Fund
valuation means

in the discipline "Publichealth and healthcare, healthcare economics»

Level of higher education

SPECIALTY

Direction of training

310501 - RF, 560001 - KR

(code and name of the area of training)

Medicinalcase

(name of focus (profile) of the educational program)

Qualification

specialist

2018

The fund of assessment tools is intended to monitor the knowledge of students in the field of training (specialty) General Medicine in the discipline "Public health and healthcare, healthcare economics".

The fund of assessment funds was reviewed and approved at a meeting of the department

public health and healthcare

name of the department

Protocol No. 1 dated "26 " 08 2024

Head of the department
public health and healthcare Kasiev N.K.

Performers:
Associate Professor of the Department Bolbachan O.A.
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1. LIST OF COMPETENCIES, INDICATING THE STAGES OF THEIR FORMATION IN THE PROCESS OF MASTERING THE DISCIPLINE

Formed competencies	Planned learning outcomes in the discipline, characterizing the stages of competencies formation	Types of assessment tools/ section code in this document
PC-1: ability and readiness to implement a set of measures aimed at preserving and strengthening health and including the formation of a healthy lifestyle, prevention of the occurrence and (or) spread of diseases, their early diagnosis, identification of the causes and conditions of their occurrence and development, as well as aimed at eliminating harmful effects on human health of environmental factors	**Know:** 1. Causes, conditions and development of diseases, as well as elimination of harmful factors affecting human health 2. Organization of a set of measures aimed at preserving and strengthening health and eliminating harmful factors 3. A set of measures aimed at preserving and strengthening health, developing a healthy lifestyle and factors influencing human health	**Block A, D–** reproductive level tasks Surveys, tests, problem solving, preparation of written homework, preparation of presentations, tests, exam
	Be able to: 1. Identify the harmful effects of environmental factors on human health 2. Prevent the occurrence and (or) spread of diseases, their early diagnosis and the causes of their occurrence 3. Eliminate the causes of the occurrence and spread of diseases	**Block B, D**–reconstructive level tasks Presentations,independently work with educational, scientific, regulatory documentation,solutiontasks,intermediate controltest 7th semester, exam 8th semester(theoretical questions, analytical tasks). 1. Bolbachan O.A. MEDICAL STATISTICS: textbook. allowance / O.A. Bolbachan, D.D. Ibraimova, G.I. Ishenova. – Bishkek: KRSU Publishing House, 2023. – 160 p. 2. Bolbachan O.A., Rozyeva R.S. PUBLIC HEALTH AND HEALTH CARE: textbook. allowance / O.A. Bolbachan, R.S. Rozyeva; 2nd ed., revised. and additional Bishkek: KRSU Publishing House, 2017. 158 p.
	Own: 1. A set of measures to develop a healthy lifestyle 2. Comprehensive measures aimed at preserving and strengthening health and creating a healthy lifestyle 3. A set of measures aimed at creating a healthy lifestyle, maintaining and strengthening health and preventing diseases	**Block C, D**–practice-oriented and/or research level assignments Presentations, discussion, intermediate controltest 7th semester, exam 8th semester(theoretical questions, analytical tasks). 1. Bolbachan O.A. MEDICAL STATISTICS: textbook. allowance / O.A. Bolbachan, D.D. Ibraimova, G.I. Ishenova. – Bishkek: KRSU Publishing House, 2023. – 160 p. 2. Bolbachan O.A., Rozyeva R.S. PUBLIC HEALTH AND HEALTH CARE: textbook. allowance / O.A. Bolbachan, R.S. Rozyeva; 2nd ed., revised. and additional Bishkek: KRSU Publishing House, 2017. 158 p.
PC-16: readiness for educational activities to eliminate risk factors and develop healthy lifestyle skills	**Know:** 1. Risk factors and methods for developing a healthy lifestyle 2. Risk factors and skills for developing a healthy lifestyle 3. A set of measures aimed at preserving and strengthening health, developing a healthy lifestyle and factors influencing human health	**Block A, D–** reproductive level tasks Surveys, tests, problem solving, preparation of written homework, preparation of presentations, tests, exam

Formed competencies	Planned learning outcomes in the discipline, characterizing the stages of competencies formation	Types of assessment tools/ section code in this document
	Be able to: 1. Develop healthy lifestyle skills 2. Form and eliminate social risk factors affecting human health 3. Assess the quality of developing healthy lifestyle skills and eliminating risk factors	**Block B, D**–reconstructive level tasks Presentations,independently work with educational, scientific, regulatory documentation,solutiontasks,intermediate controltest 7th semester, exam 8th semester(theoretical questions, analytical tasks). 1. Bolbachan O.A. MEDICAL STATISTICS: textbook. allowance / O.A. Bolbachan, D.D. Ibraimova, G.I. Ishenova. – Bishkek: KRSU Publishing House, 2023. – 160 p. 2. Bolbachan O.A., Rozyeva R.S. PUBLIC HEALTH AND HEALTH CARE: textbook. allowance / O.A. Bolbachan, R.S. Rozyeva; 2nd ed., revised. and additional Bishkek: KRSU Publishing House, 2017. 158 p.
	Own: 1. Educational activities to develop healthy lifestyle skills 2. Educational activities to eliminate risk factors and healthy lifestyle skills 3. Educational activities to develop healthy lifestyle skills and eliminate risk factors for human health	**Block C, D**–practice-oriented and/or research level assignments Presentations, discussion, intermediate controltest 7th semester, exam 8th semester(theoretical questions, analytical tasks). 1. Bolbachan O.A. MEDICAL STATISTICS: textbook. allowance / O.A. Bolbachan, D.D. Ibraimova, G.I. Ishenova. – Bishkek: KRSU Publishing House, 2023. – 160 p. 2. Bolbachan O.A., Rozyeva R.S. PUBLIC HEALTH AND HEALTH CARE: textbook. allowance / O.A. Bolbachan, R.S. Rozyeva; 2nd ed., revised. and additional Bishkek: KRSU Publishing House, 2017. 158 p.
PC-17: ability to apply the basic principles of organization and management in the field of protecting the health of citizens, in medical organizations and their structural divisions	**Know:** 1. Management Basics 2. Fundamentals of management and principles of organization in the field of healthcare 3. Principles of management in the field of public health, medical organizations and their structural divisions	**Block A, D–** reproductive level tasks Surveys, tests, problem solving, preparation of written homework, preparation of presentations, tests, exam
	Be able to: 1. Apply principles of organization and management in the field of public health 2. Apply principles of management of medical organizations 3. Apply the principles of management of medical organizations and their structural divisions	**Block B, D**–reconstructive level tasks Presentations,independently work with educational, scientific, regulatory documentation,solutiontasks,intermediate controltest 7th semester, exam 8th semester(theoretical questions, analytical tasks). 1. Bolbachan O.A. MEDICAL STATISTICS: textbook. allowance / O.A. Bolbachan, D.D. Ibraimova, G.I. Ishenova. – Bishkek: KRSU Publishing House, 2023. – 160 p. 2. Bolbachan O.A., Rozyeva R.S. PUBLIC HEALTH AND HEALTH CARE: textbook. allowance / O.A. Bolbachan, R.S. Rozyeva; 2nd ed., revised. and additional Bishkek: KRSU Publishing House, 2017. 158 p.

Formed competencies	Planned learning outcomes in the discipline, characterizing the stages of competencies formation	Types of assessment tools/ section code in this document
	Own: 1. Basic principles of management 2. Basic principles of organization and management in the field of public health 3. Basic principles of management of medical organizations and their structural divisions	**Block C, D**–practice-oriented and/or research level assignments Presentations, discussion, intermediate controltest 7th semester, exam 8th semester(theoretical questions, analytical tasks). 1. Bolbachan O.A. MEDICAL STATISTICS: textbook. allowance / O.A. Bolbachan, D.D. Ibraimova, G.I. Ishenova. – Bishkek: KRSU Publishing House, 2023. – 160 p. 2. Bolbachan O.A., Rozyeva R.S. PUBLIC HEALTH AND HEALTH CARE: textbook. allowance / O.A. Bolbachan, R.S. Rozyeva; 2nd ed., revised. and additional Bishkek: KRSU Publishing House, 2017. 158 p.
PC-18: readiness to participate in assessing the quality of medical care using basic medical and statistical indicators	**Know:** 1. Main medical and statistical indicators 2. Assessing the quality of medical care using medical and statistical indicators 3. Analyze medical and statistical indicators and their interpretation	**Block A, D–** reproductive level tasks Surveys, tests, problem solving, preparation of written homework, preparation of presentations, tests, exam
	Be able to: 1. Use basic medical and statistical indicators 2. Use medical and statistical indicators to assess the quality of medical care 3. Assess the quality of medical care using basic medical and statistical indicators	**Block B, D**–reconstructive level tasks Presentations,independently work with educational, scientific, regulatory documentation,solutiontasks,intermediate controltest 7th semester, exam 8th semester(theoretical questions, analytical tasks). 1. Bolbachan O.A. MEDICAL STATISTICS: textbook. allowance / O.A. Bolbachan, D.D. Ibraimova, G.I. Ishenova. – Bishkek: KRSU Publishing House, 2023. – 160 p. 2. Bolbachan O.A., Rozyeva R.S. PUBLIC HEALTH AND HEALTH CARE: textbook. allowance / O.A. Bolbachan, R.S. Rozyeva; 2nd ed., revised. and additional Bishkek: KRSU Publishing House, 2017. 158 p.
	Own: 1. Main medical and statistical indicators 2. Assessing the quality of medical care using medical and statistical indicators 3. A set of measures to assess the quality of medical care using statistical indicators	**Block C, D**–practice-oriented and/or research level assignments Presentations, discussion, intermediate controltest 7th semester, exam 8th semester(theoretical questions, analytical tasks). 1. Bolbachan O.A. MEDICAL STATISTICS: textbook. allowance / O.A. Bolbachan, D.D. Ibraimova, G.I. Ishenova. – Bishkek: KRSU Publishing House, 2023. – 160 p. 2. Bolbachan O.A., Rozyeva R.S. PUBLIC HEALTH AND HEALTH CARE: textbook. allowance / O.A. Bolbachan, R.S. Rozyeva; 2nd ed., revised. and additional Bishkek: KRSU Publishing House, 2017. 158 p.

2. TECHNOLOGICAL MAP OF DISCIPLINE

Technological map of the discipline (TCD) is a document that defines the order of studying the academic discipline, the set of types of academic workload of the master's student, the schedule of checkpoints, forms of knowledge control, assessment ranges for checkpoints.
The number of modules is determined by the number of credits in the discipline. Coursework (project) is included in the total labor intensity of the discipline (one credit). When filling out the fields with the names of modules, it is necessary to take into account the correspondence of the names of these modules in the work program of the discipline.
Content example

Technological map of the discipline
"public health and healthcare, healthcare economics"

Course/semester: 4/7
Number of credits (ZE): 3
Reporting: **test**

Name of discipline modules according to	**Control**	**form of control**	**minimum credit**	**credit maximum**	**control schedule**
Module 1					
Module 1 Medical statistics	Current control	Activity, attendance, frontal questioning on tests, problem solving, SRS: preparation of written homework ***For each lesson missed and not completed, 0.5 points are deducted. For activity - +0.5 points.***	8	13	2nd week of the semester
	Frontier control	Test	5	10	
Module 2					
Module 2 Health statistics	Current control	Activity, attendance, frontal questioning on tests, problem solving, SRS: preparation of written homework ***For each lesson missed and not completed, 0.5 points are deducted. For activity - +0.5 points.***	8	13	6th week of the semester
	Frontier control	Test	5	10	
Module 3					
Module 3 Analysis of the state of health and healthcare by region of the country	Current control	Activity, attendance, frontal questioning on tests, problem solving, SRS: preparation of written homework ***For each lesson missed and not completed, 0.5 points are deducted. For activity - +0.5 points.***	9	14	8th week of the semester
	Frontier control	Test	5	10	
TOTAL for the semester			40	70	

Name of discipline modules according to	Control	form of control	minimum credit	credit maximum	control schedule
Intermediate control (test)		1. Theoretical questions (0-20 points) 2. Analytical task (0-10 points)	20	thirty	Week 9
Semester rating by discipline			60	100	

Module	logically completed part of the discipline
Current control	student's independent work, attendance and activity in classes
Frontier control	checking the completeness of knowledge and skills on the material of the module as a whole
Intermediate control	a completed documented part of an academic discipline – a set of closely related discipline modules.

Technological map of the discipline "public health and healthcare, healthcare economics"

Course/semester: 4/8

Number of credits (ZE): 3

Reporting: **exam**

Name of discipline modules according to RPD	Control	form of control	minimum credit	credit maximum	control schedule
Module 1					
Module 1 Health management. Healthcare management	Current control	Activity, attendance, frontal survey on tests, SRS: preparation of presentation ***For each lesson missed and not completed, 0.5 points are deducted. For activity - +0.5 points.***	8	13	5th week of the semester
	Frontier control	Test	5	10	
Module 2					
Module 2 Quality management of medical services	Current control	Activity, attendance, frontal survey on tests, SRS: preparation of presentation ***For each lesson missed and not completed, 0.5 points are deducted. For activity - +0.5 points.***	8	13	7th week of the semester
	Frontier control	Test	5	10	
Module 3					
Module 3 Health Economics	Current control	Activity, attendance, frontal survey on tests, SRS: preparation of presentation ***For each lesson missed and not completed, 0.5 points are deducted.***	9	14	8th week of the semester

Name of discipline modules according to RPD	Control	form of control	minimum credit	credit maximum	control schedule
		For activity - +0.5 points.			
	Frontier control	Test	5	10	
TOTAL for the semester			40	70	
Intermediate control (Exam)		1. Theoretical questions (0-20 points) 2. Analytical task (0-10 points)	20	thirty	Week 9
Semester rating by discipline			60	100	

Module	logically completed part of the discipline
Current control	student's independent work, attendance and activity in classes
Frontier control	checking the completeness of knowledge and skills on the material of the module as a whole
Intermediate control	a completed documented part of an academic discipline – a set of closely related discipline modules.

3. STANDARD CONTROL TASKS AND OTHER MATERIALS NECESSARY TO EVALUATE THE PLANNED RESULTS OF LEARNING IN THE DISCIPLINE (ASSESSMENT TOOLS)

The developer independently determines the list of standard control tasks.

Block A

A.0 Fund of test tasks for the discipline.

Test No. 1. Definition of public or social medicine:
A) a multifaceted sphere of medical social activity aimed at preserving physical health;
b) the multifaceted sphere of medical social activity aimed at preserving the health of the population;
c) a multifaceted sphere of medical social activity aimed at preserving the emotional state;
d) a multifaceted sphere of medical social activity aimed at preserving mental health.

Test No. 2. Indicators of fetoinfantile losses:
a) mortality rate, birth rate;
b) abortion rate, mortality during childbirth;
c) infant mortality, mortality of women after 42 days after birth;
d) fetal and infant losses, reproductive losses.

Test No. 3. The leading factor influencing human health:

a) hereditary;	c) biological;
b) psychological;	d) social.

Test No. 4. Definition of "Health" according to WHO:
a) is a state of complete physical, mental and social well-being, and not just the absence of illness and disability;
b) is a state of complete physical, mental and social well-being, and not just the absence of illness;

c) is a state of complete physical, mental and social well-being, and not just the absence of illness and physical defects;
d) is a state of complete physical and mental well-being, and not just the absence of illness and physical defects.

Test No. 5. Factors that influence human well-being:
a) emotional, stressful;
b) social, emotional;
c) social, physical, intellectual;
d) physical, psychological.

Test No. 6. Population health is expressed as:
a) indirect indicators, and in the form of indicators - determinants of health;
b) direct indicators, and in the form of indicators - determinants of health;
c) direct indicators, and in the form of indicators - determinants of health;
d) indirect indicators, and in the form of indicators - determinants of health.

Test No. 7. Lifestyle categories:

a) lifestyle, quality of life, ability to work;	c) standard of living, quality of life, psychological climate at work;
b) lifestyle, standard of living, psychological climate in the family;	d) level, quality, lifestyle.

Test No. 8. The concept of “Disease”:
a) this is a qualitative state of the body that arises in response to damage by environmental influences, through social conditions;
b) the state of impaired interaction of the body with the social environment;
c) a state of disturbed interaction of the body with the external environment;
d) a state of impaired interaction of the organism with the geographic environment.

Test No. 9. The concept of classification of diseases:
a) this is a certain system of distributing and combining states into groups and classes;
b) this is a certain system for distributing pathological conditions into groups and classes;
c) this is a certain system of distribution and association of diseases into groups and classes;
d) this is a certain system of distribution and combination of diseases and pathological conditions into groups and classes in accordance with established criteria.

Test No. 10. In the ICD - 0 total classes:

a) 17;	b) 19;	at 21;	d) 23.

Test No. 11. Levels of activity of the Public Health Center:

a) republican, regional, local;	c) state, regional, district;
b) republican, local, city;	d) city, district, clinic.

Test No. 12. Communication in healthcare:
a) is a process of one-way information on improving medical care;
b) is the process of exchanging information in the field of health promotion among the population;
c) is the process of exchanging information on improving medical care and promoting health between medical professionals. workers and the public;
d) is a process of exchanging information on improving living standards.

Test No. 13. System reform is carried out when:
a) the existing system is good, but further improvement is necessary;
b) the existing system is not satisfactory (bad), it needs to be changed;
c) the existing system is good, but it does not correspond to the new socio-economic conditions;
d) all of the above situations.

Test No. 14. In the Kyrgyz Republic, 1st place in the structure of causes of infant mortality is occupied by:
a) congenital anomalies
b) respiratory diseases
c) conditions arising in the perinatal period
d) infectious and parasitic diseases.

Test No. 15. In the Kyrgyz Republic, normal births are observed:

a) in 60% of cases;	c) in 20% of cases;
b) in 40% of cases;	d) in 30% of cases.

Test No. 16. According to the strategy of the Kyrgyz Republic, the average life expectancy without disability should increase by:

a) 20%;	b) 25%;	at 10 o'clock%;	d) 15%.

Test No. 17. The main role of management:

a) interpersonal relationships;	c) initiative;
b) mastery of technical techniques;	d) competence.

Test No. 18. Management Skill:
A) mastery of technical techniques;
b) ability to plan work;
V) ability to make decisions;
G) master economic methods.

Test No. 19. Factor influencing the final result of the decision:
A) financial;
b) moral and psychological;
V) industrial;
G) personnel

Test No. 20. The concept of "Management Technology":
a) a system of operations and procedures performed in a certain sequence;
b) a system of operations and procedures performed in combination;
c) a system of operations and procedures performed in a certain sequence and combination;
d) a system of operations performed in a certain sequence and combination.

Test No. 21. Characteristics of the medical services market:
A) preservation;
b) consistency of quality;
V) separability from the source;
G) intangibility.

Test No. 22. The concept of "Product":
a) everything that can satisfy a need, desire and request and is offered to the market in order to attract attention, acquisition, use or consumption;
b) everything that can satisfy a need, need and request in order to attract attention, acquisition, use or consumption;
c) everything that can satisfy a need, requirement and request and is offered to the market in order to attract attention and acquisition;
d) anything that can satisfy a need and is offered to the market in order to attract attention, acquisition, use or consumption.

Test No. 23. The concept of "service offering":
a) the number of services that a medical institution is able to provide in a certain period of time at a certain price;
b) the number of services that a medical institution is able to provide at a certain price;

c) the number of services that a medical institution is able to provide in a certain period of time;
d) the number of services that a medical institution is able to provide.

Test No. 24. The concept of "Price":
A) the cost of a certain volume of goods and services sold;
b) the cost of a certain type and volume of goods and services sold;
V) the cost of a certain type of goods and services sold;
G) the cost of a certain type and volume of services sold.

Test No. 25. Types of system:
A) real, unreal, incoming, outgoing;
b) real, abstract, open, closed;
V) abstract, essential, closed, open;
G) real, unreal, open, closed.

Test No. 26. Types of institutions:
A) municipal, departmental, private;
b) state, own, municipal;
V) state, non-state, private;
G) state, municipal, private.

Test No. 27. A family doctor is:
a) a specialist with a higher medical education who provides highly specialized medical care at the FMC level;
b) a specialist with a higher medical education who provides highly specialized, highly specialized assistance to the family, regardless of gender and age at the FGP level;
c) a specialist with higher medical education who provides primary health care to adults;
d) a specialist with a higher medical education who provides primary health care to the family, regardless of gender and age.

Test No. 28. Spending of compulsory medical insurance funds in FGPs:

expenses	A)	b)	V)	G)
- financial incentives	thirty%	35%	0%	10%
- development of material and technical equipment	40%	40%	60%	20%
- medicines and medical products. appointments	20%	20%	thirty%	60%
- other	10%	5%	10%	10%

Test No. 29. Health system models:
A) Bismarck, Beveridge, Semashko, Bryukhovenko;
b) Bismarck, Boerhaave, Semashko, private;
V) Beveridge, Semashko, Virkhova, state;
G) Bismarck, Beveridge, Semashko, private.

Test No. 30. The compulsory health insurance fund under the Ministry of Health is:
A) dependent, non-profit insurance organization;
b) independently operating, commercial insurance organization;
V) independent, independently operating, private insurance organization;
G) an independent, independently operating, non-profit insurance organization.

Test No. 31. What percentage of salary deductions is sent to compulsory medical insurance for working citizens by the employer?

A) 6%	b) 3%	at 4%	d) 2%

Test No. 32. Elements of the quality of medical services are considered from the perspective of:
A) system, provider, patient;
b) states, systems, organizations;
V) systems, institutions, clients;

G) republic, organization, patient.

Test No. 33. Accreditation of healthcare organizations is:
A) the procedure for issuing permission to a medical institution by the state governing body (MoH) of permission (license) for the right to carry out medical activities in accordance with the declared types of medical services;
b) procedure for obtaining the right to enter into an agreement with the Compulsory Medical Insurance Fund;
V) an official procedure for recognizing competence to carry out professional activities regardless of their form of ownership in accordance with accreditation standards;
G) procedure for issuing a permit for entrepreneurial medical activities.

Test No. 34. Quality is:
A) the presence of significant features that distinguish one object or phenomenon from others;
b) the degree of compliance of the medical service with established criteria and standards;
V) presence of essential features, properties, features;
G) the presence of properties, features that distinguish one object or phenomenon from others.

Test No. 35. The supply of doctors to the population is characterized by:
A) the number of doctors per institution;
b) the number of doctors per 10,000 population;
V) the number of doctors per FGP;
G) number of doctors per 1000 population.

Test No. 36. Types of medical reporting:
A) clinical, military, registration;
b) generally accepted, medical reporting, military field;
V) general medical, military medical, forensic medical;
G) attributed, specific, clinical.

Test No. 37. Initial visit to the FGP doctor at home for newborns after discharge from the maternity hospital:
A) first week;
b) during the first three days;
V) first day;
G) within a month.

Test No. 38. Medical workers do not have the right to issue documents certifying temporary disability:

a) ambulance stations;	c) health centers;
b) FAP;	d) ADO.

Test No. 39. The concept of "Disability":
A) a condition caused by illness, injury, its consequences or other causes is permanent, impossible;
b) a condition caused by illness, injury, its consequences or other reasons, when performing professional work is impossible;
V) condition caused by illness, injury, its consequences;
G) a condition caused by an illness, injury, or its consequences, when performing professional work is impossible.

Test No. 40. MSEC function:
A) work ability examination;
b) establishment of disability, group and period;
V) definition of disability groups;
G) will determine measures to restore permanent disability.

Test No. 41. Sections of the plan:

A) • medical network institutions - number and compound	b) • medical network institutions - number and composition

• need for finance • travel allowances • technical support • budget	• need for material resources • capital construction • material support • finance
V) • medical network institutions - number and compound • staffing needs • capital construction • logistics • budget	G) • medical network institutions • need for medications • business trip • capital construction • general means

Test No. 42. Types of effectiveness:
A) medical, hospital, economic;
b) medical, social, economic;
V) medical, systemic, therapeutic;
G) medical, budgetary, financial.

Test No. 43. Types of plan:
A) sectoral, territorial, current, future;
b) departmental, administrative, current, for the five-year period;
V) industry, local, promising, current;
G) systemic, territorial, current, future.

Test No. 44. Family planning is:
A) the right to protection from cruel and degrading treatment;
b) a set of measures aimed at eliminating risk factors;
V) a system of measures aimed at making and implementing the decision by spouses to have or refuse to have children;
G) a state of complete physical, mental and social well-being.

Test No. 45. Who approves the state budget of the healthcare sector?
A) Ministry of Finance of the Kyrgyz Republic and the Social Fund;
b) Government of the Kyrgyz Republic;
V) Jogorku Kenesh of the Kyrgyz Republic;
G) By decree of the President of the Kyrgyz Republic.

Test No. 46. Distribution of compulsory medical insurance funds:

institutions	A)	b)	V)	G)
Hospital	20%	50%	70%	90%
PSMS	80%	50%	30%	10%

Test No. 47. Disadvantages state system:
A) lack of money (residual financing principle);
b) lack of paid services;
V) high efficiency in expanding healthcare;
G) all of the above.

Test No. 48. Which healthcare system has more advantages in quickly responding to the expanding needs of the population:

a) state (national);	c) private enterprise;
b) insurance;	d) not one of the systems.

Test No. 49. Types of rehabilitation
A) medical, psychological;
b) social or household;

V) professional;
G) all of the above.

Test No. 50. The concept of "Health Promotion":
A) it is a process that helps a person increase control over and improve the determinants of health;
b) it is a process that helps a person increase control over their physical health;
V) this is a process that helps a person strengthen control over his psychological state and improve it;
G) it is a process that helps a person increase control over their individual health.

Test No. 51. The concept of public health:
A) activities to organize public efforts to meet the needs of society in the field of health protection;
b) activities to organize public efforts in order to meet the needs of society in the field of protecting physical development;
V) activities to organize public efforts to meet the needs of society in the field of physical health protection;
G) activities to organize community efforts to meet community mental health needs.

Test No. 52. The task of social medicine and healthcare organization:
A) studying the work of health care institutions;
b) studying the work of health authorities;
V) studying the organization of medical and social services to the population;
G) studying the work of medical healthcare institutions.

Test No. 53. Definition of disease:
A) a new qualitative state of the body, in contrast to health, that arises in response to damage by environmental influences through social conditions;
b) a new qualitative state of the body, in contrast to health, that arises in response to damage by environmental influences through economic conditions;
V) a new qualitative state of the body, in contrast to health, that arises in response to damage by environmental influences through natural conditions;
G) a new qualitative state of the body, in contrast to health, that arises in response to damage by environmental influences through biological conditions.

Test No. 54. Health is distinguished:
A) individual, public;
b) individual, group, collective;
V) individual, group;
G) individual, group, public.

Test No. 55. Indicator recommended by WHO for assessing public health:
A) deduction of gross national product for health care;
b) deduction of health care tax;
V) deduction from surplus value;
G) deduction from the profit of the national product for health care.

Test No. 56. The concept of "Health promotion":
A) it is a process that requires a person to increase control over the determinants of physical condition and improve it;
b) it is a process that encourages a person to increase control over the determinants of health;
V) it is a process that encourages a person to increase control over the determinants of health and improve it;
G) it is a process that encourages a person to strengthen and improve control over the determinants of their ability to work.

Test No. 57. Factor influencing the final result of the decision:
A) financial;
b) moral and psychological;
V) industrial;
G) personnel

Test No. 58. Grouping of diseases in ICD - 10:
A) epidemic; b) etiopathological; c) pathogenetic; d) inflammatory.

Test No. 59. The birth rate in the Kyrgyz Republic tends to:

a) to decrease;	c) to stabilization;
b) to increase;	d) to improvement.

Test No. 60. Mortality rates in the Kyrgyz Republic tend to:

a) does not change;	c) decreases;
b) increases;	d) changes dramatically.

Test No. 61. Oratory consists of:

A)	b)	V)	G)
rhetoric, heuristics, dynamics;	heuristics, dialectics, proof;	rhetoric, heuristics, dialectics;	dialectics, proof, rhetoric.

Test No. 62. Communication channels:
A) face-to-face meetings, graphic and audiovisual media;
b) face-to-face meetings, decoration, television;
V) staging, newspapers, media;
G) Media, everyday meetings, newspaper publications.

Test No. 63. In the Kyrgyz Republic, in the structure of morbidity among children and adolescents, 1st place is occupied by:
A) respiratory diseases;
b) infectious and parasitic diseases;
V) diseases of the endocrine system;
G) diseases of the digestive system.

Test No. 64. In the Kyrgyz Republic, 1st place in the structure of causes of infant mortality is occupied by:
A) congenital anomalies;
b) respiratory diseases;
V) conditions arising in the perinatal period;
G) infectious and parasitic diseases.

Test No. 65. Indicate which type of medical care is currently the most resource-intensive (costly):
A) stationary;
b) outpatient clinic;
V) emergency;
G) sanatorium-resort.

Test No. 66. Factor influencing the effectiveness of the solution:
A) collegiality in decision making;
b) speed of decision making;
V) initiative in decision making;
G) competence in the issue at hand.

Test No. 67. Degree of solution:
A) request;
b) order;
V) notification;
G) indication.

Test No. 68. Management function:
A) informational;
b) control;

V) technical;
G) organizational.

Test No. 69. Management principle:
A) discipline; b) economics; c) financing; d) control.

Test No. 70. The concept of "Request":
A) a need that depends on the socio-economic status of the individual;
b) it is a need backed by purchasing power;
V) a need supported by purchasing power, i.e. depends on the economic status of the individual;
G) a need supported by purchasing power, i.e. depends on the social status of the individual.

Test No. 71. The concept of "Market":
A) a set of existing and potential buyers;
b) a set of potential buyers;
V) set of existing customers;
G) a set of existing and potential buyers of goods and producers of services.

Test No. 72. The concept of "Advertising":
A) information about the consumer properties of goods and types of services in order to create demand for them;
b) information about consumer properties and types of services in order to create demand for them;
V) information about the consumer properties of goods and services in order to create demand for them;
G) information about the consumer properties of goods and types of services in order to create an offer for them.

Test No. 73. The concept of "marketing research":
A) systematic determination of the range of data required in connection with the marketing situation facing a medical institution: planning, collection of material, analysis and reporting of results;
b) systematic determination of the range of data required in connection with the marketing situation facing a medical institution: collection of material, analysis and reporting of results;
V) systematic determination of the range of data required in connection with the marketing situation facing the medical institution: planning, analysis and reporting of results;
G) systematic determination of the range of data required in connection with the marketing situation facing a medical institution: planning, collection of material, analysis.

Test No. 74. System reform is carried out when:
A) the current system is good, but further improvement is needed;
b) the existing system is unsatisfactory (bad), it needs to be changed;
V) the existing system is good, but it does not correspond to the new socio-economic conditions;
G) all of the above situations.

Test No. 75. Levels of institutions:
A) pre-medical, medical, specialized;
b) outpatient, inpatient, republican;
V) primary, secondary, tertiary;
G) outpatient, inpatient, mixed.

Test No. 76. Groups of family doctors are an association that includes:
A) therapist, neurologist, pediatrician;
b) obstetrician - gynecologist, therapist, dentist;
V) therapist, pediatrician, ophthalmologist;
G) therapist, pediatrician, obstetrician-gynecologist.

Test No. 77. How is FGP financed in the Single Payer system?
A) for each visit;
b) per capita standard;
V) per case treated;

G) for the case of outpatient services.

Test No. 28. Types of social insurance:
A) pension, temporary disability, maternity, unemployment, ritual benefit (funeral);
b) pension, survivor's, maternity, unemployment;
V) by VUT, unemployment, death, age, change of residence;
G) pension, in case of death, for loss of housing, for age, for loss of income.

Test No. 79. Social fund contributions for pensioners and the unemployed:
A) 2 min salary per year;
b) 1.5 min salary per month;
V) 1.5 min wages (salary) per year;
G) 1 min salary per year.

Test No. 80. Which categories of the population are insured under the compulsory medical insurance program in 2011?
A) employed, pensioners, unemployed;
b) workers, pensioners, children under 16 years of age, persons receiving social benefits, persons independently purchasing compulsory medical insurance policies;
V) working people, pensioners, the unemployed, children under 16 years of age, people receiving social benefits, foreign citizens;
G) pensioners, children under 16 years of age, persons receiving social benefits, the unemployed, foreign citizens, students.

Test No. 81. Licensing of medical activities is:
A) the mandatory procedure for issuing a permit (license) to legal entities and individuals by the government authority (Ministry of Health) to engage in the declared types of medical activities;
b) procedure for obtaining the right to enter into an agreement with the Compulsory Medical Insurance Fund;
V) procedure for recognizing the competence (ability) of medical institutions to carry out professional activities in accordance with accreditation standards approved in the prescribed manner;
G) professional certification of medical workers.

Test No. 82. Medical service is:
A) a set of measures aimed at the prevention, diagnosis and treatment of diseases;
b) a set of measures aimed at diagnosing and treating diseases;
V) a set of measures aimed at treating diseases and economics of financial resources;
G) a set of measures aimed at treating diseases taking into account market economic relations.

Test No. 83. The concept of “Medical examination”:
A) active identification, registration and monitoring of the health status of certain populations (healthy and sick);
b) registration and monitoring of the health status of certain populations (healthy and sick);
V) active identification and monitoring of the health status of certain populations (healthy and sick);
G) active identification, registration and monitoring of the health status of populations (healthy and sick).

Test No. 84. The hospital mortality rate is characterized by the ratio:
A) the number of deaths to the number of retired patients;
b) the number of deaths to the number of hospitalized patients;
V) number of people leaving for other hospitals;
G) the number of deaths to the number of those transferred from other hospitals.

Test No. 85. Time frame for timely registration of pregnant women with FGPs:
A) up to 6 weeks;
b) up to 12 weeks;
V) up to 20 weeks;
G) up to 18 weeks.

Test No. 86. The provision of the population with paramedical personnel is characterized by:
A) the number of paramedical workers per medical position;
b) the number of paramedical workers per 10 medical positions;
V) the number of paramedical workers per 10,000 population;
G) the number of paramedical workers per FGP.

Test No. 87. ITU task:
A) carrying out social and labor rehabilitation;
b) carrying out labor rehabilitation;
V) carrying out social rehabilitation;
G) carrying out socio-economic rehabilitation.

Test No. 88. Document on temporary disability:
A) certificate of incapacity for work;
b) sick leave;
V) disability card;
G) disability bulletin.

Test No. 89. The concept of "Rehabilitation":
A) restoration of a person's ability to work with the help of government and medical measures;
b) restoration of a person's ability to work with the help of medical measures;
V) restoration of a person's ability to work with the help of government measures;
G) restoration of a person's ability to work through social activities.

Test No. 90. Planning methods:

a) statistical historical according to GOST experimental mathematical normative;	c) calculation analysis GOST project normative mathematical;
b) analytical balance ratios and proportions experimental economic-mathematical normative;	d) accounting proportions normative experiment settlement statistical.

Test No. 91. Methods of payment for medical services at the primary level:
A) fee, per capita, per case treated;
b) gender and age, by geographic location (urban/rural);
V) fee, per capita, co-payment method;
G) fee, per capita, at fixed wage rates.

Test No. 92. The objectives of the Manas healthcare reform included:
A) management reform medical reform services training reform financing reform;
b) reform of institutions; reform of financing; reform of postgraduate training; reform of outpatient services;
c) management reform, medical education reform, personnel training reform, medical services reform;
d) hospital service reform, financing reform, medical education reform, personnel training reform.

Test No. 93. List the priority expenditure items in terms of distribution of an institution operating in the Single Payer system.
A) wage;
b) wages and medicines;
V) wages, food and stipends (benefits);
G) salary, contributions to the Social Fund, food and medicine.

Test No. 94. Positive aspects of the state system:
A) cost savings;
b) reducing the likelihood of abuse;
V) Less common are cases of imposing unnecessary procedures and medications on patients in order to generate additional income;
G) all of the above.

Test No. 95. Disadvantages of the insurance system:
A) the population pays for medical services;
b) cost savings;
V) lack of money (residual financing principle);
G) lower technical equipment.

Test No. 96. The compulsory health insurance fund is:
A) dependent, non-profit insurance organization
b) independently operating, commercial insurance organization
V) independent, independently operating, private insurance organization
G) independent, independently operating, non-profit insurance organization

Test No. 97. The WHO European Bureau developed a document in 1999:
a) “Health for all in the 21st century”;
b) "Health for All";
V) “Health for children in the 21st century”;
G) "Health for women in the 21st century."

Test No. 98. One of the basic principles of health promotion:
a) political mobilization of the population;
b) economic mobilization of the population;
V) social mobilization of the population;
G) financial mobilization of the population.

Test No. 99. Management triad:
a) organization, decision, control;
b) office work, decision, control;
V) information, decision, control;
G) leadership, decision, control.

Test No. 100. Management style:

a) directive	c) economic
b) control	d) financial

Test No. 101. Concept of public health:
A) activities to organize public efforts to meet the needs of society in the field of health protection
B) activities to organize public efforts in order to meet the needs of society in the field of protecting physical development
C) activities to organize public efforts in order to meet the needs of society in the field of physical health protection
D) activities to organize public efforts to meet the needs of society in the field of mental health care

Test No. 102. Definition of “Social medicine and healthcare organization”:
A) science that studies the influence of various social factors on the health of the population
B) science that studies the influence of various factors on the health of the population
C) science that studies the influence of various natural factors on the health of the population
D) science that studies the influence of various biological factors on the health of the population

Test No. 103. The WHO European Bureau developed a document in 1999:
A) “Health for children in the 21st century”

B) “Health for all”
C) “Health for all in the 21st century”
D) “Health for women in the 21st century”

Test No. 104. One of the first laws on health protection of the Kyrgyz Republic:
A) law on the protection of the physical condition of the population of the Kyrgyz Republic
B) law on protecting the health of the population of the Kyrgyz Republic
C) law on the protection of physical development of the population of the Kyrgyz Republic
D) law on the protection of mental health of the population of the Kyrgyz Republic

Test No. 105. Resource necessary to achieve health:
A) socio-economic
B) social
B) economic
D) financial

Test No. 106. Kyrgyzstan, based on WHO, created its national program A) “Healthcare of Kyrgyzstan in the 21st century”
B) “Health of Kyrgyzstan in the 21st century”
C) “The health of children of Kyrgyzstan in the 21st century”
D) “Medicine of Kyrgyzstan in the 21st century”

Test No. 107. Types of prevention:
A) initial, intermediate, final
B) primary, secondary, final
B) primary, secondary, tertiary
D) primary, secondary, tertiary

Test No. 108. Factors influencing human health:

	A	B	IN	G
Lifestyle	20%	thirty%;	10%	50%
Heredity	50%	thirty%;	20%;	20%
Environment	20%	20%;	50%	20%
Healthcare	10%	20%	20%	10%

Test No. 109. In the structure of mortality in the Kyrgyz Republic, the first place is occupied by:
A) neoplasms
B) respiratory diseases
B) injury and poisoning
D) diseases of the circulatory system

Test No. 110. In the structure of morbidity in the Kyrgyz Republic, the leading place is occupied by:
A) respiratory diseases
B) diseases of the circulatory system
B) diseases of the digestive system
D) diseases of the genitourinary system

Test No. 111. Purpose of medical examination:
A) strengthening public health, increasing people’s life expectancy and increasing labor productivity of workers
B) maintaining and strengthening public health, increasing people’s life expectancy and increasing labor productivity of workers
C) maintaining public health, increasing people’s life expectancy and increasing labor productivity of workers
D) maintaining and strengthening public health, increasing people’s life expectancy, improving labor productivity of workers

Test No. 112. Communication channels:
A) dramatization, newspapers, media
B) direct meetings, decoration, television
B) direct meetings, graphic and audiovisual media
D) Media, everyday meetings, publications in newspapers

Test No. 113. Target audiences are:
A) primary, secondary, tertiary
B) zero, primary
B) primary, secondary
D) target, non-target

Test No. 114. The concept of "Promoting the health of children and youth":
A) a system of national, medical, and social events aimed at improving the quality of life of the younger generation
B) a system of social, medical, public events aimed at improving the quality of life of the younger generation
C) a system of medical and social events aimed at improving the quality of life of the younger generation
D) a system of national, medical, aimed at improving the quality of life of the younger generation

Test No. 115. The concept of "Disease":
a) this is a qualitative state of the body that arises in response to damage by environmental influences, through social conditions;
b) state of disturbed interaction of the body with the social environment;
V) state of disturbed interaction of the body with the external environment;
G) a state of disturbed interaction of the organism with the geographical environment.

Test No. 116. WHO recommends reducing maternal mortality to:
A) 15 cases per 100,000 live births
B) 20 cases per 100,000 live births
B) 25 cases per 100,000 live births
D) 10 cases per 100,000 live births

Test No. 117. There are 10 classes in total in the ICD:

a) 17;	b) 19;	at 21;	d) 23.

Test No. 118. Requirements for the personal qualities of a healthcare manager:
A) basic education in specialty
B) higher education
B) economic Education
D) financial education

Test No. 119. The concept of "Solution":
A) a logical and mental legal act unfolded in time
B) an emotional-psychological legal act unfolded over time
B) time-deployed logical-mental, emotional-psychological legal act
D) a legal act unfolded over time

Test No. 120. Features of management in healthcare:
A) difficulties in management
B) special responsibility in financial matters
B) special responsibility of decisions made
D) difficulties in leadership

Test No. 121. Management methods:
A) organizational and administrative
B) directive

B) controlling
D) liberal

Test No. 122. Definition of “Healthcare Management”:
A) a set of all types and forms of management of medical organizations and enterprises
B) the totality of all forms of management of medical organizations and enterprises
B) a set of all types of management of medical organizations and enterprises
D) the totality of all types and forms of management of medical organizations

Test No. 123. The concept of “Marketing”:
A) a type of human activity aimed at satisfying needs through exchange
B) a type of human activity aimed at satisfying needs through exchange
C) a type of human activity aimed at satisfying needs and wants through exchange
D) a type of human activity aimed at satisfying needs and wants

Test No. 124. The concept of “Medical services market”:
A) a set of technologies, medical equipment products, methods of organizing medical activities, the pharmaceutical industry, implemented in a competitive environment
B) a set of technologies, methods of organizing medical activities, the pharmaceutical industry, implemented in a competitive environment
C) a set of technologies, medical equipment products, methods of organizing medical activities, implemented in a competitive environment
D) a set of technologies, medical equipment products, pharmaceutical industry, implemented in a competitive environment

Test No. 125. The concept of “Demand for medical services”:
A) is the number of medical services that buyers want to purchase
B) these are services that patients wish to purchase in medical organizations
C) this is the number of medical services that patients wish to purchase
D) this is the number of medical services that patients wish to purchase

Test No. 126. The concept of “Need”:
A) a need that has taken a specific form in accordance with the cultural level and personality of the individual
B) a need that has taken a specific form in accordance with the cultural level and character of the individual
C) a need that has taken a specific form in accordance with the cultural level and the characteristics of the individual
D) a need that has taken a specific form in accordance with the cultural level and habit of the individual

Test No. 127. Manas program - goal:
A) improving public health through increased funding
B) improving public health by increasing the efficiency and quality of medical care
C) improving public health through the introduction of new methods of financing at the outpatient level of medical care
D) improving public health by increasing the efficiency of use of financial resources

Test No. 128. Types of system:
A) real, unreal, open, closed
B) real, abstract, open, closed
C) abstract, essential, closed, open
D) real, unreal, incoming, outgoing

Test No. 129. The objectives of the Manas healthcare reform included:
A) management reform, medical reform. services training reform financing reform
B) institutional reform, financing reform, postgraduate training reform, outpatient reform
C) management reform, medical education reform, personnel training reform, medical services reform
D) hospital service reform, financing reform, medical education reform, personnel training reform

Test No. 130. A family doctor is:
A) a specialist with higher medical education who provides highly specialized medical care
B) a specialist with a higher medical education who provides highly specialized, highly specialized assistance to the family, regardless of gender and age
C) a specialist with higher medical education who provides primary health care to adults
D) a specialist with a higher medical education who provides primary health care to a family member, regardless of gender and age

Test No. 131. Health system models:
A) Bismarck, Beveridge, Semashko, Bryukhovenko
B) Bismarck, Boerhaave, Semashko, private
B) Beveridge, Semashko, Virkhova, state
D) Bismarck, Beveridge, Semashko, private

Test No. 132. Health insurance:
A) obligatory, social
B) mandatory, voluntary
B) universal, one-time
D) family, temporary

Test No. 133. What percentage of contributions from the wage fund is sent to compulsory medical insurance for working citizens by the employer?_____ _____ _____
A) 6% | B) 3% | AT 4% | D) 2%

Test No. 134. Clinical protocols are:
A) guidelines for doctors.
B) instructions that must be followed unless there is reason to the contrary.
B) educational aids for doctors and patients.
D) complete therapeutic reference books.

Test No. 135. Licensing of medical activities is a mandatory procedure:
A) for legal entities and individuals, regardless of the form of ownership and departmental affiliation.
B) for public medical institutions
B) for legal entities and individuals engaged in entrepreneurial medical activities (private medical practice)
D) for individuals to carry out private medical practice

Test No. 136. Types of indicators:
A) quantitative, special
B) qualitative, quantitative
B) quantitative, individual
D) high-quality, personalized

Test No. 137. Clinical protocols are used for:
A) optimal use of resources.
B) punishing a doctor for medical errors.
B) Rchanting drugs certain pharmaceutical companies.

D) displacement of all expensive drugs.

Test No. 138. Types of accounting:
A) operational-technological, warning
B) signal, notifying
B) operational-technological, emergency-technological
C) D) operational-technological, signal

Test No. 139. Abortion rate (without mini-abortions)
A) is characterized by the proportion of abortions among all women with sexual intercourse
B) is characterized by the proportion of abortions to all women from 18 to 35 years old.
C) is characterized by the proportion of abortions to all women from 20 to 45 years old.
D) the structure of abortions for all VFVs

Test No. 140. Timely registration of pregnant women in the antenatal clinic is characterized by:
A) the proportion of pregnant women registered before 32 weeks of pregnancy, among all;
B) the proportion of pregnant women registered before 22 weeks of pregnancy, among all;
C) the proportion of pregnant women registered before 12 weeks of pregnancy, among all;
D) the proportion of pregnant women registered before 28 weeks of pregnancy, among all.

Test No. 141. The level of hospitalization of the population is characterized by:
A) the number of hospitalized persons with FGPs
B) the number of hospitalized persons from the service area
C) the number of hospitalized persons with FMS
D) the number of hospitalized persons per 100 population

Test No. 142. The provision of hospital beds for the population is characterized by:
A) number of beds per 1000 population
B) the number of beds per 10,000 population
C) the number of beds per assigned population
D) the number of beds per number of inpatient organizations

Test No. 143. The use of hospital beds is characterized by:
A) the number of days a bed is occupied per year
B) the number of days a bed is occupied per month
C) the number of days a bed is occupied per quarter
D) the number of days the bed is occupied for the six months

Test No. 144. The concept of “medical and social examination”:
A) a study of a person’s ability to work, carried out by doctors, in order to determine the degree and duration of his disability
B) a study of a person’s ability to work, carried out to determine the duration of his disability
C) a study of a person’s ability to work, carried out by doctors, in order to determine the degree of his disability
D) study of a person’s ability to work and the duration of his disability

Test No. 145. Type of disability depending on the reasons:
A) medical contraindications to performing professional work
B) medical contraindications to performing specific work
C) medical contraindications to work
D) medical contraindications to performing physical or mental labor

Test No. 146 Plan indicators:

A)	B)
•capacity of medical organizations	•attendance
•activities of medical institutions	•expenses

•medical personnel	•profit
•finance	•resources
IN) • Staff turnover • Staffing • Resources • Expenses	G) • Activities of medical institutions • Turnover of financial resources • Material expenses • Availability of doctors

Test No. 147 Method of payment for inpatient care:
A) For bed days spent, for each repeat case B) at the average cost, for each treated case C) For each bed, for each case
D) For the treated case

Test No. 148 Types of financing:

A)	B)
•The state budget	•The state budget
•Rental of premises	•Compulsory medical insurance funds
•Co-payment	•Co-payment
•Compulsory medical insurance funds	•Special means
•Donation	•SWAP tools
IN)	G)
•The state budget	•The state budget
•Municipal funds	•Compulsory medical insurance funds
•Donation	•Favorable fund funds
•Funds from rent	•The World Bank
•Private insurance	•Taxpayer funds

Test No. 149. Methods of payment for medical services in hospitals in the Single Payer system: A) by bed days
B) according to the average cost of treatment
C) according to actual expenses for hospitalization
D) for the treated case

Test No. 150. Positive aspects of the insurance system:
A) the money does not go to the general budget of the state, but is purposefully used for healthcare needs;
B) allow you to quickly respond to the expanding needs of the population for medical care;
C) social solidarity (the rich pay for the poor, the young for the old, the healthy for the sick);
D) all of the above.

A.1 Survey questions(medical statistics 7th semester)*:*

Questions to check the level of training "KNOW" :

Topic 1

1.1**sections of medical statistics;**

1.2 statistical population, its types.

Topic 2

2.1 stages of statistical research and their content;

2.2 main types of errors when analyzing material;

2.3 features of conducting socio-medical and clinical research.

Topic 3

3.1types of relative quantities;

3.2 intensive and extensive indicators, their differences;

3.3 indicators of coordination, credibility, correlation, visibility.

Topic 4

4.1 variation series, its characteristics and types;

4.2 average values, their types, application;

4.3 standard deviation value (σ) and coefficient of variation (Cr).

Topic 5

5.1 concept and essence of reliability assessment;

5.2 determination of confidence limits of relative and average values;

5.3 the essence of the concepts of “reliability” of relative and average values, “criterion of reliability” of research results;

5.4 essence of the compliance criterion (X2).

Topic 6

6.1 basic methods for standardizing statistical indicators;

6.2 stages of the direct standardization method.

Topic 7

7.1 the role of time series in the analysis of scientific research;

7.2 methods of smoothing time series and their significance for the analysis of material.

Topic 8

8.1 the essence of the correlation between characteristics;

8.2 directions and strength of correlation;

8.3 essence of the coefficient of determination.

Topic 9

9.1 application of the regression method in a doctor’s practice;

9.2 principles of constructing a regression scale;

9.3 method for calculating the regression coefficient;

9.4 method for calculating the linear regression equation;

9.5 method for calculating the standard deviation of the regression coefficient.

Topic 10

10.1 concept of medical demography, sections of demography;

10.2 general and special medical and demographic indicators, calculation methods.

Topic 11

11.1 the importance of studying population morbidity and methods for studying it;

11.2 general morbidity;

11.3 special morbidity.

Topic 12

12.1 disability indicators,

12.2 disability groups.

Topic 13

13.1 main types of graphic images;

13.2 general rules for constructing graphic images.

Survey Questions(public health and healthcare 8th semester)*:*

Questions to check the level of training "KNOW" :

Topic 1

1.1 content of public health and healthcare;

1.2 legislative framework for health protection;

1.3 content of the law on public health.

Topic 2

2.1 indicators of a person’s physical, mental (spiritual) and social well-being;

2.2 factors influencing health status;

2.3 public health indicators and main trends;

2.4 health promotion and assessment technology: principles, resources;

2.5 health promotion strategies in international documents and Kyrgyzstan.

Topic 3

3.1 human lifestyle: definition, concept;

3.2 healthy lifestyle: definition, concept, spiritual and value guidelines, formation of a healthy lifestyle (HLS);

3.3 risk factors: definition, grouping, main risk factors influencing the occurrence of diseases;

3.4 potential health hazard (ICD-10 risk factors);
3.5 prevention of risk factors: definition, types;
3.6 social mobilization of the population.

Topic 4

4.1international classification of diseases (ICD), clinical cost group (CHG);
4.2 health status of the population of the Kyrgyz Republic;
4.3 content of the dispensary service method.

Topic 5

5.1 the role of the health promotion service (HPS) in the formation of a healthy lifestyle (HLS);
5.2 health promotion communications;
5.3 international cooperation in promoting health;
5.4 prevention strategies in foreign countries.

Topic 6

6.1 main problems and strategies for health promotion (HP) of children and youth according to WHO and the Kyrgyz Republic.

Topic 7

7.1 main problems in the health of women and older people, strategies to improve their health.

Topic 8

8.1 basic concepts and provisions of management;
8.2 solution and its types;
8.3 management technology.

Topic 9

9.1 basic concepts of marketing;
9.2 public health market;
9.3 marketing research and advertising.

Topic 10

10.1 System: concept, content;
10.2 main directions of healthcare reform in the Kyrgyz Republic;
10.3 classification and structure of healthcare institutions.

Topic 11

11.1 the essence of social insurance, welfare and health insurance;
11.2 content of health insurance in the Kyrgyz Republic.

Topic 12

12.1 basics of family medicine;
12.2 principles, structure of FMCs, FGPs;
12.3 tasks of emergency medical care and specialized medical care.

Topic 13

13.1 content of the quality of medical services;
13.2 assessment and management of the quality of medical services;
13.3 the essence of licensing and accreditation in medical institutions.

Topic 14

14.1 accounting and reporting in healthcare;
14.2 performance indicators of the general medical network;
14.3 performance indicators of specialized medical services.

Topic 15

15.1 the essence of medical labor examination;
15.2 content of the examination of temporary disability;
15.3 organization of examination of incapacity for work;
15.4 Government Decree “On the procedure and duration of temporary disability” No. 576 of 08/14/2006.

Topic 16

16.1basics of health care planning and economics;
16.2 pricing in healthcare.

Topic 17

17.1 basics of health care financing.

Topic 18

18.1 health systems;

18.2 healthcare organization in developed countries: Great Britain, France, USA;

18.3 organization of health care in developing countries;

18.4 international organizations.

A.2 Questions for midterm control (tests)

Topic 1 (test No. 1 - 7th semester)

1. Minimum absolute numbers for calculating intensive and extensive indicators.
2. Variation series: definition, characteristics.
3. Relative quantities: definition, types.
4. Limit, amplitude: concept, calculation method.
5. Intensive indicator: concept, calculation method.
6. Standard deviation: concept, calculation method.
7. Extensive indicator: concept, calculation method.
8. Criteria for the diversity of a trait in a variation series.
9. Difference between intensive and extensive indicators.
10. Arithmetic mean for a grouped variation series: concept, calculation method.
11. Coordination indicator: concept, calculation method.
12. Weighted arithmetic mean: concept, calculation method.
13. Likelihood index: concept, calculation method.
14. Simple arithmetic mean: concept, calculation method.
15. Ratio indicator: concept, calculation method.
16. Arithmetic mean: concept, types.
17. Visual indicator: concept, calculation method.
18. Mode and median: concept.
19. Designation of intensive indicators.
20. Average values: definition, properties.
21. The magnitude of the bases of intensive indicators.
22. Coefficient of variation: definition, calculation method.
23. Relative quantities: definition, types.
24. Variation series: concept, types.

Topic 2 (test No. 2 - 7th semester)

1. Demography is a concept.
2. Lethality, calculation.
3. Medical demography - concept.
4. Postneonatal mortality, calculation.
5. Demographics sections.
6. Neonatal or early infant mortality, calculation.
7. Population statics - concept.
8. Perinatal mortality, calculation.
9. Population dynamics concept.
10. Postnatal or early neonatal mortality, calculation.
11. Types of population movement and their essence.
12. Intrapartum mortality, calculation.
13. General vital statistics.
14. Antenatal mortality, calculation.
15. Special vital statistics indicators.
16. Stillbirth rate, calculation.
17. Fertility rates, calculation.
18. Infant mortality, calculation.
19. Mortality rates, calculation.

20. Marital fertility, calculation.
21. Indicators of natural population growth.
22. Average life expectancy is a concept.

Topic 3 (test No. 3 - 7th semester)

1. Calculate medical and demographic indicators for year N 5.
2. Calculate the rank correlation coefficient between fertility and infant mortality rates.
3. Graphically display the data in Table 1.
4. Make an analysis of medical and demographic indicators.
5. Calculate time series indicators.
6. Make an analysis of the dynamics of fertility.
7. Calculate the prevalence rate and morbidity structure.
8. Graphically display the data in Table 3.
9. Do an morbidity analysis.
10. Calculate the prevalence rate and morbidity structure.
11. Graphically display the data in Table 4. l. Do an morbidity analysis.
12. Calculate indicators of the population's supply of medical specialists.
13. Calculate indicators of the population's supply of paramedical workers.
14. Determine the ratio of doctors and nursing staff.
15. Make an analysis of the population's supply of doctors and other specialists.
16. Calculate the indicator of the population's supply of beds by profile.
17. Make an analysis of the population's availability of beds.
18. Calculate performance indicators of healthcare organizations.
19. Make an analysis of the activities of a healthcare organization, comparing it with national data.
20. Create a variation series.
21. Calculate the weighted arithmetic mean.
22. Calculate the standard deviation using the coefficient "K", the average error and the coefficient of variation.
23. Give a conclusion.
24. Give recommendations at the level of: state, ministry of health, health care organizations, local authorities and from medical workers.

Topic 1 (test No. 1 - 8 semester)

1. Marketing: concept.
2. Management methods.
3. Factors influencing the final result of the decision.
4. Healthcare management: concept, goal.
5. Terms of a transaction.
6. Objectives of marketing research.
7. Management functions.
8. Types of documents.
9. Segmentation of the medical services market.
10. Public health market.
11. Characteristics of the medical services market.
12. Degrees of solution.
13. Medical services market: concept.
14. Stages of control.
15. Types of documents.
16. Need: concept.
17. Distribution: concept.
18. Manager's work style.
19. Demand: concept.
20. The main role of management.
21. Classification of the solution.

22. Need: concept.
23. Types of marketing of medical services.
24. Reasons for lack of time.
25. Request: concept.
26. Management technology: concept, operations.
27. Causes of conflicts in teams.
28. Product: concept, types.
29. Management tasks.
30. Solution: concept, goal, objectives.
31. Sentence: concept.
32. Marketing research: definition.
33. Meeting requirements.
34. Promotion: concept.
35. Features of healthcare management.
36. Requirements for a manager.
37. Market: concept.
38. Principles of management.
39. Types of documents.
40. Management skills.
41. Exchange: concept.
42. Marketing research methods.
43. Types of market: concept.
44. Management triad.
45. Meeting requirements.
46. Deal: concept
47. Types of marketing of medical services.
48. Management methods.
49. Healthcare management: concept, goal.
50. Price: concept.
51. Marketing research methods.
52. Classification of the solution.
53. Management technology: concept, operations.
54. Public health market.
55. Marketing research: definition.
56. Advertising: concept, types.
57. Management functions.
58. Factors influencing the effectiveness of the solution.
59. Reasons for lack of time.
60. Marketing: concept.
61. Stages of control.
62. Requirements for a manager.
63. Medical services market: concept.
64. Principles of management.
65. Sentence: concept.
66. Objectives of marketing research.
67. Market: concept.
68. Features of healthcare management.
69. Solution: concept, goal, objectives.
70. Types of market: concept.
71. Management tasks.
72. Manager's work style.

Topic 2 (test No. 2 - 8th semester)

1. State social insurance, definition, sources of financing.

2. Quality of medical services: definition, consumers of medical services.
3. Accounting: definition, purpose and types.
4. State social security: definition, types of benefits.
5. Medical service, definition. Subjects of medical services.
6. Document, accounting documentation, definition. Types of primary accounting documentation.
7. Health insurance: definition, types.
8. Approach to the quality of medical services and its elements.
9. Report, reporting documentation, definition.
10. List the models of health care systems and their authors.
11. Clinical protocol: definition, purpose, objectives.
12. List the accounting and statistical documents of the FMC.
13. List the basic principles of health insurance.
14. Indicator, definition and its types.
15. List the registration and statistical documents of the hospital.
16. Categories of insured citizens.
17. Quality management of medical services, concept, subjects of management.
18. Accounting documentation, types of primary accounting documentation.
19. Compulsory health insurance fund: definition, purpose, objectives.
20. License, licensing, definition. Licensing stages.
21. List the performance indicators of the FMC.
22. Compulsory medical insurance, definition, purpose, sources of financing.
23. Accreditation, definition, purpose, objectives.
24. Provision of population with hospital beds, calculation methods.
25. State social insurance, definition, sources.
26. Standard, definition. The concept of a licensing standard.
27. List methods for assessing and analyzing health conditions.
28. Types of social insurance.
29. Stages of licensing and accreditation, definition.
30. Average patient stay in hospital, calculation method.
31. State social security, types of state benefits.
32. Medical service, definition.
33. Hospitalization rate of the population, calculation method.
34. The essence of healthcare models.
35. Quality of medical services, definition.
36. Hospital mortality rate, calculation method.
37. History of the development of health insurance.
38. List the subjects of medical services.
39. Indicator of the total number of abortions, calculation method.
40. Types of health insurance.
41. Elements of quality of medical services.
42. Completeness of examination of pregnant women, calculation methods.
43. Sources of financing for insured citizens.
44. An approach to healthcare quality control.
45. Health index of children in the first year of life who have not suffered from acute respiratory viral infections, acute respiratory infections and other influenza-like diseases, calculation method.
46. Category of insured citizens, source of financing.
47. Licensing, definition, stages.
48. Frequency of children under 3 months of life who are breastfed, calculation method.
49. List the rights of insured citizens.
50. Accreditation of healthcare organizations, goals and objectives.
51. Use of hospital beds, calculation methods.

52. List the sources of funding for the Compulsory Medical Insurance Fund.
53. Clinical protocol, definition, purpose and objectives.
54. Provision of the population with paramedical personnel, calculation methods.
55. History of the development of health insurance.
56. Standard, definition, licensing standards.
57. Ratio of doctors and paramedical workers, calculation method.
58. Principles of compulsory medical insurance.
59. Consumers of medical services.
60. Hospitalization rate of the population, calculation method.
61. Health insurance in the Kyrgyz Republic, definition and its types.
62. Quality of medical services, definition, subjects of management.
63. Hospital mortality rate, calculation method.
64. State social insurance and its types.
65. Licensing, definition, purpose.
66. Completeness of examination of pregnant women, calculation methods.
67. Types of government benefits.
68. Approach to the quality of medical services.
69. Indicator of the quality of medical work, calculation method.
70. Health care models and their essence.
71. Consumers of medical services.
72. Provision of the population with doctors, calculation methods.
73. Compulsory Health Insurance Fund (MHIF), definition, purpose, objectives.
74. Accreditation, definition, stages.
75. Number of visits per 1 resident per year to outpatient doctors, calculation method.

Topic 3 (test No. 3 - 8 semester)

1. Health care planning - definition.
2. Goal and objectives of planning.
3. Types of plans.
4. Planning methods.
5. Sections of a health plan.
6. Plan indicators.
7. Health Economics - Definition.
8. Types of efficiency.
9. Drivers of rising healthcare costs.
10. Price elements and types of prices.
11. Sources of financing.
12. Types of financing.
13. Methods of payment for medical services at the primary level.
14. Payment methods for inpatient medical services.
15. Prerequisites for changes in health care financing
16. Single Payer System: Definition.
17. Financial consolidation: definition.
18. Spending of financial resources in FMCs.
19. Spending of financial resources in hospitals.
20. Health systems.
21. Positive aspects and disadvantages of the state system.
22. Pros and cons of the insurance system.
23. Pros and cons of the private enterprise system.
24. Countries with a public health care system.
25. Countries with health insurance systems.
26. Standards of medical care.
27. Risks in healthcare.
28. Risk management, goals.

29. Reducing patient risk.

Block B

B.0 Options for tasks for performing RGZ, RPR are given:

The discipline does not provide for this work

B.1 Typical tasks (7th semester medical statistics):

Topic 1

*1.1 Problem*In the city of M., the growth of newborns was studied in 2021. There were 343 firstborns, their height ranged from 51 to 54 cm. There were 62 children from second births, their height ranged from 52 to 55 cm.

Determine: the unit of observation, the characteristics taken into account and the volume of the population.

*1.2 Problem*We studied relapses after a complex method of treatment in a hospital in 400 patients with angina pectoris. A year after the course of treatment, 125 patients who smoked again experienced chest pain (relapses), while the rest (non-smokers) had no complaints.

Determine: the unit of observation, the characteristics taken into account and the volume of the population.

*1.3 Problem*School doctor T. studied the prevalence of oral diseases in children from schools No. 1 and No. 2 in the city of N.

Results of the study: out of 80 children, 12 people complained of bleeding gums in school No. 1, and out of 300 children in school No. 2, 58 people complained of deep caries.

Determine: volume of the population, type of population, unit of observation, signs of observation.

*1.4 Problem*A cardiologist studied the long-term consequences of treatment of 200 patients with ischemic disease (100 of them were under 50 years of age and 100 were over 50 years of age).

The results of the study showed that a year after the first heart attack, a relapse occurred in 20 patients under the age of 50 years and in 30 patients over the age of 50 years.

Determine: volume of the population, type of population, unit of observation, signs of observation.

*1.5 Problem*A group of pediatric dentists, during a planned sanitation of schoolchildren in two schools in the city of N., found that out of 150 schoolchildren who underwent planned sanitation in school No. 1, 50 were diagnosed with dental caries.

Of the 400 schoolchildren who underwent planned sanitation at school No. 2, 200 were diagnosed with dental caries.

Determine: volume of the population, type of population, unit of observation, signs of observation.

Topic 2

*2.1 Problem*The topic of the study is to study the prevalence of smoking among medical students.

The purpose of the study is to recommend interventions to reduce the prevalence of smoking among medical students.

According to the purpose:

1) formulate the main objectives of the study;
2) determine the unit and signs of observation;
3) make up:
   - examination card,
   - grouping of material,
   - table layouts.

*2.2 Problem*The topic of the study is to study the prevalence of peptic ulcer disease among medical students.

The purpose of the study is to recommend ways to reduce the prevalence of peptic ulcer disease among medical students.

According to the purpose:

1) formulate the main objectives of the study;

2) determine the unit and signs of observation;

3) compose:

- examination card,
- grouping of material,
- table layouts.

*2.3 Problem*The topic of the study is to study the level of awareness of students on healthy lifestyle issues.

The purpose of the study is to outline measures to improve students' knowledge about the spread of bad habits.

According to the purpose:

1) formulate the main objectives of the study,

2) determine the unit and signs of observation,

3) compose:

- survey map;
- grouping of material;
- table layouts.

*2.4 Problem*Population morbidity study questionnaire

1. FULL NAME.
2. Age.
3. Floor.
4. Nationality.
5. Diagnosis.

Create table layouts: simple, group, combinational.

*2.5 Problem*Population Mortality Study Questionnaire

1. FULL NAME.
2. Age.
3. Floor.
4. A place of death.
5. Diagnosis.

Create table layouts: simple, group, combinational.

*2.6 Problem*Questionnaire for studying morbidity among students

1. FULL NAME.
2. Faculty.
3. Well.
4. Type of training.
5. Diagnosis.

Create table layouts: simple, group, combinational.

Topic 3

3.1 Problem Conducting routine BCG vaccination of children in district N by year

Year	Total children	Number of vaccinated
2019	5 500	1 203
2021	5,050	1,016
2022	7,000	1,540
Total:	17,500	3,759

Calculate intensive and extensive vaccination rates by year.

*3.2 Problem*Morbidity rate of the child population (0–14 years) in the Kyrgyz Republic by some classes of diseases (2021)

Class of diseases	Number of diseases

Some infectious and parasitic diseases	89 718
Diseases of the ear and mastoid process	36,679
Neoplasms	618
Diseases of the blood, hematopoietic organs, disorders of immune mechanisms	64 274
Endocrine system diseases, eating disorders	41 681
Total:	232 970

The number of children is 1,718,200.

Calculate the frequency and structure of diseases among children.

*3.3 Problem*Causes of mortality by disease class in city N (2021)

Class of diseases	Number of deaths
Respiratory diseases	340
Digestive diseases	120
Diseases of the circulatory system	50
Diseases of the genitourinary system	25
Total:	535

The number of children is 26,000. Calculate the frequency and structure of causes of mortality.

*3.4 Problem*Respiratory diseases of children aged 0–5 years in the city of N

Nosological form	Number of identified diseases
Bronchitis	245
Pharyngitis	315
Pneumonia	735
Other diseases	1 240
Total:	2 535

The number of children is 5,375. Calculate the frequency and structure of respiratory diseases in children.

*3.5 Problem*Dental care for the population of region N (2018–2020)

Years	Visiting a dental clinic			
	Professional Inspection	Filled teeth	Removed teeth	Average annual population, thousand people.
2018	133 813	115 511	41 117	754.3
2019	161 480	123 611	36,672	758.3
2020	168 396	125 451	41,794	761.2

Calculate the frequency of professional examination, the ratio of extracted and filled teeth in a dental clinic.

*3.6 Problem*Number of paramedical workers by region (2021)

Region	Population	Number of paramedics
Republic of Kyrgyzstan	5 607 500	31,081
Chui area	830 500	2,990
Issyk-Kul region	45 700	1,971
Naryn region	266 500	1 505
Talas region	237 400	1 207
Osh region	1 160 500	6,834
Jalal-Abad region	1,065,500	5 684
Batken region	453 800	3 292
Bishkek	884 500	3 141
Osh city	258 100	1 331

Calculate the ratio index.

*3.7 Problem*Number of specialists with higher medical education by region of the Kyrgyz Republic (2021)

Region	Population	Number of doctors
Republic of Kyrgyzstan	5 607 500	12,718
Chui area	830 500	1 229
Issyk-Kul region	45 700	689
Naryn region	266 500	373
Talas region	237 400	316
Osh region	1 160 500	1,863
Jalal-Abad region	1,065,500	1 496
Batken region	453 800	707

Calculate the ratio index.

3.8 Problem Vital movement indicators in the Kyrgyz Republic

Index	Year							
	2014	2015	2016	2017	2018	2019	2020	2021
Natural increase per 1,000 population	14.2	15.9	16.2	17.0	18.5	20.2	20.6	18.5

Calculate the visibility indicator by year.

3.9 Problem Perinatal mortality in children depending on maternal age

Age, years	Locality			
	A	B	IN	G
Up to 19	10	6	8	15
20–24	20	40	38	15
25–29	thirty	thirty	25	35
30–34	thirty	20	25	25
35 or more	10	4	4	10
Total	100	100	100	100

Calculate and analyze the likelihood ratios between points A and B, B and D, A and C, A and D, B and C, B and D.

3.10 Problem Structure of infant mortality in cities A and B for 2021, as a percentage of the total

Cause	City	
	A	B
Diseases of the nervous system and sensory organs	0.8	0.9
Infectious and parasitic diseases	1.8	4.1
Respiratory diseases	6.4	7.0
Congenital anomalies	17.8	13.7
Conditions arising in the perinatal period	71.3	67.5
Injuries and poisoning	0.8	5.6
Others	1.1	1.2
Total	100.0	100.0

Calculate the likelihood ratio.

3.11 Problem Number of specialists with higher and secondary medical education by year in the Kyrgyz Republic

Speciality	Year		
	2019	2020	2021
Specialists with higher medical education	12 225	12,614	12,718
Nursing staff	28 570	30 148	31,081

Calculate the coordination index.

Topic 4

4.1 Problem Number of teeth affected by caries in adolescents

Dental caries (by number of teeth), (V)	Number of caries cases, (P)

1	2
2	3
3	5
4	10
5	5
6	3
7	2
Total:	thirty

Calculate the arithmetic mean, standard deviation and coefficient of variation.

4.2 Problem Number of cigarettes smoked by teenagers per day

Number of cigarettes (V)	Number of persons (P)
5	5
10	10
15	12
20	40
25	60
thirty	thirty
Total:	157

Calculate the average value, sigma, coefficient of variation.

4.3 Problem Growth indicators for girls aged 12 years, see

Height (V), cm	Number of persons (P)	Height (V), cm	Number of persons (P)
116	2	127	5
117	2	128	2
118	7	129	5
119	20	130	4
120	4	131	9
121	10	132	7
122	9	133	2
123	8	134	1
124	4	135	5
125	5	136	8
126	4		
		Total:	123

Calculate the average value, sigma, coefficient of variation.

4.4 Problem Blood pressure indicators of high school students before taking exams

Maximum blood pressure (V), mm Hg. Art.	Number of schoolchildren (P)	Maximum blood pressure (V), *mmHg Art.*	Number of schoolchildren (P)
100–104	2	125–129	6
105–109	2	130–134	9
110–114	4	135–139	5
115–119	5	140–144	2
120–124	4	145–149	1
		Total:	40

Calculate the average value, sigma, coefficient of variation.

4.5 Problem Heart rate indicators of students after the competition

Pulse rate (V), beats per minute	Number of students (P)	Pulse rate (V), beats per minute	Number of students (P)

55–64	2	95–104	22
65–74	3	105–114	6
75–84	10	115–124	4
85–84	5	125–134	3
		Total:	55

Calculate the average value, sigma, coefficient of variation.

*4.6 Problem*Results of measuring height in a group of schoolchildren

Height (V), cm	Number of persons (P)	Height (V), cm	Number of persons (P)
116	2	123	10
117	1	124	6
118	8	125	8
119	6	126	6
		Total:	47

Calculate the average, standard deviation and coefficient of variation.

*4.7 Problem*Results of measuring height in a group of schoolchildren

Height (V), cm	Number of persons (P)	Height (V), cm	Number of persons (P)
116	2	124	16
117	2	125	10
118	7	126	15
119	8	127	4
120	4	128	7
121	10	129	3
122	9	130	1
123	20		
		Total:	118

Calculate the average, standard deviation and coefficient of variation.

*4.8 Problem*Blood pressure indicators in schoolchildren before exams

Maximum blood pressure (V), mm. rt. Art.	Number of schoolchildren (P)	Maximum blood pressure (V), mm. rt. Art.	Number of schoolchildren (P)
100–104	2	130–134	9
105–109	2	135–139	5
110–114	4	140–144	2
115–119	5	145–149	1
120–124	4	150–154	2
125–129	6	155–159	4
		Total:	46

Calculate the average, standard deviation and coefficient of variation.

Topic 5

*5.1 Problem*Incidence of scoliosis among schoolchildren in the city of K

Schools	Amount of children	Number of patients
No. 1	570	12
No. 2	600	17

Determine whether the differences in rheumatism incidence rates among schoolchildren are significant.

*5.2 Problem*Results of deworming of children during treatment in outpatient and inpatient settings

Place of treatment	Number of children	Dewormed
CSM	730	63

Hospital	700	84

Determine whether there are significant differences in outcome measures between outpatient and inpatient settings.

5.3 Problem Prevalence of bronchitis among children 5–6 years old

Age, years	Number of people examined	Children with caries identified
5	434	304
6	389	300

Determine whether the differences in bronchitis incidence rates in the compared age groups are significant.

5.4 Problem Implementation of the plan for medical examination of children in schools in cities B and O

City	Subject to inspection, persons.	Total inspected, persons.
B	7 500	6,545
ABOUT	6 200	5 350

Determine whether the differences in the indicators of the examined individuals are significant.

5.5 Problem Average height of seven-year-old schoolchildren by gender

Age, years	Boys		Girls	
	M, cm	±m	M, cm	±m
7	120.9	±0.57	119.6	±0.65

To determine the reliability of differences in the compared groups of schoolchildren.

5.6 Problem Average height of schoolchildren 13 years old by gender

Age, years	Boys		Girls	
	M, cm	±m	M, cm	±m
13	139.2	±0.80	140.1	±0.82

To determine the reliability of differences in the compared groups of schoolchildren.

5.7 Problem Number of women who gave birth to a second child, living in a separate apartment and in a dormitory

Place of residence	Number of women of childbearing age	They gave birth to a second child
Apartment	2,031	236
Dormitory	3,064	231

Determine whether living conditions affect the birth of a second child.

5.8 Problem Number of children in families depending on the level of education of the mother (per 100 families)

Mother's education	Total family members	Including children
Lower secondary	532	246
Average total	700	229
Higher	330	188

Determine whether the level of education of the mother affects the number of children in the family.

5.9 Problem The number of deaths of children in the perinatal period depending on the age of the mother

Mother's age, years	Total births	Death in the perinatal period
18–26	642	44
27–34	534	32

Determine whether maternal age affects infant mortality in the perinatal period.

5.10 Problem Academic performance of medical students by gender

Students	Average (M)	±m
Women	4.2	±0.04
Men	3.8	±0.04

Determine the reliability of differences in the compared groups of students by gender.

Topic 6

6.1 Problem Sex and age dependence of cases of intestinal infection among children

Age, years	Boys		Girls	
	Number of autopsies	Number of intestinal infections	Number of autopsies	Number of intestinal infections
2–3	260	-	256	-
4–5	381	3	325	12
6–7	440	24	345	12
8–9	658	95	450	33
10–11	578	104	431	70
12–13	311	69	246	49
14 and older	92	13	77	10
Total:	2 720	308	2 130	186

Calculate simple and standardized indicators of the prevalence of intestinal infection by gender and draw appropriate conclusions. As a standard, take half the sum of the age composition of both sexes.

6.2 Problem Distribution of schoolchildren by grade and cases of measles

Classes	School A		School B	
	Total	Got sick	Total	Got sick
1–2	255	41	124	22
3–4	153	eleven	215	19
5–6	111	5	364	23
7–8	100	4	200	thirty
9–11	150	6	100	10
Total	779	67	1,003	104

Calculate simple and standardized incidence rates for the two schools. Draw conclusions. Take the composition of schoolchildren by grade in both schools as a standard.

6.3 Problem Distribution of patients - children with intestinal obstruction and the number of deaths from this disease in hospitals A and B according to the time of admission to the hospital from the onset of the disease

Time of admission to the hospital from the onset of the disease, hours	Hospital A		Hospital B	
	Number of patients	Number of deaths	Number of patients	Number of deaths
Until 6	250	42	170	thirty
6–24	273	49	215	37
Over 24	201	thirty	415	116
Total:	724	121	800	173

Calculate simple and standardized mortality rates for both hospitals. Draw conclusions. As a standard, take the composition of patients in both hospitals according to the time of admission to the hospital from the onset of the disease.

6.4 Problem Mortality of children in two hospitals in the city of K

Age, years	Hospital 1		Hospital 2	
	Number of patients	Number of deaths	Number of patients	Number of deaths
Up to 1	1 500	90	500	40
1–4	500	10	500	15
5–7	500	5	1 500	22
Total:	2 500	105	2 500	77

Calculate simple and standardized mortality rates for both hospitals. Draw conclusions. As a standard, take half the sum of patients in two hospitals.

6.5 Problem Sex and age dependence of cases of myocardial infarction

Age, years	Men	Women

	Number of autopsies	Number of myocardial infarctions	Number of autopsies	Number of myocardial infarctions
20–29	260	-	256	-
30–39	381	3	325	12
40–49	440	24	345	12
50–59	658	95	450	33
60–69	578	104	431	70
70–79	311	69	246	49
80 and older	92	13	77	10
Total:	2 720	308	2 130	186

Calculate simple and standardized prevalence rates of myocardial infarction by gender and draw appropriate conclusions. As a standard, take half the sum of the age composition of both sexes.

*6.6 Problem*Distribution of workers and cases of time-limited illness (LTI) at two plants by gender

Floor	Number of workers		Number of diseases	
	Plant 1	Factory 2	Plant 1	Factory 2
Men	6,000	12,000	500	960
Women	10,000	4,000	500	200
Total:	16,000	16,000	1 000	1 160

Calculate simple and standardized morbidity rates and draw conclusions. As a standard, take the sum of the numbers of workers of both enterprises for each group.

*6.7 Problem*Distribution of workers by profession

Profession	Workshop A		Workshop B	
	Total	Got sick	Total	Got sick
Presser	255	41	124	22
Vulcanizer	153	eleven	215	19
Roller	111	5	364	23
Locksmith	100	4	200	thirty
Turner	150	6	100	10
Total:	779	67	1,003	104

Calculate simple and standardized morbidity rates in two workshops. Draw conclusions. Take as a standard the composition of workers by profession in both workshops.

Topic 7

*7.1 Problem*Number of health care organizations (OHOs) with pediatric departments (offices) in the city of N

Amount of HP	Year					
	2016	2017	2018	2019	2020	2021
Absolute number	134	116	126	127	97	66

Calculate and analyze time series indicators.

*7.2 Problem*Number of vacancies for pediatricians in the city of N

Occupied positions of pediatricians	Year					
	2016	2017	2018	2019	2020	2021
Absolute number	817	931	940	879	845	886

Calculate and analyze time series indicators.

*7.3 Problem*Persons examined in the order of preventive examinations by pediatricians to the total number of children in the city of N

Index	Year

	2016	2017	2018	2019	2020	2021
Persons examined in order of medical examinations, %	15.8	16.3	16.6	14.1	8.5	18.5

Calculate and analyze time series indicators.

7.4 Problem Number of children 0–14 years old in N cities, thousand.

Number of children 0–14 years old	Year					
	2016	2017	2018	2019	2020	2021
Absolute number	253.2	261.5	269.6	277.7	285.9	293.3

Calculate and analyze time series indicators.

7.5 Problem Birth rate among the urban population (per 1,000 people)

Index	Year					
	2016	2017	2018	2019	2020	2021
Fertility	33.1	31.2	29.3	31.3	24.9	24.6

Calculate and analyze time series indicators.

7.6 Problem Number of mothers with many children in the city of N receiving monthly state benefits, thousand.

Index	Year			
	2018	2019	2020	2021
Number of mothers receiving benefits	35.0	74.3	115.0	132.0

Calculate and analyze time series indicators.

7.7 Problem Number of hospitals in the city N

Number of institutions	Year				
	2016	2017	2018	2019	2020
Absolute number	112	138	261	284	273

Calculate and analyze time series indicators.

7.8 Problem Provision of population with paramedical workers (per 10,000 people)

Index	Year				
	2017	2018	2019	2020	2021
Provision of paramedical workers per 10,000 population	53.0	51.7	52.4	54.3	54.9

Calculate and analyze time series indicators.

7.9 Problem Mortality of children 5–14 years old from diseases of the blood system, hematopoietic organs, disorders of immune mechanisms (per 1,000 people)

Index	Year						
	2015	2016	2017	2018	2019	2020	2021
Mortality from diseases of the blood system, hematopoietic organs, disorders of immune mechanisms	15.2	17.2	20.9	21.0	22.6	24.0	27.0

Calculate and analyze time series indicators.

7.10 Problem The number of registered sick children with dysentery in the city of N for 2021.

Sick children with dysentery	Month												Total
	1	2	3	4	5	6	7	8	9	10	eleven	12	
Absolute number	20	23	thirty	31	29	42	68	100	93	71	35	32	574

Measure seasonal variation using the ordinary average method.

7.11 Problem The number of registered cases of child injuries for 2021 in the city of N

Cases of childhood injuries	Month												Total
	1	2	3	4	5	6	7	8	9	10	eleven	12	
Absolute number	95	102	112	80	68	62	63	66	76	90	95	108	1,017

Measure seasonal variation by the ratio of the average daily value for each month to the average daily value for the year.

7.12 Problem Distribution of children aged 5–14 years who died from respiratory diseases in 2021 in the city of K

Children aged 5–14 years who died from respiratory diseases	Season				Total
	Winter	Spring	Summer	Autumn	
Absolute number	595	504	344	546	1,989

Measure seasonal variations using the ordinary average method.

Topic 8

8.1 Problem The influence of fluoride levels in water on the incidence of dental caries in children

Zone	Average fluorine concentration, mg/l	Number of identified children
First	0.29 ± 0.01	631
Second	0.60 ± 0.02	448
Third	1.18 ± 0.07	252

Determine the correlation coefficient between fluoride content and dental caries.

8.2 Problem Effect of fluoride levels in water on fluorosis in children

Area	Number of identified children	Fluorine concentration, mg/l
A	1 635	1.8
B	1,835	2.5
IN	2,010	2.9
G	1 600	1.7

Determine the correlation coefficient between fluorine content and fluorosis.

8.3 Problem The relationship between the duration of body cooling (2 hours daily) and the level of lactic acid in the blood in adolescents

Cooling days	1	2	3	4	5	6	7	8	9	10
Lactic acid, mg%	77.0	77.0	77.2	77.1	88.5	88.9	88.7	99.0	99.5	99.3

Determine the direction and strength of the relationship between two indicators by calculating the correlation coefficient, and calculate the coefficient of determination.

8.4 Problem Daily protein requirements for eight-year-old girls

Girls' weight, kg	20	22	23	25	26	27	28
Daily protein requirement, g	62.0	66.0	62.0	75.0	75.0	78.0	82.0

Determine the correlation coefficient between the weight of girls and the daily protein requirement, calculate the coefficient of determination.

8.5 Problem Absorption of radioactive iodine by the thyroid glands of rats at different periods of their stay in high altitude conditions

Days of stay	10	15	20	25	thirty	35
Radioactivity, %	12.0	15.0	15.0	17.0	20.0	15.0

Determine the correlation coefficient between the day of stay at high altitudes and the absorption of radioactive iodine by the thyroid glands, calculate the coefficient of determination.

8.6 Problem Prevalence of pneumoconiosis among miners

Age, years	Identified per 100 workers
Up to 20	0.1
21–30	0.3
31–40	1.3
41–50	8.8
50 and older	5.0

Determine the direction and strength of the connection between these phenomena by calculating the rank correlation coefficient, and calculate the coefficient of determination.

Topic 9

9.1 Problem Age-specific incidence of pneumonia in children under one year of age in district N

Index	Age, months						
	1	2	3	4	5	6	7
Incidence per 1,000 children under one year of age	18	26.4	25.6	19.6	34.2	29.6	17.4

Calculate the regression coefficient for children's morbidity. Determine the expected incidence at 2, 3, 4, 5 months, draw a regression line.

9.2 Problem Results of measuring systolic and diastolic pressure levels in adolescents 14 years old

Systolic pressure level	80	90	95	100	110	115	120	120	120
Diastolic pressure level	40	50	55	60	60	60	65	70	75

Calculate the regression coefficient of systolic pressure level on diastolic pressure. Determine the expected level of systolic pressure with diastolic pressure equal to 82, 90 and 95 mm Hg. Art. Draw a regression line.

9.3 Problem Results of determining the daily protein requirement in eight-year-old girls

Girls' weight, kg	20	22	23	25	26	27	28
Daily protein requirement, g	62.0	66.0	62.0	75.0	75.0	78.0	82.0

Calculate the regression coefficient of the daily protein requirement by the weight of girls. Determine the daily protein requirement for girls weighing 22, 25 and 28 kg. Draw a regression line.

9.4 Problem Incidence rates of diabetes mellitus in children 6–14 years old

Index	Age, years						
	6	8	10	eleven	12	13	14
Incidence per 1,000 population	0.15	0.71	3.56	20.42	40.11	64.20	69.51

Calculate the regression coefficient of incidence by age. Determine the expected incidence of morbidity at ages 11 and 12 years. Draw a regression line.

9.5 Problem Incidence of diseases of the genitourinary system (pyelonephritis) in girls

Index	Age, years					
	6	8	9	10	12	14
Incidence per 1,000 girls	0.87	3.75	18.33	25.04	18.71	9.62

Calculate the regression coefficient of incidence by age. Determine expected incidence at ages 9, 10, and 14 years. Draw a regression line.

Topic 10

10.1 Problem Population, number of births, deaths in 2021

Name	City				
	A	B	IN	G	D
1. Population	159 810	17,676	26 312	111 532	232 059
2. Born alive	4,517	2 352	768	3 110	6 530
3. Born in 2020	4 605	2 393	792	3 202	6,670
4. Died	1 285	622	211	821	2,091

5. Including those under one year of age	104	58	17	74	137
6. Of these, up to one month of life	61	31	9	39	85
7. Including in the first six days after birth	42	19	7	26	61
8. Stillborns	17	8	3	eleven	19
9. Died from respiratory diseases	598	340	89	372	757
10. Incl. under 1 year of age	83	39	14	56	123

Calculate indicators of fertility, total mortality, natural increase, infant mortality, neonatal mortality, early neonatal mortality, stillbirth, perinatal mortality, mortality from respiratory diseases, infant mortality from respiratory diseases.

Topic 11

*11.1 Problem*Population morbidity rate for 2021 by locality

Name	Locality			
	A	B	IN	G
1. Population	93 115	139 508	185 272	93 143
2. Covered by medical examination	60 527	89 193	123 152	6 150
3. Newly identified diseases	13,256	21 303	26,851	33 180
4. All existing diseases	27 015	38,519	53 705	66,860
5. Diseases detected during medical examinations	123 475	185 314	247 517	30 171
6. Number of people who never applied to a health center during the year	64 116	105 111	130 517	18 150

Calculate and analyze indicators of primary morbidity, prevalence, pathological involvement, indicators of persons who have never applied to a health center during the year.

*11.2 Problem*Incidence rate with temporary disability for 2021

Name	Factory			
	A	B	IN	G
1. Number of employees	473	615	151	78
2. Number of cases of disability	275	373	98	41
3. Number of days of incapacity for work	2910	4010	105	79
4. Number of cases of disability from inflammatory diseases of the genitourinary system	72	101	28	9
5. Number of days of disability from inflammatory diseases of the genitourinary system	1150	1713	451	125

Calculate the number of cases and days of disability, the average duration of disability for all diseases and for inflammatory diseases of the genitourinary system.

Topic 12

*12.1 Problem*Disability of the population by city

Name	City			
	A	B	IN	G
Number of employees	65 117	48 321	32 223	23 715
Recognized as disabled for the first time	410	270	163	109
Including disabled peopleIgroups	92	58	35	23
Number of disabled people registered	1 318	1 102	617	453
Including people with disabilities due to diseases of the circulatory system	371	315	225	148

Calculate indicators of primary disability, general disability, disability due to diseases of the circulatory system.

Topic 13

*13.1 Problem*Structure of time spent on visiting one child by pediatricians

Elements of work	Time spent in minutes, as a percentage of the total

Preparation and familiarization with documentation Questioning the patient Examination and examination of the patient Other elements of work	10.6 15.1 25.9 48.4
Total:	100.0

Create a graphic image.

*13.2 Problem*Proportion of children with rheumatic diseases (per 1,000 children of the corresponding age)

Index	Age, years						
	Up to 1	1–3	4–5	6–7	8–9	10–11	12–14
Incidence per 1,000 children	6.3	23.5	32.5	26.4	26.1	30.5	37.6

Create a graphic image.

*13.3 Problem*Reasons for abortion

Causes	Certainly removable	Conditionally removable	Unclear	Fatal	Total
% to total	33.9	18.3	29.1	18.7	100.0

Create a graphic image.

*13.4 Problem*Persons examined in the order of preventive examinations by pediatricians to the total number of children in the city of N, %

Index	Year					
	2016	2017	2018	2019	2020	2021
Persons examined as part of preventive examinations by pediatricians, %	15.8	16.3	16.6	14.1	8.5	18.5

Create a graphic image.

*13.5 Problem*Number of children 0–14 years old in the city of N, thousand.

Number of children 0–14 years old	Year					
	2016	2017	2018	2019	2020	2021
Absolute number, thousand	253.2	261.5	269.6	277.7	285.9	293.3

Create a graphic image.

*13.6 Problem*Morbidity rate of the child population (0–14 years) in the Kyrgyz Republic for some classes of diseases in 2021.

Class of diseases	Incidence per 10,000 population
Some infectious and parasitic diseases	522.2
Diseases of the ear and mastoid process	213.5
Neoplasms	3.6
Diseases of the blood, hematopoietic organs, disorders of immune mechanisms	642.7
Endocrine system diseases, eating disorders	416.8

Create a graphic image.

Typical tasks (8th semester public health and healthcare):

Topic 1

*1.1 Problem*Conduct social mobilization of the population during an outbreak of measles in children aged 1 to 3 years.

Give specific information to the target audience (children's parents) about what they need to know:

- the dangers of measles and when children need a vaccine;
- where to go to vaccinate your child (clinic), on what days and hours;
- resources;

- preventive recommendations;
- what organizations can be involved in solving this problem;
- what forms of media are preferable for better perception of information;
- the role of the state in reducing the spread of the disease.

*1.2 Problem*Conduct social mobilization for the prevention of coronary heart disease (CHD) for men aged 30 - 35 years.

- Resources.
- How to change public opinion and policy to change behavior to prevent CHD.
- What men aged 35 - 40 need to know about this problem.
- Categories of men are at risk of getting the disease.
- Preventive recommendations.
- What organizations can be involved in solving this problem?
- What forms of media are most preferable for the prevention of coronary artery disease.

*1.3 Problem*Develop a program for the prevention of regulated infections for children from 0 to 3 years old (diphtheria, polio).

- Note the main strategies.
- List the main activities (carried out by medical workers).
- Deadlines.
- List the institutions that will directly carry out this work.

*1.4 Problem*Evaluate the doctor's actions, whether he carried out primary and secondary prevention work with the patient correctly.

A 37-year-old patient came to the district clinic to see a doctor. The doctor examined her and made the correct diagnosis - catarrhal tonsillitis, prescribed medication that met modern methods, and explained in detail how to take the prescribed medications.

At the next appointment, the doctor stated that the patient had recovered and said that she would be able to start work, but the patient said that her son had a sore throat.

Topic 2

*2.1 Problem*Obstetrics and gynecology activities of the FMC

Regions	Number women of fertile age	Pregnant women registered	Registered up to 12 weeks	Coverage of women of fertile age with contraception
KR	1301906	97456	72897	536952
Batken region	101795	8505	6642	40415
Jalal-Abad region	232114	19383	14847	74261
Issyk-Kul region	99837	9056	6620	44818
Naryn region	58688	5706	3748	27931
Osh region	257532	21117	17063	94828
Talas region	51224	4931	3762	23511
Chui area	204077	12054	9812	84575

Calculate the percentage of pregnant women registered in a timely manner and the coverage of women of fertile age with contraceptives.

*2.2 Problem*Information on abortion in the Kyrgyz Republic

~~Women of fertile age~~	Abortions	Number of	Of the total number of abortions

Regions		women of fertile age	Spontaneous	Artificial *	For medical reasons	For social reasons	Criminal.	Not sophisticated
KR	12677	1301906	6808	3648	598	352	13	1258
Batken region	1025	101795	753	172	62	29		9
Jalal-Abad region.	1121	232114	634	254	121	thirty		82
Issyk-Kul region.	1297	99837	943	195	45	22	3	89
Naryn region	402	58688	345	24	25	7	1	
Osh region	1294	257532	1017	133	71	15		58
Talas region	551	51224	394	122	23	3	1	8
Chui region	2472	204077	1115	949	171	76	3	158

* Artificial (lat. artificialis) – artificial, artificially created, artificially caused.

Calculate the rate of abortions per 1000 women of fertile age, calculate the structure of abortions by type.

*2.3 Problem*Coverage of periodic medical examinations for those working with hazardous production factors by region, 2012-2014. (%)

Region name	Coverage Medical examinations			Industrial workers			State agricultural industry workers		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
KR	88.1	89.7	90.3	92.7	94.7	93.3	65.3	90.2	91.9
Batken region	63.5	94.5	91.0	75.3	89.8	85.6	34.5	78.8	92.0
Jalal-Abad region	90.0	92.0	89.2	92.6	90.6	90.1	86.0	86.9	89.5
Issyk-Kul region	93.7	96.8	97.3	85.6	95.2	95.9	74.4	100.0	77.7
Naryn region	98.3	95.1	95.9	96.0	99.2	98.0	96.0	96.7	54.7
Osh region	92.0	84.4	86.5	95.2	90.2	88.4	87.8	90.9	92.4
Talas region	81.7	96.4	85.9	73.7	81.8	91.6	87.8	89.7	88.4
Chui area	98.8	98.7	97.3	97.5	97.0	98.0	99.0	95.8	98.1

Analyze the coverage of periodic medical examinations by region and make specific recommendations to improve this situation.

Topic 3

*3.1 Problem*Has the doctor chosen the right method of information work on health promotion (HP) among schoolchildren? List which communication channels should have been used.

In one of the secondary schools a discussion was organized on the topic: “Is it worth smoking?” During the week, two lectures were given on the topic of discussion. The questionnaire survey showed that schoolchildren have sufficient knowledge on this issue. It was possible to gather a fairly large audience - 125 high school students. The discussion was accompanied by the display of visual aids. The medical worker, in his speech, and especially during private conclusions, directed the discussion in the “right direction”, made sure that the speakers did not deviate from the topic, and clearly formulated the conclusions.

*3.2 Problem*Evaluate the doctor’s action in this situation, did he choose the right method of conducting information work?

A FGP doctor from one of the clinics, along with other sanitary and educational activities, planned to give a lecture to the employees of one of the enterprises during the flu epidemic.

Lecture topic: “Prevention of influenza.” The lecture was scheduled to be given after the end of the working day. The head of the enterprise was instructed to ensure the attendance of all workers.

The necessary visual materials were prepared for the lecture. Duration of the lecture – 1 hour.

After the lecture, it was planned to show the sanitary-educational film “Influenza Prevention”, and also give each of those present a memo on the same topic.

*3.3 Problem*Did the FGP doctor choose the right method of information work with the population?

In the clinic premises, the FGP doctor gave a series of lectures (5) on the topic: “First aid”. The choice of topic was not accidental. A preliminary examination showed that many city residents were not trained in the rules of first aid, they did not have the necessary skills. Two weeks before the start of the lectures, notices were posted around the city indicating the topics of the lectures and the time they would be held. The first lecture was attended by 80 people, then the number of those present gradually decreased. At the second lecture there were 70 people, at the third - 56, at the fourth - 45, at the fifth - 30. Persons who had not attended previous lectures were not allowed to attend the lectures. The audience was heterogeneous (everyone came to the lectures by announcement), i.e. Among the listeners there were people of different ages, professions, and with different levels of training. The topic of the series of lectures was as follows: the first lecture – “Basic rules for first aid in case of accidents”; the second and third – “First aid for traumatic injuries”; fourth – “First aid for sudden illnesses”; fifth – “Diseases resulting from exposure to certain physical factors”, “Care for the injured and sick before the doctor arrives”.

*3.4 Problem*Have the channels of communication with patients been chosen correctly?

In one of the city hospitals, patients in two wards (in one ward there were three gastroenterological patients, in the other there were five suffering from cardiovascular diseases) turned to their attending physician with a request to tell them about each person’s illness. The doctor decided to meet the wishes of the patients. In order to present the material as fully as possible, he did not limit himself to one conversation, but decided to conduct a series of conversations. Within three days before the start of the interviews, he found out in an individual conversation with each of the patients his level of preparedness. As it turned out, the patients were homogeneous in terms of their level of training. There were no seriously ill people among them. During the entire series of interviews, none of the patients were discharged. The interviews were conducted in the hospital lobby and were attended simultaneously by all patients. The first two topics of conversation were devoted to issues common to all patients. Then three conversations were related to cardiovascular diseases, and three subsequent conversations were related to gastroenterological patients. After a series of conversations, the patients were given leaflets (each was given a leaflet outlining practical advice regarding his illness).

Topic 4

*4.1 Problem*According to the indicated structure of morbidity among children and adolescents in the Kyrgyz Republic for 2014, provide appropriate recommendations for improving their health.

In doing so, determine:

- reasons for the increase in respiratory diseases, infectious and parasitic diseases, perinatal pathology;
- the possibility of eliminating the causes of these diseases at the state level;
- measures to improve this situation.

Morbidity structure of children from 0 to 5 years of age in the Kyrgyz Republic

No.	Diseases	(%)
1.	Respiratory diseases.	44.8
2.	Infectious and parasitic.	11.6
3.	Diseases of the digestive system.	9.2
4.	Diseases of the blood and hematopoietic organs.	7.2
5.	Injuries and poisoning.	3.6
6.	Others	23.6
Total		100.0

*4.2 Problem*There is a secondary school in the clinic's service area.

Before carrying out information work on the prevention of bad habits and unwanted pregnancies among schoolchildren, you studied the data of a sociological study conducted three months ago.

The following data was obtained:

- 55.0% of high school students smoke, of which 28.0% are girls;
- 15.0% – drink alcohol with friends;
- 1.2% – used drugs once;
- 16.2% of high school girls are poorly informed about contraceptive methods.

Your actions in this situation, list the main measures to solve these problems.

4.3 Problem The maternal mortality rate by region in the Kyrgyz Republic is as follows (per 100,000 children born alive)

No.	Region	2014 (P)
1.	Naryn region	135.7
2.	Osh region	46.1
3.	Batken region	101.9
4.	Jalal-Abad region	50.6
5.	Issyk-Kul region	46.1
6.	Talas region	44.6
7.	Chui area	44.4
8.	Bishkek	28.7
9.	Osh city	-

Analyze the situation, give specific recommendations to improve this problem at the level of the state and primary care physicians.

4.4 Problem The prevalence of smoking in the Kyrgyz Republic tends to increase, especially among women and girls. Thus, the number of smoking women aged 18 to 65 years is 11.6%, among girls from 9 to 17 years old – 20%, and from 18 to 25 years old – 47%.

Please indicate:

- main reasons;
- consequences for the state.

Give recommendations:

- to reduce the rate of tobacco smoking among women (at the state level and primary care physicians);
- what organizations can be involved in solving this problem.

4.5 Problem In 2014, there were high mortality rates among older people due to diseases of the circulatory system.

Suggest basic preventive recommendations at the primary health care level.

Topic 5

5.1 Problem Your subordinates have been avoiding friendly conversations with you lately, and your sincere concern for their well-being does not resonate with them. The quality of their work is deteriorating sharply. You:

A. Emphasize the need to perform daily duties and the importance of the tasks facing the team.

B. Without showing any special personal initiative, provide the group with the opportunity to dialogue with you.

C. Explain to your subordinates and determine the purpose of further work.

D. Intentionally do not interfere.

5.2 Problem The productivity of your team increases noticeably. You are trying to make sure that all its members know their functional responsibilities and meet the requirements placed on them. You:

A. Maintain friendly relations with them, at the same time constantly checking how conscientiously they perform their functional duties.

B. You are not doing anything definite.

C. Do everything in your power to create in the team an atmosphere of universal involvement and the importance of the tasks being solved.

D. Emphasize the importance of tasks to be completed by the specified deadline.

5.3 Problem Your subordinates turned out to be unable to solve the problem posed to him. Usually you relied on their independence. The work and relationships within the team are good. You:

A. Together with them, you will take part in solving the problem.

B. Allow subordinates to choose their own ways to solve the problem.

C. Show firm leadership and quickly respond to the need to reorganize the work of the team.

D. Encourage team members in their work to solve the problem and support their initiative.

5.4 Problem Do you want some changes to be made? Your subordinates have an excellent track record. They understand the need for change. You:

A. Involve team members in developing the necessary changes, without imposing your opinion.

B. Announce the necessary changes and directly lead the implementation.

C. Allow the team to develop their own direction of activity.

D. You will take into account the suggestions of team members, but you will lead the implementation of changes yourself.

5.5 Problem The quality of your team's work has been deteriorating for several months now. Team members do not strive to complete the tasks assigned to them. In the past, reassigning and redefining roles and responsibilities has helped correct the situation. Your subordinates constantly have to be reminded of the need to complete the task by the specified deadline. You:

A. Allow the team to develop their own direction of activity.

B. Take into account the team's suggestions, but make sure that they meet the goals of your organization.

C. Redistribute the roles and responsibilities of your subordinates and in the future you will directly manage their activities.

D. Involve the team in defining the roles and responsibilities of its members, without imposing your opinion.

5.6 Problem You came as a leader to an organization with a well-established management system. Your predecessor exercised strict control over the functioning. You want, without reducing the effectiveness of the management system, to create a more relaxed atmosphere in the team. You:

A. You will do everything in your power to make each member of the team feel important and involved.

B. Emphasize the importance of completing assigned tasks on time.

C. You will not interfere intentionally.

D. Try to involve the whole group in the decision-making process, but personally ensure that the goals are achieved.

5.7 Problem You want to make changes to the structure of the team. Your subordinates have expressed their proposals regarding the necessary changes. Your team works efficiently and has demonstrated flexibility in solving problems. You:

A. Determine what exactly needs to be changed, and you will personally lead the change process.

B. Together with the team members, you will develop the direction in which the changes should be carried out and instruct them to implement the changes themselves.

C. You will accept the suggestions of your subordinates regarding the necessary changes, but you will lead the implementation of them yourself.

D. To avoid confrontation, leave things as they are.

5.8 Problem The work of your team and the relationships between its members are good. But it seems to you that you are not managing his activities enough. You:

A. Take no steps.

B. Discuss the current situation with subordinates and propose the necessary changes.

C. Take measures to organize the work of subordinates in a clearly indicated direction.

D. You will support the initiative of your subordinates in discussing the problem with them, without imposing your opinion.

5.9 Problem Your boss has put you at the head of a working group that, with great delay, completes the task of developing recommendations for the introduction of innovations. The group is not entirely clear what tasks and goals have been set for it. Attendance at meetings is very low. The meetings are more like relaxing evenings. But the group members have sufficient potential to carry out the task assigned to them. You:

A. Allow the group to get out of the current situation on its own.

B. Take into account the suggestions of the team, but make sure that they meet the task facing your organization.

C. Review the group's goals and objectives and monitor progress closely.

D. Involve all group members in defining the goals of its work without putting pressure on them from your side.

5.10 Problem Your subordinates, who are usually able to perform their duties well, do not meet the standards you recently revised. You:

A. Involve the group in the process of revising standards, using strict controls.

B. Having changed the requirements, you will carefully monitor their implementation.

C. You will not resort to pressure in order to control their implementation.

D. Take into account the team's suggestions, provided they comply with the new standards.

5.11 Problem You have been promoted. The previous manager did not interfere in the work of the team, which coped quite well with its tasks and areas of work. Relationships between team members are good. You:

A. Take measures to organize the work of subordinates in a clearly indicated direction.

B. Involve subordinates in the decision-making process and support good initiatives.

C. Discuss the work done with your subordinates and then analyze the need for innovation.

D. Like your predecessor, you will not interfere in the work of the team.

5.10 Problem You have received information that your team is facing temporary difficulties. Your subordinates have an excellent track record. They were effective in achieving long-term goals. They have worked harmoniously over the past year. Your subordinates are highly qualified to perform tasks. You:

A. present your solution to the problem for consideration by the team and analyze the need for innovation.

B. Allow team members to develop solutions.

C. Be quick and firm in making adjustments and directions.

D. Take part in discussing the problem, thus supporting your subordinates.

Topic 6

6.1 Problem The multidisciplinary Republican Diagnostic Center has its own marketing service. At one of the meetings, the head of the marketing service brought to the attention of employees that the sales volume of such a paid service as "diagnosis of secondary infertility using laporoscopy" was declining.

What measures need to be taken to ensure that sales volume does not decrease. List your suggestions.

6.2 Problem You are the head of the marketing department of the scientific national surgery center. The Department of Abdominal Surgery is about to introduce a new medical service – removal of the gallbladder using a bloodless method. To study the demand for this honey. service, what method of marketing research should be carried out? What type of segmentation will you use?

6.3 Problem You are a marketer for a private cosmetic clinic. When introducing a new service - preventing the occurrence of wrinkles through complex therapy, what method of marketing research will you conduct? What type of segmentation will you use?

6.4 Problem You head the marketing department of the Institute of Obstetrics and Gynecology. The management of the institute decided to open a "School of Expectant Mothers".

To study the demand for this service, what type of segmentation will you use? What type of marketing will you use?

*6.5 Problem*You are a dispensary marketer. To expand rehabilitation services, the administration of the institution decided to open a traditional medicine department and a herbal bar. To study a group of patients, what type of segmentation would you use? What type of marketing will you use?

Topic 7

*7.1 Problem*Demographic data of the child population in the Kyrgyz Republic

Index	Region				
	Republic of Kyrgyzstan	Batken region	Jalalabat region	Issyk-Kul region	Naryn region
Number of children 0–14 years old, thousand.	1611.2	147.4	343.0	136.3	96.3
Children born	109406	9049	23327	9848	6723
Died children under 1 year of age	2801	258	510	218	166
Children aged 0 – 14 years died	5126	5645	9295	3680	3178
Number of live births	107918	8951	23005	9712	6626
Pregnant women died	51	4	16	6	6
Number of stillbirths	1488	98	322	136	97
Number of deaths on days 0–6.	1783	123	327	154	109

7.1.1 (continued)

Index	Region				
	Osh area	Talas region	Chui region	Bishkek	G. Osh
Number of children 0 – 14, thousand.	381.6	75.6	195.2	162.5	73.2
Children born	24104	5599	13169	13730	4167
Died children under 1 year of age	557	192	308	404	189
Children aged 0 – 14 years died	12211	2948	6138	5070	3660
Number of live births	23798	5527	13014	13539	4101
Pregnant women died	6	5	5	1	2
Number of stillbirths	306	72	155	191	66
Number of deaths in 0–6 days of life.	342	122	205	257	93

Calculate the rates of child, infant, perinatal mortality, stillbirth, postnatal and maternal mortality.

7.2 Problem

Causes of infant mortality in the Kyrgyz Republic.

Disease class	Region									
	Republic of Kyrgyzstan	Batken region	Jalalabat region	Issyk-Kul region	Naryn region	Osh region	Talas region	Chui region	Bishkek	Osh city
Infectious and parasitic diseases	148	18	25	7	12	45	eleven	10	13	8
Nervous system										

diseases	56	5	20	5	1	15	2	3	1	3
Respiratory diseases	521	68	98	24	40	194	28	33	19	17
Digestive diseases	17	6	3	2	1	1	2	1	-	-
Congenital anomalies	327	19	69	26	10	47	18	45	66	27
Conditions arising in the perinatal period	1635	126	280	142	98	230	122	207	298	130
Injuries and poisoning	64	6	10	6	2	22	8	7	3	2
Other	33	10	5	6	2	3	1	2	4	2
Total	2801	258	210	218	166	557	192	308	404	189

Calculate the structure of causes of infant mortality.

7.2 Problem

Causes of perinatal mortality

Disease class	Region									
	Republic of Kyrgyzstan	Batken region	Jalalabat region	Issyk-Kul region	Naryn region	Osh region	Talas region	Chui region	Bishkek	Osh city
Conditions caused by asphyxia	1716	121	375	126	123	420	88	225	207	46
Infections	214	-	24	32	18	19	5	58	36	9
Conditions associated with immaturity	635	37	72	59	28	81	73	101	123	39
Birth injuries	158	12	38	9	14	38	13	4	6	34
Congenital anomalies	474	41	121	55	16	91	16	53	52	28
Other	96	12	23	10	9	4	-	17	26	4
Total	3293	223	653	291	208	65	195	458	450	160

Calculate the structure of causes of perinatal mortality.

7.3 Problem

Morbidity in children aged 0–4 years in the Kyrgyz Republic.

Disease class	Registered			
	Total		First	
	up to 1 year	1 – 4 g	up to 1 year	1 – 4 g
Some infectious and parasitic diseases	10760	21538	7761	14992
Neoplasms	47	65	27	31
Diseases of the blood and hematopoietic organs	11035	18738	7305	10111
Endocrine system diseases, disorders	10960	5406	6636	2107
Mental and behavioral disorders	41	175	7	86
Nervous system diseases	1743	2698	855	1026
Diseases of the eye and its appendages	1977	3944	1252	2405
Diseases of the ear and mastoid process	3284	6718	1852	4318
Diseases of the circulatory system	42	118	10	41
Respiratory diseases	36300	75409	31560	63689
Digestive diseases	5217	8938	4046	7141
Diseases of the skin and subcutaneous	3317	6081	2389	4261

fiber				
Diseases of the musculoskeletal system	91	317	65	187
Diseases of the genitourinary system	439	1677	268	1035
Certain conditions that arose in the perinatal period	10707	71	9532	33
Congenital anomalies (developmental defects)	916	890	642	215
Symptoms, signs, ill-defined	511	379	423	342
Injuries and poisoning	390	1886	351	1674
Total	97777	155048	74994	113694

Calculate and analyze the structure of childhood morbidity.

Topic 8

8.1 Problem

Workload per specialist in primary health care organizations (FMCs, FGPs), by region in 2014.

Regions	Total	Therapists	Obstetrician-gynecologists	Pediatricians	General practice (incl. sem. time)
Republic of Kyrgyzstan	2676	2806	3478	2823	4112
Batken region	2732	1459	4092	983	3835
Jalal-Abad region	3017	6138	3024	2666	4050
Issyk-Kul region	3553	-	2683	-	4907
Naryn region	2156	2058	2676	-	2488
Osh region	3253	7610	2779	1064	5687
Talas region	1451	-	1238	-	2612
Chui area	2259	-	1960	-	2591
Bishkek	2432	2733	3763	2922	-
Osh city	2764	-	-	-	3894

Analyze the workload on primary care specialists.

8.2 Problem

Some indicators of the quality of medical services in FGPs, KR 2012-2014.

Indicators	Hypertonic disease			ARVI		
	2012	2013	2014	2012	2013	2014
Registered patients	145886	153746	151206	433262	447462	435480
Prevalence (per 100,000 population)	2601.6	2687.9	2591.0	7726.4	7822.9	7462.1
Number of outpatient service cases (per 100 patients)	196.4	193.3	192.9	119.2	119.9	117.1
Number of hospitalized people (per 100 patients)	10.4	7.5	6.7	12.0	11.3	10.4
Number of cases served by emergency medical teams (per 100 patients)	24.0	23.3	25.9	14.1	13.7	13.8

Analyze the quality indicators of medical services in FGPs by year.

Topic 9

*9.1 Problem*One of the health care organizations in the Batken region has carried out accreditation. At the same time, the following shortcomings were identified:

- 30% of doctors did not have the highest category.
- 2% of specialists had an academic degree - candidate of medical sciences.
- There was no “rest” area organized in the corridors of the health center.

Is it possible to give a positive answer regarding accreditation in this situation? If “yes,” then for how long and to what percentage does this organization comply with the standard.

*9.2 Problem*In 2014, a number of serious violations were identified in one of the healthcare organizations in the Chui region. Accreditation decision less than 60% compliance.

Is it possible to obtain an accreditation certificate for this healthcare organization?

*9.3 Problem*For how many years is a health care organization accreditation certificate issued with a compliance rate of 70-79.

Topic 10

10.1 Problem

1. Visits made to the clinic - 1,645,800.
2. Population: 422,000.
3. The number of hospital beds is 1257.

Calculate the number of visits to the clinic per 1 resident per year and the provision of hospital beds for the population.

10.2 Problem

Pregnant women up to 12 weeks of pregnancy were registered – 977.

The number of all pregnant women under observation is 1418.

The number of visits by a pediatrician at home to a newborn in the first three days after discharge from the maternity hospital is 307.

The number of all newborns admitted for observation is 355.

To calculate the timeliness of registering pregnant women and visiting a pediatrician at home in the first three days after the newborn is discharged from the hospital.

Topic 11

11.1 Problem

In 2014	***Factory***			
	A	***B***	***IN***	***G***
1. Number of employees	473	615	151	78
2. Number of cases of disability	275	373	98	41
3. Number of days of incapacity for work	2910	4010	105	79
4. Number of cases of disability from inflammatory diseases of the genitourinary system	72	101	28	9
5. Number of days of disability from circulatory diseases	1150	1713	451	125

Calculate the number of cases and days of disability, the average duration of disability for all diseases and diseases of the circulatory system.

11.2 Problem

City	***A***	***B***	***IN***	***G***
Number of employees	65117	48321	32223	23715
Recognized as disabled for the first time	410	270	163	109
Incl. disabled people of group 1	92	58	35	23
Number of disabled people registered	1318	1102	617	453
Incl. disabled people due to circulatory diseases	371	315	225	148

Calculate indicators of primary disability, general disability, disability due to diseases of the circulatory system.

Topic 12

12.1 Problem

1. The incidence rate per 1000 population is 5035.
2. The coefficient of attendance requirement per disease is 5.3.
3. The number of dispensary visits due to morbidity per 1000 population is 448.
4. The number of preventive care visits per 1000 population is 1271.

Calculate the population's need for medical visits.

12.2 Problem

1. The incidence rate per 1000 population is 5035.
2. The hospitalization rate is 16.3.
3. The average stay of a patient on a bed is 13.7.
4. The average annual bed occupancy is 307.

Calculate the population's need for hospital beds, or how many beds are needed per 10,000 population.

12.3 Problem

1. The rate of outpatient visits per resident per year is 7.5.
2. Population – 422,000 (Issyk-Kul region).
3. Workload of a medical position.
4. Doctor's workload per 1 hour of work in the clinic and at home (5 and 2).
5. The number of working hours in the clinic and at home is 4 and 2.
6. The number of working days in a year is 285.

Calculate the population's need for medical personnel.

12.4 Problem

Data for calculating performance indicators of outpatient clinics.

No.	Initial data	Numerical values
1	Average annual attached population	24 340
2	Number of medical visits in the clinic and at home	115 700
3	Number of visits to nursing staff	6720
4	Number of medical visits for preventive purposes	45 320
5	Number of visits to nursing staff for preventive purposes	3700
6	Number of persons registered with dispensaries at the end of the reporting year	11 040
7	The number of patients with chronic bronchitis registered at the dispensary at the end of the reporting year	415
8	Total number of registered patients with chronic bronchitis at the end of the reporting year	2080

I. Calculate performance indicators of outpatient clinics:

1. average number of visits per resident per year;
2. share of visits to the clinic;
3. complete coverage of the population with dispensary observation;
4. the proportion of patients registered at the dispensary.

Data for calculating statistical indicators of the activity of inpatient institutions.

No.	Initial data	Numerical values
1	Average annual population	24 340
2	Number of hospital beds	490
3	Number of patients admitted to the hospital during the reporting period	10 135
4	Number of bed days spent by patients in hospital during the year	147 370
5	Number of patients discharged	9675
6	Number of patients who died	180

II. Calculate the performance indicators of hospital institutions:

1. provision of population with hospital beds;
2. frequency (level) of hospitalization;
3. the average number of days a bed is occupied per year (hospital bed function);
4. average length of stay of the patient in bed;
5. hospital mortality.

12.5 Problem

Data for calculating performance indicators of outpatient clinics.

No.	Initial data	Numerical values
1	Average annual attached population	32,700
2	Number of medical visits in the clinic and at home	135 800
3	Number of visits to nursing staff	5840

4	Number of medical visits for preventive purposes	40 120
5	Number of visits to nursing staff for preventive purposes	3920
6	Number of persons registered with dispensaries at the end of the reporting year	10 540
7	The number of patients with coronary heart disease registered at the dispensary at the end of the reporting year	780
8	Total number of registered patients with coronary heart disease at the end of the reporting year	9220

I. Calculate performance indicators of outpatient clinics:

1. average number of visits per resident per year;
2. share of visits to the clinic;
3. complete coverage of the population with dispensary observation;
4. the proportion of patients registered at the dispensary.

Data for calculating statistical indicators of the activity of inpatient institutions.

No.	**Initial data**	**Numerical values**
1	Average annual population	32,700
2	Number of hospital beds	600
3	Number of patients admitted to the hospital during the reporting period	12 340
4	Number of bed days spent by patients in hospital during the year	182 940
5	Number of patients discharged	12 270
6	Number of patients who died	142

II. Calculate the performance indicators of hospital institutions:

1. provision of population with hospital beds;
2. frequency (level) of hospitalization;
3. the average number of days a bed is occupied per year (hospital bed function);
4. average length of stay of the patient in bed;
5. hospital mortality.

12.6 Problem

Data for calculating performance indicators of outpatient clinics.

No.	Initial data	**Numerical values**
1	Average annual attached population	36 100
2	Number of medical visits in the clinic and at home	147 300
3	Number of visits to nursing staff	6120
4	Number of medical visits for preventive purposes	50 600
5	Number of visits to nursing staff for preventive purposes	3250
6	Number of persons registered with dispensaries at the end of the reporting year	12,645
7	The number of patients with gastritis registered at the dispensary at the end of the reporting year	950
8	Total number of registered patients with gastritis at the end of the reporting year	2179

I. Calculate the performance indicators of outpatient clinics:

1. average number of visits per resident per year;
2. share of visits to the clinic;
3. complete coverage of the population with dispensary observation;
4. the proportion of patients registered at the dispensary.

Data for calculating statistical indicators of the performance of inpatient institutions

No.	**Initial data**	**Numerical values**

1	Average annual population	36 100
2	Number of hospital beds	600
3	Number of patients admitted to the hospital during the reporting period	13 400
4	Number of bed days spent by patients in hospital during the year	191 315
5	Number of patients discharged	13 140
6	Number of patients who died	172

II. Calculate the performance indicators of hospital institutions:

1. provision of population with hospital beds;
2. frequency (level) of hospitalization;
3. the average number of days a bed is occupied per year (hospital bed function);
4. average length of stay of the patient in bed;
5. hospital mortality.

12.7 Problem

Data for calculating performance indicators of outpatient clinics.

No.	**Initial data**	**Numerical values**
1	Average annual attached population	64 380
2	Number of medical visits in the clinic and at home	230 100
3	Number of visits to nursing staff	22 390
4	Number of medical visits for preventive purposes	82 040
5	Number of visits to nursing staff for preventive purposes	7240
6	Number of persons registered with dispensaries at the end of the reporting year	43 720
7	The number of patients with chronic bronchitis registered at the dispensary at the end of the reporting year	1148
8	Total number of registered patients with chronic bronchitis at the end of the reporting year	1426

I. Calculate the performance indicators of outpatient clinics:

1. average number of visits per resident per year;
2. share of visits to the clinic;
3. complete coverage of the population with dispensary observation;
4. the proportion of patients registered at the dispensary.

Data for calculating statistical indicators of the activity of inpatient institutions.

No.	**Initial data**	**Numerical values**
1	Average annual population	64 380
2	Number of hospital beds	540
3	Number of patients admitted to the hospital during the reporting period	14 600
4	Number of bed days spent by patients in hospital during the year	169 140
5	Number of patients discharged	14 240
6	Number of patients who died	280

II. Calculate the performance indicators of hospital institutions:

1. provision of population with hospital beds;
2. frequency (level) of hospitalization;
3. the average number of days a bed is occupied per year (hospital bed function);
4. average length of stay of the patient in bed;
5. hospital mortality.

12.8 Problem

According to f. 2 “Profit and Loss Statement” for 2013, in a conditional healthcare institution, revenue (net) from the sale of medical services, rental of premises (minus VAT) for 2012 amounted

to 2.4 million soms, the cost of medical services sold – 1,543,400 soms, income tax – 274.8 thousand soms.
Calculate and analyze indicators characterizing the economic activity of a conditional healthcare institution for 2012.

12.9 Problem

According to f. 2 "Profit and Loss Report" for 2013, in a conditional healthcare institution, revenue (net) from the sale of medical services, rental of premises (minus VAT) for 2012 amounted to 1.75 million soms, the cost of sold medical services – 958.5 thousand soms, income tax – 84.7 thousand soms.
Calculate and analyze indicators characterizing the economic activity of a conditional healthcare institution for 2012.

12.10 Problem

According to f. 2 "Profit and Loss Report" for 2013, in a conditional healthcare institution, revenue (net) from the sale of medical services, rental of premises (minus VAT) for 2012 amounted to 1,542,000 soms, the cost of medical services sold was 728, 6 thousand soms, income tax – 90.7 thousand soms.
Calculate and analyze indicators characterizing the economic activity of a conditional healthcare institution for 2012.

Topic 13

13.1 Problem

Budget of health care institutions in Chui region

District health care institutions	Total amount of financing, som.
Chui area	39791853
incl. Alamudun district	2658700
Issyk-Ata district	6248976
Zhaiyl district	3958312
Keminsky district	4384561
Moskovsky district	3845946
Panfilovsky district	6582341
Sokuluk district	4689742
Chui district	7423275

Calculate the amount of funds allocated to the hospital, FMC, outpatient diagnostic department (ADD), FGP, narrow specialists, day hospital and outpatient surgery, laboratory diagnostic department.

13.2 Problem

Clinical cost group (CCG)

No. KZG	A short list of therapeutic and surgical clinical cost groups	Weighting factor for age group > 15 years	Weighting factor for age group < 15 years
504	Brucellosis	1.7649	1.76603
521	Meningitis	1.0900	1.0900
536	Acute myocardial infarction	1.5280	1.5280
541	Pneumonia	1.1623	1.2778
531	Acute sinusitis	0.8223	0.8303
587	Lesions of the eye and its adnexa after medical procedures	0.7488	0.7638
620	Surgery on the small and large intestine	1.4805	1.8064
621	Appendectomy	0.8932	1.1594
625	Hernia surgery	1.1171	0.9215
616	Vein ligation and removal	1.2315	1.5621
604	Surgery on endocrine glands	1.0008	1.1205

638	Hip bone surgery	2.0173	1.5950

13.3 Problem

FGP financing

Index	FGP											
	No. 1		No. 2		No. 3		No. 4		No. 5		No. 6	
Per capita financing standard (NPF), som.	20		20		20		20		20		20	
Economic coefficient (EC)	1		1		1		1		1		1	
Geographic coefficient - (Kr) %	20		thirty		20		thirty		20		thirty	
Coefficient for each age and sex group (SIG)	2-4 years		20-24 years		30-34 years		40-44 years		55-59 years old		60-64 years	
	husband	wives	husband	wives	husband	wives	husband	wives	husband	wives	husband	wives
	7.0	3.5	2.6	3.5	2.0	4.0	3.5	5.0	2.0	4.0	7.5	8.5
Number of assigned insured population for each age and sex group (Nz)	144	180	2006	1894	904	1029	1254	986	661	1840	524	809

Calculate

Block C

C.0 Options for assignments for course projects/works are given:

Bolbachan O.A., Rozyeva R.S. etc. Methodology for completing course work on the topic: “Analysis of the state of health and healthcare in the regions of the country”: Textbook. - Bishkek: KRSU, 2015 - 193 p.

C.1 List of discussion topics for the round table

The discipline does not provide for this work

C.2 Individual creative tasks

Presentation. Subject:

1. WHO policy “Health for all in the 21st century”.
2. Human health and healthy lifestyle.
3. Risk factors and their impact on human health.
4. Prevention.
5. Social mobilization of the population.
6. Law on public health in the Kyrgyz Republic.
7. Health policy of Kyrgyzstan in the 21st century.
8. Promoting women's health (WHO and Kyrgyzstan strategies).
9. Promoting children's health (WHO and Kyrgyzstan strategies).
10. Promoting the health of young people (WHO and Kyrgyzstan strategies).
11. Promoting the health of older people (WHO and Kyrgyzstan strategies).
12. The latest theories of management of healthcare organizations.
13. The concept of groups and their significance.
14. Causes of conflicts.
15. Communicative behavior in an organization.
16. Marketing environment (macro, micro) and medical services.
17. Medical service and its features.
18. Life cycle of a medical service and its stages.
19. Competitiveness in medicine.
20. Demand factors and their classification.

21. Advertising in the healthcare marketing system.
22. SWOT analysis questions.
23. Health care reform “Den Sooluk”.
24. Results of the reform “Manas”, “Manas Taalimi”.
25. Family medicine in the Kyrgyz Republic.
26. Organization of work of a family doctor, paramedic, family nurse.
27. History of emergency medical care. Organization of emergency medical services in the Kyrgyz Republic.
28. Social and health insurance.
29. Quality of medical services.
30. Pricing of medical services.
31. Types of economic laws.
32. Financing the healthcare system of the Kyrgyz Republic.
33. Funding for FMCs (FGPs).
34. Financing of inpatient medical services.

Block D

It is necessary to provide a list of questions and tasks for intermediate certification (7th semester test) as follows:

- Questions to check the level of training KNOW

1. sections of medical statistics;
2. statistical aggregate, its types;
3. stages of statistical research and their content;
4. main types of errors when analyzing material;
5. features of conducting socio-medical and clinical research;
6. types of relative quantities;
7. intensive and extensive indicators, their differences;
8. indicators of coordination, credibility, correlation, visibility;
9. variation series, its characteristics and types;
10. average values, their types, application;
11. the value of the standard deviation and coefficient of variation (Cr);
12. concept and essence of reliability assessment;
13. concepts necessary for assessing reliability;
14. determination of confidence limits of relative and average values;
15. the essence of the concepts of reliability of average and relative values, “criterion of reliability” of research results;
16. the essence of the compliance criterion (X2);
17. the main provisions of the method of standardization of statistical indicators;
18. stages of the direct standardization method;
19. the role of time series in the analysis of scientific research;
20. methods for smoothing time series and their significance for the analysis of material;
21. the essence of the correlation between characteristics;
22. assessment of the reliability of the correlation coefficient;
23. the essence of the coefficient of determination;
24. application of the regression method in medical practice;
25. principles of constructing a regression cycle;
26. content of demography, medical demography, sections of demography;
27. general and special medical and demographic indicators, their content;
28. mortality rates at various periods of fetal life and deaths under the age of 1 year;
29. the importance of studying population morbidity and methods for studying it;
30. types of morbidity according to appeal and their content;
31. morbidity with temporary disability and its indicators;

32. disability, content and indicators;
33. content of evidence-based medicine;
34. types of research and their content;
35. the purpose of using graphic images in statistical research and the general rules for their construction, types of graphic images.

- Tasks/tasks to check the level of learning TO BE ABLE

1. determine the volume and type of statistical population, unit and characteristics of observation;
2. develop stages of statistical research;
3. create layouts of statistical tables;
4. calculate intensive and extensive indicators;
5. calculate indicators of coordination, credibility, correlation, visibility;
6. create simple and grouped variation series;
7. calculate average values (M);
8. calculate the standard deviation and coefficient of variation;
9. calculate the representativeness error of relative and average values;
10. assess the reliability of the research results;
11. calculate standardized indicators;
12. calculate and analyze indicators of time series;
13. calculate the coefficient of determination;
14. calculate the regression coefficient;
15. build a regression graph;
16. calculate, evaluate and analyze general and special medical and demographic indicators;
17. calculate, evaluate and analyze mortality rates at different periods of the life of the fetus and those who died under the age of 1 year;
18. calculate and analyze morbidity rates;
19. calculate and analyze morbidity rates with temporary disability;
20. calculate and analyze disability indicators;
21. select experimental and control groups for the study in accordance with the requirements of evidence-based medicine;
22. build graphic images;

- Tasks/tasks to check the level of training POSSESS

1. methodology for calculating statistical indicators;
2. main medical and statistical indicators;
3. assessing the quality of medical care using medical and statistical indicators;
4. a set of measures to assess the quality of medical care using statistical indicators.

Construction of an intermediate certification ticket (8th semester exam):

Exam questions:

1. Subject and content of medical statistics:**statistics, biostatistics, medical statistics. Objectives and sections of medical statistics.**
2. Health and healthcare indicators. Statistical population, types.
3. Stages of statistical research: and their content (stages I, II).
4. Stages of statistical research: and their content (III, IV, Y stages).
5. Relative quantities and their essence. Intensive and extensive indicators.
6. Relative quantities and their essence. Indicator of correlation and visibility.
7. Variation series and average values: types of average values, methods for calculating the arithmetic mean (simple and weighted).
8. Standard deviation (σ), representativeness error (m) for relative and average values. Calculation method.
9. Sampling method and assessment of the reliability of research results for relative and average values. Calculation method.
10. Standardized coefficients, stages and their essence. Calculation method.

11. Correlation coefficient, coefficient of determination. Calculation method.
12. Regression, concept. Regression coefficient, linear regression equation. Calculation method.
13. Time series, types of indicators. Calculation method.
14. Graphic images, types, requirements (linear, pie charts, construction methods).
15. Demography, medical demography, population reproduction. Demographics sections.
16. General medical and demographic indicators (fertility, mortality, natural population growth, average life expectancy).
17. Special medical and demographic indicators (infant mortality, neonatal, perinatal and maternal mortality), global trends and in the Kyrgyz Republic.
18. Morbidity: concepts, sources of study, indicators. Types of morbidity according to appealability and temporary disability.
19. Disability, groups, indicators, calculation methods.
20. Dispensary method of service: clinical examination, dispensary method, purpose, objectives, selection of contingents, institutions, elements, performance indicators.
21. Contents of evidence-based medicine: concept, purpose, causes, elements.
22. Legislative framework for health care: constitution, new laws, international documents, modern concept of health care.
23. Contents of public health and healthcare: concepts of public medicine, healthcare, healthcare policy, public health, public health service. The purpose and objectives of social medicine and healthcare organization.
24. Law “On Public Health and Healthcare”: purpose, objectives, principles, rights and responsibilities of citizens.
25. Human health: definition, human well-being (physical, mental, social), factors influencing health status, trends in medical and demographic indicators and morbidity indicators.
26. Health promotion (HP): definition, goals, evaluation of HP, resources. WHO policy “Health for all in the 21st century”.
27. Human lifestyle: definition, concept, categories, healthy lifestyle, formation of a healthy lifestyle.
28. Risk factors, their definition, WHO classification. Lifestyle factors, genetic factors and their prevention. Factors of potential health hazards.
29. Prevention: definition, types of medical prevention.
30. Social mobilization of the population: definition, types, elements.
31. International Classification of Diseases (ICD). Concept, history, grouping, ICD - 10. Clinical and cost groups, principles of formation, types, therapeutic and surgical cases.
32. Social and medical significance of some chronic non-communicable diseases: structure of morbidity and structure of causes of mortality in the Kyrgyz Republic.
33. Specialized medical care: cardiology and oncology services in the Kyrgyz Republic.
34. Organization of a health promotion service (HPS) in Kyrgyzstan: goals, levels of management. KM concept (goals, objectives, strategies), health promotion centers.
35. The problem of health promotion (HP) of children and youth: WHO strategies, the Millennium Declaration (MDT), problems of the quality of life of children and adolescents, the structure of morbidity and causes of mortality.
36. Policy to promote the health of children and youth: WHO strategies, health promotion strategies in the Kyrgyz Republic.
37. Main problems related to women's health: health problems in modern conditions, WHO recommendations for improving health, strategies for improving health in the Kyrgyz Republic.
38. The main problems associated with the health of older people: health problems in modern conditions, WHO recommendations for improving health.
39. WHO strategies to improve the health of women and older people: international documents, strategies, objectives, problems.
40. Management: principles, functions, tasks, methods, stages, features of management in healthcare, requirements for management.

41. The solution and its types: concept, goal, objectives, factors, classification of the solution, degrees.
42. Management technology: concept, types of documents, work style, reasons for lack of time, reasons for conflicts, requirements for meetings.
43. Marketing: meaning, definition, need, requirement, request, product, market, exchange, transaction.
44. Public health market: definition, types, medical services market, demand, supply. Marketing research and advertising: concept, tasks, methods. Advertising, types.
45. “System” and its content: definition, purpose, elements and types of the system. "Input" and "Output" of the system.
46. National healthcare reform program: reform, Manas program, goal, objectives, principles, main achievements, Manas-Taalimi healthcare reform program, Den Sooluk goal, objectives, components.
47. Classification of healthcare institutions: types, types, levels, levels and types of medical services.
48. Family Medicine: Primary Health Care - Definition. History of family medicine, principles, specialists, differences between a family doctor and a local doctor.
49. Family Medicine Center: concept, purpose, principles, structure. Group of family doctors: principle of formation, tasks, rights, structure.
50. Social insurance, social security: definitions, types.
51. Health insurance: models of the health care system, definition of health insurance, types, principles, subjects, population of the insured.
52. Compulsory health insurance fund: definition, purpose, objectives, sources of financing.
53. Quality of medical services: definition, consumers, subjects of medical services, approaches to quality, elements of quality.
54. Assessment and management of the quality of medical services: clinical protocol - definition, goal, objectives, indicator, types of indicators, quality management of medical services, subjects.
55. Licensing and accreditation: definitions, goals, standard-definition, stages, decisions, supervisory board.
56. Accounting and reporting in healthcare: accounting - definition, types. Document - definition, types of primary accounting, report - definition, types.
57. Performance indicators of the general medical network: availability of honey. personnel, primary health care activities, hospitals.
58. Performance indicators of specialized medical services: obstetrics and gynecology, pediatrics.
59. Medical labor examination: concept, tasks, types and concepts of disability, criteria.
60. Examination of temporary disability: documents, organization of examination of disability (functions of the VKK) benefits for temporary disability.
61. Organization of disability examination: MSEC, goals, objectives, rehabilitation.
62. Health care planning: definition, purpose, objectives, types, methods, sections, plan indicators.
63. Types of healthcare systems: public, insurance, private enterprise.
64. Risks, classification of risks in healthcare and safety issues in medical practice.
65. Safety in medicine: definition, concept, types.
66. Health care economics: definition, reasons for interest, reasons for rising costs, paid medical services.
67. Main directions of health care economics, types of health care efficiency.
68. Formation of financial resources: types, budget execution, methods of payment for medical services at the primary level, economic incentives.
69. Healthcare financing: “Single payer”, accumulation of financial resources (MHIF), consolidation of financial resources, formation and execution of the budget of healthcare organizations.
70. Financing of hospitals and FGPs: per capita financing standards, methods of payment for inpatient care, expenditure of financial resources.

Examination tasks:

Task No. 1.

Population, number of births, deaths of city A

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
159810	4517	1285	104	61	42	17	598	83

Calculate birth rate

Task No. 2.

Population, number of births, deaths of city B

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
76176	2352	622	58	31	19	8	340	39

Calculate overall mortality rate

Task No. 3.

Population, number of births, deaths of city B

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
26312	768	211	17	9	7	3	89	14

Calculate the rate of natural population growth

Task No. 4.

Population, number of births, deaths of the city G

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
111532	3110	821	74	39	26	eleven	372	56

Calculate infant mortality rate

Task No. 5.

Population, number of births, deaths of the city D

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
232059	6530	2091	137	85	61	19	757	123

Calculate perinatal mortality rate

Task No. 6.

Population, number of births, deaths of the city E

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
232059	6530	2091	137	85	61	19	757	123

Calculate neonatal mortality rate

Task No. 7.

Population, number of births, deaths of the city

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age

232059	6530	2091	137	85	61	19	757	123

Calculate the mortality rate from respiratory diseases

Task No. 8.

Population, number of births, deaths of the city

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
232059	6530	2091	137	85	61	19	757	123

Calculate the infant mortality rate from respiratory diseases

Task No. 9.

Population, number of diseases in city A

Population	Covered by medical examination	Newly identified diseases	All existing diseases	Diseases detected during medical examination	Number of people who never visited medical institutions during the year
93115	60527	13256	27015	123475	64116

Calculate the primary incidence rate

Task No. 10.

Population, number of diseases in city B

Population	Covered by medical examination	Newly identified diseases	All existing diseases	Diseases detected during medical examination	Number of people who never visited medical institutions during the year
139508	89193	21303	38519	185314	105111

Calculate disease prevalence

Task No. 11.

Population, number of diseases in B

Population	Covered by medical examination	Newly identified diseases	All existing diseases	Diseases detected during medical examination	Number of people who never visited medical institutions during the year
185272	123152	26851	53705	247517	130517

Calculate pathological involvement

Task No. 12.

Population size, number of diseases

Population	Covered by medical examination	Newly identified diseases	All existing diseases	Diseases detected during medical examination	Number of people who never visited medical institutions during the year
93140	16150	33180	66860	30171	18150

Calculate the indicator of people who never visited medical institutions during the year

Task No. 13.

Number of employees, number of cases and days of disability at plant A

Number of employees	Number of cases of disability	Number of days of incapacity	Number of cases of disability from circulatory diseases	Number of days of disability from circulatory diseases
473	275	2910	72	1150

Calculate the number of cases of disability per 100 workers

Task No. 14.

Number of employees, number of cases and days of disability at plant B

Number of employees	Number of cases of disability	Number of days of incapacity	Number of cases of disability from circulatory diseases	Number of days of disability from circulatory diseases
615	373	4010	101	1713

Calculate the number of days of disability per 100 workers

Task No. 15.

Number of employees, number of cases and days of disability at plant B

Number of employees	Number of cases of disability	Number of days of incapacity	Number of cases of disability from circulatory diseases	Number of days of disability from circulatory diseases
151	98	105	28	415

Calculate the average duration of a disability event

Task No. 16.

Number of employees, number of cases and days of incapacity for work at plant G

Number of employees	Number of cases of disability	Number of days of incapacity	Number of cases of disability from circulatory diseases	Number of days of disability from circulatory diseases
78	41	79	9	125

Calculate the number of cases of disability from circulatory diseases per 100 workers

Task No. 17.

Number of employees, number of cases and days of disability at plant D

Number of employees	Number of cases of disability	Number of days of incapacity	Number of cases of disability from circulatory diseases	Number of days of disability from circulatory diseases
78	41	79	9	125

Calculate the number of days of disability from circulatory diseases per 100 workers

Problem No. 18.

Number of employees, number of disabled people in city A

Number of employees	Recognized as disabled for the first time	Incl. disabled people of group 1	Number of disabled people registered	Incl. disabled people due to circulatory diseases
65117	410	92	1318	371

Calculate the primary disability indicator

Problem No. 19.

Number of employees, number of disabled people in city B

Number of employees	Recognized as disabled for the first time	Incl. disabled people of group 1	Number of disabled people registered	Incl. disabled people due to circulatory diseases
65117	410	92	1318	371

Calculate the number of people with disabilities

Task No. 20.

Number of employees, number of disabled people in city B

Number of employees	Recognized as disabled for the first time	Incl. disabled people of group 1	Number of disabled people registered	Incl. disabled people due to circulatory diseases
65117	410	92	1318	371

Calculate the indicator of primary disability of group 1

Problem No. 21.

Population, number of health workers and hospital beds.

Population	Number of doctors	Number of paramedical workers	Number of hospital beds
5065100	13058	30783	26040

Calculate the supply of doctors to the population.

Problem No. 22.

Population, number of health workers and hospital beds.

Population	Number of doctors	Number of paramedical workers	Number of hospital beds
5065100	13058	30783	26040

Calculate the population's supply of paramedical workers.

Problem No. 23.

Population, number of health workers and hospital beds.

Population	Number of doctors	Number of paramedical workers	Number of hospital beds
5065100	13058	30783	26040

Calculate the population's availability of hospital beds.

Problem No. 24.

Population, number of births, deaths of city A

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
159810	4517	1285	104	61	42	17	598	83

Calculate birth rate

Problem No. 25.

Population, number of births, deaths of city B

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
76176	2352	622	58	31	19	8	340	39

Calculate overall mortality rate

Problem No. 26.

Population, number of births, deaths of city B

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
26312	768	211	17	9	7	3	89	14

Calculate the rate of natural population growth

Problem No. 27.

Population, number of births, deaths of the city G

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
111532	3110	821	74	39	26	eleven	372	56

Calculate infant mortality rate

Problem No. 28.

Population, number of births, deaths of the city D

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
232059	6530	2091	137	85	61	19	757	123

Calculate perinatal mortality rate

Problem No. 29.

Population, number of births, deaths of the city E

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
232059	6530	2091	137	85	61	19	757	123

Calculate neonatal mortality rate

Task No. 30.

Population, number of births, deaths of the city

Population	born	Died	Incl.	Of	Incl. in the	Stillborn	Died	Incl.

			under 1 year of age	these, up to 1 month of life	first 6 days after birth	n	from respiratory diseases	under 1 year of age
232059	6530	2091	137	85	61	19	757	123

Calculate the mortality rate from respiratory diseases

Task No. 31.

Population, number of births, deaths of the city

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
232059	6530	2091	137	85	61	19	757	123

Calculate the infant mortality rate from respiratory diseases

Problem No. 32.

Population, number of diseases in city A

Population	Covered by medical examination	Newly identified diseases	All existing diseases	Diseases detected during medical examination	Number of people who never visited medical institutions during the year
93115	60527	13256	27015	123475	64116

Calculate the primary incidence rate

Problem No. 33.

Population, number of diseases in city B

Population	Covered by medical examination	Newly identified diseases	All existing diseases	Diseases detected during medical examination	Number of people who never visited medical institutions during the year
139508	89193	21303	38519	185314	105111

Calculate disease prevalence

Problem No. 35.

Population, number of diseases in B

Population	Covered by medical examination	Newly identified diseases	All existing diseases	Diseases detected during medical examination	Number of people who never visited medical institutions during the year
185272	123152	26851	53705	247517	130517

Calculate pathological involvement

Problem No. 36.

Population size, number of diseases

Population	Covered by medical examination	Newly identified diseases	All existing diseases	Diseases detected during medical examination	Number of people who never visited medical institutions during the year
93140	16150	33180	66860	30171	18150

Calculate the indicator of people who never visited medical institutions during the year

Problem No. 37.

Number of employees, number of cases and days of disability at plant A

Number of employees	Number of cases of disability	Number of days of incapacity	Number of cases of disability from circulatory diseases	Number of days of disability from circulatory diseases
473	275	2910	72	1150

Calculate the number of cases of disability per 100 workers

Problem No. 38.

Number of employees, number of cases and days of disability at plant B

Number of employees	Number of cases of disability	Number of days of incapacity	Number of cases of disability from circulatory diseases	Number of days of disability from circulatory diseases
615	373	4010	101	1713

Calculate the number of days of disability per 100 workers

Problem No. 39.

Number of employees, number of cases and days of disability at plant B

Number of employees	Number of cases of disability	Number of days of incapacity	Number of cases of disability from circulatory diseases	Number of days of disability from circulatory diseases
151	98	105	28	415

Calculate the average duration of a disability event

Problem No. 40.

Number of employees, number of cases and days of incapacity for work at plant G

Number of employees	Number of cases of disability	Number of days of incapacity	Number of cases of disability from circulatory diseases	Number of days of disability from circulatory diseases
78	41	79	9	125

Calculate the number of cases of disability from circulatory diseases per 100 workers

Problem No. 41.

Number of employees, number of cases and days of disability at plant D

Number of employees	Number of cases of disability	Number of days of incapacity	Number of cases of disability from circulatory diseases	Number of days of disability from circulatory diseases
78	41	79	9	125

Calculate the number of days of disability from circulatory system diseases per 100 workers

Problem No. 42.

Number of employees, number of disabled people in city A

Number of employees	Recognized as disabled for the first time	Incl. disabled people of group 1	Number of disabled people registered	Incl. disabled people due to circulatory diseases
65117	410	92	1318	371

Calculate the primary disability indicator

Problem No. 43.

Number of employees, number of disabled people in city B

Number of employees	Recognized as disabled for the first time	Incl. disabled people of group 1	Number of disabled people registered	Incl. disabled people due to circulatory diseases
65117	410	92	1318	371

Calculate the number of people with disabilities

Problem No. 44.

Number of employees, number of disabled people in city B

Number of employees	Recognized as disabled for the first time	Incl. disabled people of group 1	Number of disabled people registered	Incl. disabled people due to circulatory diseases
65117	410	92	1318	371

Calculate the indicator of primary disability of group 1

Problem No. 45.

Population, number of health workers and hospital beds.

Population	Number of doctors	Number of paramedical workers	Number of hospital beds
5065100	13058	30783	26040

Calculate the supply of doctors to the population.

Problem No. 46.

Population, number of health workers and hospital beds.

Population	Number of doctors	Number of paramedical workers	Number of hospital beds
5065100	13058	30783	26040

Calculate the population's supply of paramedical workers.

Problem No. 47.

Population, number of health workers and hospital beds.

Population	Number of doctors	Number of paramedical workers	Number of hospital beds
5065100	13058	30783	26040

Calculate the population's availability of hospital beds.

Problem No. 48.

Population, number of births, deaths of city A

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
159810	4517	1285	104	61	42	17	598	83

Calculate birth rate

Problem No. 49.

Population, number of births, deaths of city B

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
76176	2352	622	58	31	19	8	340	39

Calculate overall mortality rate

Problem No. 50.

Population, number of births, deaths of city B

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
26312	768	211	17	9	7	3	89	14

Calculate the rate of natural population growth

Problem No. 51.

Population, number of births, deaths of the city G

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
111532	3110	821	74	39	26	eleven	372	56

Calculate infant mortality rate

Problem No. 52.

Population, number of births, deaths of the city D

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
232059	6530	2091	137	85	61	19	757	123

Calculate perinatal mortality rate

Problem No. 53.

Population, number of births, deaths of the city E

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
232059	6530	2091	137	85	61	19	757	123

Calculate neonatal mortality rate

Problem No. 54.

Population, number of births, deaths of the city

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
232059	6530	2091	137	85	61	19	757	123

Calculate the mortality rate from respiratory diseases

Problem No. 55.

Population, number of births, deaths of the city

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
232059	6530	2091	137	85	61	19	757	123

Calculate the infant mortality rate from respiratory diseases

Problem No. 56.

Population, number of diseases in city A

Population	Covered by medical examination	Newly identified diseases	All existing diseases	Diseases detected during medical examination	Number of people who never visited medical institutions during the year
93115	60527	13256	27015	123475	64116

Calculate the primary incidence rate

Problem No. 57.

Population, number of diseases in city B

Population	Covered by medical examination	Newly identified diseases	All existing diseases	Diseases detected during medical examination	Number of people who never visited medical institutions during the year
139508	89193	21303	38519	185314	105111

Calculate disease prevalence

Problem No. 58.

Population, number of diseases in B

Population	Covered by medical examination	Newly identified diseases	All existing diseases	Diseases detected during medical examination	Number of people who never visited medical institutions during the year
185272	123152	26851	53705	247517	130517

Calculate pathological involvement

Problem No. 59.

Population size, number of diseases

Population	Covered by medical	Newly identified	All existing diseases	Diseases detected	Number of people who never visited medical

	examination	diseases		during medical examination	institutions during the year
93140	16150	33180	66860	30171	18150

Calculate the indicator of people who never visited medical institutions during the year

Problem No. 60.

Number of employees, number of cases and days of disability at plant A

Number of employees	Number of cases of disability	Number of days of incapacity	Number of cases of disability from circulatory diseases	Number of days of disability from circulatory diseases
473	275	2910	72	1150

Calculate the number of cases of disability per 100 workers

EXAMPLE OF EXAMINATION TICKET FOR INTERMEDIATE CONTROL No. 5

1. Question(s) to check the level of training KNOW

1. Subject and content of medical statistics: statistics, biostatistics, medical statistics. Objectives and sections of medical statistics.
2. Dispensary method of service: clinical examination, dispensary method, purpose, objectives, selection of contingents, institutions, elements, performance indicators.

2. Tasks/tasks to check the level of training BE ABLE, PROFESSIONAL

Solving a situational problem.

Population, number of births, deaths of the city D

Population	born	Died	Incl. under 1 year of age	Of these, up to 1 month of life	Incl. in the first 6 days after birth	Stillborn	Died from respiratory diseases	Incl. under 1 year of age
232059	6530	2091	137	85	61	19	757	123

Calculate perinatal mortality rate

4. METHODOLOGICAL MATERIALS DETERMINING PROCEDURES FOR ASSESSING KNOWLEDGE, ABILITIES, SKILLS AND (OR) ACTIVITY EXPERIENCE CHARACTERIZING THE STAGES OF COMPETENCY FORMATION DESCRIPTION OF INDICATORS AND CRITERIA FOR COMPETENCY ASSESSMENT, DESCRIPTION Ш CAL ASSESSMENT

This section provides a methodological description of the procedure (procedure) for assessing acquired competencies (parts of competencies). All types of assessment tools listed in the summary table for the discipline (module), as a rule, must be subject to a methodological description of the procedure for their implementation. The purpose of such a description is to

After familiarizing yourself with the methodological materials, the student should receive complete clarity on exactly how the assessment will be carried out (taking a test, writing a test, solving problems, defending an essay, term paper, project, etc.).

The exam card includes two theoretical questions and a practical task corresponding to the content of the competencies being developed. The exam is conducted orally. The student is given 30 minutes to answer and solve the problem. A student can receive a maximum of 20 points for answering theoretical questions, and 10 points

for solving a problem. Conversion of points into assessment: 30 points - 5; 25 points - 4; 20 points - 3.

Examples of rating scales:

1. Scale for grading test tasks.

1. One test task contains 20 questions.
2. The questions are given ready-made answers to choose from, one correct and the rest incorrect.
3. For each correct answer - 5%.
4. The total score is determined as the sum of the accumulated interest.
5. The accumulated percentage is converted into points.

When testing:
0-59% - (0-11 correct answers), then this amounts to 0-7 points “unsatisfactory”
60-69% - (12-14 correct answers), then this is 8-9 points “satisfactory”
70-84% - (15-17 correct answers), then this is 10-11 points “good”
85-100% - (18-20 correct answers), then this is 12-13 points “excellent”

2. Scale for grading tests.

"85-100%"
- deep and lasting assimilation of the module topic material;
- complete, consistent, competent and logically presented answers to questions;
- reproduction of educational material on module topics with the required high degree of accuracy.

"70-84%"
- the presence of minor errors in the presentation of the module material;
- demonstration to students of knowledge within the scope of the completed program;
- clear presentation of educational material.

"60-69%"
- presence of significant errors in answers on the topic of the module;
- demonstrating to students insufficient knowledge of the completed program;
- not a clear presentation of the educational material when answering.

"less than 59%"
- lack of knowledge of the topic material;
- Serious errors occur when answering.

When conducting the test “Relative quantities. Variation series. Average values"
0-59% - rating “unsatisfactory”
60-69% - “satisfactory” rating
70-84% - “good” rating
85-100% - “excellent” rating

When conducting the control work “Medical and demographic indicators”
0-59% - rating “unsatisfactory”
60-69% - “satisfactory” rating
70-84% - “good” rating
85-100% - “excellent” rating

When conducting the test “Analysis of the state of health and healthcare by region of the country”
0-59% - rating “unsatisfactory”
60-69% - “satisfactory” rating
70-84% - “good” rating
85-100% - “excellent” rating

When conducting the test “Management and Marketing in Healthcare” 0-59% - grade “unsatisfactory”
60-69% - “satisfactory” rating
70-84% - “good” rating
85-100% - “excellent” rating

When conducting the control work “Quality of medical services”
0-59% - rating “unsatisfactory”
60-69% - “satisfactory” rating
70-84% - “good” rating
85-100% - “excellent” rating

When conducting the test “Economics of Health Care” 0-59% - grade “unsatisfactory”
60-69% - “satisfactory” rating
70-84% - “good” rating
85-100% - “excellent” rating

3. Presentation rating scale (current control)

No.	Indicator name	Mark (in%)
PRESENTATION		70
1.	Title page with heading	0-4
2.	Slide design and use of additional effects (slide changing, sound, pictures)	0-10
3.	The text of the presentation is written briefly, well and the ideas formed are clearly presented and structured	0-40
4.	Slides are presented in a logical sequence	0-10
5.	Slides are printed	0-6
REPORT		thirty
1.	Correctness and accuracy of speech during defense	0-12
2.	Breadth of horizons (answers to questions)	0-10
3.	Implementation of regulations	0-8
Total points		Sum of points

When giving a presentation
0-59% - rating “unsatisfactory”
60-69% - “satisfactory” rating
70-84% - “good” rating
85-100% - “excellent” rating

4. Rating scale for solving the problem

No.	**Indicator name**	**Mark (in%)**
1	Originality and persuasiveness	0-15
2	Understanding of the issue and adequacy of interpretation	0-25
3	Reliability of information	0-40
4	Logic and consistency of oral expression	0-20
Total points		**Sum of points**

Atsolving the problem:
0-59% - 0-14 points “unsatisfactory”
60-69% - 15-18 points “satisfactory”
70-84% - 19-21 points “good”
85-100% - 22-25 points “excellent”

5. Rating scale for intermediate control.

Criteria for assessing intermediate control in the discipline "Public health and healthcare" (max – 30 points)

ORAL SURVEY RATING SCALE
(intermediate control - "KNOW")
(test in the VII semester and exam in the VIII semester)

When assessing oral answers to test the level of KNOW training, the following criteria are taken into account:

1. Knowledge of the basic processes of the subject area being studied, the depth and completeness of the disclosure of the issue.
2. Ability to solve situational problems, draw conclusions and generalizations, and give reasoned answers.
3. Proficient in monologue speech, logical and consistent responses, ability to answer questions posed, and express one's opinion on the issue under discussion.

85-100% (16-20 points) is assessed on a response that shows a strong knowledge of the content of the subject of public health and healthcare; legislative framework for protecting public health; fundamentals of biomedical statistics; population health indicators and their determining factors; the role of the health promotion service (HPS) in the formation of a healthy lifestyle (HLS); the main problems and strategies for health promotion (HP) of certain populations according to WHO; basics of health care reform; basics of healthcare management and quality of medical services; definitions of economics and financing of health care, goals, objectives and ways of further development in the conditions of health insurance and a market economy; the state of the healthcare system abroad; logic and consistency of the answer.

70-84% (10-15 points) the answer is assessed, revealing strong knowledge of the content of the subject of public health and healthcare; legislative framework for protecting public health; fundamentals of biomedical statistics; population health indicators and their determining factors; the role of the health promotion service (HPS) in the formation of a healthy lifestyle (HLS); the main problems and strategies for health promotion (HP) of certain populations according to WHO; basics of health care reform; basics of healthcare management and quality of medical services; definitions of economics and financing of health care, goals, objectives and ways of further development in the conditions of health insurance and a market economy; the state of the healthcare system abroad; logic and consistency of the answer. However, one or two inaccuracies in the answer are allowed.

60-69% (5-10 points) the answer is assessed, indicating mainly knowledge of the basics of the subject of public health and healthcare; legislative framework for protecting public health; insufficient depth of knowledge of the basics of biomedical statistics; population health indicators and their determining factors; the role of the health promotion service (HPS) in the formation of a healthy lifestyle (HLS); the main problems and strategies for health promotion (HP) of certain populations according to WHO; basics of health care reform; basics of healthcare management and quality of medical services; definitions of economics and financing of health care, goals, objectives and ways of further development in the conditions of health insurance and a market economy; the state of the healthcare system abroad. There may be several errors in the content of the answer.

0-59% (1-4 points) is assessed for a response that reveals ignorance of the subject of public health and healthcare; legislative framework for protecting public health; lack of knowledge of the basics of biomedical statistics; population health indicators and their determining factors; inability to give reasoned answers, poor command of monologue speech, lack of logic and consistency. Serious errors in the content of the answer are allowed.

GRADING SCALE FOR PRACTICAL TASKS
(intermediate control - "BE ABLE and OWN")
(test in the VII semester and exam in the VIII semester)

When assessing answers to testing the level of training to BE ABLE and COMPLIANT, the following criteria are taken into account(situational tasks and assignments):

85-100% (8-10 points) the answer is assessed in which the student is able to plan and conduct statistical research, analyze and interpret their results in practical and scientific activities; calculate and analyze the main indicators of public health and the activities of medical organizations; conduct a situational analysis of the organization and healthcare units; knows the methodology for calculating statistical indicators; has basic skills in management and marketing of healthcare organizations.

Demonstrates a thorough understanding of the problem. All requirements for the task have been met.

70-84% (4-7 points) is assessed by the answer in which the student is able to plan and conduct statistical research, analyze and interpret their results in practical and scientific activities; calculate and analyze the main indicators of public health and the activities of medical organizations; conduct a situational analysis of the organization and healthcare units; knows the methodology for calculating statistical indicators; does not have sufficient basic skills in managing and marketing healthcare organizations.

Demonstrates significant understanding of the problem. Most of the requirements for the task have been met.

60-69% (1-3 points) the answer is assessed in which the student does not know how to plan and conduct statistical research, analyze and interpret their results in practical and scientific activities; calculate and analyze the main indicators of public health and the activities of medical organizations; conduct a situational analysis of the organization and healthcare units; does not have a good grasp of the methodology for calculating statistical indicators; does not have sufficient knowledge of the basic skills of management and marketing of healthcare organizations.

Demonstrates partial or little understanding of the problem. Many requirements for the assignment have not been met.

0-59% (0 points) is assessed for an answer in which the student demonstrates a lack of understanding of the problem or there is no answer and there was not even an attempt to solve the problem.