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**Federal state budgetary educational institution  
of higher professional education "North Ossetian state medical Academy"  
of the Ministry of health of the Russian Federation**

**APPROVED**

**By protocol of the meeting of the  
Central Coordinating  
Educational and Methodological  
Council of**

**"23" May 2023 No. 5**

**EVALUATION MATERIALS**

**on discipline «Public health and healthcare, health economics»**

**the main professional educational program of higher education - specialty program in  
the specialty 31.05.03 Dentistry, approved in May 23, 2023**

**for 3st year students**

**(for students enrolled in educational programs, partially implemented in a foreign  
language)**

**specialty 31.05.03 Dentistry**

**Reviewed and approved at the meeting of the Department  
on May 19, 2023, Protocol No. 10**

**Head of department  
doctor of science, Professor**



**Z. R. Alikova**

**Vladikavkaz, 2023**

**ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ ОБРАЗОВАТЕЛЬНОЕ  
УЧРЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ «СЕВЕРО-ОСЕТИНСКАЯ  
ГОСУДАРСТВЕННАЯ МЕДИЦИНСКАЯ АКАДЕМИЯ» МИНИСТЕРСТВА  
ЗДРАВООХРАНЕНИЯ РОССИЙСКОЙ ФЕДЕРАЦИИ**  
**РЕЦЕНЗИЯ**

**на оценочные материалы  
по дисциплине «Общественное здоровье и здравоохранение, экономика  
здравоохранения»  
для студентов 3-4 курса  
по специальности 31.05.01 Лечебное дело**

Оценочные материалы составлены на кафедре общественного здоровья, здравоохранения и социально-экономических наук на основании рабочей программы дисциплины «Общественное здоровье и здравоохранение, экономика здравоохранения» основной профессиональной образовательной программы высшего образования – программы специалитета по специальности 31.05.01 Лечебное дело, утвержденной в 2023 г., и соответствует требованиям ФГОС ВО 3+ (Блок 1 «Дисциплины (модули)» по специальности 31.05.01 Лечебное дело (частично реализуемая на английском языке).

Оценочные материалы включают в себя:

- вопросы к модулю,
- банк ситуационных задач,
- эталоны тестовых заданий,
- экзаменационные билеты

Банк ситуационных задач включают в себя сами задания и шаблоны ответов. Все задания соответствуют рабочей программе дисциплины «Общественное здоровье и здравоохранение, экономика здравоохранения» формируемым при ее изучении компетенциям, и охватывают все её разделы. Банк содержит ответы ко всем ситуационным задачам.

Эталоны тестовых заданий включают в себя следующие элементы: тестовые задания, шаблоны ответов. Все задания соответствуют рабочей программе дисциплины «Общественное здоровье и здравоохранение, экономика здравоохранения», формируемым при ее изучении компетенциям и охватывают все её разделы. Сложность заданий варьируется. Количество заданий по каждому разделу дисциплины достаточно для проведения контроля знаний и исключает многократное повторение одного и того же вопроса в различных вариантах. Эталоны содержат ответы ко всем тестовым заданиям.

Экзаменационные билеты выполнены на бланках единого образца по стандартной форме, на бумаге одного цвета и качества. Экзаменационные билеты включает в себя 3 вопроса и задачу. Формулировки вопросов совпадают с формулировками перечня вопросов, выносимых на экзамен. Содержание вопросов одного билета относится к различным разделам рабочей программы дисциплины, позволяющее более полно охватить материал дисциплины.

Дополнительно к теоретическим вопросам предлагается банк ситуационных задач. Ситуационные задачи дают возможность объективно оценить уровень усвоения студентом теоретического материала при текущем, промежуточном, итоговом контроле. Сложность вопросов в экзаменационных билетах распределена равномерно.

Замечаний к рецензируемому фонду оценочных средств нет.

В целом, оценочные материалы по дисциплине «Общественное здоровье и здравоохранение, экономика здравоохранения» способствует качественной оценке уровня владения обучающимися общекультурными и профессиональными компетенциями.

Рецензируемый оценочных материалов средств по дисциплине «Общественное здоровье и здравоохранение, экономика здравоохранения» может быть рекомендован к использованию для текущей и промежуточной аттестации на лечебном факультете у обучающихся на 3, 4 курсах.

**Рецензент:**

Председатель ЦУМК

Естественно - научных и математических д  
материалов,

доцент кафедры химии и физики



## Questions for module lesson 1

1. Statistics. Medical statistics. Definition.
2. What are the sections and contents of medical statistics?
3. Tasks of medical statistics.
4. The role of statistics in medicine and healthcare.
5. Statistical population.
6. Types of statistical population.
7. General and sample population. Probability theory and the law of large numbers.
8. Absolute numbers and relative values, and their meaning.
9. Types of relative values.
10. Method for calculating relative values.
11. Give the definition of an intensive indicator. The method of calculation. Examples.
12. Give the definition of the extensive indicator. The method of calculation. Examples.
13. Give the definition of the indicator visualization. The method of calculation. Examples.
14. Give the definition of the ratio. The method of calculation. Examples.
15. Dynamic series. Definition.
16. What are the levels of a dynamic series and what are their values?
17. Which dynamic series is called simple?
18. Which dynamic series is called a derivative?
19. What are the main indicators of the dynamic series.
20. Methods of alignment of dynamic series.
21. Graphic image. Definition and application.
22. Main types of graphic images.
23. What are the rules for building graphic images?
24. What are graphic images used for?
25. Name the main types of planar diagrams.
26. In what cases is a particular type of diagram, cartogram, or cartogram used?
27. When are radial charts applied?
28. Intensive indicator and ways to graphically display it.
29. Extensive indicator and methods of its graphic representation.
30. Variational series. Characteristics of the variation series.
31. Variational series. Construction of a variation series.
32. Types and forms of the variation series.
33. Stages of constructing a grouped variation series.
34. Average. Their application in the practical work of a doctor.
35. Average. Types of average values.
36. Average. Properties of the arithmetic mean.
37. Average. Requirements for average values.
38. Criteria for attribute diversity.
39. Coefficient of variation.
40. Arithmetic mean, methods of determining it.
41. Calculation of the standard deviation, methods of determination.
42. The three Sigma rule.
43. Mean square deviation. Method of calculation.
44. The definition of "authenticity." Criteria for the concept of reliability.
45. Determination of the average error of the average value (representation error) - m.
46. Determination of the average relative error (representation error) - m.
47. Determination of confidence limits of the arithmetic mean in the General population.
48. Determining the confidence limits of a relative value in General sets.
49. Determination of the reliability of the difference in average values by the criterion t.
50. Determination of the reliability of the difference in relative values by the criterion t.

51. The concept of the probability of an error-free forecast (P) and the reliability criteria (t).
52. Methods for determining reliability.
53. Evaluate the reliability of the study results.
54. Practical application of the assessment of the reliability of research results.
55. The concept of the probability of an error-free forecast (p) and the reliability criteria (t).
56. Determination of the average error of the average value (representation error) - m.
57. Determination of the average relative error (representation error) - m.
58. Determination of confidence limits of the arithmetic mean in the General population.
59. «Correlation». Definition.
60. Types of connection between phenomena and signs.
61. Correlation coefficient and methods for calculating it.
62. Determining the nature and strength of the relationship by the correlation coefficient.
63. Assessment of the reliability of the correlation coefficient and the degree of error-free prediction.
64. The definition of the error of the correlation coefficient.
65. Order of determining the rank correlation coefficient.
66. Procedure for determining the correlation coefficient using the Pearson method.
67. Applying the rank correlation coefficient.
68. The use of the correlation coefficient by the method of squares.
69. «Correlation». Definition.
70. Types of connection between phenomena and signs.
71. Correlation coefficient and methods for calculating it.
72. Determining the nature and strength of the relationship by the correlation coefficient.
73. Standardization. Definition.
74. The essence of standardization.
75. Methods of standardization.
76. Stages of the direct standardization method.
77. Indirect method of standardization.
78. Reverse method of standardization.
79. Standardized indicators.
80. Purpose of the standardization method.
81. Standardization. Definition.
82. The essence of standardization.
83. Methods of standardization.
84. Stages of the direct standardization method.
85. Indirect method of standardization.
86. Stages of statistical research.
87. The first stage of statistical research, its content.
88. The second stage of statistical research, its content.
89. The third stage of statistical research, its content.
90. The fourth and fifth stage of statistical research, its content.
91. Main errors of statistical analysis and their characteristics.
92. Demography. Static population figures of the population census.
93. Age-sex composition of the population and its importance for health care.
94. Factors affecting the gender structure of the population. Indicators.
95. Population movement. The role of doctors in registering and analyzing the natural movement of the population.
96. Indicators of natural population movement.
97. Birth rate: definition, levels, regulation.
98. Mortality: definition, levels, causes, ways to reduce.
99. Infant mortality: definition, levels, causes, ways to reduce.
100. Average life expectancy.

101. "Aging" of the population.
102. Demographics (definition, meaning for health authorities and institutions). Medical demographics (definition).
103. What are the main areas of population research?
104. Mechanical movement of the population.
105. The natural movement of the population and its characteristics.
106. Age types of the population and their characteristics. Examples.
107. The role of doctors in registering the natural movement of the population.
108. Special indicators of natural population movement. The method of calculation.
109. Age-related mortality.
110. Child mortality.
111. General indicators of natural population movement. The method of calculation. Estimated levels.
112. Perinatal mortality.
113. Population mortality and its causes.
114. Define the concepts of "proper morbidity", "morbidity" and "pathological lesions". Examples.
115. Nomenclature and classification of diseases.
116. Methods and sources for studying morbidity.
117. General morbidity and methods of its study. Characteristic.
118. Infectious (epidemic) morbidity. Methods of study.
119. Non-epidemic incidence. Methods of study.
120. Morbidity with temporary disability. Characteristic. Methods of study.
121. Indicators of morbidity with temporary disability. Study of morbidity with temporary disability according to personal records.
122. Hospitalization incidence. Characteristic. Methods of study.
123. Morbidity that is detected actively during the periodic and other mass and medical examinations.
124. Significance of individual methods for studying morbidity.
125. Morbidity studied on the basis of data on registration of causes of death.
126. Unity of principles for providing medical and preventive care to urban and rural populations. Features of the organization of rural medical care. Rural medical area: definition, structure and content of the work.
127. Stages of providing medical and preventive care to the rural population and the main organizations. Central district hospital. Regional hospital. Structure and organization and content of the work.
128. The basic principles for the provision of outpatient care. Municipal polyclinic. Structure, tasks. Statistical analysis of GP activities.
129. Basic principles of providing outpatient care to the population.
130. The main tasks of the city polyclinic.
131. The main tasks of the registry.
132. The main functions of the district therapist.
133. Organizational structure of the children's city polyclinic.
134. The main functions of the children's district pediatrician.
135. Office of a healthy child.
136. Rural medical area, structure, content of the work.
137. FAP, organization of work.
138. Rural district hospital, main tasks.
139. Central district hospital: structure, organization of work.
140. Regional hospital: structure, organization of work.

## Questions for module lesson 2

1. Indicators of hospital activity.
2. Analysis of hospital performance indicators.
3. Performance indicators of the city polyclinic.
4. Analysis of indicators of activity of the city clinic.
5. Organization of work of women's consultation, its structure.
6. The main sections of the work of the district obstetrician-gynecologist (clinical examination of pregnant women and maternity hospitals).
7. The main sections of the work of the district obstetrician-gynecologist (gynecological care).
8. Organization of obstetric and gynecological care in industrial enterprises, in rural areas.
9. Organization of obstetric and gynecological care for girls and adolescent girls.
10. Indicators of women's consultation.
11. Indicators of the timeliness of taking pregnant women under the supervision of the LCD (early admission, late admission, continuity of observation of a pregnant woman).
12. Indicators of the frequency of errors in determining delivery dates (percentage of women who gave birth 15 days or more before the due date, percentage of women who gave birth 15 days or more later than the due date).
13. The proportion of pregnant women who were examined by specialists.
14. Frequency of pregnancy complications. Frequency of abortions. Frequency of use of contraceptive methods.
15. Structure of pregnancy outcomes.
16. Quality of obstetric care LCD.
17. Organization of inpatient obstetric and gynecological care, its structure.
18. Indicators of inpatient obstetric and gynecological care.
19. Patrimonial certificate.
20. Ability to work. Main criteria for working capacity.
21. Temporary disability. Types of temporary disability.
22. Functions of the attending physician during the examination of temporary disability.
23. Medical commission. The organization of its work, the task.
24. Disability sheet, basic functions. Methods for issuing a disability certificate.
25. List the category of citizens who are entitled to receive a disability certificate.
26. List the category of citizens who do not have the right to receive a disability certificate.
27. Procedure for issuing a disability certificate for diseases, injuries, and poisonings.
28. Procedure for issuing a certificate of disability to care for a sick family member.
29. Procedure for issuing a certificate of disability for pregnancy and childbirth.
30. Procedure for issuing a certificate of disability for the period of Spa treatment, prosthetics.
31. Give the definition of medico-social examination. The order of the direction of citizens for medico-social examination. .
32. General principles for ensuring the sanitary and epidemiological well-being of the population (measures taken to ensure it).
33. General principles of consumer protection in the consumer market.
34. Organizational and functional structure of Rospotrebnadzor.
35. Main activities and tasks of the Rospotrebnadzor Department.
36. Organization of social and hygienic monitoring. What indicators are used for this purpose?
37. The main tasks of the centers of hygiene and epidemiology of the subjects of the Russian Federation.
38. Mandatory medical insurance, definition, purpose, characteristics.
39. Basic principles of medical insurance (MHI, VMI, object of medical insurance).

40. Comparative analysis of the main distinctive features of VMI and MMI.
41. Medical insurance organizations in the medical insurance system.
42. Medical institutions in the health insurance system.
43. Licensing and accreditation of medical institutions.
44. Financial resources of the state MHI system.
45. The role of insurance companies in the financing of compulsory medical insurance.
46. Basic principles of health planning in Russia.
47. Types of planning (by level, time factor).
48. Planning methods and their characteristics.
49. Analytical method and its characteristics.
50. Health standards (characteristics, basic rules).
51. Main sections of the health plan.
52. Prerequisites for the emergence of marketing in health care.
53. Marketing, definition, content.
54. Types of marketing.
55. Medical marketing, healthcare marketing and their content.
56. The main prerequisites for implementing marketing in healthcare.
57. Marketing research. The main elements of marketing: need, motive.
58. The main elements of marketing: need, request.
59. Product (or service), definition, characteristic.
60. Medical service, definition, General properties, medical and social properties.
61. Medical service and its main features.
62. The market in the field of medical services and its main features.
63. The main elements of marketing: exchange, transaction and their terms.
64. The main elements of marketing: demand, supply.
65. Basic conceptual approaches for conducting marketing activities.
66. Market: definition, characteristics, main elements of the healthcare market.
67. Competition, definition, characteristics.
68. The main differences between commercial and non-commercial marketing.
69. Types of marketing in healthcare.
70. Stages of marketing management in healthcare.
71. Market segmentation, main criteria.
72. Market segmentation by major patient groups.
73. Development of a marketing package and its elements.
74. Management, goal, characteristic.
75. Management in healthcare, definition, goal, tasks, object.
76. General and functional management.
77. The main functions of managing the health economy.
78. Subjects and objects of management.
79. Main features of health care management.
80. Management technology, organizational structure, management mechanism.
81. Management principle.
82. Power and responsibility.
83. Management style.
84. Management method.
85. Levels of the management system in a medical facility.
86. Management cycle and its stages.
87. Requirements for the management solution.
88. The major functions of management.
89. Basic principles and functions of management information system in health care.
90. The basic principles of scientific organization of labor



## Questions for the exam

1. Basic principles of health care.
2. Preventive health care.
3. Main research methods of the discipline " Public health and healthcare.
4. Public health (individual, group, public)
5. Statistical population and its structure.
6. Relative values (intensive indicators, visibility indicators), graphic image.
7. Dynamic series and their analysis.
8. Variation series (definition, structure). Average values and their types.
9. Indicators of natural population movement.
10. Birth rate as a medical and social problem. Mortality: definition, levels.
11. Birth rate: definition, levels, regulation.
12. Infant mortality: definition, levels.
13. Mortality: definition, levels.
14. Population morbidity. Overall incidence. Study method.
15. Overall incidence. Study method.
16. City polyclinic: structure, content of work, performance indicators.
17. Organization of outpatient care for children. Indicators of children's polyclinic activity.
18. Organization of inpatient medical care for children. Indicators of children's hospital activity.
19. Organization of out-of-hospital obstetric and gynecological care. Indicators of women's consultation.
20. The system of protection of motherhood and childhood, the basic principles.
21. City hospital: tasks, structure, content of the work.
22. Organization of medical care for the rural population.
23. Examination of temporary disability: types and procedure for issuing disability certificates.
24. Examination of persistent disability. Bureau of medical and social expertise, composition and tasks.
25. Organization of the state sanitary and epidemic service. Current sanitary supervision. Preventive sanitary supervision.
26. Medical insurance: types, principles. Subjects of compulsory medical insurance.
27. Marketing in healthcare. Basic elements of marketing.
28. Management in healthcare. Definition, principles.
29. Basics of financing health care institutions. The estimate of the budget institution.
30. Health planning: principles, types of plans, order of preparation, indicators of the plan, methods of planning.
31. Health Economics: concept, goals and objectives. Efficiency in the health care system.
32. World health organization (who). Structure, activity.
33. Quality of care. Definition, principles.
34. Cardiovascular diseases as a medical and social problem. Organization of cardiology services.
35. Malignant neoplasms as a medical and social problem.
36. Tuberculosis as a medical and social problem. Organization of medical and social care for patients with tuberculosis.
37. Traumatism as a medical and social problem. Organization of the fight against injuries.

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**Situational task 1**

In the city of the A.N-oblast in 2010.

population		100 000 people
was born	660	
died	300	
Among the dead children		
under the age of 1 year	50	
including children who died before 1 month.	25	
In the maternity hospitals of the city:		
born alive	2000	
stillbirths	15	
died within 1 week	15	
Among children who died before the age of 1 year (50), there were		
died of pneumonia	25	
dead from diseases of newborns	15	
died of gastrointestinal diseases	5	
dead from other causes	5	
In the city of A. in 2009 there were the following demographic indicators:		
birth rate	25.0 ‰	
mortality rate	8,0 ‰	
natural increase	13.0 ‰	
infant mortality rate	27,0 ‰	
early infant mortality	12.0 ‰	
perinatal mortality	20.0 ‰	

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**Situational task 2**

In the city of the A.N-oblast in 2010.

population		90 000 people
was born	1800	
died		650
Among the dead children		
under the age of 1 year	45	
including children who died before 1 month.	20	

In the maternity hospitals of the city:	
born alive	1800
stillbirths	10
died within 1 week	10
Among children who died before the age of 1 year (50), there were	
died of pneumonia	20
dead from diseases of newborns	10
died of gastrointestinal diseases	5
dead from other causes	4
In the city of A. in 2009 there were the following demographic indicators:	
birth rate	25.0 ‰
mortality rate	8,0 ‰
natural increase	13.0 ‰
infant mortality rate	27,0 ‰
early infant mortality	12.0 ‰
perinatal mortality	20.0 ‰

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**Situational task 3**

In the city of the A.N-oblast in 2010.	
population	80 000 people
was born	1600
died	800
Among the dead children	
under the age of 1 year	48
including children who died before 1 month.	24
In the maternity hospitals of the city:	
born alive	1600
stillbirths	20
died within 1 week	20
Among children who died before the age of 1 year (50), there were	
died of pneumonia	20
dead from diseases of newborns	15
died of gastrointestinal diseases	10
dead from other causes	3
In the city of A. in 2009 there were the following demographic indicators:	
birth rate	22‰
mortality rate	8,3‰
natural increase	13.7 ‰
infant mortality rate	27,0 ‰
early infant mortality	13.0 ‰
perinatal mortality	21.0 ‰

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**Situational task 4**

In the city of the A.N-oblast in 2010.

population		200 000 people
was born	4500	
died	1500	
Among the dead children		
under the age of 1 year	120	
including children who died before 1 month.	58	
In the maternity hospitals of the city:		
born alive	4500	
stillbirths	42	
died within 1 week	45	
Among children who died before the age of 1 year (50), there were		
died of pneumonia	62	
dead from diseases of newborns	28	
died of gastrointestinal diseases	18	
dead from other causes	12	
In the city of A. in 2009 there were the following demographic indicators:		
birth rate	21,5‰	
mortality rate	7,2‰	
natural increase	14,3 ‰	
infant mortality rate	24,0 ‰	
early infant mortality	13.0 ‰	
perinatal mortality	20.0 ‰	

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**Situational task 5**

On the basis of the data presented, it is required to calculate the indicators of the dynamic series: absolute growth, growth rate, value of 1% growth, growth rate. Draw conclusions on the data.

## Option 1

Table 1

Number of children one of the regions of the country  
(per thousand at the beginning of the year)

YEARS	Number of children (per thousand at the beginning of the year)
2014	539,2
2015	542,5
2016	545,6
2017	549,4
2018	551,1
2019	551,2

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### Situational task 6

On the basis of the data given in Table 1, it is required to calculate the indicators: intensive, extensive, relationships, clarity, and draw conclusions from the data obtained.

Table 1.

**The number of children of different ages in the city of M and the number of visits to outpatient clinics for preventive purposes (in absolute numbers).**

Age in years	Number of children	Number of preventive visits
0-1	750	8500
1-3	1200	3650
4-14	48050	47860
Итого	50000	60000

Note. The number of pediatric beds is 200;  
the number of pediatricians is 250.

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### Situational task 7

On the basis of the data presented, it is required to calculate the indicators of the dynamic series: absolute growth, growth rate, value of 1% growth, growth rate. Draw conclusions on the data.

#### Option 1

Table 1

#### Number of children one of the regions of the country (per thousand at the beginning of the year)

<b>YEARS</b>	<b>Number of children (per thousand at the beginning of the year)</b>
2014	128,8
2015	124,5
2016	121,9
2017	120,7
2018	121,5
2019	122,1

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**Department** of Public Health, Health Care and Socio-Economic Sciences  
**Specialty** General medicine **Course 3, 4**  
**Discipline** «Public health and healthcare, health economics»

### Situational task 8

On the basis of the data presented, it is required to calculate the indicators of the dynamic series: absolute growth, growth rate, value of 1% growth, growth rate. Draw conclusions on the data.

#### Option 1

Table 1

#### Number of children one of the regions of the country (per thousand at the beginning of the year)

<b>YEARS</b>	<b>Number of children (per thousand at the beginning of the year)</b>
2014	539,2
2015	542,5
2016	545,6
2017	549,4
2018	551,1
2019	551,2

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**Discipline** «Public health and healthcare, health economics»

**Situational task 9**

On the basis of the data given in Table 1, it is required to calculate the indicators: intensive, extensive, relationships, clarity, and draw conclusions from the data obtained.

Table 1.

**The number of children of different ages in the city of M and the number of visits to outpatient clinics for preventive purposes (in absolute numbers).**

<b>Age in years</b>	<b>Number of children</b>	<b>Number of preventive visits</b>
0-1	750	8500
1-3	1200	47860
4-14	48050	3650
Итого	50000	60000

Note. The number of pediatric beds is 200;  
the number of pediatricians is 250.

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**Discipline** «Public health and healthcare, health economics»

**Situational task 10**

On the basis of the data given in Table 1, it is required to calculate the indicators: intensive, extensive, relationships, clarity, and draw conclusions from the data obtained.

Table 1.

**The number of children of different ages in the city of M and the number of visits to outpatient clinics for preventive purposes (in absolute numbers).**

<b>Age in years</b>	<b>Number of children</b>	<b>Number of preventive visits</b>
0-1	750	8500
1-3	1200	3650
4-14	48050	47860
Итого	50000	60000

Note. The number of pediatric beds is 200;  
the number of pediatricians is 250.

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**Discipline** «Public health and healthcare, health economics»

**Situational task 11**

On the basis of the data presented, it is required to calculate the indicators of the dynamic series: absolute growth, growth rate, value of 1% growth, growth rate. Draw conclusions on the data.

**Option 1**

Table 1

Number of children one of the regions of the country  
(per thousand at the beginning of the year)

YEARS	Number of children (per thousand at the beginning of the year)
2014	128,8
2015	124,5
2016	121,9
2017	120,7
2018	121,5
2019	122,1

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**Specialty** General medicine **Course 3, 4**  
**Discipline** «Public health and healthcare, health economics»

**Situational task 12**

On the basis of the data presented, it is required to calculate the indicators of the dynamic series: absolute growth, growth rate, value of 1% growth, growth rate. Draw conclusions on the data.

**Option 1**

Table 1

Number of children one of the regions of the country  
(per thousand at the beginning of the year)

YEARS	Number of children (per thousand at the beginning of the year)
2014	539,2
2015	542,5
2016	545,6



2017	549,4
2018	551,1
2019	551,2

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**Discipline** «Public health and healthcare, health economics»

**Situational task 13**

On the basis of the data given in Table 1, it is required to calculate the indicators: intensive, extensive, relationships, clarity, and draw conclusions from the data obtained.

Table 1.

**The number of children of different ages in the city of M and the number of visits to outpatient clinics for preventive purposes (in absolute numbers).**

Age in years	Number of children	Number of preventive visits
0-1	750	8500
1-3	1200	47860
4-14	48050	3650
Итого	50000	60000

Note. The number of pediatric beds is 200;  
the number of pediatricians is 250.

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**Discipline** «Public health and healthcare, health economics»

**Situational task 14**

On the basis of the data presented, it is required to calculate the indicators of the dynamic series: absolute growth, growth rate, value of 1% growth, growth rate. Draw conclusions on the data.

**Option 1**

Table 1

**Number of children one of the regions of the country  
(per thousand at the beginning of the year)**

<b>YEARS</b>	<b>Number of children (per thousand at the beginning of the year)</b>
2014	539,2
2015	542,5
2016	545,6
2017	549,4
2018	551,1
2019	551,2

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**Discipline** «Public health and healthcare, health economics»

**Situational task 15**

On the basis of the data given in Table 1, it is required to calculate the indicators: intensive, extensive, relationships, clarity, and draw conclusions from the data obtained.

Table 1.

**The number of children of different ages in the city of M and the number of visits to  
outpatient clinics for preventive purposes  
(in absolute numbers).**

<b>Age in years</b>	<b>Number of children</b>	<b>Number of preventive visits</b>
0-1	750	8500
1-3	1200	47860
4-14	48050	3650
Итого	50000	60000

Note. The number of pediatric beds is 200;  
the number of pediatricians is 250.

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**Discipline** «Public health and healthcare, health economics»

### Situational task 16

On the basis of the data presented, it is required to calculate the indicators of the dynamic series: absolute growth, growth rate, value of 1% growth, growth rate. Draw conclusions on the data.

#### Option 1

Table 1

#### Number of children one of the regions of the country (per thousand at the beginning of the year)

YEARS	Number of children (per thousand at the beginning of the year)
2014	539,2
2015	542,5
2016	545,6
2017	549,4
2018	551,1
2019	551,2

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**Discipline** «Public health and healthcare, health economics»

#### Exam ticket for exam number № 17

1. Fertility: definition, levels, regulation.
2. Health economics: concept, goals and objectives. Efficiency in the healthcare system.

### Situational task 17

In the city of the A.N-oblast in 2010.

population	90 000 people
was born	1800
died	650
Among the dead children	
under the age of 1 year	45
including children who died before 1 month.	20
In the maternity hospitals of the city:	
born alive	1800
stillbirths	10
died within 1 week	10
Among children who died before the age of 1 year (50), there were	
died of pneumonia	20
dead from diseases of newborns	10
died of gastrointestinal diseases	5
dead from other causes	4

In the city of A. in 2009 there were the following demographic indicators:

birth rate	25.0 ‰
mortality rate	8,0 ‰
natural increase	13.0 ‰
infant mortality rate	27,0 ‰
early infant mortality	12.0 ‰
perinatal mortality	20.0 ‰

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**Specialty** General medicine **Course 3, 4**  
**Discipline** «Public health and healthcare, health economics»

**Situational task 18**

On the basis of the data given in Table 1, it is required to calculate the indicators: intensive, extensive, relationships, clarity, and draw conclusions from the data obtained.

Table 1.

**The number of children of different ages in the city of M and the number of visits to outpatient clinics for preventive purposes (in absolute numbers).**

Age in years	Number of children	Number of preventive visits
0-1	750	8500
1-3	1200	47860
4-14	48050	3650
Итого	50000	60000

Note. The number of pediatric beds is 200;  
the number of pediatricians is 250.

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**Specialty** General medicine **Course 3, 4**  
**Discipline** «Public health and healthcare, health economics»

**Situational task 19**

On the basis of the data presented, it is required to calculate the indicators of the dynamic series: absolute growth, growth rate, value of 1% growth, growth rate. Draw conclusions on the data.

**Option 1**

Number of children one of the regions of the country  
(per thousand at the beginning of the year)

<b>YEARS</b>	<b>Number of children (per thousand at the beginning of the year)</b>
2014	539,2
2015	542,5
2016	545,6
2017	549,4
2018	551,1
2019	551,2

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**Specialty** General medicine **Course 3, 4**  
**Discipline** «Public health and healthcare, health economics»

**Situational task 20**

In the city of the A.N-oblast in 2010.

population		90 000 people
was born	1800	
died		650

Among the dead children

under the age of 1 year	45
including children who died before 1 month.	20

In the maternity hospitals of the city:

born alive	1800
stillbirths	10
died within 1 week	10

Among children who died before the age of 1 year (50), there were

died of pneumonia	20
dead from diseases of newborns	10
died of gastrointestinal diseases	5
dead from other causes	4

In the city of A. in 2009 there were the following demographic indicators:

birth rate	25.0 ‰
mortality rate	8,0 ‰
natural increase	13.0 ‰
infant mortality rate	27,0 ‰
early infant mortality	12.0 ‰
perinatal mortality	20.0 ‰

## **Incoming test control on public health and healthcare**

### 1. Public health and healthcare are:

- a) the science of organizational, economic and legal problems of medicine and healthcare;
- b) a social, scientific and educational discipline that studies a complex of social, economic, organizational, legal, sociological, psychological issues of medicine, protection and restoration of public health;
- c) science that studies a complex of social, legal and organizational measures aimed at protecting the health of the population.

### 2. The subject of the study of public health and public health:

- a) public health and the factors that determine it;
- b) systems that ensure the protection and restoration of public health;
- c) technologies of treatment and surgical interventions.

### 3. Define the concept of "health"

- 1) health is a state of mental and social well-being of a person in which there are no diseases, as well as disorders of the functions of organs and body systems
- 2) health is a state of physical and social well-being of a person in which there are no diseases, as well as disorders of the functions of organs and systems of the body
- 3) health is a state of physical, mental and social well-being of a person in which there are no diseases, as well as disorders of the functions of organs and systems of the body

### 4. Factors affecting the health of the population are:

- a) genetic;
- b) natural and climatic;
- c) the level, lifestyle and quality of life of the population;
- d) the level, quality and accessibility of medical care;
- e) all of the above.

### 5. Specify the most priority direction of health care development:

- a) development of primary health care;
- b) development of a network of dispensaries;
- c) increasing the role of hospitals;
- d) increasing the role of sanatorium-resort assistance.

### 6. Protection of citizens' health is:

- a) a system of measures aimed at ensuring healthy, safe working and living conditions for citizens, providing them with medical care in case of loss of health, creating conditions for maintaining high labor and social activity;
- b) the activities of the state to ensure the mental, physical and social well-being of the population;
- c) a set of measures of a political, economic, legal, social, cultural, scientific, medical, sanitary-hygienic and anti-epidemic nature aimed at preserving and strengthening the physical and mental health of each person, maintaining his long life, providing him with medical care in case of loss of health.

### 7. Healthcare is:

- a) the science of the sociology of health;
- b) the system of therapeutic and preventive measures for health protection;
- c) the science of social problems of medicine;
- d) the science of the laws of public health;
- e) a system of socio-economic measures for health protection.

8. Public health characterizes the health of:

- a) the population as a whole;
- b) individual age and gender groups of the population;
- c) every resident of the country;
- d) every resident of the region;
- e) patients suffering from any chronic disease;
- f) correct answers a, b, d;
- g) all answers are correct;
- h) all the answers are wrong.

9. The main groups of public health indicators are:

- a) morbidity indicators;
- b) seeking medical help;
- c) disability indicators;
- d) indicators of physical development;
- e) medical and demographic indicators;
- f) lethality;
- g) all answers are correct;

10. Among the factors determining the health of the population, the leaders are:

- a) environmental;
- b) biological;
- c) lifestyle;
- d) the level of organization of medical care;
- e) the quality of medical care.

11. The main tasks of public health and healthcare in our country are all, except:

- a) development of measures to preserve and improve public health;
- b) studying the factors of the social environment that affect the health of the population;
- c) study of factors contributing to improving the quality of medical care;
- d) development of measures to improve the living conditions of the population.

12. The greatest impact on the health of the population has:

- a) genetic factors;
- b) economic factors;
- c) lifestyle;
- d) the level of health care development.

13. The main method of studying lifestyle is:

- a) observation;
- b) testing;
- c) questionnaire;
- d) experiment;
- e) survey-interview.

14. Basic principles of public health protection in Russia:

- a) respect for human rights in the field of health protection;
- b) priority of preventive measures;
- c) availability of medical care;
- d) responsibility of the state and health management bodies for the health of citizens;
- e) all of the above.

15. Define the concept of "medical care"

- 1) a set of measures aimed at maintaining health and including the provision of medical services
- 2) medical care - a set of measures aimed at maintaining and (or) restoring health and including the provision of medical services

16. Define the concept of "medical service"

- 1) medical intervention or a complex of medical interventions aimed at the prevention, diagnosis and treatment of diseases, medical rehabilitation and having an independent completed value
- 2) medical intervention or a complex of medical interventions aimed at the prevention, diagnosis and treatment of diseases, and having an independent complete meaning

17. Define the concept of "medical activity"

- 1) professional activity in providing medical care, conducting medical examinations, medical examinations and medical examinations, sanitary and anti-epidemic (preventive) measures and professional activity related to transplantation (transplantation) of organs and (or) tissues, circulation of donated blood and (or) its components for medical purposes
- 2) medical activity - professional activity in providing medical care

18. Define the concept of "medical organization"

- 1) a legal entity, regardless of its organizational and legal form, carrying out medical activities as the main (statutory) type of activity on the basis of a license issued in accordance with the procedure established by the legislation of the Russian Federation. Individual entrepreneurs engaged in medical activities are equated to medical organizations
- 2) a legal entity, regardless of its organizational and legal form, carrying out medical activities as the main (statutory) type of activity on the basis of a license issued in accordance with the procedure established by the legislation of the Russian Federation

19. Define the concept of "medical worker"

- 1) an individual who has a medical or other education, works in a medical organization and whose labor (official) duties include the implementation of medical activities, or an individual who is an individual entrepreneur directly engaged in medical activities
- 2) an individual who has a medical or other education, works in a medical organization and whose labor (official) duties include the implementation of medical activities

20. Define the concept of "attending physician"

- 1) a doctor who is entrusted with the functions of directly providing medical care to a patient during his observation and treatment
- 2) a doctor who is entrusted with the functions of organizing and directly providing medical care to the patient during his observation and treatment

21. Define the concept of "quality of medical care"

- 1) a set of characteristics reflecting the timeliness of medical care, the correctness of the choice of methods of prevention, diagnosis, treatment and rehabilitation in the provision of medical care, the degree of achievement of the planned result
- 2) a set of characteristics reflecting the timeliness of medical care, the degree of achievement of the planned result

22. Define the concept of "first aid"

- 1) first aid before medical assistance is provided to citizens in case of accidents, injuries, poisoning, persons who are obliged to provide first aid in accordance with a federal law or with a



special rule and have appropriate training, including employees of the internal affairs bodies of the Russian Federation, military personnel and employees of the state fire service, rescuers of emergency rescue units and emergency services

2) first aid before medical assistance is provided to citizens in case of accidents, injuries, poisoning and other conditions and diseases that threaten their life and health, by persons who are obliged to provide first aid in accordance with federal law or with a special rule and have appropriate training, including employees of the internal affairs bodies of the Russian Federation, employees, military personnel and employees of the state fire service, rescuers of emergency rescue units and emergency rescue services

23. List the types of medical care

- 1) primary health care
- 2) specialized, including high-tech, medical care
- 3) ambulance, including specialized ambulance, medical care
- 4) palliative care
- 5) first aid

24. Medical care may be provided in the following conditions

- |                                     |               |
|-------------------------------------|---------------|
| 1) outside the medical organization | 2) outpatient |
| 3) in a day hospital                | 4) stationary |
| 5) at home                          |               |

25. The forms of medical care are

- |              |                           |
|--------------|---------------------------|
| 1) emergency | 2) urgent                 |
| 3) planned   | 4) emergency medical care |

26. Primary health care

1) is the basis of the system of medical care and includes measures for the prevention, diagnosis, treatment of diseases and conditions, medical rehabilitation, monitoring the course of pregnancy, the formation of a healthy lifestyle and sanitary and hygienic education of the population

2) is the basis of the system of medical care and includes measures for the treatment of diseases and conditions, medical rehabilitation, monitoring the course of pregnancy, the formation of a healthy lifestyle and sanitary and hygienic education of the population

27. Specialized medical care

1) is provided by specialist doctors and includes prevention, diagnosis and treatment of diseases and conditions (including during pregnancy, childbirth and the postpartum period) requiring the use of special methods and sophisticated medical technologies, as well as medical rehabilitation

2) is provided by specialist doctors and includes prevention, diagnosis and treatment of diseases and conditions requiring the use of special methods and complex medical technologies, as well as medical rehabilitation

28. Ambulance, including emergency specialized medical care

1) it is provided to citizens in cases of diseases, accidents, injuries, poisoning and other conditions requiring urgent medical intervention

2) it is provided to citizens in cases of diseases, accidents, injuries, poisoning and other conditions requiring urgent medical intervention. Ambulance, including specialized ambulance, medical care by medical organizations of the state and municipal health systems is provided to citizens free of charge

29. Palliative care

- 1) is a complex of medical interventions in order to improve the quality of life of terminally ill citizens
- 2) is a complex of medical interventions aimed at getting rid of pain and relieving other severe manifestations of the disease, in order to improve the quality of life of terminally ill citizens

30. Medical prevention includes all the listed measures, except:

- a) vaccinations;
- b) conducting medical examinations;
- c) treatment of diseases.