266.7	2.9	31,086.1		41,658.0
DIS.4.3.1	Hypertensive diseases	1,914.9	1,914.9	1,914.9						2.9	233.1		2,150.9
DIS.4.3.nec	Other and unspecified cardiovascular diseases (n.e.c.)	7,842.8	7,817.9	7,816.8	1.1		24.9	544.7	266.7		30,852.9		39,507.1
DIS.4.4	Mental & behavioral disorders, and Neurological conditions	5,213.3	5,190.3	4,791.4	267.6	131.3	23.0	45.9	22.5	287.1	5,452.0	3.2	11,024.0
DIS.4.4.1	Mental (psychiatric) disorders	2,264.3	2,249.0	2,046.3	202.7		15.3				1,478.3	3.2	3,745.8
DIS.4.4.2	Behavioral disorder	1,078.1	1,072.5	981.7	64.1	26.7	5.6				1,291.5		2,369.6

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DIS.4.4.3	Neurological conditions	1,182.3	1,180.3	1,179.5	0.8		2.0	43.1	21.1		2,386.6		<b>3,633.0</b>
DIS.4.4.nec	Unspecified mental & behavioral disorders and neurological conditions (n.e.c.)	688.6	688.5	583.9		104.7	0.1	2.8	1.4	287.1	295.7		<b>1,275.6</b>
DIS.4.5	Respiratory diseases	1,165.0	1,157.6	1,157.6			7.5	163.8	80.2		9,024.9		<b>10,433.9</b>
DIS.4.6	Diseases of the digestive	1,951.0	1,922.6	1,921.6	1.0		28.4	621.9	304.5		34,350.1		<b>37,227.6</b>
DIS.4.7	Diseases of the genito-urinary system	3,007.7	2,993.8	2,993.3	0.5		13.9	303.4	148.6		16,797.6		<b>20,257.2</b>
DIS.4.8	Sense organ disorders	943.7	940.3	868.5		71.9	3.4	74.4	36.5	464.2	4,132.0		<b>5,650.8</b>
DIS.4.9	Oral diseases	770.2	770.2	763.2	7.0			806.5		8.2	75,384.0		<b>76,969.0</b>
DIS.4.nec	Other and unspecified non-communicable diseases (n.e.c.)	1,631.8	1,609.9	1,609.9			21.8	478.0	234.1	314.5	26,310.6	0.7	<b>28,969.7</b>
<b>Total healthcare expenditure</b>		<b>81,763.4</b>	<b>81,480.0</b>	<b>75,600.2</b>	<b>2,186.0</b>	<b>3,693.8</b>	<b>283.4</b>	<b>4,640.6</b>	<b>1,518.9</b>	<b>2,013.4</b>	<b>486,377.6</b>	<b>317.9</b>	<b>576,631.9</b>

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Household expenditure on non-communicable disease according to the "Classification of Individual Consumption according to Purpose (COICOP)" are available at RA SC micro database and are presented in the form of monthly average per capita household expenditure.

**Table 12. Expenditure of household related to non-communicable diseases by the types of non-communicable diseases 2014-2016**

Article COICOP 2014-2016	Name of services and medicines	Monthly per capita,, AMD		
		2014	2015	2016
2824	Cardiovascular medicines	260.54	317.37	430.22
4333	Cardiologist services	12.15	14.57	5.17
4334	Oncologist services	1.17	2.04	1.79
4336	Endocrinologist services	1.01	7.50	1.30
4341	Outpatient services of neurologist	9.40	5.55	6.25
4361	Sonography examination	7.80	3.83	9.39
4362	Computed tomography (CT)	4.68	9.27	3.40
4363	Magnetic resonance tomography (MRT)	16.02	12.96	0.00
4367	Radiologic and cardiologic examinations	0.99	0.00	0.43
4396	Urological services	4.94	7.56	90.55
4397	Cardiological services	72.90	315.23	148.04
4398	Oncological services	14.29	141.77	33.11
4400	Endocrinological services	1.74	47.86	1.58
4404	Neurological services	104.42	66.67	8.28
4407	Psychological services	0.00	0.00	0.00
<b>Total</b>		<b>512.04</b>	<b>952.17</b>	<b>739.51</b>
<b>Total services</b>		<b>251.50</b>	<b>634.80</b>	<b>309.29</b>
<b>Total services without diagnosis</b>		<b>222.00</b>	<b>608.75</b>	<b>296.07</b>
<b>Analysis and diagnosis</b>		<b>29.50</b>	<b>26.05</b>	<b>13.22</b>
<b>Total medicine</b>		<b>260.54</b>	<b>317.37</b>	<b>430.22</b>
<b>Household healthcare expenditure, monthly per capita</b>		2,666.0	4,542.0	4,277.0
<b>Value of non-food products and services</b>		20,554.5	22,467.3	23,984.6
<b>Value of customer basket</b>		40,770.0	42,867.0	43,978.0

Source: ILCS database

Households' expenditure related to NCDs was calculated based on the share of health expenditure in the structure of the consumption expenditure (ILCS) and in the structure of the final household consumption expenditures (National Accounts of Armenia).

Although the households living condition survey data base contains some information on non-communicable diseases, nevertheless this data can be very useful while compiling the Armenian Health Account in the following considerations:

First, this information provides data on the expenditure on drugs and laboratory instrumental diagnostics associated with NCDs, which will be utilized in the distribution of the drug expenditure by the disease types. First, this information provides data on the expenditure on drugs and laboratory instrumental diagnostics associated with NCDs, which will be utilized in the distribution of the drug expenditure by the disease types.

Second, data on certain types of diseases will allow the corrections in the corresponding expenditure articles of the National Health Accounts which will reduce the share of "other expenditure". According to the SNA 2011 standard, the smaller the share of "other expenditure" is in the structure of the expenditure, the higher the quality of the health care expenditure data is.

Third, the availability of such data for each year will allow improving the structure of the expenditure by disease groups.

Fourth, the availability of annual health expenditure data will enable comparison between the dynamics of disease incidence and expenditure and get the most accurate and comprehensive National Health Accounts.

Fifth, with the help of these data, it is possible to carry out annual analysis of healthcare expenditure, catastrophic expenditure and expenditure leading to poverty in the structure of household budget.

**Table 13. Direct household payments on NCDs calculated based on the share of health expenditure in the structure of consumption expenditure (ILCS) and the structure of the final household consumption expenditures \ (National Accounts of Armenia ).**

Article COICOP 2014- 2016	Name of services and medicines	Monthly per capita, AMD			Share in consumption expenditure, %			NCDs expenditure according to household final consumption expenditure		
		2014	2015	2016	2014	2015	2016	2014	2015	2016
2824	Cardiovascular medicines	260.54	317.37	430.22	0.6	0.74	0.98	26,266,650,118.4	28,936,192,130.4	38,001,833,440.5
4333	Cardiologist services	12.15	14.57	5.17	0.0	0.03	0.01	1,224,696,764.4	1,328,245,117.5	456,727,068.1
4334	Oncologist services	1.17	2.04	1.79	0.0	0.00	0.00	118,270,676.8	185,616,130.2	158,237,288.1
4336	Endocrinologist services	1.01	7.50	1.30	0.0	0.02	0.00	101,675,283.5	683,998,114.7	114,616,419.3
4341	Outpatient services of neurologist	9.40	5.55	6.25	0.02	0.01	0.01	947,195,857.9	505,777,924.4	552,275,317.5
4361	Sonography examination	7.80	3.83	9.39	0.0	0.01	0.02	786,822,352.6	349,027,365.0	829,692,885.2
4362	Computed tomography (CT)	4.68	9.27	3.40	0.0	0.02	0.01	472,003,077.4	844,895,840.4	300,383,144.2
4363	Magnetic resonance tomography (MRT)	16.02	12.96	0.00	0.0	0.03	0.00	1,615,348,609.9	1,181,566,023.9	0.0
4367	Radiologic and cardiologic examinations	0.99	0.00	0.43	0.0	0.00	0.00	99,658,102.8	0.0	37,981,319.7
4396	Urological services	4.94	7.56	90.55	0.0	0.02	0.21	497,776,340.5	689,276,317.1	7,998,438,276.7
4397	Cardiological services	72.90	315.23	148.04	0.2	0.74	0.34	7,349,639,510.7	28,741,154,414.4	13,076,030,202.4
4398	Oncological services	14.29	141.77	33.11	0.0	0.33	0.08	1,440,448,346.5	12,925,798,762.7	2,924,956,810.8
4400	Endocrinological services	1.74	47.86	1.58	0.0	0.11	0.00	175,114,002.7	4,363,625,598.5	139,161,875.1
4404	Neurological services	104.42	66.67	8.28	0.3	0.16	0.02	10,526,656,460.9	6,078,652,298.7	731,294,210.5
4407	Psychological services	0.00	0.00	0.00	0.0	0.00	0.00	0.0	0.0	0.0
<b>Total</b>		<b>512.04</b>	<b>952.17</b>	<b>739.51</b>	<b>1.26</b>	<b>2.22</b>	<b>1.68</b>	<b>51,621,955,505.0</b>	<b>86,813,826,037.9</b>	<b>65,321,628,258.1</b>
<b>Total services</b>		<b>251.50</b>	<b>634.80</b>	<b>309.29</b>	<b>0.62</b>	<b>1.48</b>	<b>0.70</b>	<b>25,355,305,386.6</b>	<b>57,877,633,907.5</b>	<b>27,319,794,817.6</b>
<b>Total services without diagnosis</b>		<b>222.00</b>	<b>608.75</b>	<b>296.07</b>	<b>0.54</b>	<b>1.42</b>	<b>0.67</b>	<b>22,381,473,244.0</b>	<b>55,502,144,678.2</b>	<b>26,151,737,468.5</b>
<b>Analysis and diagnosis</b>		<b>29.50</b>	<b>26.05</b>	<b>13.22</b>	<b>0.07</b>	<b>0.06</b>	<b>0.03</b>	<b>2,973,832,142.6</b>	<b>2,375,489,229.3</b>	<b>1,168,057,349.1</b>
<b>Total medicines</b>		<b>260.54</b>	<b>317.37</b>	<b>430.22</b>	<b>0.6</b>	<b>0.7</b>	<b>1.0</b>	<b>26,266,650,118.4</b>	<b>28,936,192,130.4</b>	<b>38,001,833,440.5</b>

## **Annex 2. Health auxiliary (Satellite) Accounts**

Health care as a type of economic activity has a significant socio-economic role in many economies, considering the amount of its turnover and the number of human and tangible resources involved. The new economic outcome in healthcare is reflected in various statistical systems such as the System of National Accounts, the System of Health Accounts, the Public Finance Statistics, the Balance of Payments, and etc.

The System of National Accounts is a complete and complex standard of accounting that also allows developing auxiliary accounting systems for separate sectors of the economy. As such the satellite or auxiliary accounts are included in the System of National Accounts.

Satellite Accounts are a set of accounts and tables that reflect the state of the specific sector of the economy, which contains information about production, revenue generation, redistribution, expenditure, savings, capital investments and other financial flows in that sector and are closely linked to the central structure of the System of National Accounts.

Satellite Accounts contain auxiliary and more detailed statistics about individual sectors of the economy, acting first as a tool for statistical analysis, and, second, as a support mechanism for the regulation of economic processes. Satellite Accounts are being used as analytical systems in sectors such as education, health, tourism, environmental protection, and etc.

In terms of correlation with the System of National Accounts the two types of satellite accounts are being distinguished.

The first type of satellite accounts rely on the basic concepts and principles of the System of National Accounts, simultaneously, assuming certain rearrangement of some main classifications and the introduction of the additional accounting elements. Such satellite accounts mostly cover accounts specific to healthcare, education, culture, tourism and environmental protection where the nature of functions carried out are distinguished from other types of economic activities. The operational focus and specificity of the objectives of the accounts is based on the distinguishing feature of economic activity, accounting of production and expenditure and complex analysis of

these sectors. In these areas, the outcome of economic activity goes out of net economic frameworks and includes more broad and comprehensive objectives.

The second type of satellite accounts is mainly based on concepts that are alternatives to those of the SNA. These include a different production boundary, the concept of consumption or accumulation, an extension of the scope of assets, and so on. An example of such accounts is the System of Environmental-Economic Accounts.

Healthcare is one of the most important sectors of the service sector, as the progressive development of technologies, increased demand for high-quality medical services and aging of the population in healthcare sector make the healthcare reforms a pivotal issue. The issues that healthcare sector is facing requires governments to implement such reforms that will enable the most rational and efficient use of resources in order to provide quality health care to all groups of the population

In order to achieve these goals, government authorities, healthcare service providers and researchers need reliable and complete information on the availability and use of human, tangible and financial resources in the health sector, the types, scope and value of the services provided, as well as about the activities and the role of different institutional structures.

In order to develop Healthcare Satellite Accounts, it is necessary to have the System of the Health Accounts in the country which contains most of the information needed to prepare Satellite Accounts. The System of Health Accounts 2011 contains four categories of information; Healthcare functional classification, information on healthcare service providers, healthcare expenditure and finance.

In the system of Health Accounts, the main subject of the study is health care expenditures incurred in the national economy and the following questions are being addressed when compiling the accounts:

- Which products and services are related to the healthcare sector?
- Who is the supplier of these goods and services?
- Who finances the consumption expenditure of these goods and services?

The System of Health Accounts mainly uses the methodology of the System of National Accounts, but it is not mandatory to impose the same concepts, interpretations of definitions, and scope or boundaries of activities. The main focus of the System of Health Accounts is on health-related issues and it observes current expenditure of health care services consumed. Since the key concept of Health Accounts is consumption and expenditure, while it is production in National Accounts, therefore the System of the Health Accounts cannot be considered as a Satellite Account and cannot give a complete picture of the economic (production, consumption and investment) processes of the healthcare.

In order to make transition from the System of Health accounts to Health Satellite Accounts, additional information on resource utilization, production, revenue generation, distribution, redistribution, investment and other economic processes in the health sector is required.

The transition from the System of Health Accounts to Health Satellite Accounts the System of National Accounts envisages following steps.

1. A complete list of all the goods and services that characterize and are typical for the production of health care services should be clearly defined.
2. The limits of production should be clarified to determine the overall health expenditure. This means having a list of all types of economic activities that are perceived as healthcare activity by definition or concept.
3. It should be clarified all the type of activities which will be used to calculate the accumulation (investments).
4. All characteristic or main activities should be clearly defined.
5. The deep analysis of the transfers should be compiled which is necessary in the calculation of final consumption expenditure and actual final consumption volume of health care services.
6. The final users (consumers) and final units of healthcare expenditure should be defined.

Simultaneously, it is required to have four additional accounts to make transition from the System of Health Accounts to Health Satellite Accounts.

1. The Accounts of production and added value in health care sector
2. The Account of intermediate production costs (consumption) by expenditure type in healthcare sector,
3. Account of Gross Capital Inventory in healthcare sectors,

4. Expenditure-Output tables

The samples of the table of Health Satellite Account are presented below.

**Table 1. Healthcare expenditure of the national economy, according to the user categories**

<i>Components of national uses/expenditure</i>	<i>Market producers</i>	<i>Non-Market producers</i>	<i>Government</i>	<i>Households</i>	<i>Rest of the World</i>	<i>Total</i>
1. Consumption of specific goods and services by residents						
1.1 Actual final consumption						
1.1.1 Market products						
1.1.2 Non-Market products						
1.1.2.1 Individual consumption						
1.1.2.2 Collective consumption						
1.2 Intermediate consumption						
1.2.1 Registered in the National Accounts Structure						
1.2.2 Not-Registered in the National Accounts Structure						
2. Capital formation in healthcare specific goods and services						
3. Capital formation in healthcare non-specific products						
4. 1) Net acquisition of non-production and non-financial assets in the health sector						
5. Specific current transfers (not counterpart of item 1)						
6. Specific capital transfers (not counterpart of item 2 and 3)						
<b>7. Total expenditure of residents (1+2+3+4+5)</b>						
8. Current expenditure of residents financed by the rest of the world						
9. Capital expenditure of residents financed by the rest of the world						
<b>10. Health expenditure of National (7-8-9) Economy</b>						

**Table 2: Healthcare expenditure of the national economy, according to financing sectors**

<i>Financing sectors Expenditure</i>	<i>Market producers</i>	<i>Government</i>	<i>NPISH</i>	<i>Households</i>	<i>Financial corporations</i>	<i>Rest of the world</i>	<i>Total</i>
1. Consumption of specific goods and services by residents							
1.1 Actual final consumption							
1.1.1 Market products							
1.1.2 Non-Market products							
1.1.2.1 Individual consumption							
1.1.2.2 Collective consumption							
1.2 Intermediate consumption							
1.2.1 Registered in the National Accounts Structure							
1.2.2 Not-Registered in the National Accounts Structure							
2. Capital formation in healthcare specific goods and services							
3. Capital formation in healthcare non-specific products							
4. 1) Net acquisition of non-production and non-financial assets in the health sector							
5. Specific current transfers (not counterpart of item 1)							
6. Specific capital transfers (not counterpart of item 2 and 3)							
<b>7. Total expenditure of residents (1+2+3+4+5)</b>							
8. Current expenditure of residents financed by the rest of the world							
9. Capital expenditure of residents financed by the rest of the world							
<b>10. Health expenditure of National (7-8-9) Economy</b>							

Table 3. Sample of health accounts of characteristic producers

Production and generation of income account

Uses	Resources
Intermediate consumption - of characteristic activities -of other activities	Output - characteristic output - other output
Compensation of employees - for characteristics activities - for other activities	
Other Taxes on production Other production Subsidies (-) Operating surplus, net income - of characteristic activities - of other activities	

Other Accounts of Current Activities

<i>Uses</i>	<i>Resources</i>
Property income Current taxes on income, wealth, etc. Social contributions Other current transfers Collective consumption Net Saving,	Operating surplus and Mixed income Property income Social security contributions Other current transfers

Accumulation Accounts

<i>Changes in Assets</i>	<i>Changes in liabilities and capital net worth</i>
Gross fixed capital formation - of characteristic activities - of other activities Consumption of fixed capital (-) Changes in tangible inventories Net acquisitions of assets Net acquisition of non-production and non-financial assets Net acquisitions of financial assets Other accumulation entries Other changes in assets	Net Saving Capital Transfers receivable Capital Transfers payable (-)  Net Incurrence of Financial Liabilities

*National Health Accounts, 2017*

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	- for financing characteristic activities
	- other
	Other changes of liabilities
	Other changes in net worth

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Table 4. Resource and use tables of healthcare (continued)

Uses	Uses at purchaser's price	Characteristic producers			Other producers	Gross intermediate consumption	Final consumption expenditure			Gross capital formation	Imports of goods and services
		Market	Non-market	Total			Households	Government	NPISH		
Characteristic products											
1.											
2.											
...											
Related products											
1.											
2.											
...											
Other products											
Total											

**Table 4. Resource and use tables of healthcare (continued)**

	Characteristic producers			Other producers	Total
	Market	Non-market	Total		
Compensation of employees					
Taxes on production					
Other production Subsidies (-)					
Operating surplus, net income					
Gross added value					
Labor costs					
Gross fixed capital formation					
Fixed assets					

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