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| Approved by the Order of the Chairman of the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan  October 11, 2016  no. 236 |

**Methodology for Compiling the Health Satellite Account**

**Chapter 1. Generalp**

1. The methodology for compiling a satellite health account (hereinafter - Methodology) refers to a statistical methodology that is formed in accordance with international standards and approved in accordance with [the Law](http://adilet.zan.kz/rus/docs/Z100000257_#z0) of the Republic of Kazakhstan dated March 19, 2010 "On State Statistics".
2. The methodology defines the main aspects and methods for compiling statistical information in the healthcare industry, gross value added created by the healthcare industry, employment and gross capital formation.
3. The purpose of this Toolkit is to establish methods for compiling health satellite account indicators.
4. The following definitions are used in this Methodology:
5. intermediate consumption - consumption consisting of the value of goods and services that are transformed or completely consumed in the production process during the reporting period;
6. collective health services - health services provided to society as a whole, performing traditional public health tasks;
7. health care functions (hereinafter - HC) - goods and services provided by health care providers at the expense of funds received under financing schemes;
8. treatment services - services provided by health care providers to alleviate the symptoms of a disease or injury, protection from complications of a disease that may endanger people's lives;
9. individual services - health services provided to households and used to meet the needs of households;
10. health care providers (hereinafter - HP) - organizations and business entities that provide health care products and services as the main activity, as well as those for which the provision of health services is only one of the activities;
11. final consumption is an indicator that characterizes the use of the gross domestic product. Represents the value of goods and services intended to satisfy individual and collective needs.

**Chapter 2. Structure of the Health Satellite Account**

1. The Health Satellite Account (hereinafter – HSA) is a tabulation and accounting system, similar to the SNA accounts, that shows all the flows of income, expenditure, goods and services related to health care.
2. The health sector includes not only the "Health Activities" industry, but also other health activities carried out within other industries, such as the provision of social services, administration, the production and trade of medical goods.
3. The Health Satellite Account consists of four tables:
4. health resource table;
5. health care usage table;
6. health employment table;
7. table of gross fixed capital formation by health sector.
8. For the formation of HSA tables, the functional classification of health care and the classification of providers of medical goods and services, reflected in the GHA 2011, are used. When generating statistical information, the General Classification of Economic Activities (GCTEA) and the Classification of Products by Types of Economic Activities (CPTEA) are used, which do not correspond to the classifications, used in the HSA. In order to ensure data comparability, transitional keys from the functional classification of health care ( HC) to CPTEA and transitional keys from the classification of health care providers ( HP) to GCTEA were developed in accordance with the 2011 CVD presented in Appendix 1 and in Appendix 2 to this Methodology.

**Chapter 3. Resource Table and HSA Usage Table**

1. The health supply table describes the supply of health goods and services in an economy. The resources of the economy are made up of the output of products manufactured in the country and imports. The output of goods and services is valued at basic prices. Each column of the health supply table provides information on the production of goods and services in the health sector, produced by primary and secondary activities.
2. The output of health care goods and services is presented by supplier and measured at basic prices, as well as purchasers' prices by adding net taxes (taxes minus subsidies), markups. Each item in the output column represents the value of health care products produced in the country's economic territory. By adding imports by product, total resources by health function are obtained.
3. The health use table reflects the use of different products by different groups of producing units. The rows of the table represent health care products measured at purchasers' prices, while the columns indicate manufacturers (suppliers).
4. The table of health care supply and use is formed on the basis of the annual tables of the System of National Accounts "Resource-Use" (SUT SNA). The THREE SNA data is transferred to the THREE HSA via transition keys. In the absence of detailed information, shares calculated on the basis of aggregated aggregate data of sectoral statistics are used.
5. To determine the components of intermediate consumption of health care, the estimated share of health care is used, expressed as a percentage and determined by the ratio m between the value of health care output and the total value of output of final products.
6. The health care resource table and the health care use table are provided as an example in Appendix 3 and Appendix 4 of this Tool.

**Chapter 4. Employment in health care**

1. Health employment is quantified by employment in the health industries, and variables to express its size include the number of jobs and hours worked, which are also indicators of labor intensity.
2. The employment table also contains a value characterizing the number of health care establishments by health care provider. This makes it possible to calculate the average number of jobs for the health care industry by sex and employment status.
3. Labor intensity varies by job, industry, and time period. Jobs are differentiated by the working hours of the employed persons and are expressed as full-time or part-time work. For this reason, data on the total number of working hours (in hours) are used. Converting all jobs to full-time equivalent gives the total workforce in the health care industry over a given time period. A schematic calculation of employment in health care is presented in Appendix 5 to this Methodology.
4. When forming the table of health care employment, the data of monthly national statistical observation are used.
5. The norm of working hours is used according to the annual production calendar of the Republic of Kazakhstan.
6. The Health Employment Table is provided as an example in Appendix 6 to this Tool.

**Chapter 5. Gross fixed capital formation in health care**

1. The amount of gross fixed capital formation is estimated based on the total value of fixed assets acquired by producers (less sold) in the reporting period, plus some increase in the value of non-produced assets that occurred as a result of the productive activities of institutional units.
2. GFCF HSA is formed according to the classification of healthcare assets presented in Appendix 7 to this Methodology.
3. The GFCF HSA table includes the net acquisition of all assets by health care providers (industries) and produces an aggregate measure called "gross fixed capital formation by health industries".
4. The sources of information for compiling the table of gross fixed capital formation by health care sectors are the data of the annual nationwide statistical observation on the state of fixed assets.
5. A table of gross fixed capital formation by health care and other industries is provided as an example in Appendix 8 to this Tool.

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| Appendix 1  to the Methodology for Compiling the Health Satellite Account |

**Transitional keys from functional classification**

**Health Care (HC) to CPTEA**

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| **NA codes** | **Health Functions** | **CPTEA codes** | **Name** |
| HC.1 | Medical assistance | 86.10 | Hospital Services |
| HC.2 | Rehabilitation assistance | 86.20 | Services in the field of medical and dental practice |
| HC.3 | Long term assistance | 87.10  87.20 | Residential Nursing Services  Services related to the residence of persons with mental or physical disabilities, mental illness and substance abuse disorders |
| HC.4 | Ancillary Services | 86.90 | Other human health services |
| HC.5 | medical devices | 21.10  21.20  26.60  32.50 | Basic pharmaceutical products  Pharmaceutical preparations  Equipment irradiating, electromedical and  electrotherapeutic  Medical and dental instruments and accessories |
| HC.6 | Preventive care | 84.12 | Administrative services for the management of institutions in the field of health, education, culture and other social services, except for social security |
| HC.7 | Management and administration of the healthcare system | 84.30  65.12 | Compulsory social security services  Insurance services other than life insurance |

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| Appendix 2  to the Methodology for Compiling the Health Satellite Account |

**Transitional keys from the classification of suppliers**

**Health Services ( HP) to GCTEA**

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| **Codes** | **Suppliers** | **GCTEA codes** | **Name** |
| HP.1 | Hospitals | 86.10 | Activities of hospitals |
| HP.2 | Residential institutions with long-term care | 87.10  87.20 | Residential care facilities  Residential activities for persons with mental and physical disabilities, psychiatric illnesses and substance abuse disorders |
| HP.3 | Ambulatory Care Providers | 86.20 | Medical and dental practice |
| HP.4 | Ancillary Service Providers | 86.90 | Other health protection activities |
| HP.5 | Retailers and other providers of medical devices | 21.10  21.20  26.60  32.50  47.73  47.74 | Production of basic pharmaceutical products  Production of pharmaceuticals  Production of irradiation, electromedical and electrotherapeutic equipment  Manufacture of medical and dental instruments and accessories  Retail sale of pharmaceutical products in specialized stores  Retail sale of medical and orthopedic goods in specialized stores |
| HP.6 | Preventive Care Providers | 84.12 | Regulation of the activities of institutions providing medical care, education, cultural services and other social services, except for social security |
| HP.7 | Health System Administration and Financing Service Providers | 84.30  65.12 | Activities in the field of compulsory social insurance  Damage insurance |
| HP.8 | Rest of the economy | 98.20 | Household activities in the production of services for own consumption |

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| Appendix 3  to the Methodology for Compiling the Health Satellite Account |

**Health Resource Table**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Medical Service Providers** | | | | | | | | **Release of healthcare providers** | **Release by other manufacturers** | **Total issue** | **Import** | **Net taxes** | **Trade and transport margins** | **Total resources at buyers' prices** |
| **HP.1** | **HP.2** | **HP.3** | **HP.4** | **HP.5** | **HP.6** | **HP.7** | **HP.8** |
| **Goods and services:** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HC.1 | Medical help |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HC.2 | Rehabilitation assistance |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HC.3 | Long term assistance |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HC.4 | Ancillary Services |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HC.5 | Medical devices |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HC.6 | Preventive care |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HC.7 | Management and administration of the healthcare system |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Total supply of health goods and services** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Other products | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total issue  (at basic prices) | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| Appendix 4  to the Methodology for Compiling the Health Satellite Account |

**Healthcare use table**

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|  | | **Medical Service Providers** | | | | | | | | **Total** | **Other manufacturers** | **Taxes on products minus subsidies on products** | **Export** | **final consumption** | **Gross capital formation** | **Total use at buyers' prices** |
| **HP.1** | **HP.2** | **HP.3** | **HP.4** | **HP.5** | **HP.6** | **HP.7** | **HP.8** |
| Goods and services | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HC.1 | Medical assistance |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HC.2 | Rehabilitation assistance |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HC.3 | Long term assistance |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HC.4 | Ancillary services |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HC.5 | Medical devices |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HC.6 | Preventive care |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HC.7 | Management and administration of the healthcare system |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total health goods and services | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Other products | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gross value added | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Salary | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Taxes on products | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Other taxes on production | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Consumption of fixed capital | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Profit, mixed income | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| labor costs | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gross fixed capital formation | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Issue at basic prices | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| Appendix 5  to the Methodology for Compiling the Health Satellite Account |

**Health Care Employment Calculation**

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| **Total hours actually worked** during the reference period, excluding annual leave and public holidays and, if possible, sick leave |

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| **divided by:** |

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| Average number of hours actually worked full-time  (for the reference period) per workplace, excluding annual leave and public holidays and, if possible, absence due to illness |

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| **equals:** |

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| **Full-time equivalent employment,** which equals the number of full-time equivalent jobs |

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| Appendix 6  to the Methodology for Compiling the Health Satellite Account |

**Employment in health care**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Medical Service Providers** | **Number of establishments** | **Number of workplaces**  **by employment status** | | | | | | **Number of hours worked**  **by employment status** | | | | | | **Number of workplaces**  **full time by status** | | | | | |
| **hired**  **workers** | | | **Self-employed** | | | **hired**  **workers** | | | **Self-employed** | | | **hired**  **workers** | | | **Self-employed** | | |
| **Male** | **female** | **Total** | **Male** | **female** | **Total** | **Male** | **female** | **Total** | **Male** | **female** | **Total** | **Male** | **female** | **Total** | **Male** | **female** | **Total** |
| Hospitals |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Residential institutions with long-term care |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ambulatory Care Providers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ancillary Service Providers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Retailers and other providers of medical devices |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Preventive Care Providers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Health System Administration and Financing Service Providers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Total** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| Appendix 7  to the Methodology for Compiling the Health Satellite Account |

**Health asset classification**

1. Building
   1. residential buildings
   2. non-residential buildings
2. Structures
3. cars and equipment
   1. vehicles and equipment
   2. irradiation, electromedical and electrotherapeutic equipment
4. Intangible fixed assets (intangible assets)
   1. software

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| Appendix 8  to the Methodology for Compiling the Health Satellite Account |

**Gross fixed capital formation**

**by health care and other industries**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Health care assets** | **Medical Service Providers** | | | | | | | **Total** | **Other industries** | **Gross fixed capital formation** |
| **hospitals** | **Residential institutions with long-term care** | **Ambulatory Care Providers** | **Ancillary Service Providers** | **Retailers and other providers of medical devices** | **Preventive Care Providers** | **Administration service providers**  **research and financing of the health system** |
| Building |  |  |  |  |  |  |  |  |  |  |
| residential buildings |  |  |  |  |  |  |  |  |  |  |
| non-residential buildings |  |  |  |  |  |  |  |  |  |  |
| Structures |  |  |  |  |  |  |  |  |  |  |
| cars and equipment |  |  |  |  |  |  |  |  |  |  |
| of them: |  |  |  |  |  |  |  |  |  |  |
| vehicles and equipment |  |  |  |  |  |  |  |  |  |  |
| irradiation, electromedical and electrotherapeutic equipment |  |  |  |  |  |  |  |  |  |  |
| Intangible fixed assets (intangible assets) |  |  |  |  |  |  |  |  |  |  |
| of them: |  |  |  |  |  |  |  |  |  |  |
| software |  |  |  |  |  |  |  |  |  |  |
| **Total** |  |  |  |  |  |  |  |  |  |  |