федеральное государственное бюджетное образовательное учреждение

высшего образования

«Оренбургский государственный медицинский университет»

Министерства здравоохранения Российской Федерации

**ФОНД ОЦЕНОЧНЫХ СРЕДСТВ**

**ДЛЯ ПРОВЕДЕНИЯ ТЕКУЩЕГО**

**КОНТРОЛЯ УСПЕВАЕМОСТИ И ПРОМЕЖУТОЧНОЙ АТТЕСТАЦИИ ОБУЧАЮЩИХСЯ ПО ДИСЦИПЛИНЕ**

ОБЩЕСТВЕННОЕ ЗДОРОВЬЕ И ЗДРАВООХРАНЕНИЕ, ЭКОНОМИКА ЗДРАВООХРАНЕНИЯ

по специальности

31.05.01 Лечебное дело (факультет иностранных студентов)

Является частью основной профессиональной образовательной программы высшего образования 31.05.01 Лечебное дело (факультет иностранных студентов), утвержденной ученым советом ФГБОУ ВО ОрГМУ Минздрава России

протокол № 8 от 25 марта 2016 г.

Оренбург

1. **Паспорт фонда оценочных средств**

Фонд оценочных средств по дисциплине содержит типовые контрольно-оценочные материалы для текущего контроля успеваемости обучающихся, в том числе контроля самостоятельной работы обучающихся, а также для контроля сформированных в процессе изучения дисциплины результатов обучения на промежуточной аттестации в форме зачета.

Контрольно-оценочные материалы текущего контроля успеваемости распределены по темам дисциплины и сопровождаются указанием используемых форм контроля и критериев оценивания. Контрольно-оценочные материалы для промежуточной аттестации соответствуют форме промежуточной аттестации по дисциплине, определенной в учебной плане ОПОП и направлены на проверку сформированности знаний, умений и навыков по каждой компетенции, установленной в рабочей программе дисциплины.

В результате изучения дисциплины у обучающегося формируются **следующие компетенции:**

ОК-1 Способность к абстрактному мышлению, анализу, синтезу.

ОПК-3 Способность использовать основы экономических и правовых знаний в профессиональной деятельности.

ОПК-5 Способностью и готовностью анализировать результаты собственной деятельности для предотвращения профессиональных ошибок

ОПК-6 Готовность к ведению медицинской документации.

ПК-4 Способность и готовность к применению социально-гигиенических методик сбора и медико-статистического анализа информации о показателях здоровья населения.

ПК-6 Способностью к определению у пациента основных патологических состояний, симптомов, синдромов заболеваний, нозологических форм в соответствии с Международной статистической классификацией болезней и проблем, связанных со здоровьем, X пересмотра.

ПК-17 Способность к применению основных принципов организации и управления в сфере охраны здоровья граждан, в медицинских организациях и их структурных подразделениях.

ПК-18 Готовность к участию в оценке качества оказания медицинской помощи с использованием основных медико-статистических показателей.

ПК-20 Готовностью к анализу и публичному представлению медицинской информации на основе доказательной медицины.

ПК-21 Способностью к участию в проведении научных исследований.

1. **Оценочные материалы текущего контроля успеваемости обучающихся**

**Оценочные материалы в рамках модуля дисциплины**

**Модуль 3.** Организация здравоохранения.

**Примерные темы электронных презентаций**

1. Problems of the size and composition of the population in India. State demographic policy.
2. Fertility and mortality in India. State and dynamics of processes.
3. Morbidity of the population of India. Method of study. Status and main trends.
4. Disability of the population and organization of rehabilitation in India.
5. The basic characteristics of the health care system in India.
6. Health system management in India.
7. Financing Health in India.
8. The primary health care in India.
9. Organization of ambulatory care in India.
10. Organization of the in-patient aid in India.
11. Protection of motherhood and infancy in India.
12. The organization of the out-patient-polyclinic obstetric-gynecologic aid in India.
13. Organization of the treatment-and-prophylactic aid to children in India.
14. Medical prophylaxis in India.
15. The organization of the treatment-and-prophylactic aid to rural population in India.
16. Medical examination of disability and invalidity in India.

Medical education in India. Improving the training of medical personnel.

**Критерии оценивания, применяемые при текущем контроле успеваемости в рамках модуля дисциплины**

Критерии оценки устного доклада с использованием электронной презентации

|  |
| --- |
| Баллы:0 - позиция отсутствует1 – слабо2 – хорошо3 - отлично |
| Требования |
| Структура **(до 9 баллов)** |
| количество слайдов соответствует содержанию и продолжительности выступления (для 7-минутного выступления рекомендуется использовать не более 10 слайдов) |
| наличие титульного слайда |
| оформлены ссылки на все использованные источники |
| Текст на слайдах **(до 6 баллов)** |
| текст на слайде представляет собой опорный конспект (ключевые слова, маркированный или нумерованный список), без полных предложений |
| наиболее важная информация выделяется с помощью цвета, размера, эффектов анимации и т.д. |
| Наглядность **(до 9 баллов)** |
| иллюстрации помогают наиболее полно раскрыть тему, не отвлекают от содержания  |
| иллюстрации хорошего качества, с четким изображением |
| используются средства наглядности информации (таблицы, схемы, графики и т. д.) |
| Дизайн и настройка **(до 12 баллов)** |
| оформление слайдов соответствует теме, не препятствует восприятию содержания  |
| для всех слайдов презентации используется один и тот же шаблон оформления |
| текст легко читается  |
| презентация не перегружена эффектами |
| Содержание **(до 9 баллов)** |
| презентация отражает основные этапы исследования (проблема, цель, гипотеза, ход работы, выводы, ресурсы) |
| содержит ценную, полную, понятную информацию по теме проекта |
| ошибки и опечатки отсутствуют |
| Требования к выступлению **(до 18 баллов)** |
| выступающий свободно владеет содержанием, ясно излагает идеи |
| выступающий свободно и корректно отвечает на вопросы и замечания аудитории  |
| электронная презентация служит иллюстрацией к выступлению, но не заменяет его |
| выступающий обращается к аудитории, поддерживает контакт с ней |
| при необходимости выступающий может легко перейти к любому слайду своей презентации |
| в выступлении отражен вклад каждого участника в работу группы (по возможности) |

Границы выставления отметок

51– 63 баллов – оценка «5 баллов»

36 – 50 баллов – оценка «4 балла»

21 – 35 баллов – оценка «3 балла»

менее 20 баллов – оценка «2 балла»

**Оценочные материалы по каждой теме дисциплины**

**Модуль 2.** Основы статистического метода исследования общественного здоровья и здравоохранения.

**Тема 1.** **THE ORGANIZATION AND CARRYING OUT OF STATISTICAL RESEARCH**.

**Форма текущего контроля успеваемости**

Письменное тестирование.

Устный опрос.

Решение case-заданий.

**Оценочные материалы текущего контроля успеваемости**

***Тесты.***

1. MEDICAL STATISTICS INCLUDE THE FOLLOWING PARTS:
	1. statistics of public health
	2. veterinary statistics
	3. statistics of scientific researches
	4. statistics of public health services
	5. crime statistics

2. STATISTICS OF PUBLIC HEALTH ARE STUDYING INDICATORS

* 1. Medico-demographic
	2. Health services status
	3. Morbidity of the population
	4. Quality of care
	5. Efficiency of care
	6. Disability of the population
	7. Physical health of the population

3. STATISTICS OF PUBLIC HEALTH SERVICES INCLUDE:

* 1. Medico-demographic
	2. Health services status
	3. Morbidity of the population
	4. Quality of care
	5. Efficiency of care
	6. Disability of the population
	7. Physical health of the population

4. HOW MANY STAGES ARE THERE IN THE STATISTICAL STUDY?

* 1. 4
	2. 3
	3. 8
	4. 2

5. THE FIRST STAGE OF THE STATISTICAL STUDY IS…

* 1. The analysis of the received data, conclusions, suggestions
	2. Preparatory (organizational) stage: scheduling and investigation programs
	3. Collecting of statistical material
	4. Working out and summarizing of material

6. THE PLAN OF STATISTICAL INVESTIGATION

* 1. It reflects the content of research
	2. It reflects the organizational aspect of the study

7. THE PROGRAM OF STATISTICAL INVESTIGATION

* 1. It reflects the content of research
	2. It reflects the organizational aspect of the study

8. THE PLAN OF STATISTICAL INVESTIGATION INCLUDE:

* 1. Object of study
	2. Unit of observation
	3. Time of study
	4. Research Resource
	5. Registration forms

9. THE PROGRAM OF STATISTICAL INVESTIGATION INCLUDE:

* 1. Object of study
	2. Determining the unit of observation
	3. Time of study
	4. Definition of the registration signs
	5. Research Resource
	6. Definition of the registration forms

10. TYPE OF STUDY BY VOLUME MAY BE

1. single supervision
2. continuous
3. selective
4. current supervision

11. TYPE OF STUDY BY TIME MAY BE

1. single supervision
2. continuous
3. selective
4. current supervision

12. A SELECTIVE OBSERVATION IS…

* 1. observation, covering a part of the units of the population for the characterization of the whole
	2. observation, confined to one or another moment
	3. monitoring in the order of the current registration
	4. examination of all units of the studied population

13. A CONTINUOUS OBSERVATION IS…

* 1. observation, covering a part of the units of the population for the characterization of the whole
	2. observation, confined to one or another moment
	3. monitoring in the order of the current registration
	4. examination of all units of the studied population

14. A SINGLE SUPERVISION IS…

* 1. observation, covering a part of the units of the population for the characterization of the whole
	2. observation, confined to one or another moment
	3. monitoring in the order of the current registration
	4. examination of all units of the studied population

15. A CURRENT SUPERVISION OBSERVATION IS…

* 1. observation, covering a part of the units of the population for the characterization of the whole
	2. observation, confined to one or another moment
	3. monitoring in the order of the current registration
	4. examination of all units of the studied population

16. THE UNIT OF OBSERVATION IS…

* 1. the primary element of the statistical population, which is the bearer of the characteristics subject to registration
	2. the array of units that carry the feature being studied
	3. observing timed to any point
	4. determining the volume of observation

17. WHEN STUDYING THE INCIDENCE OF MYOCARDIAL INFARCTION IN THE ADULT POPULATION, THE UNIT OF OBSERVATION IS…

* 1. adult
	2. patients with myocardial infarction
	3. each patient with myocardial infarction

18. STATISTICAL TABLES MAY BE…

* 1. simple tables
	2. graphic tables
	3. group tables
	4. combinational tables
	5. mixed tables

19. OF THESE KINDS OF STATISTICAL TABLES, THE BEST REPRESENTATION OF THE TARGET POPULATION GIVES

* 1. simple tables
	2. group tables
	3. combinational tables

20. WHEN CONDUCTING A SELECTIVE OBSERVATION, THE TYPES OF STATISTICAL MATERIAL COLLECTING…

* 1. Random
	2. Mechanical
	3. Main array
	4. Typological
	5. Serial

6. Continuous

***Вопросы для устного опроса***

1. Medical statistics as method of a research of public health and health care. Parts of medical statistics.
2. The plan of statistical research, maintenance. The statistical set. Kinds, types, peculiarities.
3. The program of statistical research. Registrational blank, types, requirements.
4. Development of statistical data on personal computers. Types of data. Data entry. Error checking and outliers.

***Case-задания для демонстрации практических умений и навыков:***

1. The aim of the work is to study the prevalence of hypotrophy among the children of the Orenburg region for the development of targeted preventive measures.

Make a plan and a program of statistical research on this issue.

2. The purpose of the work is to study the traumatism among adolescents in Orenburg for the development of targeted preventive measures for its reduction.

Make a plan and a program for statistical study of the question.

3. The aim of the work is to study the incidence of chronic diseases of digestive organs in students of the Orenburg State Medical Academy for the development of ways of targeted prevention.

Make a plan and a program of statistical research on this issue.

4. The aim of the study was to study the frequency, structure and risk factors of perinatal mortality in the Orenburg region for the development of targeted preventive measures.

Make a plan and a program of statistical research on this issue.

5. The aim of the study was to study the frequency, structure and risk factors of the incidence of infectious diseases in children of the Belyaevsky District for the development of rational prevention routes.

Make a plan and a program of statistical research on this issue.

6. The aim of the work is to study the incidence of chronic respiratory diseases in the children's population of Eastern Orenburg region for the development of rational preventive measures.

Make a plan and a program of statistical research on this issue.

7. The purpose of the study is to study the incidence of rachitis in the children's population of Orenburgh for the development of targeted prevention routes.

Make a plan and a program of statistical research on this issue.

8. The purpose of the study is to study the incidence of osteochondrosis of the lumbosacral spine of drivers in the city of Orenburg for the development of targeted preventive measures.

Make a plan and a program of statistical research on this issue.

9. The purpose of the study was to study the occupational traumatism of workers of the helium plant in Orenburg to develop targeted preventive measures to reduce it.

Make a plan and a program for statistical study of the question.

10. The purpose of the study was to study the frequency and structure of risk factors for postoperative complications in surgical departments of the city hospital for the development of targeted preventive measures.

Make a plan and a program of statistical research on this issue.

11. The aim of the work is to study the morbidity of the adult population of the city of Orenburg with diseases of the cardiovascular system for the development of purposeful prevention routes.

Make a plan and a program of statistical research on this issue.

**Тема 2.** BASIC TECHNIQUES FOR ANALYSING CATEGORICAL DATA

**Формы текущего контроля успеваемости**

Письменное тестирование.

Устный опрос.

Решение case-заданий.

**Оценочные материалы текущего контроля успеваемости**

***Вопросы для письменного опроса:***

1. STATISTICAL VALUES ARE

1. absolute values
2. relative values
3. all listed

2. WHAT VALUES REFLECT THE TRUE SIZE OF THE PHENOMENON BEING STUDIED?

* 1. relative values
	2. average values
	3. absolute values
	4. statistical values

3. RELATIVE VALUES ARE ALL LISTED, EXCEPT

1. Intensive values
2. extensive values
3. average values
4. ratio values
5. obvious values

4. WHICH VALUES CHARACTERIZES FREQUENCY OF THE PHENOMENON IN THE CONDITION WHERE THIS PHENOMENON IS OBSERVED?

1. Intensive values
2. extensive values
3. ratio values
4. obvious values

5. WHICH VALUES CHARACTERIZES A NUMERICAL PARITY OF THE SETS NOT CONNECTED AMONG THEMSELVES AND COMPARED ONLY UNDER THEIR MAINTENANCE?

* 1. Intensive values
	2. extensive values
	3. obvious values
	4. ratio values

6. WHICH VALUES IS CALCULATED AS THE RELATION OF A PART TO THE WHOLE?

1. Intensive values
2. extensive values
3. ratio values
4. obvious values

7. WHICH VALUES IS NEEDED TO STUDY THE TEMPORALLY CHANGES OF THE PHENOMENON AND TO COMPARE TWO OR MORE SIMILAR PHENOMENA?

1. Intensive values
2. extensive values
3. ratio values
4. obvious values

8. WHICH VALUES IS USED TO CHARACTERIZE THE STRUCTURE OF THE PHENOMENON?

1. Intensive values
2. extensive values
3. ratio values
4. obvious values

9. WHY DO YOU NEED STANDARD ERROR OF ASSESSMENT RELATIVE VALUES?

1. Using a standard error, you can generalize the results to similar objects with a certain probability.
2. To determine the error in collecting statistical data.
3. To determine the statistical significance of the differences between the two phenomena.

10.  WHAT IS THIS FORMULA USED FOR?

1. For calculation of intensive values
2. For calculation standard error
3. For calculation of extensive values
4. For determine the statistical significance of the differences between the two phenomena.

***Вопросы для устного опроса***

1. Аbsolute sizes, using in public health.
2. Relative sizes, types, methodic of calculation, using.
3. Standard Error of assessment and confidence intervals of relative sizes.
4. Estimation of statistical significance of differences in relative values (single proportion, two proportions, more than two categories).
5. Visualization and graphic representation of the relative values

***Case-задания для демонстрации практических умений и навыков:***

Task 1

When studying the incidence of osteochondrosis of the lumbosacral spine of drivers of urban transport in Orenburg, the data presented in the table were obtained.

The number of patients with osteochondrosis of the lumbosacral spine department among drivers of urban vehicles, depending on the length of service

|  |  |  |
| --- | --- | --- |
| ***Work experience as a driver*** | ***Examined*** | ***Number of patients with osteochondrosis*** |
| 1- 9 years | 2964 | 520 |
| 10 – 19 years | 1629 | 440 |
| 20 and more years | 250 | 165 |
| ***Total*** | ***4843*** | ***1125*** |

1. Calculate the total and group (depending on the work experience as a driver) indicators of the disease rate of osteochondrosis of the lumbosacral spine of the drivers of urban transport.

2. Calculate the structure of the incidence of drivers osteochondrosis of the lumbosacral spine, depending on the length of service.

3. Calculate the minimum and maximum possible incidence of drivers of urban vehicles lumbosacral osteochondrosis.

4. Determine the reliability of differences in the incidence of drivers who have worked for 1-9 years and 20 years or more.

5. On the basis of the data obtained, issue a conclusion.

Task 2

In the study of occupational injuries at the helium plant, the data presented in the table were obtained.

The number of cases of industrial injuries among management personnel and workers in the helium plant

|  |  |  |
| --- | --- | --- |
| ***Employee category*** | ***Number of employees*** | ***Number of cases of industrial injuries*** |
| Administrative staff | 206 | 2 |
| Workers | 1602 | 17 |
| ***Total*** | ***1808*** | ***19*** |

1. Calculate the total and group (depending on the category of workers) indicators of occupational injuries at the helium plant.

2. Calculate the structure of industrial injuries, depending on the category of workers.

3. Calculate the minimum and the maximum possible level of industrial injuries in the workers of the helium plant.

4. Determine the reliability of differences in levels of occupational traumatism among workers and management personnel.

5. On the basis of the data obtained, issue a conclusion.

Task 3

In studying the hospitalized morbidity of women of reproductive age in Orenburg, the data presented in the table were obtained by gynecological diseases.

***The number of cases of hospitalization of women with gynecological diseases in different age groups***

|  |  |  |
| --- | --- | --- |
| ***Age*** | ***Number of patients*** | ***Number of hospitalized*** |
| Up to 30 years | 1210 | 47 |
| 30 - 49 years | 1740 | 110 |
| 50 years and over | 380 | 30 |
| ***Total*** | **3330** | **187** |

1. Calculate the total and group (depending on age) indicators of the level of hospitalization of women with gynecological diseases.

2. Calculate the structure of hospitalized gynecological incidence, depending on age.

3. Calculate the minimum and the maximum possible level of hospitalization of women with gynecological diseases in Orenburg.

4. Determine the reliability of the differences in the levels of hospitalization of women in the age groups "up to 30 years" and "30-49 years."

5. On the basis of the data obtained, issue a conclusion.

Task 4

In the analysis of postpartum complications, the women presented in the perinatal center of Orenburg received the data presented in the table.

***The number of cases of postpartum complications in women of different age groups***

|  |  |  |
| --- | --- | --- |
| ***Age*** | ***Number of women discharged from maternity ward*** | ***Number of cases of postpartum complications*** |
| Up to 20 years | 458 | 29 |
| 20 – 29 years | 845 | 92 |
| 30 – 39 years | 240 | 35 |
| ***Total*** | **1543** | **156** |

1. Calculate the total and group (depending on age) indicators of the frequency of postpartum complications.

2. Calculate the structure of postpartum complications depending on age.

3. Calculate the minimum and maximum possible level of postpartum complications.

4. Determine the reliability of differences in postpartum complications in the age groups "20-29 years" and "30-39" years.

5. On the basis of the data obtained, issue a conclusion.

Task 5

In the study of the frequency of complications in type II diabetes mellitus, depending on the duration of the disease, the data presented in the table were obtained.

The number of cases of complications of type II diabetes mellitus depending on the duration of the disease

|  |  |  |
| --- | --- | --- |
| ***Duration of the disease*** | ***Number of patients*** | ***Number of complications*** |
| Up to 5 years | 863 | 384 |
| 5 - 10 years | 405 | 237 |
| More than 10 years | 219 | 211 |
| ***Total*** | **1487** | **832** |

1. Calculate the total and subgroup indicators of the frequency of complications.

2. Calculate the structure of complications depending on the duration of diabetes mellitus.

3. Calculate the minimum and maximum possible levels of complications of diabetes in all patients.

4. Determine the reliability of differences in the incidence of complications in people with diabetes 5-10 years and more than 10 years.

5. Based on the findings, draw a conclusion.

Task 6

When studying the level and structure of postoperative complications in the surgical hospital, the data presented in the table were obtained.

***Number of cases of postoperative complications***

|  |  |  |
| --- | --- | --- |
| ***Bed profile*** | ***Number of operated patients*** | ***Number of cases of postoperative complications*** |
| general surgery | 1280 | 18 |
| purulent surgery | 845 | 17 |
| ***Total*** | **2125** | **35** |

1. Calculate the total and group (depending on the profile of beds) indicators of the frequency of postoperative complications.

2. Calculate the structure of postoperative complications depending on the profile of the beds.

3. Calculate the minimum and maximum possible level of postoperative complications in the surgical hospital.

4. Determine the reliability of differences in postoperative complications in the department of general and purulent surgery.

5. On the basis of the data obtained, issue a conclusion.

Task 7

When examining the satisfaction of the adult population of Orenburg with the provision of outpatient care, the following data were obtained, presented in the table.

***Distribution of patients who are satisfied with the provision of outpatient care according to age***

|  |  |  |
| --- | --- | --- |
| ***Age*** | Covered by research | The number of patients satisfied with health care |
| Working age | 188 | 148 |
| Retirement age | 48 | 28 |
| ***Total*** | **236** | **176** |

1. Calculate the general and group (depending on the age) the indicators of satisfaction of the population of Orenburg by providing outpatient care.

2. Calculate the structure of patient satisfaction, depending on age.

3. Calculate the minimum and maximum possible level of satisfaction of patients in Orenburg by providing outpatient care.

4. Determine the reliability of differences in levels of satisfaction of patients of working age and retirement age.

6. On the basis of the data obtained, issue a conclusion.

Task 8

In a selective study of the incidence of the rural population of the Sol-Iletsky district with diseases of the digestive organs, the data presented in the table were obtained.

***The number of cases of diseases of the digestive system in the adult population of the Sol-Iletsky district in terms of sex***

|  |  |  |
| --- | --- | --- |
| ***Sex*** | ***Covered by research*** | ***Number of cases of diseases of the digestive system*** |
| Male | 480 | 20 |
| Female | 679 | 70 |
| ***Total*** | **1159** | **90** |

1. Calculate the total and group (depending on sex) rates of the incidence of diseases of the digestive system.

2. Calculate the structure of the incidence of diseases of the digestive system, depending on sex.

3. Calculate the minimum and the maximum possible incidence of diseases of the digestive system among residents of the Sol-Iletsky district.

4. Determine the reliability of differences in levels of morbidity in men and women.

5. On the basis of the data obtained, issue a conclusion.

**Тема 3.** BASIC TECHNIQUES FOR ANALYSING NUMERICAL DATA.

**Формы текущего контроля успеваемости**

Письменное тестирование.

Устный опрос.

Решение case-заданий.

**Оценочные материалы текущего контроля успеваемости**

***Вопросы для письменного опроса:***

1. NORMAL DISTRIBUTION OR ASSIMENTIAL DISTRIBUTION DEFINITELY FOR …

1) qualitative data

2) quantitative data

3) any data 2. WHICH OF THE AVERAGE VALUES WILL BETTER CHARACTERIZE THE STATISTICAL SET WITH NORMAL DISTRIBUTION?

1) arithmetic mean

2) median

3) mode

3. WHAT IS THE AVERAGE VALUE THAT BEST CHARACTERIZES THE STATISTICAL SET IN A DISTRIBUTION DIFFERENT FROM NORMAL?

1) arithmetic mean

2) median

3) mode

4. WHAT IS THE BEST VALUE TO USE IF THERE IS A STRONG TENDENCY TO DOMINATE ANY VALUE IN THE STATISTICAL SET?

1) arithmetic mean

2) median

3) mode

5. WHAT IS THE BEST MEASURE OF THE VARIABILITY OF QUANTITATIVE DATA IN A STATISTICAL SET WITH A NORMAL DISTRIBUTION?

1) mode

2) standard deviation

3) quartiles

4) coefficient of variation

6. WHAT IS THE BEST MEASURE OF THE VARIABILITY OF QUANTITATIVE DATA IN A STATISTICAL SET IN A DISTRIBUTION DIFFERENT FROM NORMAL?

1) coefficient of variation

2) standard deviation

3) сentels (percentiles, deciles, quartiles)

4) obvious values

7. IN THE LIMIT M ± 2SD LOCATED…

1) 68,3% all observations

2) 95,5% all observations

3) 99,7% all observations

8. WHAT IS THE VALUE OF T - TEST CONFIRMS THE PRESENCE OF A STATISTICALLY SIGNIFICANT DIFFERENCE BETWEEN THE GROUPS BEING COMPARED?

 1) t ≥ 1,98

2) t ≤ 1,98

3) t = 1

4) t = 0,05

9. WHAT CHARACTERIZES THE STANDARD ERROR OF THE AVERAGE VALUE?

1) variability of analyzed quantitative data

2) the reliability of the differences between two mean values

3) the number by which the value of the average value of the sample population will differ from the average value calculated in the general population.

4) material collection error

10. WHAT CHARACTERIZES THE STANDARD DEVIATION?

1) variability of analyzed quantitative data

2) the reliability of the differences between two mean values

3) the number by which the value of the average value of the sample population will differ from the average value calculated in the general population.

4) material collection error

***Вопросы для устного опроса***

1. Theoretical distributions: the Normal and other distributions.
2. Variational line, types, construction.
3. Average sizes, types, using in health services. Arithmetic mean and median characteristics and peculiarities, methods of calculation.
4. Assessment of a variety of numerical data. Standard deviation, methods of calculation and practical implementation. Variety assessment by means of percentiles.
5. Standard Error of assessment and confidence intervals of average sizes.
6. Estimation of statistical significance of differences in average sizes. Parametrical and non-parametrical statistical methods.

***Case-задания для демонстрации практических умений и навыков:***

Task 1

According to the study of the physical development of 200 boys - teenagers 15 years of Orenburg, a number of growth distributions were built. It is necessary to calculate:

|  |  |
| --- | --- |
| V | P |
| 144-148 | 4 |
| 149-153 | 10 |
| 154-158 | 16 |
| 159-163 | 30 |
| 164-168 | 85 |
| 169-173 | 35 |
| 174-178 | 15 |
| 179-183 | 5 |
| n = 200 |

1. Average arithmetic value (M1) by the method of moments.

2. Standard deviation (δ) by the method of moments.

3. The average error of the arithmetic mean (m1).

4. Determine if there are any significant differences in the mean growth in boys adolescents in Orenburg and Orsk, if it is known that the average height of boys in the city of Orsk (M2) is 159.7 cm and the average error of the arithmetic mean (m2) is equal to ± 0.5 cm.

5. Analyze the data and draw a conclusion.

Task 2

According to the study of physical development of 200 draftees in Orenburg, a number of conscripts were distributed according to body weight.

|  |  |
| --- | --- |
| V | P |
| 64-66 | 2 |
| 67-69 | 6 |
| 70-72 | 20 |
| 73-75 | 30 |
| 76-78 | 85 |
| 79-81 | 35 |
| 82-84 | 15 |
| 85-87 | 5 |
| 88-91 | 2 |
| n = 200 |

It is necessary to calculate:

1. Average arithmetic value (M1) by the method of moments.

2. Standard deviation (δ) by the method of moments.

3. The average error of the arithmetic mean (m1).

4. Determine if there are significant differences in the mean weight of conscripts in Orenburg and Orsk, if it is known that the average weight of the recruits of Orsk (M2) is 79.5 kg. and the average error of the arithmetic mean (m2) is ± 0.5 kg.

5. Analyze the data and draw a conclusion.

Task 3

Based on the data on the duration of treatment of 45 patients with angina (in days), a number of distributions were constructed in the polyclinic. It is necessary to calculate:

|  |  |
| --- | --- |
| V | P |
| 3-5 | 5 |
| 6-8 | 8 |
| 9-11 | 15 |
| 12-14 | 9 |
| 15-17 | 5 |
| 18-20 | 3 |
| n = 45 |

1. Average arithmetic value (M1) by the method of moments.

2. Standard deviation (δ) by the method of moments.

3. The average error of the arithmetic mean (m1).

4. Determine if there are significant differences in the mean duration of treatment for angina in a given out-patient clinic and a polyclinic from another area, if it is known that the average duration of treatment for angina in a polyclinic in another district (M2) was 12.5 days and the mean error of the arithmetic mean (m2) is equal to ± 0.5 days.

5. Analyze the data and draw a conclusion.

Task 4

Based on the data on the growth of 56 female students of the first year, a number of distributions were constructed.

|  |  |
| --- | --- |
| V | P |
| 158-160 | 4 |
| 161-163 | 6 |
| 164-166 | 21 |
| 167-169 | 11 |
| 170-172 | 9 |
| 173-175 | 4 |
| 176-178 | 1 |
| n = 56 |

It is necessary to calculate:

1. Average arithmetic value (M1) by the method of moments.

2. Standard deviation (δ) by the method of moments.

3. The average error of the arithmetic mean (m1).

4. Determine whether there are significant differences in the mean growth in students of women and male students, if it is known that the average growth of male students (M2) is 176.6 cm and the average error of the arithmetic mean (m2) is ± 0.5 cm .

5. Analyze the data and draw a conclusion.

Task 5

Based on the data on the body weight of 120 eight-year-old girls, a series of distributions was constructed.

|  |  |
| --- | --- |
| V | P |
| 21-23 | 4 |
| 24-26 | 15 |
| 27-29 | 64 |
| 30-32 | 28 |
| 33-35 | 5 |
| 36-38 | 4 |
| n = 120 |

It is necessary to calculate:

1. Average arithmetic value (M1) by the method of moments.

2. Standard deviation (δ) by the method of moments.

3. The average error of the arithmetic mean (m1).

4. Determine whether there are significant differences in the mean body weight for 8-year-old girls and boys, if it is known that the average body weight of boys is 31.5 kg and the mean error of the arithmetic mean (m2) is ± 0.5 kg.

5. Analyze the data and draw a conclusion.

Task 6

Based on the data on the duration of treatment (in days) in the clinic, 55 patients with chronic gastritis have a number of distributions.

|  |  |
| --- | --- |
| V | P |
| 5-7 | 3 |
| 8-10 | 8 |
| 11-13 | 10 |
| 14-16 | 23 |
| 17-19 | 7 |
| 20-22 | 3 |
| 23-25 | 1 |
| n = 55 |

It is necessary to calculate:

1. Average arithmetic value (M1) by the method of moments.

2. The mean deviation (δ) by the method of moments.

3. The average error of the arithmetic mean (m1).

4. Determine if there are significant differences in the mean duration of treatment for gastritis and gastric ulcer if it is known that the average duration of gastric ulcer (M2) is 18 days and the mean error of the arithmetic mean (m2) is ± 0.7 days.

5. Analyze the data and draw a conclusion.

Task 7

Based on the data on the heart rate of 100 students, a distribution series was constructed.

|  |  |
| --- | --- |
| V | P |
| 60-62 |  5 |
| 63-65 |  8 |
| 66-68 | 16 |
| 69-71 | 28 |
| 72-74 | 18 |
| 75-77 | 12 |
| 78-80 |  8 |
| 81-83 |  5 |
| n = 100 |

It is necessary to calculate:

1. Average arithmetic value (M1) by the method of moments.

2. Standard deviation (δ) by the method of moments.

3. The average error of the arithmetic mean (m1).

4. Determine whether there are significant differences in the mean heart rate for students (M1) and military personnel (M2), if it is known that the average heart rate for military personnel is 71 beats per minute and the average error of the arithmetic mean (m2) is ± 1 beat per minute.

5. Analyze the data and draw a conclusion.

Task 8

Based on the data on the frequency of breathing 200 skiers during the competition a number of distribution was constructed.

|  |  |
| --- | --- |
| V | P |
| 15-16 |  1 |
| 17-18 |  7 |
| 19-20 | 19 |
| 21-22 | 31 |
| 23-24 | 87 |
| 25-26 | 33 |
| 27-28 | 13 |
| 29-30 |  7 |
| n = 200 |

It is necessary to calculate:

1. Average arithmetic value (M1) by the method of moments.

2. Standard deviation (δ) by the method of moments.

3. The average error of the arithmetic mean (m1).

4. Determine whether there are significant differences in the mean respiratory rate in skiers before and during the competition, if it is known that the average respiration rate of skiers before the competition (M2) is 18 and the mean error of the arithmetic mean (m2) is ± 1.

5. Analyze the data and draw a conclusion.

Task 9

Based on the data on the growth of 110 athletes weightlifters a number of distribution was built.

|  |  |
| --- | --- |
| V | Р |
| 158-160 | 7 |
| 161-163 | 11 |
| 164-166 | 20 |
| 167-169 | 37 |
| 170-172 | 16 |
| 173-175 | 11 |
| 176-178 | 6 |
| 179-181 | 2 |
| n = 110 |

It is necessary to calculate:

1. Average arithmetic value (M1) by the method of moments.

2. Standard deviation (δ) by the method of moments.

3. The average error of the arithmetic mean (m1).

4. Determine whether there are significant differences in the growth rates of weightlifters and non-sportsmen if it is known that their average height (M2) is 176.7 cm and the average error of the arithmetic mean (m2) is ± 0.7 cm.

5. Analyze the data and draw a conclusion.

Task 10

Based on the data on the duration of treatment (in days), 100 patients with pneumonia in the hospital built a number of distributions.

|  |  |
| --- | --- |
| V | P |
| 9-11 | 4 |
| 12-14 | 6 |
| 15-17 | 19 |
| 18-20 | 48 |
| 21-23 | 14 |
| 24-26 | 7 |
| 27-29 | 2 |
| n = 100 |

It is necessary to calculate:

1. Average arithmetic value (M1) by the method of moments.

2. Standard deviation (δ) by the method of moments.

3. The average error of the arithmetic mean (m1).

4. Determine if there are significant differences in the mean duration of treatment for pneumonia and chronic bronchitis if it is known that it (M2) is 16 days and the average error of the arithmetic mean (m2) is ± 1 day.

5. Analyze the data and draw a conclusion.

Task 11

Based on data on systolic blood pressure (SBP) of 188 women with neurocirculatory dystonia syndrome, a series of distributions.

|  |  |
| --- | --- |
| V | P |
| 71 – 80 | 5 |
| 81 – 90 | 44 |
| 91 – 100 | 79 |
| 101 – 110 | 20 |
| 111 – 120 | 18 |
| 121 – 130 | 15 |
| 131 – 140 | 5 |
| 141 – 150 | 2 |
| n = 188 |

It is necessary to calculate:

1. Average arithmetic value (M1) by the method of moments.

2. Standard deviation (δ) by the method of moments.

3. The average error of the arithmetic mean (m1).

4. Determine whether there are significant differences in mean SBP values in patients and healthy women if it is known that the average SBP in healthy individuals is 120 mm Hg. and the average error of the mean value (m2) is ± 1 mm Hg.

5. Analyze the data and draw a conclusion.

Task 12

Based on the data on the level of hemoglobin (g / l), 78 men of swimmers have built a number of distributions.

|  |  |
| --- | --- |
| V | P |
| 120-129 | 6 |
| 130-139 | 8 |
| 140-149 | 18 |
| 150-159 | 20 |
| 160-169 | 14 |
| 170-179 | 9 |
| 180-189 | 3 |
| n = 78 |

It is necessary to calculate:

1. Average arithmetic value (M1) by the method of moments.

2. Standard deviation (δ) by the method of moments.

3. The average error of the arithmetic mean (m1).

4. Determine if there are significant differences in the mean hemoglobin levels in swimmers and non-sportsmen if it is known that the average hemoglobin level is 140 g / l and the mean error of the arithmetic mean (m2) is ± 0, 5 g / l.

5. Analyze the data and draw a conclusion.

Task 13

Based on the data on the average level of systolic blood pressure (mmHg), a distribution series was constructed in men aged 50 years.

|  |  |
| --- | --- |
| V | P |
| 100-109 | 3 |
| 110-119 | 11 |
| 120-129 | 22 |
| 130-139 | 34 |
| 140-149 | 63 |
| 150-159 | 34 |
| 160-169 | 18 |
| 170-179 | 15 |
| n = 200 |

It is necessary to calculate:

1. Average arithmetic value (M1) by the method of moments.

2. Standard deviation (δ) by the method of moments.

3. The average error of the arithmetic mean (m1).

4. Determine whether there are significant differences in the mean systolic blood pressure in men 50 years and in men 25 years, if it is known that the mean systolic pressure of them (M2) was 121.8 mm Hg. Art. and the mean error of the arithmetic mean (m2) is ± 0.4 mm Hg. Art.

5. Analyze the data and draw a conclusion

**Тема 4.** TIME SERIES AND THEIR ANALYSIS

**Формы текущего контроля успеваемости**

Письменное тестирование.

Устный опрос.

Решение case-заданий.

**Оценочные материалы текущего контроля успеваемости**

***Вопросы для письменного опроса:***

## Tests

1. WHAT CAN BE THE TIME SERIES?

1) complex

2) interval

3) moment

4) variational

2. DIFFERENCE OF LEVELS OF THIS YEAR AND PREVIOUS INDICATES…

1) rate of increase

2) growth rate

3) absolute increase

4) the value of 1% increase

5) level of distribution

3. RATIO OF ABSOLUTE INCREASES TO THE PREVIOUS LEVEL EXPRESSED AS A PERCENTAGE SHOWS…

1) absolute increase

2) the value of 1% increase

3) rate of increase

4) growth rate

5) level of distribution

4. WHAT IS THE RATE OF INCREASE?

1) The ratio of the next level to the previous one

2) The ratio of absolute growth to growth rate

3) The difference between the levels of a given year and the previous one

4) The ratio of absolute growth to the previous level, expressed as a percentage

5. HOW TO CALCULATE THE ABSOLUTE INCREASE?

1) The ratio of the next level to the previous one

2) The difference between the levels of a given year and the previous one

3) The ratio of absolute growth to the previous level, expressed as a percentage

4) The ratio of absolute growth to growth rate

6. WHEN IT IS NECESSARY TO APPLY THE METHODS OF CONVERTING THE TIME SERIES?

1) in cases where there is no pronounced trend

2) to confirm a pronounced trend

3) it is always desirable

4) is optional

7. BY WHAT METHODS CAN YOU CONVERT THE TIME SERIES?

1) mixed

2) mathematical

3) mechanical

4) magical

8. WHICH OF THE METHODS REFERS TO THE METHODS OF MECHANICAL TRANSFORMATION OF TIME SERIES?

1) the method of linear smoothing

2) the method of exponential smoothing

3) method of integration of the interval

4) the subtraction method

9. WHAT IS THE METHOD TO APPLY TO METHODS OF MATHEMATICAL TRANSFORMATION OF TIME SERIES?

1) method of integration of the interval

2) the subtraction method

3) logarithmic analysis method

4) the method of exponential smoothing

10. WHAT IS THE ESSENCE OF THE METHOD OF INTEGRATION OF INTERVALS?

1) Each level is replaced by an average of the same and neighboring levels

2) In calculating the average value of each aggregate period

3) In the summation of data for a number of adjacent levels

4) In obtaining the data difference for a number of adjacent levels

***Вопросы для устного опроса***

1. Time series, types, mean for health service.

2. Indicators of dynamic series, calculation, analysis.

3. Transformation of time series.

***Case-задания для демонстрации практических умений и навыков:***

1. Align a time-series by a way of moving average, represent graphically the obtained data.

2. Calculate indicators of a time-series − an absolute growth, growth indicators, gain rate, obviousness indicators.

**Problem 1.**

Tuberculosis prevalence per 100 thousand population in the Russian Federation

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Years | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
| Disease | 57,8 | 67,5 | 73,9 | 84,2 | 81,5 | 78,3 | 65,6 | 66,7 | 66,8 | 68,0 |

**Problem 2.**

Quantity dynamics of the children with complicated forms of pneumonia (atelectases, destruction), treated in pulmonological department

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Years | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| Number of children with complicated course of pneumonia | 50 | 9 | 15 | 26 | 31 | 25 | 18 | 16 | 39 | 26 |

**Problem 3.**

Dynamics of general mortality of the Stavropol Territory population

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Years | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| The total death rate, | 13,2 | 13,1 | 12,8 | 13,4 | 13,9 | 14,0 | 14,6 | 14,9 | 14,3 | 14,4 |

**Problem 4.**

Dynamics of a network of independent children's hospitals in the Russian Federation

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Years | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
| Children's hospitals, in total | 503 | 487 | 476 | 471 | 463 | 459 | 452 | 442 | 435 | 433 | 429 |

**Problem 5.**

Development dynamics of day hospitals in system of the pediatric aid to children

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Years | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| Number of children's day hospitals of all types | 160 | 165 | 206 | 224 | 264 | 300 | 401 | 423 | 457 | 489 |

**Problem 6.**

Dynamics of an infantile death rate indicator in the Russian Federation

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Years | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
| Infantile death rate per 1000 children, born alive | 18,1 | 17,4 | 17,2 | 16,5 | 16,9 | 15,3 | 14,6 | 13,2 | 12,4 | 11,6 |

**Problem 7.**

Share of expenses for public health services in structure of expenses of the city budget

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Years | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
| Share of expenses, % | 17 | 16 | 13 | 12 | 10 | 8 | 9 | 8 | 7 | 6 |

**Problem 8.**

Dynamics of the newborns general morbidity in Stavropol Territory

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Years | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| Morbidity, ‰ | 419 | 445 | 462 | 421 | 399 | 409 | 381 | 368 | 360 | 383 |

**Problem 9.**

Dynamics of maternal mortality index in the Russian Federation per 100 thousand born alive

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Years | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
| Level of maternal death rate | 54,9 | 68,1 | 32,2 | 44,0 | 44,2 | 39,7 | 36,5 | 33,6 | 31,9 | 23,4 |

**Problem 10.**

Dynamics of primary disablement (per 100 thousand population of able-bodied age) in Stavropol Territory

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Years | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| disablement level | 681 | 632 | 612 | 589 | 546 | 680 | 685 | 672 | 678 | 725 |

**Problem 11.**

Dynamics of anaemia prevalence per 10 thousand children's population of the Stavropol city

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Years | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
| Morbidity level | 35,6 | 69,7 | 63,9 | 67,5 | 68,4 | 54,8 | 52,5 | 56,8 | 47,8 | 50,2 |

**Problem 12.**

Dynamics of a breast cancer death rate (per 100 thousand women)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Years | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| Death rate | 13,9 | 14,5 | 14,8 | 14,6 | 14,1 | 15,9 | 16,5 | 17,3 | 18,1 | 16,7 |

**Тема 4.** CORRELATION AND REGRESSION ANALYSIS

**Формы текущего контроля успеваемости**

Письменное тестирование.

Устный опрос.

Решение case-заданий.

**Оценочные материалы текущего контроля успеваемости**

***Вопросы для письменного опроса:***

## Tests

1. WHAT IS A CORRELATION RELATIONSHIP?

1) describes the strong dependence of phenomena on the strictly defined amount.

2) The relationship in which changing one value can lead to a change in the other by different values.

2. ON THE DIRECTION CORRELATION RELATIONSHIP MAY BE

1) direct and reverse

2) strong and weak

3) parallel

4) only the inverse

5) positive and negative

3. STRENGTH CORRELATION RELATIONSHIP MAY BE

1) direct and reverse

2) strong, medium and weak

3) parallel

4) only the inverse

5) positive and negative

4. DIRECT CORRELATION RELATIONSHIP UNDERSTAND

SUCH CONTACT WHEN

1) increase (decrease) of one value corresponds to an increase

(decrease) associated with it another

2) an increase (decrease) in one value corresponds to a decrease

(increase) associated with it another

3) there is an increase in the value of the characteristic by some amount

4) the value of the characteristic decreases by some amount

5. AT THE VALUES OF THE CORRELATION COEFFICIENT 0 - 0.29 SAY OF

1) strong relationship

2) connections of medium strength

3) weak relationship

4) about its absence

5) its presence

6. AT THE CORRELATION FACTOR VALUES 0.3 - 0.69 SAY ABOUT

1) strong relationship

2) relationship of medium strength

3) weak relationship

4) about its absence

5) its presence

7. AT THE CORRELATION FACTOR VALUES 0.7 - 1.0 SAY ABOUT

1) strong relationship

2) connections of medium strength

3) weak relationship

4) about its absence

5) its presence

8. WHAT COEFFICIENT IS CALCULATED BY THIS FORMULA?



1) Kendall rank correlation coefficient

2) Spearman’s rank correlation coefficient

3) Pearson correlation coefficient

4) Coefficient of gamma

9. WHAT COEFFICIENT IS CALCULATED BY THIS FORMULA?



1) Kendall rank correlation coefficient

2) Spearman’s rank correlation coefficient

3) Pearson correlation coefficient

4) Coefficient of gamma

10. WHY IS REGRESSION ANALYSIS NECESSARY?

1) it is determined by physical, mathematical and chemical phenomena. It can be represented in formulas.

2) It is necessary to identify the presence, strength and degree of influence of one or several factor quantitative characteristics on the resultant one.

***Вопросы для устного опроса***

1. Relationship between factors. Types of statistical relationship: functional, correlation.
2. Coefficients of correlation (Pearson, Spearmen), calculation and assessment.
3. Linear and non-linear regression analysis.

***Case-задания для демонстрации практических умений и навыков:***

**Problem 1.**

Is there a relation between the work experience at the machine-building enterprise and morbidity indicators of workers?

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| The work experience | Up to 1 year | 1-3 years | 4-5 years | 6-10 years | 11-15 years | 16-20 years | 21-25 years | 26 and more |
| Number of cases of diseases per 100 workers | 59,6 | 41,9 | 40,8 | 64,7 | 64,7 | 77,5 | 83,6 | 112,8 |

**Problem 2.**

Is there a relation between the age of flu patients and a death rate from this disease?

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age of the diseased in years | Under 1 year | 1-4 | 5-9 | 10-14 | 15-17 | 18-20 | 21-30 | 31-40 | 41-50 | 51-60 | 61 and older |
| Death rate per 100000 persons  | 68,3 | 57,7 | 55,9 | 24,7 | 55,9 | 42,1 | 67,9 | 86,6 | 89,4 | 106,7 | 158,2 |

**Problem 3.**

Is there a relation between the age of men and a death rate

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age in years | 0-4 | 5-9 | 10-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65 and older |
| Death rate per 100000 persons | 801,0 | 272,0 | 194,7 | 296,8 | 624,1 | 922,8 | 2624,4 | 4324,5 | 9275,1 |

**Problem 4.**

Is there a relation between a part of a contingent being often ill (OI) and age of children?

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age in years | Under 1 year | 1-2 | 3-4 | 5-6 | 7-8 | 9-10 | 11-12 | 13-14 |
| Part of OI | 28,5 | 48,2 | 44,9 | 38,7 | 38,7 | 27,9 | 24,2 | 20,1 |

**Problem 5.**

Is there a relation between age and frequency of sight infringement at children?

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age in years | 0-3 | 4-5 | 6-7 | 8-9 | 10-11 | 12-13 | 14-15 | 16-17 |
| Infringements of sight, ‰ | 18,9 | 20,7 | 31,4 | 42,7 | 42,1 | 54,6 | 54,6 | 92,0 |

**Problem 6.**

Is there a correlation between a serial number of a month of the year and frequency of the appeal for first and urgent medical aid concerning cardiovascular diseases by the population

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Month | January | February | March | April | May | June | July | August | September | October | November | December |
| Frequency of appeal for FUMA ‰ | 114,3 | 108,3 | 109,7  | 103,2 | 104,5 | 95,2 | 98,4 | 97,8 | 87,6 | 92,7 | 92,7 | 96,4 |

**Problem 7.**

Is there a relation between the distance from a residence to the enterprise and the workers’ morbidity?

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Distance in metres | To 500 m. | 600-1000 | 1100-3000 | 3100-4000 | 4100-5000 | 5100-7000 | 7100-9000 | 9100 and more |
| Workers’ morbidity % | 920,1 | 887,9 | 920,1 | 954,0 | 1286,3 | 1107,8 | 1510,8 | 1832,7 |

**Problem 8.**

Is there a relation between the time passed from the onset of cholecystitis acute attack prior to the beginning of operation and frequency of postoperative complications?

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Time in hours | up to 3 hours | 3-5 | 6-8 | 9-11 | 12-14 | 15-17 | 18-20 | 21-23 | 24 and more |
| Frequency of complications in % | 8 | 8 | 12 | 19 | 20 | 24 | 21 | 35 | 46 |

**Problem 9.**

Is there a relation between age group and frequency of suicides at men?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Age group of died, years | Under 20  | 20-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70 and older |
| Frequency of suicides per 100 thousand people | 4,1 | 28,5 | 43,8 | 54,8 | 54,8 | 48,2 | 75,5 |

**Problem 10**.

Is there a relation between age group of men and prevalence of mental diseases?

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age group, years | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70 and older |
| Morbidity of % | 16,2 | 35,4 | 31,2 | 8,1 | 10,2 | 35,0 | 31,4 | 53,1 | 58,8 | 30,5 | 19,2 |

**Problem 11**.

Is there a relation between the age of a child and quantity of patients with clubfoot caused by spastic paresis in the lower extremities?

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age | Under 1 month | 1 3 months | 4 - 6 months | 7-9 months | 10-12 months | 1-2 years | 2-3 years | 3 years and older |
| patients | 8 | 12 | 8 | 2 | 4 | 6 | 6 | 2 |

**Problem 12.**

Is there a relation between age group and level of traumatism at men?

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age group of men, years | Children from 0 to 14 years | 15-17 | 18-19 | 20-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70 and older |
| traumatism rate per 100 thousand people | 72,3 | 165,6 | 233,6 | 196,9 | 157,2 | 176,3 | 153,3 | 141,9 | 97,2 |

**Критерии оценивания, применяемые при текущем контроле успеваемости, в том числе при контроле самостоятельной работы обучающихся**

|  |  |
| --- | --- |
| **Форма контроля**  | **Критерии оценивания** |
| **устный опрос** | В 5 баллов оценивается ответ, который показывает прочные знания основных вопросов изучаемого материала, отличается глубиной и полнотой раскрытия темы; владение терминологическим аппаратом; умение объяснять сущность явлений, процессов, событий, делать выводы и обобщения, давать аргументированные ответы, приводить примеры; свободное владение монологической речью, логичность и последовательность ответа. |
| В 4 балла оценивается ответ, обнаруживающий прочные знания основных вопросов изучаемого материла, отличается глубиной и полнотой раскрытия темы; владение терминологическим аппаратом; умение объяснять сущность явлений, процессов, событий, делать выводы и обобщения, давать аргументированные ответы, приводить примеры; свободное владение монологической речью, логичность и последовательность ответа. Однако допускается одна - две неточности в ответе. |
| На 3 балла оценивается ответ, свидетельствующий в основном о знании изучаемого материала, отличающийся недостаточной глубиной и полнотой раскрытия темы; знанием основных вопросов теории; слабо сформированными навыками анализа явлений, процессов, недостаточным умением давать аргументированные ответы и приводить примеры; недостаточно свободным владением монологической речью, логичностью и последовательностью ответа. Допускается несколько ошибок в содержании ответа. |
| На 2 балла оценивается ответ, обнаруживающий незнание изучаемого материла, отличающийся неглубоким раскрытием темы; незнанием основных вопросов теории, несформированными навыками анализа явлений, процессов; неумением давать аргументированные ответы, слабым владением монологической речью, отсутствием логичности и последовательности. Допускаются серьезные ошибки в содержании ответа. |
| **письменный опрос** | В 5 баллов оценивается ответ, который показывает прочные знания основных вопросов изучаемого материала, отличается глубиной и полнотой раскрытия темы; владение терминологическим аппаратом. |
| В 4 балла оценивается ответ, обнаруживающий прочные знания основных вопросов изучаемого материла, отличается глубиной и полнотой раскрытия темы; владение терминологическим аппаратом. Однако допускается одна - две неточности в ответе. |
| На 3 балла оценивается ответ, свидетельствующий в основном о знании изучаемого материала, отличающийся недостаточной глубиной и полнотой раскрытия темы; знанием основных вопросов теории; слабо сформированными навыками анализа явлений, процессов. Допускается несколько ошибок в содержании ответа. |
| На 2 балла оценивается ответ, обнаруживающий незнание изучаемого материла, отличающийся неглубоким раскрытием темы; незнанием основных вопросов теории, несформированными навыками анализа явлений, процессов. Допускаются серьезные ошибки в содержании ответа. |
| **тестирование** | 5 баллов выставляется при условии 91-100% правильных ответов |
| 4 балла выставляется при условии 81-90% правильных ответов |
| 3 балла выставляется при условии 71-80% правильных ответов |
| 2 балла выставляется при условии 70% и меньше правильных ответов. |
| **решение case-заданий** | 5 баллов выставляется если обучающимся дан правильный ответ на вопрос задачи. Объяснение хода ее решения подробное, последовательное, грамотное, с теоретическими обоснованиями (в т.ч. из лекционного курса), с необходимым схематическими изображениями и демонстрациями практических умений, с правильным и свободным владением терминологией; ответы на дополнительные вопросы верные, четкие. |
| 4 балла выставляется если обучающимся дан правильный ответ на вопрос задачи. Объяснение хода ее решения подробное, но недостаточно логичное, с единичными ошибками в деталях, некоторыми затруднениями в теоретическом обосновании (в т.ч. из лекционного материала), в схематических изображениях и демонстрациях практических действий, ответы на дополнительные вопросы верные, но недостаточно четкие. |
| 3 балла выставляется если обучающимся дан правильный ответ на вопрос задачи. Объяснение хода ее решения недостаточно полное, непоследовательное, с ошибками, слабым теоретическим обоснованием (в т.ч. лекционным материалом), со значительными затруднениями и ошибками в схематических изображениях и демонстрацией практических умений, ответы на дополнительные вопросы недостаточно четкие, с ошибками в деталях. |
| 2 балла выставляется если обучающимся дан правильный ответ на вопрос задачи. Объяснение хода ее решения дано неполное, непоследовательное, с грубыми ошибками, без теоретического обоснования (в т.ч. лекционным материалом), без умения схематических изображений и демонстраций практических умений или с большим количеством ошибок, ответы на дополнительные вопросы неправильные или отсутствуют. |

**Модуль 3.** Общественное здоровье.

**Тема 1.** A TECHNIQUE OF DEMOGRAPHIC PROCESSES STUDYING

**Форма текущего контроля успеваемости**

Письменный опрос.

Устный опрос.

Решение case-заданий.

**Оценочные материалы текущего контроля успеваемости**

***Вопросы для письменного опроса:***

## Tests

**1. WHAT ARE THE MAIN SECTIONS OF THE DEMOGRAPHY?**

 1) Natural and mechanical dynamics of the population

2) Statics and dynamics of the population.

 3) Statics and migration of the population

 4) Population structure by age and sex

 5) Structure and migration of the population

**2. THE STUDY OF THE REGION N. SHOWED THE INCREASE IN THE PROPORTION OF PEOPLE OF RETIREMENT AGE FOR LAST 15 YEARS. WHAT ABOUT PROGNOSIS OF HEALTH CARE ECONOMISTS ABOUT CHANGES OF SHARE OF FUNDING FOR HEALTH CARE IN THIS REGION?**

 1) Reduction

 2)Without changes

 3) Considerable rise

4) Increase

 5) Insignificant downcome

**3. DYNAMICS IS THE SECTION OF DEMOGRAPHY TO STUDY:**

1) Number and type of population

2) Mechanical and natural movement of the population

3) Reproduction of the population

4) Migration and birth rate

5) Natural movement of population and birth rate

**4.** **STATICS IS THE SECTION OF DEMOGRAPHY TO STUDY:**

1) General and age-specific fertility

2) Geographical features of birth rate and structure of the population

3) Migration in different regions of the country

4) Number, composition and density of the population

5) Birth rate, mortality rate and reproduction of the population

**5. STATISTICS OF NATURAL DYNAMICS OF POPULATION INCLUDES:**

1) Natural increase, life expectancy at birth, morbidity rate, death rate

2) Birth rate, marriages, divorces, infant mortality rate, incidence rate

3) Birth rate, mortality rate, incidence rate, prevalence rate

4) Fertility, crude death rate, birth rate, pathological affection

5) Birth rate, mortality rate, population growth, life expectancy at birth

**6. DETERMINE THE TYPE OF AGE STRUCTURE OF THE POPULATION IF THE PROPORTION OF POPULATION FROM 0 TO 14 IS 30%, FROM 15 TO 49 - 50% AND 50 AND OLDER - 20%?**

1) Intermediate

2) Progressive

3) Stationary

4) Regressive

5) Depopulation

**7. TO CALCULATE CRUDE BIRTH RATE NEED THE FOLLOWING DATA:**

1) Number of birth alive this year / Mid-year population.

2) Number of birth alive this year / Number of birth alive last year

3) Number of stillborn and birth alive this year / Number of birth alive this year

4) Number of stillborn and birth alive this year / Mid-year population

5) Mid-year population this year / Mid-year population last year

8. **TO CALCULATE CRUDE MORTALITY RATE NEED THE FOLLOWING DATA:**

1) Mid-year population this year / Mid-year population last year

2) Number of died people this year / Mid-year population.

3) Number of dead this year / Number of births this year

4) 2/3 dead this year + 1/3 dead previous year / Number of population

5) Number of dead this year + number of stillborn this year / Number of population

**9. TO CALCULATE INFANT MORTALITY RATE NEED TO USE THE FOLLOWING DATA:**

1) No. of died before 1 week this year / No. of born alive this year

2) No. of died before 1 year this year / No. of born alive this year

3) No. of died before 1 month this year / No. of born alive this year

4) No. of born alive this year + number of born alive and died before 1 week / Mid-year population.

5) No. of died before 1 year this year / Mid-year population.

 **10. TO CALCULATE MATERNAL MORTALITY RATE WE NEED TO USE THE FOLLOWING DATA:**

1) No. of maternal deaths / Total number of pregnant women.

2) No. of maternal deaths / Total number of births.

3) No. of maternal deaths /Total number of live births

4) No. of maternal deaths / Total number of stillborn

5) No. of maternal deaths / Total number of fertile age women

***Вопросы для устного опроса***

1. Medical demography, subject and its maintenance.
2. Statics of population, definition, significance for health service.
3. Population dynamics, definition, significance for health service.
4. Reproduction of population, types, indexes.
5. Mortality of population, indexes, methodic of calculation.
6. Infant mortality rate, age peculiarities, reasons.
7. Perinatal mortality rate. Fetal mortality rate, early neonatal rate, methodic of calculation.
8. Average life expectancy.

**Case-задания для демонстрации практических умений и навыков:**

**Calculate indicators of population natural dynamics:**

1.An indicator of birth rate, the general death rate, population natural increase.

2.An indicator of infant mortality, death rate of newborns, perinatal death rates, early neonatal death rates and mortinatality.

3.Define structure of the reasons of infant mortality.

4.Estimate demographic indicators on the basis of the accepted average levels.

5.Define the type of reproduction of the population, developed in settlement.

6.Compare the calculated demographic indicators for a year of account to corresponding indicators of a previous year.

7.Represent graphically the level of birth rate, the general death rate, population natural increase, structure of the reasons of infant mortality.

**Problem 1.**

In the city of V in a year of account the population consisted of 75100 persons, including 18500 children from 0 till 14 years old inclusive, and 38320 persons of able-bodied age. 900 children were born, 1200 persons have died, including 18 infants under 1 year of age (of them: aged under 1 month – 14, and at the first week of life – 11 persons). 8 children were born dead.

The number of died aged under 1 year was distributed by causes of death as follows: due to separate conditions of the perinatal period 11 children have died, with congenital anomalies – 4, with respiratory diseases – 2, by the other reasons –1.

*Demographic indicators of the previous year in the city of V.*

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | Level | Indicator | Level |
| Number of the born | 850 people | Perinatal death rate | 16 ‰ |
| Birth rate | 11 ‰ | Early neonatal mortality | 10 ‰ |
| Death rate | 13 ‰ | Neonatal mortality | 12,3 ‰ |
| Natural increase | -2 ‰ | Mortinatality | 6,6 ‰ |
| Infant mortality | 17 ‰ |  |  |

**Problem 2.**

In the city of S the population numbered 35900 persons in accounting year, including 17900 persons of able-bodied age, and people older than able-bodied age – 9500 persons. 420 children were born, 510 persons have died, including 7 under 1 year old (of them: aged under 1 month – 6 infants, and at the first week of life – 5). Three children were born dead.

The number of died aged under 1 year was distributed by causes of death as follows: due to separate conditions of the perinatal period 5 children have died, with congenital anomalies − 1, with respiratory diseases - 1 have died.

*Demographic indicators of the previous year in the city of S.*

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | Level | Indicator | Level |
| Number of the born | 450 people | Perinatal death rate | 16 ‰ |
| Birth rate | 11 ‰ | Early neonatal mortality | 10 ‰ |
| Death rate | 13,5 ‰ | Neonatal death rate | 13,3 ‰ |
| Natural increase | -2,5 ‰ | Mortinatality | 6,6 ‰ |
| Infant death rate | 17 ‰ |  |  |

**Problem 3.**

In the city of Nevinnomyssk in accounting year the population numbered 112000 persons, including 28900children from 0 till 14 years inclusive, and 55450 persons of able-bodied age 1030 children were born, 1500 persons have died, including 14 under 1 year (of them: aged under 1 month – 10, and at the first week of life - 9). 7 children were born dead.

The number died aged under 1 year was distributed by causes of death as follows: due to separate conditions of the perinatal period 10 children have died, with congenital anomalies – 2, with respiratory diseases − 1 have died, by the other reasons − 1 have died.

Demographic indicators of the previous year in the city of N.

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | Level | Indicator | Level |
| Number of the born | 950 people | Perinatal death rate | 16 ‰ |
| Birth rate | 9,6 ‰ | Early neonatal mortality | 9 ‰ |
| Death rate | 13 ‰ | Neonatal death rate | 9,9 ‰ |
| Natural increase | -4,4 ‰ | Mortinatality | 6,9 ‰ |
| Infant death rate | 14 ‰ |  |  |

**Problem 4.**

In the city of Stavropol in accounting year the population numbered 420000 persons, including 96450 children from 0 till 14 years old inclusive, and 218400 persons of able-bodied age. 3700 children were born, 5900 persons have died, including 49 under 1 year old (of them: 38 aged under 1 month, and 33 ones at the first week of life. 17 children were born dead.

The number of died aged under 1 year was distributed by causes of death as follows: due to separate conditions of the perinatal period 27 children have died, with congenital anomalies − 9, with respiratory diseases − 7, by the other reasons − 6 have died.

*Demographic indicators of the previous year in the city of S.*

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | Level | Indicator | Level |
| Number of the born | 3450 people | Perinatal death rate | 12,5 ‰ |
| Birth rate | 9,2 ‰ | Early neonatal mortality | 6,3 ‰ |
| Death rate | 15 ‰ | Neonatal death rate | 8,5 ‰ |
| Natural increase | -6,8 ‰ | Mortinatality | 6,2 ‰ |
| Infant death rate | 11,7 ‰ |  |  |

**Problem 5.**

In the city of I. in accounting year the population numbered 97100 persons, including 25500children from 0 till 14 years old inclusive, and 49120 persons of able-bodied age. 870 children were born, 1490 persons have died, including 15 under 1 year old (of them: 12 aged under 1 month, and at the first week of life − 11). 3 children were born dead.

The number of died aged under 1 year was distributed by causes of death as follows: due to separate conditions of the perinatal period 10 children have died, with congenital anomalies − 3, with respiratory diseases − 2 have died.

*Demographic indicators of the previous year in the city of I.*

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | Level | Indicator | Level |
| Number of the born | 810 people | Perinatal death rate | 11,9 ‰ |
| Birth rate | 8,1 ‰ | Early neonatal mortality | 5,9 ‰ |
| Death rate | 16 ‰ | Neonatal death rate | 7,8 ‰ |
| Natural increase | -7,9 ‰ | Mortinatality | 3,3 ‰ |
| Infant death rate | 12,6 ‰ |  |  |

**Problem 6.**

In the city of Lermontov in accounting year the population numbered 25200 persons, including 6200 children from 0 till 14 years inclusive, and 12750 persons of able-bodied age. 262 children were born, 418 persons have died, including 6 under 1 year old (of them: 2 aged under 1 month, and 1 at the first week of a life). 2 children were born dead.

The number of died aged under 1 year was distributed by causes of death as follows: due to separate conditions of the perinatal period 3 children have died, with congenital anomalies − 2, with respiratory diseases - 1 have died.

*Demographic indicators of the previous year in the city of L.*

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | Level | Indicator | Level |
| Number of the born | 258 people | Perinatal death rate | 18,4 ‰ |
| Birth rate | 10,1 ‰ | Early neonatal mortality | 10,6 ‰ |
| Death rate | 15,4 ‰ | Neonatal death rate | 12,1 ‰ |
| Natural increase | -5,3 ‰ | Mortinatality | 8,3 ‰ |
| Infant mortality  | 18,6 ‰ |  |  |

**Problem 7.**

In the city of E. in accounting year the population has made 59100 persons, including 28900 persons of able-bodied age, and 15500 persons older than able-bodied age. 712 children were born, 850 persons have died, including 12 under 1 year old (of them: 7 aged under 1 month, and 6 at the first week of life). 6 children were born dead.

The number of died aged under 1 year was distributed by causes of death as follows: due to separate conditions of the perinatal period 6 children have died, with congenital anomalies − 3, with respiratory diseases − 2, by the other reasons − 1 have died.

*Demographic indicators of the previous year in the city of E.*

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | Level | Indicator | Level |
| Number of the born | 697 people | Perinatal death rate | 16,6 ‰ |
| Birth rate | 11 ‰ | Early neonatal mortality | 12,4 ‰ |
| Death rate | 15,5 ‰ | Neonatal death rate | 13,3 ‰ |
| Natural increase | -4,5 ‰ | Mortinatality | 7,6 ‰ |
| Infant death rate | 17 ‰ |  |  |

**Problem 8.**

In the city of Kislovodsk in accounting year the population numbered 134720 persons, including 67800 persons of able-bodied age, and 34900 persons of older than able-bodied age. 1077 children were born, 1750 persons have died, including 10 infants under 1 year old (of them: 8 aged under 1 month, and 5 infants at the first week of life). 7 children were born dead.

The number of died aged under 1 year was distributed by causes of death as follows: due to separate conditions of the perinatal period 6 children have died, with congenital anomalies − 2, with respiratory diseases − 1 have died, by the other reasons − 1 have died.

*Demographic indicators of the previous year in the city of K.*

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | Level | Indicator | Level |
| Number of the born | 1056 people | Perinatal death rate | 10,6 ‰ |
| Birth rate | 7,4 ‰ | Early neonatal mortality | 6,4 ‰ |
| Death rate | 13,5 ‰ | Neonatal death rate | 7,3 ‰ |
| Natural increase | -6,1 ‰ | Mortinatality | 4,6 ‰ |
| Infant death rate  | 13 ‰ |  |  |

**Тема 2.** METHOD OF STUDY AND ESTIMATION OF INDEXES OF GENERAL MORBIDITY

**Форма текущего контроля успеваемости**

Письменный опрос.

Устный опрос.

Решение case-заданий.

**Оценочные материалы текущего контроля успеваемости**

***Вопросы для письменного опроса:***

## Tests

**1. WHAT MEANS PREVALENCE RATE?**

**1) The total number of cases of a disease in a given population at a specific time**

2) The share of diseases among the population

3) The changes of incidence rate over time

4) The number of new cases of a disease within a time period

5) The presence of socially important diseases

**2. TO CALCULATE INCIDENCE RATE THE FOLLOWING DATA ARE USED:**

1) The number of diseases for the previous year / the number of diseases this year.

2) Diseases detected during medical examinations / Mid-year population.

3) The number of new cases of a disease within a time period / The total number of cases of a disease in a given population at a specific time

4) The total number of cases of a disease in a given population at a specific time/ Mid-year population

5) The number of new cases of a disease within a time period / Mid-year population

**3. TO CALCULATE POINT PREVALENCE RATE THE FOLLOWING DATA ARE USED:**

1) The total number of cases of a disease in a given population at a specific time/ Mid-year population

2) Diseases and premorbid conditions detected during medical examinations / number of examined people

3) The number of new cases of a disease within a time period / Mid-year population

4) The number of diseases for the previous year / the number of diseases this year.

5) The number of new cases of a disease within a time period / the total number of cases of a disease in a given population at a specific time

**4.** **TO CALCULATE MORBIDITY STRUCTURE THE FOLLOWING DATA ARE USED:**

1) Total number of diseases / mid-year population

2) Total number of diseases this year / mid-year population

3) The cases of the particular disease / total number of diseases

4) Total number of all diseases this year / total number of diseases for previous year

5) Diseases detected during medical examinations this year / the number of complaints about the disease this year

**5. WHAT INDEX WE CAN CALCULATE IF THE TOTAL NUMBER OF DISEASES IN POPULATION IS DIVIDED INTO MID-YEAR POPULATION AND MULTIPLY BY 1000?**

1) Point prevalence rate

2) Incidence rate

3) Prevalence rate

4) Structure of morbidity

5) Standardized index

**6. WHICH SOURCE OF INFORMATION TO STUDY MORBIDITY WILL ALLOW PRIMARY CARE PHYSICIAN TO TAKE GREATER ACCOUNT OF THE INCIDENCE OF ACUTE DISEASES?**

1) Data of patient visits to a doctor in medical institutions

2) Data of special selective studies

3) Data about causes of death

4) Survey of the population

5) Data of medical examinations

**7. WHAT ARE THE MAIN SOURCES TO STUDY MORBIDITY?**

1) Appealability in medical facilities, data of medical examinations, and data of death causes

2) Data of death causes, data of medical records, data of survey

3) Data of medical examinations, data of survey, data of outpatient cards

4) Data of the census, data of polyclinic visits, data of medical records

5) Admission data, data of census, data of press reports

**8. WHICH OF THE FOLLOWING INDICES DOES NOT APPLY TO MORBIDITY?**

1) Incidence rate

2) Prevalence rate

3) Point prevalence rate

4) Crude mortality rate

5) The structure of morbidity

**9. WHAT IS THE BEST SOURCE TO STUDY MORBIDITY WITH AIM OF MAXIMAL REGISTRATION OF "ACUTE" DISEASES?**

1) Data of visits to medical establishments

2) Epidemiological study

3) Medical examinations

4) Population surveys

5) Data of death causes

**10. WHAT IS THE BEST SOURCE TO STUDY MORBIDITY WITH AIM OF MAXIMAL REGISTRATION OF "CHRONIC" DISEASES?**

1) Data of visits to medical establishments

2) Epidemiological study

3) Medical examinations

4) Population surveys

5) Data of death causes

***Вопросы для устного опроса***

1. Basic terminology of morbidity. A role and place of morbidity in the system of indexes of health of population.
2. Methods of study and types of morbidity.
3. Registration and current documents, that are used at the study of morbidity from data of official statistics, rule of their filling and account.
4. Basic data, necessary for the calculation of indexes of morbidity.
5. International classification of illnesses of traumas and reasons of death of tenth revision (ICI-10): principles of construction and value for the study of morbidity.

***Case-задания для демонстрации практических умений и навыков:***

**Task 1.**

The number of children in the Adamovsky district of the Orenburg region in 2017 was 6081 people. The table presents data on the number of diseases in the class "Diseases of the eye and its adnexa" among the children population. Calculate the incidence and prevalence of eye diseases in general and for individual nosological forms. Calculate the proportion of individual diseases in the structure of incidence and prevalence. Make and write conclusion.

| Name of classes and individual diseases | ICD-10 code | Registered patients with this disease |
| --- | --- | --- |
| TOTAL | including the diagnosis established for the first time in life |
| 1 | 2 | 3 | 4 |
| diseases of the eye and its adnexa | H00-H59 | 544 | 243 |
| of them: conjunctivitis | Н10 | 48 | 48 |
| myopia | H52.1 | 122 | 47 |
| astigmatism | H52.2 | 47 | 2 |
| diseases of the eye muscles, disturbance of the friendly movement of the eyes, accommodation and refraction | H49-H52 | 59 | 59 |

**Task 2.**

The number of children in the Adamovsky district of the Orenburg region in 2017 was 6081 people. The table presents data on the number of diseases in the class "Diseases of the digestive system" among the children population. Calculate the incidence and prevalence of digestive system diseases in general and for individual nosological forms. Calculate the proportion of individual diseases in the structure of incidence and prevalence. Make and write conclusion.

| Name of classes and individual diseases | ICD-10 code | Registered patients with this disease |
| --- | --- | --- |
| TOTAL | including the diagnosis established for the first time in life |
| 1 | 2 | 3 | 4 |
| diseases of the digestive system | K00-K92 | 503 | 412 |
| of them:  gastritis and duodenitis | K29 | 38 | 14 |
|  non-infectious enteritis and colitis | K50-K52 | 124 | 124 |
|  liver disease | K70-K76 | 27 | 25 |

**Task 3.**

The number of children in the Adamovsky district of the Orenburg region in 2017 was 6081 people. The table presents data on the number of diseases in the class "Endocrine, nutritional and metabolic diseases" among the children population. Calculate the incidence and prevalence in general and for individual nosological forms. Calculate the proportion of individual diseases in the structure of incidence and prevalence. Make and write conclusion.

| Name of classes and individual diseases | ICD-10 code | Registered patients with this disease |
| --- | --- | --- |
| TOTAL | including the diagnosis established for the first time in life |
| 1 | 2 | 3 | 4 |
| Endocrine, nutritional and metabolic diseases | Е00-Е89 | 128 | 16 |
| of them: thyroid disease | Е00-Е07 | 108 | 13 |
|  diabetes | Е10-Е14 | 5 | 1 |
|  obesity | E66 | 8 | 2 |

**Task 4.**

The number of adults in the Abdulinsky district of the Orenburg region in 2017 was 20628 people. The table presents data on the number of diseases in the class "Circulatory system diseases" among the adult population. Calculate the incidence and prevalence in general and for individual nosological forms. Calculate the proportion of individual diseases in the structure of incidence and prevalence. Make and write conclusion.

| Name of classes and individual diseases | ICD-10 code | Registered patients with this disease |
| --- | --- | --- |
| TOTAL | including the diagnosis established for the first time in life |
| 1 | 2 | 3 | 4 |
| Circulatory system diseases | I00-I99 | 5049 | 631 |
| of them: diseases characterized by high blood pressure | I10-I13 | 2639 | 56 |
|  ischemic heart disease | I20- I25 | 918 | 201 |
|  cerebrovascular diseases | I60-I69 | 728 | 238 |

**Task 5.**

The number of adults in the Abdulinsky district of the Orenburg region in 2017 was 20628 people. The table presents data on the number of diseases in the class "Respiratory diseases " among the adult population. Calculate the incidence and prevalence in general and for individual nosological forms. Calculate the proportion of individual diseases in the structure of incidence and prevalence. Make and write conclusion.

| Name of classes and individual diseases | ICD-10 code | Registered patients with this disease |
| --- | --- | --- |
| TOTAL | including the diagnosis established for the first time in life |
| 1 | 2 | 3 | 4 |
| Respiratory diseases | J00-J98 | 3146 | 2013 |
| of them: acute respiratory infections of the upper respiratory tract | J00-J06 | 1585 | 1585 |
| pneumonia | J12-J18 | 102 | 102 |
| chronic diseases of the tonsils and adenoids, peritonsillarabscess | J35- J36 | 137 | 12 |
| chronic and unspecified bronchitis, emphysema | J40-J43 | 191 | 5 |

**Task 6.**

The number of adults in the Abdulinsky district of the Orenburg region in 2017 was 20628 people. The table presents data on the number of diseases in the class "Diseases of the genitourinary system " among the adult population. Calculate the incidence and prevalence in general and for individual nosological forms. Calculate the proportion of individual diseases in the structure of incidence and prevalence. Make and write conclusion.

| Name of classes and individual diseases | ICD-10 code | Registered patients with this disease |
| --- | --- | --- |
| TOTAL | including the diagnosis established for the first time in life |
| 1 | 2 | 3 | 4 |
| diseases of the genitourinary system | N00-N99 | 3310 | 1773 |
| of them: glomerular, tubulointerstitial diseases of the kidneys, other diseases of the kidney and ureter | N00-N15, N25-N28 | 587 | 22 |
|  urolithiasis disease | N20- N21, N23 | 136 | 28 |
|  prostate disease | N40-N42 | 45 | 17 |
|  Female pelvic inflammatory disease | N70-N77 | 1061 | 769 |

**Task 7.**

The number of adults in the Abdulinsky district of the Orenburg region in 2017 was 20628 people. The table presents data on the number of diseases in the class "Diseases of the musculoskeletal system and connective tissue" among the adult population. Calculate the incidence and prevalence in general and for individual nosological forms. Calculate the proportion of individual diseases in the structure of incidence and prevalence. Make and write conclusion.

| Name of classes and individual diseases | ICD-10 code | Registered patients with this disease |
| --- | --- | --- |
| TOTAL | including the diagnosis established for the first time in life |
| 1 | 2 | 3 | 4 |
| diseases of the musculoskeletal system and connective tissue | M00-M99 | 2435 | 326 |
| of them: arthropathy | М00-М25 | 1059 | 131 |
|  deforming dorsopathies | M40-M43 | 790 | 25 |
|  lesions of the synovial membranes and tendons | М65-М68 | 43 | 29 |
|  osteopathy and chondropathy | M80-M94 | 29 | 7 |

**Task 8.**

The number of adults in the Buzuluk district of the Orenburg region in 2017 was 23020 people. The table presents data on the number of diseases in the class "Diseases of the musculoskeletal system and connective tissue" among the adult population. Calculate the incidence and prevalence in general and for individual nosological forms. Calculate the proportion of individual diseases in the structure of incidence and prevalence. Make and write conclusion.

| Name of classes and individual diseases | ICD-10 code | Registered patients with this disease |
| --- | --- | --- |
| TOTAL | including the diagnosis established for the first time in life |
| 1 | 2 | 3 | 4 |
| diseases of the musculoskeletal system and connective tissue | M00-M99 | 2928 | 774 |
| of them: arthropathy | М00-М25 | 613 | 97 |
|  deforming dorsopathies | M40-M43 | 654 | 121 |
|  lesions of the synovial membranes and tendons | М65-М68 | 41 | 8 |
|  osteopathy and chondropathy | M80-M94 | 42 | 8 |

**Task 9.**

The number of adults in the Buzuluk district of the Orenburg region in 2017 was 23020 people. The table presents data on the number of diseases in the class "Respiratory diseases " among the adult population. Calculate the incidence and prevalence in general and for individual nosological forms. Calculate the proportion of individual diseases in the structure of incidence and prevalence. Make and write conclusion.

| Name of classes and individual diseases | ICD-10 code | Registered patients with this disease |
| --- | --- | --- |
| TOTAL | including the diagnosis established for the first time in life |
| 1 | 2 | 3 | 4 |
| Respiratory diseases | J00-J98 | 5647 | 4156 |
| of them: acute respiratory infections of the upper respiratory tract | J00-J06 | 3188 | 3188 |
| pneumonia | J12-J18 | 273 | 273 |
| chronic diseases of the tonsils and adenoids, peritonsillarabscess | J35- J36 | 25 | 12 |
| chronic and unspecified bronchitis, emphysema | J40-J43 | 567 | 20 |

**Task 10.**

The number of adults in the Buzuluk district of the Orenburg region in 2017 was 23020 people. The table presents data on the number of diseases in the class "Diseases of the genitourinary system " among the adult population. Calculate the incidence and prevalence in general and for individual nosological forms. Calculate the proportion of individual diseases in the structure of incidence and prevalence. Make and write conclusion.

| Name of classes and individual diseases | ICD-10 code | Registered patients with this disease |
| --- | --- | --- |
| TOTAL | including the diagnosis established for the first time in life |
| 1 | 2 | 3 | 4 |
| diseases of the genitourinary system | N00-N99 | 4350 | 1179 |
| of them: glomerular, tubulointerstitial diseases of the kidneys, other diseases of the kidney and ureter | N00-N15, N25-N28 | 618 | 179 |
|  urolithiasis disease | N20- N21, N23 | 272 | 126 |
|  prostate disease | N40-N42 | 285 | 46 |
|  Female pelvic inflammatory disease | N70-N77 | 247 | 73 |

**Task 11.**

The number of adults in the Buzuluk district of the Orenburg region in 2017 was 23020 people. The table presents data on the number of diseases in the class "Circulatory system diseases" among the adult population. Calculate the incidence and prevalence in general and for individual nosological forms. Calculate the proportion of individual diseases in the structure of incidence and prevalence. Make and write conclusion.

| Name of classes and individual diseases | ICD-10 code | Registered patients with this disease |
| --- | --- | --- |
| TOTAL | including the diagnosis established for the first time in life |
| 1 | 2 | 3 | 4 |
| Circulatory system diseases | I00-I99 | 8809 | 1113 |
| of them: diseases characterized by high blood pressure | I10-I13 | 4420 | 261 |
|  ischemic heart disease | I20- I25 | 1022 | 231 |
|  cerebrovascular diseases | I60-I69 | 2159 | 475 |

**Task 12.**

The number of children in the Buzuluk district of the Orenburg region in 2017 was 19413 people. The table presents data on the number of diseases in the class "Diseases of the digestive system" among the children population. Calculate the incidence and prevalence of digestive system diseases in general and for individual nosological forms. Calculate the proportion of individual diseases in the structure of incidence and prevalence. Make and write conclusion.

| Name of classes and individual diseases | ICD-10 code | Registered patients with this disease |
| --- | --- | --- |
| TOTAL | including the diagnosis established for the first time in life |
| 1 | 2 | 3 | 4 |
| diseases of the digestive system | K00-K92 | 666 | 382 |
| of them:  gastritis and duodenitis | K29 | 78 | 70 |
|  non-infectious enteritis and colitis | K50-K52 | 101 | 34 |
|  diseases of the gallbladder, biliary tract | K80-83 | 202 | 52 |
|  pancreatic diseases | K85-K86 | 8 | 4 |

**Task 13.**

The number of children in the Buzuluk district of the Orenburg region in 2017 was 19413 people. The table presents data on the number of diseases in the class "Diseases of the eye and its adnexa" among the children population. Calculate the incidence and prevalence of eye diseases in general and for individual nosological forms. Calculate the proportion of individual diseases in the structure of incidence and prevalence. Make and write conclusion.

| Name of classes and individual diseases | ICD-10 code | Registered patients with this disease |
| --- | --- | --- |
| TOTAL | including the diagnosis established for the first time in life |
| 1 | 2 | 3 | 4 |
| diseases of the eye and its adnexa | H00-H59 | 813 | 412 |
| of them: conjunctivitis | Н10 | 204 | 196 |
| myopia | H52.1 | 200 | 32 |
| astigmatism | H52.2 | 10 | 1 |
| diseases of the eye muscles, disturbance of the friendly movement of the eyes, accommodation and refraction | H49-H52 | 251 | 49 |

**Критерии оценивания, применяемые при текущем контроле успеваемости, в том числе при контроле самостоятельной работы обучающихся**

|  |  |
| --- | --- |
| **Форма контроля**  | **Критерии оценивания** |
| **устный опрос** | В 5 баллов оценивается ответ, который показывает прочные знания основных вопросов изучаемого материала, отличается глубиной и полнотой раскрытия темы; владение терминологическим аппаратом; умение объяснять сущность явлений, процессов, событий, делать выводы и обобщения, давать аргументированные ответы, приводить примеры; свободное владение монологической речью, логичность и последовательность ответа. |
| В 4 балла оценивается ответ, обнаруживающий прочные знания основных вопросов изучаемого материла, отличается глубиной и полнотой раскрытия темы; владение терминологическим аппаратом; умение объяснять сущность явлений, процессов, событий, делать выводы и обобщения, давать аргументированные ответы, приводить примеры; свободное владение монологической речью, логичность и последовательность ответа. Однако допускается одна - две неточности в ответе. |
| На 3 балла оценивается ответ, свидетельствующий в основном о знании изучаемого материала, отличающийся недостаточной глубиной и полнотой раскрытия темы; знанием основных вопросов теории; слабо сформированными навыками анализа явлений, процессов, недостаточным умением давать аргументированные ответы и приводить примеры; недостаточно свободным владением монологической речью, логичностью и последовательностью ответа. Допускается несколько ошибок в содержании ответа. |
| На 2 балла оценивается ответ, обнаруживающий незнание изучаемого материла, отличающийся неглубоким раскрытием темы; незнанием основных вопросов теории, несформированными навыками анализа явлений, процессов; неумением давать аргументированные ответы, слабым владением монологической речью, отсутствием логичности и последовательности. Допускаются серьезные ошибки в содержании ответа. |
| **письменный опрос** | В 5 баллов оценивается ответ, который показывает прочные знания основных вопросов изучаемого материала, отличается глубиной и полнотой раскрытия темы; владение терминологическим аппаратом. |
| В 4 балла оценивается ответ, обнаруживающий прочные знания основных вопросов изучаемого материла, отличается глубиной и полнотой раскрытия темы; владение терминологическим аппаратом. Однако допускается одна - две неточности в ответе. |
| На 3 балла оценивается ответ, свидетельствующий в основном о знании изучаемого материала, отличающийся недостаточной глубиной и полнотой раскрытия темы; знанием основных вопросов теории; слабо сформированными навыками анализа явлений, процессов. Допускается несколько ошибок в содержании ответа. |
| На 2 балла оценивается ответ, обнаруживающий незнание изучаемого материла, отличающийся неглубоким раскрытием темы; незнанием основных вопросов теории, несформированными навыками анализа явлений, процессов. Допускаются серьезные ошибки в содержании ответа. |
| **тестирование** | 5 баллов выставляется при условии 91-100% правильных ответов |
| 4 балла выставляется при условии 81-90% правильных ответов |
| 3 балла выставляется при условии 71-80% правильных ответов |
| 2 балла выставляется при условии 70% и меньше правильных ответов. |
| **решение case-заданий** | 5 баллов выставляется если обучающимся дан правильный ответ на вопрос задачи. Объяснение хода ее решения подробное, последовательное, грамотное, с теоретическими обоснованиями (в т.ч. из лекционного курса), с необходимым схематическими изображениями и демонстрациями практических умений, с правильным и свободным владением терминологией; ответы на дополнительные вопросы верные, четкие. |
| 4 балла выставляется если обучающимся дан правильный ответ на вопрос задачи. Объяснение хода ее решения подробное, но недостаточно логичное, с единичными ошибками в деталях, некоторыми затруднениями в теоретическом обосновании (в т.ч. из лекционного материала), в схематических изображениях и демонстрациях практических действий, ответы на дополнительные вопросы верные, но недостаточно четкие. |
| 3 балла выставляется если обучающимся дан правильный ответ на вопрос задачи. Объяснение хода ее решения недостаточно полное, непоследовательное, с ошибками, слабым теоретическим обоснованием (в т.ч. лекционным материалом), со значительными затруднениями и ошибками в схематических изображениях и демонстрацией практических умений, ответы на дополнительные вопросы недостаточно четкие, с ошибками в деталях. |
| 2 балла выставляется если обучающимся дан правильный ответ на вопрос задачи. Объяснение хода ее решения дано неполное, непоследовательное, с грубыми ошибками, без теоретического обоснования (в т.ч. лекционным материалом), без умения схематических изображений и демонстраций практических умений или с большим количеством ошибок, ответы на дополнительные вопросы неправильные или отсутствуют. |

Модуль 4. Организация здравоохранения.

Тема 1. PRIMARY HEALTH CARE. ORGANIZATION OF OUTPATIENT CARE

**Форма текущего контроля успеваемости**

Тестирование.

Устный опрос.

Решение case-заданий.

**Оценочные материалы текущего контроля успеваемости**

***Вопросы для входного тестового контроля:***

**1. PRIMARY HEALTH CARE (PHC) MAY BE GRANTED IN THE FOLLOWING CONDITIONS:**

1) Outpatiently and in day hospital

2) Outpatiently, in day hospital and at home

3) In medical establishments, outpatiently and in a hospital

4) Outpatiently and in a hospital

**2. WHICH SPECIALISTS PROVIDE PRIMARY HEALTH CARE?**

1) Only doctors who conduct ambulatory appointments

2) Doctors and nurses working in a hospital.

3) General practitioners, nurses and other doctors providing medical care to the population on an outpatient basis and at home

4) Doctors and nurses working out-patient and in the emergency medical service

**3. WHAT TYPES OF MEDICAL CARE ARE PROVIDED TO THE POPULATION IN A CITY POLYCLINIC?**

1) Primary health care and specialized care

2) Primary care, specialized care including high technological medical care

3) Emergency care and palliative medical care

4) Primary health care and emergency care

5) Primary health care including primary pre-medical, primary care and primary specialized care

**4.** **DESCRIBE THE MAIN PRINCIPLES OF OUTPATIENT CARE IN RUSSIAN FEDERATION:**

1) District principle of service, continuity and stages, prevention priority, availability

2) Preventive focus, professionalism, compassion, accessibility

3) Сontinuity and stages, preventive orientation, professionalism

4) Preventive orientation, compassion, accessibility

5) Professionalism, preventive orientation, availability, compassion

**5. WHAT DEPARTMENTS ARE INCLUDED IN THE POLYCLINIC?**

1) Registration, doctors' offices, an ambulance station, auxiliary medical diagnostic units.

2) Registration, outpatient clinics, inpatient.

3) Registration, doctors' offices, auxiliary diagnostic units, auxiliary medical units

**6. GIVE A DEFINITION OF THE CONCEPT OF "PRIMARY HEALTH CARE"**

1) PHC is the first level of contact of individuals, families and communities with the national health system

2) PHC is the first medical aid provided at the pre-medical level

3) PHC is a complex of measures to provide emergency (emergency and urgent) care

**7. OBJECTIVES OF AMBULATORY-POLYCLINIC ASSISTANCE ARE ALL, EXCEPT**

1) assisting the attached population

2) servicing of industrial workers

3) preventive and dispensary work

4) the examination of persistent disability

**8. THE SECTIONS OF THE WORK OF THE DISTRICT DOCTOR ARE ALL LISTED EXCEPT**

1) prevention

2) treatment

3) coordination of work between the structural units of the polyclinic

4) rehabilitation

5) palliative care

**9. THE MAIN SECTIONS OF THE DOCTOR'S WORK, WHICH PROVIDES SPECIALIZED ASSISTANCE IN THE POLYCLINIC, ARE ALL LISTED EXCEPT**

1) medical-diagnostic work

2) advisory work

3) carrying out preventive measures according to their profile

4) control over the activities of a district doctor

**10. WHICH OF THE INDICATORS IS NOT USED IN THE ANALYSIS OF THE POLYCLINIC?**

1) Staffing of medical posts in a polyclinic

2) Indicators of morbidity of the population living in area of service of out-patient-polyclinic establishment

3) Share of preventive visits in a polyclinic

4) Share of visits in-home

5) Hospitalization level

**Вопросы для устного опроса:**

1. Definition of a concept primary health care. Basic elements and principles of primary health care.
2. System of organization of ambulatory-polyclinic help. Structure and functions of city hospital – polyclinic.
3. Maintenance of work of district doctor.
4. General practitioner; main tasks, organization of activity.
5. Main kinds of report documentation of city hospital. Basic indexes of activity of polyclinic.

***Case-задания для демонстрации практических умений и навыков:***

Topic: **PRIMARY HEALTH CARE. ORGANIZATION OF OUTPATIENT CARE**

**Exercise 1**

The number of adults in the Bezuluksky district of the Orenburg region in 2017 was 23020 people. The number of children in the Buzuluk district of the Orenburg region in 2017 was 19413 people. Table 1 presents data on the medical staff of the clinic.

Table 1.

|  |  |  |  |
| --- | --- | --- | --- |
| Name of the post | Established staff | Employed staff | Physical persons doctors |
| Doctors of all | 58.75 | 55.75 | 47 |
| Therapists | 13 | 13 | 12 |
| Pediatricians | 7 | 7 | 6 |

1. Calculate the provision of the population of the district with doctors in general, as well as therapists and pediatricians (standard of provision for doctors of all specialties is 9.6 per 10,000 of the total population; for therapists - 5.9 per 10,000 adult population; for pediatricians - 12.5 per 10,000 children).
2. Calculate the average number of adults and children per 1 district doctor (standard for therapists - 1700 adults; for pediatricians – 800 children).
3. Calculate the indicators of staffing with medical personnel.
4. Calculate indicators of part-time job.
5. Make and write a conclusion about the state of the medical staff in the district clinic.

Table 2 shows data on the work of the clinics' doctors.

Table 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the post | Total number of doctor visits | Number of home patient visits | Number of doctor visits for illnesses | The number of visits with the preventive purpose |
| Therapists | 38973 | 2027 | 26969 | 12004 |
| Pediatricians | 26330 | 4036 | 17851 | 8479 |

1. Calculate attendance rates (average number of visits per resident per year) of therapists and pediatricians.
2. Calculate the proportion of patient visits at home.
3. Calculate the proportion of visits related to diseases and prophylactic purposes.
4. Calculate the load per doctor (In norm the planned loading makes: the local therapist (pediatrician) - 5500-6000).
5. Make and write a conclusion about the work of the doctors of the polyclinic.

Topic: **PRIMARY HEALTH CARE. ORGANIZATION OF OUTPATIENT CARE**

**Exercise 2**

The number of adults in the Abdulinsky district of the Orenburg region in 2017 was 20628 people. The number of children in the Abdulinsky district of the Orenburg region in 2017 was 5535 people. Table 1 presents data on the medical staff of the clinic.

Table 1.

|  |  |  |  |
| --- | --- | --- | --- |
| Name of the post | Established staff | Employed staff | Physical persons doctors |
| Doctors of all | 57 | 52 | 39 |
| Therapists | 9 | 7,5 | 7 |
| Pediatricians | 8,5 | 7 | 6 |

1. Calculate the provision of the population of the district with doctors in general, as well as therapists and pediatricians (standard of provision for doctors of all specialties is 9.6 per 10,000 of the total population; for therapists - 5.9 per 10,000 adult population; for pediatricians - 12.5 per 10,000 children).
2. Calculate the average number of adults and children per 1 district doctor (standard for therapists - 1700 adults; for pediatricians – 800 children).
3. Calculate the indicators of staffing with medical personnel.
4. Calculate indicators of part-time job.
5. Make and write a conclusion about the state of the medical staff in the district clinic.

Table 2 shows data on the work of the clinics' doctors.

Table 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the post | Total number of doctor visits | Number of home patient visits | Number of doctor visits for illnesses | The number of visits with the preventive purpose |
| Therapists | 26131 | 4327 | 21080 | 5051 |
| Pediatricians | 28258 | 3171 | 16644 | 11614 |

1. Calculate attendance rates (average number of visits per resident per year) of therapists and pediatricians.
2. Calculate the proportion of patient visits at home.
3. Calculate the proportion of visits related to diseases and prophylactic purposes.
4. Calculate the load per doctor (In norm the planned loading makes: the local therapist (pediatrician) - 5500-6000).
5. Make and write a conclusion about the work of the doctors of the polyclinic.

Topic: **PRIMARY HEALTH CARE. ORGANIZATION OF OUTPATIENT CARE**

**Exercise 3**

The number of adults in the Adamovsky district of the Orenburg region in 2017 was 17007 people. The number of children in the Adamovsky district of the Orenburg region in 2017 was 6081 people. Table 1 presents data on the medical staff of the clinic.

Table 1.

|  |  |  |  |
| --- | --- | --- | --- |
| Name of the post | Established staff | Employed staff | Physical persons doctors |
| Doctors of all | 59 | 38,5 | 29 |
| Therapists | 5 | 4 | 4 |
| Pediatricians | 6 | 3 | 3 |

1. Calculate the provision of the population of the district with doctors in general, as well as therapists and pediatricians (standard of provision for doctors of all specialties is 9.6 per 10,000 of the total population; for therapists - 5.9 per 10,000 adult population; for pediatricians - 12.5 per 10,000 children).
2. Calculate the average number of adults and children per 1 district doctor (standard for therapists - 1700 adults; for pediatricians – 800 children).
3. Calculate the indicators of staffing with medical personnel.
4. Calculate indicators of part-time job.
5. Make and write a conclusion about the state of the medical staff in the district clinic.

Table 2 shows data on the work of the clinics' doctors.

Table 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the post | Total number of doctor visits | Number of home patient visits | Number of doctor visits for illnesses | The number of visits with the preventive purpose |
| Therapists | 20863 | 870 | 14990 | 5873 |
| Pediatricians | 17249 | 1223 | 9411 | 7838 |

1. Calculate attendance rates (average number of visits per resident per year) of therapists and pediatricians.
2. Calculate the proportion of patient visits at home.
3. Calculate the proportion of visits related to diseases and prophylactic purposes.
4. Calculate the load per doctor (In norm the planned loading makes: the local therapist (pediatrician) - 5500-6000).
5. Make and write a conclusion about the work of the doctors of the polyclinic.

Topic: **PRIMARY HEALTH CARE. ORGANIZATION OF OUTPATIENT CARE**

**Exercise 4**

The number of adults in the Akbulak district of the Orenburg region in 2017 was 18196 people. The number of children in the Akbulak district of the Orenburg region in 2017 was 6594 people. Table 1 presents data on the medical staff of the clinic.

Table 1.

|  |  |  |  |
| --- | --- | --- | --- |
| Name of the post | Established staff | Employed staff | Physical persons doctors |
| Doctors of all | 52.75 | 47 | 42 |
| Therapists | 11 | 10,5 | 10 |
| Pediatricians | 7 | 7 | 7 |

1. Calculate the provision of the population of the district with doctors in general, as well as therapists and pediatricians (standard of provision for doctors of all specialties is 9.6 per 10,000 of the total population; for therapists - 5.9 per 10,000 adult population; for pediatricians - 12.5 per 10,000 children).
2. Calculate the average number of adults and children per 1 district doctor (standard for therapists - 1700 adults; for pediatricians – 800 children).
3. Calculate the indicators of staffing with medical personnel.
4. Calculate indicators of part-time job.
5. Make and write a conclusion about the state of the medical staff in the district clinic.

Table 2 shows data on the work of the clinics' doctors.

Table 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the post | Total number of doctor visits | Number of home patient visits | Number of doctor visits for illnesses | The number of visits with the preventive purpose |
| Therapists | 57789 | 3315 | 24339 | 33450 |
| Pediatricians | 59449 | 127 | 19283 | 40166 |

1. Calculate attendance rates (average number of visits per resident per year) of therapists and pediatricians.
2. Calculate the proportion of patient visits at home.
3. Calculate the proportion of visits related to diseases and prophylactic purposes.
4. Calculate the load per doctor (In norm the planned loading makes: the local therapist (pediatrician) - 5500-6000).
5. Make and write a conclusion about the work of the doctors of the polyclinic.

Topic: **PRIMARY HEALTH CARE. ORGANIZATION OF OUTPATIENT CARE**

**Exercise 5**

The number of adults in the Alexandrovsky district of the Orenburg region in 2017 was 10753 people. The number of children in the Alexandrovsky district of the Orenburg region in 2017 was 3275 people. Table 1 presents data on the medical staff of the clinic.

Table 1.

|  |  |  |  |
| --- | --- | --- | --- |
| Name of the post | Established staff | Employed staff | Physical persons doctors |
| Doctors of all | 43,5 | 35,5 | 34 |
| Therapists | 6 | 6 | 6 |
| Pediatricians | 5 | 5 | 5 |

1. Calculate the provision of the population of the district with doctors in general, as well as therapists and pediatricians (standard of provision for doctors of all specialties is 9.6 per 10,000 of the total population; for therapists - 5.9 per 10,000 adult population; for pediatricians - 12.5 per 10,000 children).
2. Calculate the average number of adults and children per 1 district doctor (standard for therapists - 1700 adults; for pediatricians – 800 children).
3. Calculate the indicators of staffing with medical personnel.
4. Calculate indicators of part-time job.
5. Make and write a conclusion about the state of the medical staff in the district clinic.

Table 2 shows data on the work of the clinics' doctors.

Table 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the post | Total number of doctor visits | Number of home patient visits | Number of doctor visits for illnesses | The number of visits with the preventive purpose |
| Therapists | 25248 | 457 | 10104 | 15144 |
| Pediatricians | 25620 | 2535 | 12482 | 13138 |

1. Calculate attendance rates (average number of visits per resident per year) of therapists and pediatricians.
2. Calculate the proportion of patient visits at home.
3. Calculate the proportion of visits related to diseases and prophylactic purposes.
4. Calculate the load per doctor (In norm the planned loading makes: the local therapist (pediatrician) - 5500-6000).
5. Make and write a conclusion about the work of the doctors of the polyclinic.

Topic: **PRIMARY HEALTH CARE. ORGANIZATION OF OUTPATIENT CARE**

**Exercise 6**

The number of adults in the Asekeevsky district of the Orenburg region in 2017 was 14301 people. The number of children in the Asekeevsky district of the Orenburg region in 2017 was 3585 people. Table 1 presents data on the medical staff of the clinic.

Table 1.

|  |  |  |  |
| --- | --- | --- | --- |
| Name of the post | Established staff | Employed staff | Physical persons doctors |
| Doctors of all | 39 | 35 | 24 |
| Therapists | 6 | 6 | 4 |
| Pediatricians | 4 | 4 | 4 |

1. Calculate the provision of the population of the district with doctors in general, as well as therapists and pediatricians (standard of provision for doctors of all specialties is 9.6 per 10,000 of the total population; for therapists - 5.9 per 10,000 adult population; for pediatricians - 12.5 per 10,000 children).
2. Calculate the average number of adults and children per 1 district doctor (standard for therapists - 1700 adults; for pediatricians – 800 children).
3. Calculate the indicators of staffing with medical personnel.
4. Calculate indicators of part-time job.
5. Make and write a conclusion about the state of the medical staff in the district clinic.

Table 2 shows data on the work of the clinics' doctors.

Table 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the post | Total number of doctor visits | Number of home patient visits | Number of doctor visits for illnesses | The number of visits with the preventive purpose |
| Therapists | 16196 | 365 | 11540 | 4656 |
| Pediatricians | 20530 | 750 | 10652 | 9878 |

1. Calculate attendance rates (average number of visits per resident per year) of therapists and pediatricians.
2. Calculate the proportion of patient visits at home.
3. Calculate the proportion of visits related to diseases and prophylactic purposes.
4. Calculate the load per doctor (In norm the planned loading makes: the local therapist (pediatrician) - 5500-6000).

Make and write a conclusion about the work of the doctors of the polyclinic.

Topic: **PRIMARY HEALTH CARE. ORGANIZATION OF OUTPATIENT CARE**

**Exercise 7**

The number of adults in the Belyaevsky district of the Orenburg region in 2017 was 11939 people. The number of children in the Belyaevsky district of the Orenburg region in 2017 was 3767 people. Table 1 presents data on the medical staff of the clinic.

Table 1.

|  |  |  |  |
| --- | --- | --- | --- |
| Name of the post | Established staff | Employed staff | Physical persons doctors |
| Doctors of all | 31,5 | 30 | 25 |
| Therapists | 5 | 4,5 | 4 |
| Pediatricians | 5 | 5 | 5 |

1. Calculate the provision of the population of the district with doctors in general, as well as therapists and pediatricians (standard of provision for doctors of all specialties is 9.6 per 10,000 of the total population; for therapists - 5.9 per 10,000 adult population; for pediatricians - 12.5 per 10,000 children).
2. Calculate the average number of adults and children per 1 district doctor (standard for therapists - 1700 adults; for pediatricians – 800 children).
3. Calculate the indicators of staffing with medical personnel.
4. Calculate indicators of part-time job.
5. Make and write a conclusion about the state of the medical staff in the district clinic.

Table 2 shows data on the work of the clinics' doctors.

Table 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the post | Total number of doctor visits | Number of home patient visits | Number of doctor visits for illnesses | The number of visits with the preventive purpose |
| Therapists | 28711 | 1057 | 22577 | 6134 |
| Pediatricians | 29115 | 778 | 21275 | 7840 |

1. Calculate attendance rates (average number of visits per resident per year) of therapists and pediatricians.
2. Calculate the proportion of patient visits at home.
3. Calculate the proportion of visits related to diseases and prophylactic purposes.
4. Calculate the load per doctor (In norm the planned loading makes: the local therapist (pediatrician) - 5500-6000).
5. Make and write a conclusion about the work of the doctors of the polyclinic.

Topic: **PRIMARY HEALTH CARE. ORGANIZATION OF OUTPATIENT CARE**

**Exercise 8**

The number of adults in the Buguruslansky district of the Orenburg region in 2017 was 13743 people. The number of children in the Buguruslansky district of the Orenburg region in 2017 was 3963 people. Table 1 presents data on the medical staff of the clinic.

Table 1.

|  |  |  |  |
| --- | --- | --- | --- |
| Name of the post | Established staff | Employed staff | Physical persons doctors |
| Doctors of all | 50,25 | 47,75 | 37 |
| Therapists | 8 | 8 | 8 |
| Pediatricians | 6 | 5 | 5 |

1. Calculate the provision of the population of the district with doctors in general, as well as therapists and pediatricians (standard of provision for doctors of all specialties is 9.6 per 10,000 of the total population; for therapists - 5.9 per 10,000 adult population; for pediatricians - 12.5 per 10,000 children).
2. Calculate the average number of adults and children per 1 district doctor (standard for therapists - 1700 adults; for pediatricians – 800 children).
3. Calculate the indicators of staffing with medical personnel.
4. Calculate indicators of part-time job.
5. Make and write a conclusion about the state of the medical staff in the district clinic.

Table 2 shows data on the work of the clinics' doctors.

Table 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the post | Total number of doctor visits | Number of home patient visits | Number of doctor visits for illnesses | The number of visits with the preventive purpose |
| Therapists | 31968 | 858 | 25530 | 6438 |
| Pediatricians | 21808 | 926 | 15756 | 6052 |

1. Calculate attendance rates (average number of visits per resident per year) of therapists and pediatricians.
2. Calculate the proportion of patient visits at home.
3. Calculate the proportion of visits related to diseases and prophylactic purposes.
4. Calculate the load per doctor (In norm the planned loading makes: the local therapist (pediatrician) - 5500-6000).
5. Make and write a conclusion about the work of the doctors of the polyclinic.

Topic: **PRIMARY HEALTH CARE. ORGANIZATION OF OUTPATIENT CARE**

**Exercise 9**

The number of adults in the Buzuluksky district of the Orenburg region in 2017 was 23020 people. The number of children in the Buzuluksky district of the Orenburg region in 2017 was 7115 people. Table 1 presents data on the medical staff of the clinic.

Table 1.

|  |  |  |  |
| --- | --- | --- | --- |
| Name of the post | Established staff | Employed staff | Physical persons doctors |
| Doctors of all | 58.75 | 55.75 | 47 |
| Therapists | 11 | 11 | 11 |
| Pediatricians | 7 | 7 | 6 |

1. Calculate the provision of the population of the district with doctors in general, as well as therapists and pediatricians (standard of provision for doctors of all specialties is 9.6 per 10,000 of the total population; for therapists - 5.9 per 10,000 adult population; for pediatricians - 12.5 per 10,000 children).
2. Calculate the average number of adults and children per 1 district doctor (standard for therapists - 1700 adults; for pediatricians – 800 children).
3. Calculate the indicators of staffing with medical personnel.
4. Calculate indicators of part-time job.
5. Make and write a conclusion about the state of the medical staff in the district clinic.

Table 2 shows data on the work of the clinics' doctors.

Table 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the post | Total number of doctor visits | Number of home patient visits | Number of doctor visits for illnesses | The number of visits with the preventive purpose |
| Therapists | 38973 | 2027 | 26969 | 12004 |
| Pediatricians | 26330 | 4036 | 17851 | 8479 |

1. Calculate attendance rates (average number of visits per resident per year) of therapists and pediatricians.
2. Calculate the proportion of patient visits at home.
3. Calculate the proportion of visits related to diseases and prophylactic purposes.
4. Calculate the load per doctor (In norm the planned loading makes: the local therapist (pediatrician) - 5500-6000).
5. Make and write a conclusion about the work of the doctors of the polyclinic.

Topic: **PRIMARY HEALTH CARE. ORGANIZATION OF OUTPATIENT CARE**

**Exercise 10**

The number of adults in the Gaysky district of the Orenburg region in 2017 was 34017 people. The number of children in the Gaysky district of the Orenburg region in 2017 was 10094 people. Table 1 presents data on the medical staff of the clinic.

Table 1.

|  |  |  |  |
| --- | --- | --- | --- |
| Name of the post | Established staff | Employed staff | Physical persons doctors |
| Doctors of all | 122.75 | 122.25 | 71 |
| Therapists | 20 | 20 | 10 |
| Pediatricians | 10 | 10 | 7 |

1. Calculate the provision of the population of the district with doctors in general, as well as therapists and pediatricians (standard of provision for doctors of all specialties is 9.6 per 10,000 of the total population; for therapists - 5.9 per 10,000 adult population; for pediatricians - 12.5 per 10,000 children).
2. Calculate the average number of adults and children per 1 district doctor (standard for therapists - 1700 adults; for pediatricians – 800 children).
3. Calculate the indicators of staffing with medical personnel.
4. Calculate indicators of part-time job.
5. Make and write a conclusion about the state of the medical staff in the district clinic.

Table 2 shows data on the work of the clinics' doctors.

Table 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the post | Total number of doctor visits | Number of home patient visits | Number of doctor visits for illnesses | The number of visits with the preventive purpose |
| Therapists | 61496 | 6102 | 48430 | 13066 |
| Pediatricians | 71839 | 10786 | 30054 | 41785 |

1. Calculate attendance rates (average number of visits per resident per year) of therapists and pediatricians.
2. Calculate the proportion of patient visits at home.
3. Calculate the proportion of visits related to diseases and prophylactic purposes.
4. Calculate the load per doctor (In norm the planned loading makes: the local therapist (pediatrician) - 5500-6000).
5. Make and write a conclusion about the work of the doctors of the polyclinic.

Topic: **PRIMARY HEALTH CARE. ORGANIZATION OF OUTPATIENT CARE**

**Exercise 11**

The number of adults in the Grachevsky district of the Orenburg region in 2017 was 9087 people. The number of children in the Grachevsky district of the Orenburg region in 2017 was 2537 people. Table 1 presents data on the medical staff of the clinic.

Table 1.

|  |  |  |  |
| --- | --- | --- | --- |
| Name of the post | Established staff | Employed staff | Physical persons doctors |
| Doctors of all | 40 | 31.5 | 25 |
| Therapists | 6 | 6 | 5 |
| Pediatricians | 4 | 3,5 | 3 |

1. Calculate the provision of the population of the district with doctors in general, as well as therapists and pediatricians (standard of provision for doctors of all specialties is 9.6 per 10,000 of the total population; for therapists - 5.9 per 10,000 adult population; for pediatricians - 12.5 per 10,000 children).
2. Calculate the average number of adults and children per 1 district doctor (standard for therapists - 1700 adults; for pediatricians – 800 children).
3. Calculate the indicators of staffing with medical personnel.
4. Calculate indicators of part-time job.
5. Make and write a conclusion about the state of the medical staff in the district clinic.

Table 2 shows data on the work of the clinics' doctors.

Table 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the post | Total number of doctor visits | Number of home patient visits | Number of doctor visits for illnesses | The number of visits with the preventive purpose |
| Therapists | 17618 | 3230 | 12709 | 4909 |
| Pediatricians | 14797 | 9654 | 7080 | 7717 |

1. Calculate attendance rates (average number of visits per resident per year) of therapists and pediatricians.
2. Calculate the proportion of patient visits at home.
3. Calculate the proportion of visits related to diseases and prophylactic purposes.
4. Calculate the load per doctor (In norm the planned loading makes: the local therapist (pediatrician) - 5500-6000).
5. Make and write a conclusion about the work of the doctors of the polyclinic.

Topic: **PRIMARY HEALTH CARE. ORGANIZATION OF OUTPATIENT CARE**

**Exercise 12**

The number of adults in the Dombarovsky district of the Orenburg region in 2017 was 10398 people. The number of children in the Dombarovsky district of the Orenburg region in 2017 was 4201 people. Table 1 presents data on the medical staff of the clinic.

Table 1.

|  |  |  |  |
| --- | --- | --- | --- |
| Name of the post | Established staff | Employed staff | Physical persons doctors |
| Doctors of all | 34 | 30.5 | 21 |
| Therapists | 5 | 5 | 5 |
| Pediatricians | 5,75 | 5 | 4 |

1. Calculate the provision of the population of the district with doctors in general, as well as therapists and pediatricians (standard of provision for doctors of all specialties is 9.6 per 10,000 of the total population; for therapists - 5.9 per 10,000 adult population; for pediatricians - 12.5 per 10,000 children).
2. Calculate the average number of adults and children per 1 district doctor (standard for therapists - 1700 adults; for pediatricians – 800 children).
3. Calculate the indicators of staffing with medical personnel.
4. Calculate indicators of part-time job.
5. Make and write a conclusion about the state of the medical staff in the district clinic.

Table 2 shows data on the work of the clinics' doctors.

Table 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the post | Total number of doctor visits | Number of home patient visits | Number of doctor visits for illnesses | The number of visits with the preventive purpose |
| Therapists | 31974 | 2961 | 17281 | 14693 |
| Pediatricians | 5266 | 36 | 1797 | 3469 |

1. Calculate attendance rates (average number of visits per resident per year) of therapists and pediatricians.
2. Calculate the proportion of patient visits at home.
3. Calculate the proportion of visits related to diseases and prophylactic purposes.
4. Calculate the load per doctor (In norm the planned loading makes: the local therapist (pediatrician) - 5500-6000).
5. Make and write a conclusion about the work of the doctors of the polyclinic.

Topic: **PRIMARY HEALTH CARE. ORGANIZATION OF OUTPATIENT CARE**

**Exercise 13**

The number of adults in the Ileksky district of the Orenburg region in 2017 was 18020 people. The number of children in the Ileksky district of the Orenburg region in 2017 was 5869 people. Table 1 presents data on the medical staff of the clinic.

Table 1.

|  |  |  |  |
| --- | --- | --- | --- |
| Name of the post | Established staff | Employed staff | Physical persons doctors |
| Doctors of all | 44.5 | 39.5 | 30 |
| Therapists | 11.75 | 8.5 | 8 |
| Pediatricians | 6 | 6 | 6 |

1. Calculate the provision of the population of the district with doctors in general, as well as therapists and pediatricians (standard of provision for doctors of all specialties is 9.6 per 10,000 of the total population; for therapists - 5.9 per 10,000 adult population; for pediatricians - 12.5 per 10,000 children).
2. Calculate the average number of adults and children per 1 district doctor (standard for therapists - 1700 adults; for pediatricians – 800 children).
3. Calculate the indicators of staffing with medical personnel.
4. Calculate indicators of part-time job.
5. Make and write a conclusion about the state of the medical staff in the district clinic.

Table 2 shows data on the work of the clinics' doctors.

Table 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the post | Total number of doctor visits | Number of home patient visits | Number of doctor visits for illnesses | The number of visits with the preventive purpose |
| Therapists | 31056 | 2785 | 26750 | 4306 |
| Pediatricians | 31456 | 2496 | 21989 | 9467 |

1. Calculate attendance rates (average number of visits per resident per year) of therapists and pediatricians.
2. Calculate the proportion of patient visits at home.
3. Calculate the proportion of visits related to diseases and prophylactic purposes.
4. Calculate the load per doctor (In norm the planned loading makes: the local therapist (pediatrician) - 5500-6000).
5. Make and write a conclusion about the work of the doctors of the polyclinic.

Тема 2. ORGANIZATION OF THE IN-PATIENT AID TO THE POPULATION. INDICATORS OF HOSPITAL ACTIVITY

**Форма текущего контроля успеваемости**

Тестирование.

Устный опрос.

Решение case-заданий.

**Оценочные материалы текущего контроля успеваемости.**

*Вопросы для входного тестового контроля:*

**1. THE TASKS OF THE CITY HOSPITAL ARE ALL LISTED EXCEPT:**

1) diagnosis and treatment of diseases, care, rehabilitation and emergency care

2) medical and recreational activities, prevention of complications, chronic and infectious diseases, disability, etc.

3) examination of a permanent loss of work incapable of work and recognition of a patient with a disability

4) training of medical personnel and his postgraduate specialization

5) research activities

**2. THE STRUCTURE OF THE CITY HOSPITAL DOES NOT INCLUDE:**

1) admission office

2) research department

3) profiled medical departments

4) operational unit.

5) department of morbid anatomy

**3. THE PATIENT MAY BE HOSPITALIZED IN A HOSPITAL**

1) at self-referral to the admissions office

2) if there is a referral for hospitalization

3) when delivered by a brigade of ambulance services

4) all of the above is true

**4. HOSPITAL REPORT INCLUDES DATA ABOUT NUMBER OF OPERATED PATIENTS AND NUMBER OF DEATHS AFTER SURGERY. WHICH EFFICIENCY INDEX OF INPATIENT CARE CAN BE CALCULATED ON THE BASIS OF THESE** **DATA?**

1) Admission rate

2) Standardized lethality rate

3) General lethality rate

4) Postoperative mortality rate

5) Postoperative lethality rate

**5. LETHALITY RATE IS USED TO ANALYZE:**

**1) Efficiency of inpatient care**

2) Morbidity

3) Bed fund

4) Efficiency of outpatient care

5) Natural dynamics of population

**6. WHAT INDICATORS CAN BE DEFINED WHEN WE HAVE: POPULATION NUMBER, TOTAL AMOUNT OF HOSPITALIZED PATIENTS AND ON SEPARATE NOSOLOGIES?**

1) General morbidity and its structure on specific nosologies

2) Incidence rate in hospitals

3) Admission rate in the whole and on specific nosologies

4) Incidence rate structure on disease classes

**7. LETHALITY RATE IS INDICATOR WHICH CHARACTERIZES:**

1) Morbidity rate

2) Work of the polyclinic

3) Natural dynamics of population

4) Hospital activities

**8. WHICH INDICATORS ARE USED TO ANALYZE SATISFACTION OF POPULATION IN INPATIENT CARE?**

1) Bed population ratio; structure of bed fund

2) Admission rate; inpatient care sufficiency

3) Inpatient lethality rate

4) frequency of refusals in hospitalization

5) Timeliness of hospitalization; bed use

**9. INDICATE BASIC FUNCTIONS OF INPATIENT FACILITIES ACCORDING TO WHO:**

1) Medical and rehabilitative, preventive and anti-epidemic, educative and research

2) Preventive, emergency care, research, educative

3) Therapeutic, anti-epidemic, informational, educative

4) Dispensarization, medical, preventive, emergency care

5) Medical, statistical, educative, research

**10. SPECIFY BASIC FORMS OF INPATIENT PRIMARY MEDICAL RECORDS**

1) "Inpatient medical card"; "Outpatient medical card"

2) "Medical death certificate"; "Vaccination card"

3) "Statistical coupon"; "Extract from inpatient medical card"

4) "Inpatient medical card"; "Statistical card of the patient discharged hospital"

5) "Control card of dispensary observation"; "Inpatient medical card

**Вопросы для устного опроса:**

1. The organization of in-patient (hospital) aid to urban population. Classification, the main organization-methodical principles of work and tasks of a hospital.
2. The structure and tasks of a city hospital inpatient department.
3. Organization of activity of reception of hospital
4. Functional duties of the doctor of a hospital.
5. Name the basic indicators of inpatient activity.

**Case-задания для демонстрации практических умений и навыков:**

Calculate the use of hospital bed capacity. Give them an assessment.

**Problem 1**

DATA OF THE ANNUAL REPORT OF THE MEDICAL ORGANIZATION

***Abdulinsky district***

Number of served population

|  |  |
| --- | --- |
| **Total (people)** | **25599** |
| Children (aged 0-17) | 5351 |
| Adults | 20248 |

Data on the use of hospital beds

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bed profile | Number of beds | hospitalized patients - total | patients discharged | died | spent by patients days |
| **Total** | **134** | **4211** | **4137** | **100** | **41009** |

**Problem 2**

DATA OF THE ANNUAL REPORT OF THE MEDICAL ORGANIZATION

***Adamovsky district***

Number of served population

|  |  |
| --- | --- |
| **Total (people)** | **23237** |
| Children (aged 0-17) | 5582 |
| Adults | 17655 |

Data on the use of hospital beds

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bed profile | Number of beds | hospitalized patients - total | patients discharged | died | spent by patients days |
| **Total** | **117** | **3669** | **3613** | **43** | **31876** |

**Problem 3**

DATA OF THE ANNUAL REPORT OF THE MEDICAL ORGANIZATION

***Akbulaksky district***

Number of served population

|  |  |
| --- | --- |
| **Total (people)** | **25473** |
| Children (aged 0-17) | 6316 |
| Adults | 19157 |

Data on the use of hospital beds

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bed profile | Number of beds | hospitalized patients - total | patients discharged | died | spent by patients days |
| **Total** | **115** | **3891** | **3867** | **49** | **30145** |

**Problem 4**

DATA OF THE ANNUAL REPORT OF THE MEDICAL ORGANIZATION

***Belyaevsky district***

Number of served population

|  |  |
| --- | --- |
| **Total (people)** | **16152** |
| Children (aged 0-17) | 3405 |
| Adults | 12747 |

Data on the use of hospital beds

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bed profile | Number of beds | hospitalized patients - total | patients discharged | died | spent by patients days |
| **Total** | **72** | **2406** | **2423** | **20** | **22270** |

**Problem 5**

DATA OF THE ANNUAL REPORT OF THE MEDICAL ORGANIZATION

***Gay district***

Number of served population

|  |  |
| --- | --- |
| **Total (people)** | **47391** |
| Children (aged 0-17) | **10103** |
| Adults | **37288** |

Data on the use of hospital beds

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bed profile | Number of beds | hospitalized patients - total | patients discharged | died | spent by patients days |
| **Total** | **240** | **8684** | **8554** | **170** | **85018** |

Тема 3. **PUBLIC HEALTH PROBLEMS IN INDIA**

***Practical сlass are conducted in the form of a conference. The student should prepare a presentation and a text of the report on one of the proposed topics.***

**Sample topics for the report:**

1. Problems of the size and composition of the population in India. State demographic policy.
2. Fertility and mortality in India. State and dynamics of processes.
3. Morbidity of the population of India. Method of study. Status and main trends.
4. Disability of the population and organization of rehabilitation in India.
5. The basic characteristics of the health care system in India.
6. Health system management in India.
7. Financing Health in India.
8. The primary health care in India.
9. Organization of ambulatory care in India.
10. Organization of the in-patient aid in India.
11. Protection of motherhood and infancy in India.
12. The organization of the out-patient-polyclinic obstetric-gynecologic aid in India.
13. Organization of the treatment-and-prophylactic aid to children in India.
14. Medical prophylaxis in India.
15. The organization of the treatment-and-prophylactic aid to rural population in India.
16. Medical examination of disability and invalidity in India.

***Reports can also be devoted to other topics of public health and care. May provide for a detailed discussion of individual parts of the proposed topics. The topics are pre-approved by the teacher.***

**Критерии оценивания, применяемые при текущем контроле успеваемости, в том числе при контроле самостоятельной работы обучающихся**

|  |  |
| --- | --- |
| **Форма контроля**  | **Критерии оценивания** |
| **устный опрос** | В 5 баллов оценивается ответ, который показывает прочные знания основных вопросов изучаемого материала, отличается глубиной и полнотой раскрытия темы; владение терминологическим аппаратом; умение объяснять сущность явлений, процессов, событий, делать выводы и обобщения, давать аргументированные ответы, приводить примеры; свободное владение монологической речью, логичность и последовательность ответа. |
| В 4 балла оценивается ответ, обнаруживающий прочные знания основных вопросов изучаемого материла, отличается глубиной и полнотой раскрытия темы; владение терминологическим аппаратом; умение объяснять сущность явлений, процессов, событий, делать выводы и обобщения, давать аргументированные ответы, приводить примеры; свободное владение монологической речью, логичность и последовательность ответа. Однако допускается одна - две неточности в ответе. |
| На 3 балла оценивается ответ, свидетельствующий в основном о знании изучаемого материала, отличающийся недостаточной глубиной и полнотой раскрытия темы; знанием основных вопросов теории; слабо сформированными навыками анализа явлений, процессов, недостаточным умением давать аргументированные ответы и приводить примеры; недостаточно свободным владением монологической речью, логичностью и последовательностью ответа. Допускается несколько ошибок в содержании ответа. |
| На 2 балла оценивается ответ, обнаруживающий незнание изучаемого материла, отличающийся неглубоким раскрытием темы; незнанием основных вопросов теории, несформированными навыками анализа явлений, процессов; неумением давать аргументированные ответы, слабым владением монологической речью, отсутствием логичности и последовательности. Допускаются серьезные ошибки в содержании ответа. |
| **письменный опрос** | В 5 баллов оценивается ответ, который показывает прочные знания основных вопросов изучаемого материала, отличается глубиной и полнотой раскрытия темы; владение терминологическим аппаратом. |
| В 4 балла оценивается ответ, обнаруживающий прочные знания основных вопросов изучаемого материла, отличается глубиной и полнотой раскрытия темы; владение терминологическим аппаратом. Однако допускается одна - две неточности в ответе. |
| На 3 балла оценивается ответ, свидетельствующий в основном о знании изучаемого материала, отличающийся недостаточной глубиной и полнотой раскрытия темы; знанием основных вопросов теории; слабо сформированными навыками анализа явлений, процессов. Допускается несколько ошибок в содержании ответа. |
| На 2 балла оценивается ответ, обнаруживающий незнание изучаемого материла, отличающийся неглубоким раскрытием темы; незнанием основных вопросов теории, несформированными навыками анализа явлений, процессов. Допускаются серьезные ошибки в содержании ответа. |
| **тестирование** | 5 баллов выставляется при условии 91-100% правильных ответов |
| 4 балла выставляется при условии 81-90% правильных ответов |
| 3 балла выставляется при условии 71-80% правильных ответов |
| 2 балла выставляется при условии 70% и меньше правильных ответов. |
| **решение case-заданий** | 5 баллов выставляется если обучающимся дан правильный ответ на вопрос задачи. Объяснение хода ее решения подробное, последовательное, грамотное, с теоретическими обоснованиями (в т.ч. из лекционного курса), с необходимым схематическими изображениями и демонстрациями практических умений, с правильным и свободным владением терминологией; ответы на дополнительные вопросы верные, четкие. |
| 4 балла выставляется если обучающимся дан правильный ответ на вопрос задачи. Объяснение хода ее решения подробное, но недостаточно логичное, с единичными ошибками в деталях, некоторыми затруднениями в теоретическом обосновании (в т.ч. из лекционного материала), в схематических изображениях и демонстрациях практических действий, ответы на дополнительные вопросы верные, но недостаточно четкие. |
| 3 балла выставляется если обучающимся дан правильный ответ на вопрос задачи. Объяснение хода ее решения недостаточно полное, непоследовательное, с ошибками, слабым теоретическим обоснованием (в т.ч. лекционным материалом), со значительными затруднениями и ошибками в схематических изображениях и демонстрацией практических умений, ответы на дополнительные вопросы недостаточно четкие, с ошибками в деталях. |
| 2 балла выставляется если обучающимся дан правильный ответ на вопрос задачи. Объяснение хода ее решения дано неполное, непоследовательное, с грубыми ошибками, без теоретического обоснования (в т.ч. лекционным материалом), без умения схематических изображений и демонстраций практических умений или с большим количеством ошибок, ответы на дополнительные вопросы неправильные или отсутствуют. |

Модуль 5. Экономика, управление здравоохранением.

Тема 1. PUBLIC HEALTH ECONOMY. METHODOLOGY FOR CALCULATING ECONOMIC EFFICIENCY

**Форма текущего контроля успеваемости**

Тестирование.

Устный опрос.

Решение case-заданий.

**Оценочные материалы текущего контроля успеваемости**

***Вопросы для входного тестового контроля:***

**1. THE ECONOMICS OF PUBLIC HEALTH IS -**

1) the study of the use of objective economic laws and relations in public health

services, as one of the branches of state economy

2) a branch of medicine that deals with public health and risk-factor evaluation

3) a branch of medicine that deals with disease prevention and health promotion

4) a complex economic knowledge of forms, methods, results of the activity in the

field of medicine

**2. WHAT IS THE MAIN PURPOSE OF THE ECONOMICS OF PUBLIC HEALTH?**

1) rational use of the available resources

2) maximal satisfaction of the population health care requirements

3) introduction of the new organizational forms and methods of medical care

4) introduction of economic efficiency of public health services

**3. WHICH TYPE OF AVAILABLE MEDICAL INSTITUTION′S RESOURCES DO YOU KNOW?**

1) financial and worker resources

2) material, financial and manpower resources

3) manpower, material and technical resources

**4. WITH REFERENCE TO PUBLIC HEALTH SERVICES WE DISTINGUISH:**

1) social and economic efficiency

2) medical and economic efficiency

3) social, medical and economic efficiency

4) social and medical efficiency

**5. WHICH TYPE OF EFFICIENCY IS MOST IMPORTANT FOR PUBLIC HEALTH?**

1) social efficiency

2) medical efficiency

3) economic efficiency

4) social and medical efficiency

**6. WHAT IS HEALTH ECONOMIC EFFICIENCY?**

1) a change of the level and character of disease and its tendencie

2) a positive contribution that public health system brings by improving the population’s health in relation to with the national income growth

3) optimization of levels of birth rate, reduction of death rate and increase of life expectancy

**7. WHAT IS PUBLIC HEALTH SOCIAL EFFICIENCY?**

1) a change of the level and character of disease and its tendencie

2) a positive contribution that public health system brings by improving the population’s health in relation to with the national income growth

3) optimization of levels of birth rate, reduction of death rate and increase of life expectancy

**8. WHAT IS HEALTH MEDICAL EFFICIENCY?**

1) a change of the level and character of disease and its tendencie

2) a positive contribution that public health system brings by improving the population’s health in relation to with the national income growth

3) optimization of levels of birth rate, reduction of death rate and increase of life expectancy

**9. PUBLIC HEALTH AND HEALTH IS –**

1) a branch of non-productive sphere of the state economy

2) a branch of productive sphere of the state economy

**10. The economic efficiency of health care can be calculated as**

1) Number of patients satisfied with medical care × 100 / Number of estimated cases

2) Number of positive medical outcomes × 100 / Number of estimated cases

3) Economic effect / cost

**Вопросы для устного опроса:**

1. Economics of Public Health: its subject, tasks.
2. Place and role of health care in the country's economy.
3. Types of health care effectiveness. Medical, social and economic efficiency; basic indicators.
4. Methodology for calculating economic efficiency.

**Case-задания для демонстрации практических умений и навыков:**

Задание 1.

Определить общую стоимость медицинского обслуживания 100 больных ишемической болезнью сердца, состоящих под диспансерным наблюдением в течение 3 лет, если известен объем оказанной им лечебно-профилактической помощи в 1 год диспансерного наблюдения:

Амбулаторно-поликлинической:

а) сделано посещений:

к участковому терапевту - 300

к врачам специалистам:

- невропатологу - 100

- окулисту - 58

Всего посещений -

б) проведено исследований:

ЭКГ - 100

ОАК - 100

ОАМ - 100

Холестерин - 100

Коагулограмма - 100

Аминотрансферазы - 100

Всего исследований -

Стационарной:

Больные изучаемой группы провели в стационаре 205 койко-дней.

Санаторно-курортной:

6 человек получили санаторно-курортное лечение за счет средств социального страхования (70 % от полной стоимости путевки) в санаториях кардиологического профиля.

Полученные данные по стоимости каждого вида оказанной лечебно-профилактической помощи занести в таблицу 1 и рассчитать показатели структуры.

Таблица 1

Стоимость медицинского обслуживания больных ишемической болезнью сердца, состоящих под диспансерным наблюдением

|  |  |  |  |
| --- | --- | --- | --- |
| Стоимость амбулаторно-поликлинической помощи | Стоимость стационарного лечения | Стоимость санаторно-курортного лечения | Общая стоимость медицинского обслуживания |
| абс. | % к итогу | абс. | % к итогу | абс. | % к итогу | абс. | % к итогу |
|  |  |  |  |  |  |  |  |

Сделайте письменный вывод.

Задание 2.

Определить общий экономический ущерб в связи с заболеваемостью у той же группы больных, если известно, что в первый год диспансерного наблюдения число дней временной нетрудоспособности составило 2000 дней, 2 человека из 100 впервые были признаны инвалидами II группы.

Полученные данные занести в таблицу 2 и рассчитать показатели структуры общего экономического ущерба по видам затрат и потерь.

Таблица 2

Общий экономический ущерб в связи с заболеваемостью ишемической болезнью сердца

|  |  |
| --- | --- |
| Общая стоимость медицинского обслуживания | Экономический ущерб в связи |
| С временной нетрудоспособностью | С инвалидностью | Итого |
| В т.ч. выплата пособий | Потери стоимости недоданной продукции | Всего | В т.ч. выплата пособий | Потери стоимости недоданной продукции | Всего |
| абс. | % к итогу | абс. | абс. | абс. | % к итогу | абс. | абс. | абс. | % к итогу | абс. | % к итогу |
|  |  |  |  |  |  |  |  |  |  |  |  |

Сделайте письменный вывод.

Задание 3.

Определить величину предотвращенного экономического ущерба за все 3 года диспансерного наблюдения за данной группой больных, если известно, что общий экономический ущерб составил:

в первый год диспансерного наблюдения - (данные задачи 2);

во второй год - 876400 руб.

в третий год - 763250 руб.

Сделайте письменный вывод.

Задание 4.

Определить критерий экономической эффективности диспансерного наблюдения за данной группой больных, если известны следующие данные, представленные в таблице 3.

Таблица 3

|  |  |  |  |
| --- | --- | --- | --- |
| Годы наблюдения | Общая стоимость медицинского обслуживания (затраты) | Предотвращенный экономический ущерб (полученный эффект) | Критерий экономической эффективности (соотношение затрат и полученного эффекта) |
| 1 год | Данные задачи 1 |  |  |
| 2 год | 320000 руб. |  |
| 3 год | 275310 руб. |  |
| Итого |  |  |

Сделайте письменный вывод.

Case-задание 2.

Задание 1.

Определить общую стоимость медицинского обслуживания 100 больных сахарным диабетом, состоящих под диспансерным наблюдением в течение 3 лет, если известен объем оказанной им лечебно-профилактической помощи в 1 год диспансерного наблюдения:

Амбулаторно-поликлинической:

а) сделано посещений:

- эндокринологу - 900

- невропатологу - 150

- окулисту - 300

- терапевту - 50

- хирургу - 50

Всего посещений -

б) проведено исследований:

сахар крови - 900

сахар мочи - 920

ацетон в моче - 100

глюкозоурический профиль - 30

ОАК - 80

Аминотрансферазы - 100

Всего исследований -

Стационарной:

Больные изучаемой группы провели в стационаре 620 койко-дней.

Санаторно-курортной:

6 человек получили санаторно-курортное лечение за счет средств социального страхования (70 % от полной стоимости путевки) в санаториях для лечения общесоматических заболеваний (эндокринологического профиля).

Полученные данные по стоимости каждого вида оказанной лечебно-профилактической помощи занести в таблицу 1 и рассчитать показатели структуры.

Таблица 1

Стоимость медицинского обслуживания больных сахарным диабетом, состоящих под диспансерным наблюдением

|  |  |  |  |
| --- | --- | --- | --- |
| Стоимость амбулаторно-поликлинической помощи | Стоимость стационарного лечения | Стоимость санаторно-курортного лечения | Общая стоимость медицинского обслуживания |
| абс. | % к итогу | абс. | % к итогу | абс. | % к итогу | абс. | % к итогу |
|  |  |  |  |  |  |  |  |

Сделайте письменный вывод.

Задание 2.

Определить общий экономический ущерб в связи с заболеваемостью у той же группы больных, если известно, что в первый год диспансерного наблюдения число дней временной нетрудоспособности составило 1500 дней, 2 человека из 100 впервые были признаны инвалидами II группы.

Полученные данные занести в таблицу 2 и рассчитать показатели структуры общего экономического ущерба по видам затрат и потерь.

Таблица 2

Общий экономический ущерб в связи с заболеваемостью сахарным диабетом

|  |  |
| --- | --- |
| Общая стоимость медицинского обслуживания | Экономический ущерб в связи |
| С временной нетрудоспособностью | С инвалидностью | Итого |
| В т.ч. выплата пособий | Потери стоимости недоданной продукции | Всего | В т.ч. выплата пособий | Потери стоимости недоданной продукции | Всего |
| абс. | % к итогу | абс. | абс. | абс. | % к итогу | абс. | абс. | абс. | % к итогу | абс. | % к итогу |
|  |  |  |  |  |  |  |  |  |  |  |  |

Сделайте письменный вывод.

Задание 3.

Определить величину предотвращенного экономического ущерба за все 3 года диспансерного наблюдения за данной группой больных, если известно, что общий экономический ущерб составил:

в первый год диспансерного наблюдения - (данные задачи 2);

во второй год - 784321 руб.

в третий год - 805400 руб.

Сделайте письменный вывод.

Задание 4.

Определить критерий экономической эффективности диспансерного наблюдения за данной группой больных, если известны следующие данные, представленные в таблице 3.

Таблица 3

|  |  |  |  |
| --- | --- | --- | --- |
| Годы наблюдения | Общая стоимость медицинского обслуживания (затраты) | Предотвращенный экономический ущерб (полученный эффект) | Критерий экономической эффективности (соотношение затрат и полученного эффекта) |
| 1 год | Данные задачи 1 |  |  |
| 2 год | 284310 руб. |  |
| 3 год | 300820 руб. |  |
| Итого |  |  |

Сделайте письменный вывод.

Case-задание 3.

Задание 1.

Определить общую стоимость медицинского обслуживания 100 больных хроническим пиелонефритом, состоящих под диспансерным наблюдением в течение 3 лет, если известен объем оказанной им лечебно-профилактической помощи в 1 год диспансерного наблюдения:

Амбулаторно-поликлинической:

а) сделано посещений:

к участковому терапевту - 300

к врачам специалистам:

- стоматологу - 100

- нефрологу - 100

Всего посещений -

б) проведено исследований:

ОАК - 100

ОАМ - 200

Анализ мочи по Зимницкому - 100

Мочевина крови - 200

Внутривенная урография - 40

УЗИ органов мочеполовой системы - 100

Всего исследований -

Стационарной:

Больные изучаемой группы провели в стационаре 220 койко-дней.

Санаторно-курортной:

10 человек получили санаторно-курортное лечение за счет средств социального страхования (70 % от полной стоимости путевки) в санаториях нефрологического профиля.

Полученные данные по стоимости каждого вида оказанной лечебно-профилактической помощи занести в таблицу 1 и рассчитать показатели структуры.

Таблица 1

Стоимость медицинского обслуживания больных хроническим пиелонефритом, состоящих под диспансерным наблюдением

|  |  |  |  |
| --- | --- | --- | --- |
| Стоимость амбулаторно-поликлинической помощи | Стоимость стационарного лечения | Стоимость санаторно-курортного лечения | Общая стоимость медицинского обслуживания |
| абс. | % к итогу | абс. | % к итогу | абс. | % к итогу | абс. | % к итогу |
|  |  |  |  |  |  |  |  |

Сделайте письменный вывод.

Задание 2.

Определить общий экономический ущерб в связи с заболеваемостью у той же группы больных, если известно, что в первый год диспансерного наблюдения число дней временной нетрудоспособности составило 300 дней, 2 человека из 100 впервые были признаны инвалидами II группы.

Полученные данные занести в таблицу 2 и рассчитать показатели структуры общего экономического ущерба по видам затрат и потерь.

Таблица 2

Общий экономический ущерб в связи с заболеваемостью хроническим пиелонефритом

|  |  |
| --- | --- |
| Общая стоимость медицинского обслуживания | Экономический ущерб в связи |
| С временной нетрудоспособностью | С инвалидностью | Итого |
| В т.ч. выплата пособий | Потери стоимости недоданной продукции | Всего | В т.ч. выплата пособий | Потери стоимости недоданной продукции | Всего |
| абс. | % к итогу | абс. | абс. | абс. | % к итогу | абс. | абс. | абс. | % к итогу | абс. | % к итогу |
|  |  |  |  |  |  |  |  |  |  |  |  |

Сделайте письменный вывод.

Задание 3.

Определить величину предотвращенного экономического ущерба за все 3 года диспансерного наблюдения за данной группой больных, если известно, что общий экономический ущерб составил:

в первый год диспансерного наблюдения - (данные задачи 2);

во второй год - 724300 руб.

в третий год - 698250 руб.

Сделайте письменный вывод.

Задание 4.

Определить критерий экономической эффективности диспансерного наблюдения за данной группой больных, если известны следующие данные, представленные в таблице 3.

Таблица 3

|  |  |  |  |
| --- | --- | --- | --- |
| Годы наблюдения | Общая стоимость медицинского обслуживания (затраты) | Предотвращенный экономический ущерб (полученный эффект) | Критерий экономической эффективности (соотношение затрат и полученного эффекта) |
| 1 год | Данные задачи 1 |  |  |
| 2 год | 280420 руб. |  |
| 3 год | 310535 руб. |  |
| Итого |  |  |

Сделайте письменный вывод.

Case-задание 4.

Задание 1.

Определить общую стоимость медицинского обслуживания 100 больных хроническим тонзиллитом, состоящих под диспансерным наблюдением в течение 3 лет, если известен объем оказанной им лечебно-профилактической помощи в 1 год диспансерного наблюдения:

Амбулаторно-поликлинической:

а) сделано посещений:

к участковому терапевту - 100

к врачам специалистам:

- отоларингологу - 200

- ревматологу - 100

- стоматологу - 100

Всего посещений -

б) проведено исследований:

ОАК - 200

ОАМ - 200

ЭКГ - 100

Взятие мазков на бак. анализ - 100

Всего исследований -

Стационарной:

Больные изучаемой группы провели в стационаре 250 койко-дней.

Санаторно-курортной

2 человека получили санаторно-курортное лечение за счет средств социального страхования (70 % от полной стоимости путевки) в санаториях для общесоматических больных.

Полученные данные по стоимости каждого вида оказанной лечебно-профилактической помощи занести в таблицу 1 и рассчитать показатели структуры.

Таблица 1

Стоимость медицинского обслуживания больных хроническим тонзиллитом, состоящих под диспансерным наблюдением

|  |  |  |  |
| --- | --- | --- | --- |
| Стоимость амбулаторно-поликлинической помощи | Стоимость стационарного лечения | Стоимость санаторно-курортного лечения | Общая стоимость медицинского обслуживания |
| абс. | % к итогу | абс. | % к итогу | абс. | % к итогу | абс. | % к итогу |
|  |  |  |  |  |  |  |  |

Сделайте письменный вывод.

Задание 2.

Определить общий экономический ущерб в связи с заболеваемостью у той же группы больных, если известно, что в первый год диспансерного наблюдения число дней временной нетрудоспособности составило 1000 дней, 1 человек из 100 впервые был признан инвалидом III группы.

Полученные данные занести в таблицу 2 и рассчитать показатели структуры общего экономического ущерба по видам затрат и потерь.

Таблица 2

Общий экономический ущерб в связи с заболеваемостью хроническим тонзиллитом

|  |  |
| --- | --- |
| Общая стоимость медицинского обслуживания | Экономический ущерб в связи |
| С временной нетрудоспособностью | С инвалидностью | Итого |
| В т.ч. выплата пособий | Потери стоимости недоданной продукции | Всего | В т.ч. выплата пособий | Потери стоимости недоданной продукции | Всего |
| абс. | % к итогу | абс. | абс. | абс. | % к итогу | абс. | абс. | абс. | % к итогу | абс. | % к итогу |
|  |  |  |  |  |  |  |  |  |  |  |  |

Сделайте письменный вывод.

Задание 3.

Определить величину предотвращенного экономического ущерба за все 3 года диспансерного наблюдения за данной группой больных, если известно, что общий экономический ущерб составил:

в первый год диспансерного наблюдения - (данные задачи 2);

во второй год - 325000 руб.

в третий год - 274300 руб.

Сделайте письменный вывод.

Задание 4.

Определить критерий экономической эффективности диспансерного наблюдения за данной группой больных, если известны следующие данные, представленные в таблице 3.

Таблица 3

|  |  |  |  |
| --- | --- | --- | --- |
| Годы наблюдения | Общая стоимость медицинского обслуживания (затраты) | Предотвращенный экономический ущерб (полученный эффект) | Критерий экономической эффективности (соотношение затрат и полученного эффекта) |
| 1 год | Данные задачи 1 |  |  |
| 2 год | 245321 руб. |  |
| 3 год | 198429 руб. |  |
| Итого |  |  |

Сделайте письменный вывод.

Case-задание 5.

Задание 1.

Определить общую стоимость медицинского обслуживания 100 больных язвенной болезнью двенадцатиперстной кишки, состоящих под диспансерным наблюдением в течение 3 лет, если известен объем оказанной им лечебно-профилактической помощи в 1 год диспансерного наблюдения:

Амбулаторно-поликлинической:

а) сделано посещений:

к участковому терапевту - 200

к врачам специалистам:

- хирургу - 100

- стоматологу - 50

- гастроэнтерологу - 50

Всего посещений -

б) проведено исследований:

ОАК - 100

ОАМ - 100

Кал на скрытую кровь - 100

Исследование желудочного сока - 50

ЭФГДС - 100

Всего исследований -

Стационарной:

Больные изучаемой группы провели в стационаре 190 койко-дней.

Санаторно-курортной:

7 человек получили санаторно-курортное лечение за счет средств социального страхования (70 % от полной стоимости путевки) в санаториях для лечения заболеваний органов пищеварения.

Полученные данные по стоимости каждого вида оказанной лечебно-профилактической помощи занести в таблицу 1 и рассчитать показатели структуры.

Таблица 1

Стоимость медицинского обслуживания больных язвенной болезнью двенадцатиперстной кишки, состоящих под диспансерным наблюдением

|  |  |  |  |
| --- | --- | --- | --- |
| Стоимость амбулаторно-поликлинической помощи | Стоимость стационарного лечения | Стоимость санаторно-курортного лечения | Общая стоимость медицинского обслуживания |
| абс. | % к итогу | абс. | % к итогу | абс. | % к итогу | абс. | % к итогу |
|  |  |  |  |  |  |  |  |

Сделайте письменный вывод.

Задание 2.

Определить общий экономический ущерб в связи с заболеваемостью у той же группы больных, если известно, что в первый год диспансерного наблюдения число дней временной нетрудоспособности составило 1000 дней, 1 человек из 100 впервые был признан инвалидом II группы.

Полученные данные занести в таблицу 2 и рассчитать показатели структуры общего экономического ущерба по видам затрат и потерь.

Таблица 2

Общий экономический ущерб в связи с заболеваемостью язвенной болезнью двенадцатиперстной кишки

|  |  |
| --- | --- |
| Общая стоимость медицинского обслуживания | Экономический ущерб в связи |
| С временной нетрудоспособностью | С инвалидностью | Итого |
| В т.ч. выплата пособий | Потери стоимости недоданной продукции | Всего | В т.ч. выплата пособий | Потери стоимости недоданной продукции | Всего |
| абс. | % к итогу | абс. | абс. | абс. | % к итогу | абс. | абс. | абс. | % к итогу | абс. | % к итогу |
|  |  |  |  |  |  |  |  |  |  |  |  |

Сделайте письменный вывод.

Задание 3.

Определить величину предотвращенного экономического ущерба за все 3 года диспансерного наблюдения за данной группой больных, если известно, что общий экономический ущерб составил:

в первый год диспансерного наблюдения - (данные задачи 2);

во второй год - 524260 руб.

в третий год - 389652 руб.

Сделайте письменный вывод.

Задание 4.

Определить критерий экономической эффективности диспансерного наблюдения за данной группой больных, если известны следующие данные, представленные в таблице 3.

Таблица 3

|  |  |  |  |
| --- | --- | --- | --- |
| Годы наблюдения | Общая стоимость медицинского обслуживания (затраты) | Предотвращенный экономический ущерб (полученный эффект) | Критерий экономической эффективности (соотношение затрат и полученного эффекта) |
| 1 год | Данные задачи 1 |  |  |
| 2 год | 195322 руб. |  |
| 3 год | 170684 руб. |  |
| Итого |  |  |

Сделайте письменный вывод.

Тема 2. HEALTH MANAGEMENT. HEALTH PLANNING

**Форма текущего контроля успеваемости**

Тестирование.

Устный опрос.

Решение case-заданий.

**Оценочные материалы текущего контроля успеваемости**

**1. SPECIFY THE CORRECT DEFINITION OF MANAGEMENT**

1) Management is the science of meeting the needs of the population through exchange (Marketing)

2) Management is a science and a kind of practical activity, consisting in the formation of an integrated planning, organization, motivation and control over organizational resources to achieve the organization's goals

3) Management the study of the use of objective economic laws and relations in public health services, as one of the branches of state economy

**2. WHAT ARE MANAGEMENT OBJECTS?**

1) Personnel, organization, financial and material resources, quality of activities

2) Material, financial and manpower resources

3) Senior managers (top managers), mid-level managers (deputies), the managers of the grass-roots level

**3. WHAT ARE MANAGEMENT SUBJECTS?**

1) Personnel, organization, financial and material resources, quality of activities

2) Material, financial and manpower resources

3) Senior managers (top managers), mid-level managers (deputies), the managers of the grass-roots level

**4. MANAGEMENT FUNCTIONS ARE:**

1) Licensing, accreditation, certification

2) Control, searching for defects, punishing those responsible

3) Forecasting, marketing, standardization, licensing, calculation of economic efficiency

4) Planning, organization, motivation, control

**5. UNDER WHAT MANAGEMENT STYLE CAN WE EXPECT A TIMELY AND DISCIPLINED APPROACH TO THE SOLUTION OF THE TASKS?**

1) Authoritarian

2) Democratic

3) Liberal

4) Dynamic

**6. WHAT STYLE OF MANAGEMENT IS BEST FOR REVEALING THE CREATIVE POTENTIAL OF THE TEAM?**

1) Authoritarian

2) Democratic

3) Liberal

4) Dynamic

**7. UNDER WHAT MANAGEMENT STYLE CAN YOU EXPECT TO SEE INCREASED PERSONAL COMMITMENT TO WORK?**

1) Authoritarian

2) Democratic

3) Liberal

4) Dynamic

**8. WHAT IS THE MOST OPTIMAL MANAGEMENT STYLE?**

1) Authoritarian

2) Democratic

3) Liberal

4) Dynamic

**9. CHOOSE CHARACTER FEATURES OF ECONOMIC MANAGEMENT METHODS**

1) make it possible to compensate for miscalculations in planning, to react quickly to a changing situation, to bring the object of management to new paths by means of directives, orders, instructions, orders, resolutions, regulations.

2) include economic analysis of health organizations, methods of planning and forecasting, statistical analysis

3) a set of means of influencing the collective, the ability to motivate the employee to work efficiently, partner relations, creating a favorable psychological climate in the team

4) implies the democratization of management, increasing the participation of employees in the performance of management functions

**10. APPROVAL OF STANDARDS OF MAINTENANCE OF POPULATION OF MEDICAL ASSISTANCE THIS IS THE OBJECTIVE OF …**

1) program-targeted health planning

 2) functional-sectoral health care planning

Вопросы для устного опроса:

1. Management. Definition, core principles of management.
2. Management functions and their characteristics.
3. Levels, styles and methods of management.
4. Planning in health care: definition, principles and tasks.
5. Types of plans in health care. The basic methods of planning, their brief characteristics

***Case-задания для демонстрации практических умений и навыков:***

Case-задание № 1.

Используя методику составления плана медицинского обслуживания населения, составьте элемент плана обслуживания жителей Дзержинского района г. Оренбурга по основным направлениям медицинской деятельности (терапевтическому, акушерско-гинекологическому, педиатрическому) профилю стационарной и амбулаторной медицинской помощи, если известно, что численность взрослого населения района составляет 95160 человек; детского населения - 43440. Результаты работы представьте в рабочей тетради в следующей форме:

Элемент плана медицинского обслуживания населения Дзержинского района г. Оренбурга

Стационарная помощь

1. Расчет потребного числа коек терапевтического профиля (для беременных и рожениц, педиатрических):

$$К=\frac{Н×Р×П}{Д×1000}=$$

1. Расчет потребного числа врачей ординаторов (отдельно по каждому направлению):

$$В=\frac{K}{норматив коечной нагрузки на 1 врача}=$$

1. Расчет потребности врачей группы усиления (на примере заведующих подразделениями):

$$Ву=\frac{В×Кву}{Кв}=$$

Амбулаторно-поликлиническая помощь

1. Определение необходимого числа врачей – терапевтов (акушеров-гинекологов, педиатров):

$В=\frac{Л×Н}{Ф}$=

1. Расчет потребного числа врачей группы усиления (заведующие подразделением)

$$Ву=\frac{В×Кву}{Кв}=$$

Вывод:

Case-задание № 2.

Используя методику составления плана медицинского обслуживания населения, составьте элемент плана обслуживания жителей Ленинского района г. Оренбурга по основным направлениям медицинской деятельности (терапевтическому, акушерско-гинекологическому, педиатрическому) профилю стационарной и амбулаторной медицинской помощи, если известно, что численность взрослого населения района составляет 108713 человек; детского населения - 52475. Результаты работы представьте в рабочей тетради в следующей форме:

Элемент плана медицинского обслуживания населения Ленинского района г. Оренбурга

Стационарная помощь

1. Расчет потребного числа коек терапевтического профиля (для беременных и рожениц, педиатрических):

$$К=\frac{Н×Р×П}{Д×1000}=$$

1. Расчет потребного числа врачей ординаторов (отдельно по каждому направлению):

$$В=\frac{K}{норматив коечной нагрузки на 1 врача}=$$

1. Расчет потребности врачей группы усиления (на примере заведующих подразделениями):

$$Ву=\frac{В×Кву}{Кв}=$$

Амбулаторно-поликлиническая помощь

1. Определение необходимого числа врачей – терапевтов (акушеров-гинекологов, педиатров):

$В=\frac{Л×Н}{Ф}$=

1. Расчет потребного числа врачей группы усиления (заведующие подразделением)

$$Ву=\frac{В×Кву}{Кв}=$$

Вывод:

Case-задание № 3.

Используя методику составления плана медицинского обслуживания населения, составьте элемент плана обслуживания жителей Промышленного района г. Оренбурга по основным направлениям медицинской деятельности (терапевтическому, акушерско-гинекологическому, педиатрическому) профилю стационарной и амбулаторной медицинской помощи, если известно, что численность взрослого населения района составляет 94520 человек; детского населения - 23630. Результаты работы представьте в рабочей тетради в следующей форме:

Элемент плана медицинского обслуживания населения Промышленного района г. Оренбурга

Стационарная помощь

1. Расчет потребного числа коек терапевтического профиля (для беременных и рожениц, педиатрических):

$$К=\frac{Н×Р×П}{Д×1000}=$$

1. Расчет потребного числа врачей ординаторов (отдельно по каждому направлению):

$$В=\frac{K}{норматив коечной нагрузки на 1 врача}=$$

1. Расчет потребности врачей группы усиления (на примере заведующих подразделениями):

$$Ву=\frac{В×Кву}{Кв}=$$

Амбулаторно-поликлиническая помощь

1. Определение необходимого числа врачей – терапевтов (акушеров-гинекологов, педиатров):

$В=\frac{Л×Н}{Ф}$=

1. Расчет потребного числа врачей группы усиления (заведующие подразделением)

$$Ву=\frac{В×Кву}{Кв}=$$

Вывод:

Case-задание № 4.

Используя методику составления плана медицинского обслуживания населения, составьте элемент плана обслуживания жителей Центрального района г. Оренбурга по основным направлениям медицинской деятельности (терапевтическому, акушерско-гинекологическому, педиатрическому) профилю стационарной и амбулаторной медицинской помощи, если известно, что численность взрослого населения района составляет 78548 человек; детского населения - 19637. Результаты работы представьте в рабочей тетради в следующей форме:

Элемент плана медицинского обслуживания населения Промышленного района г. Оренбурга

Стационарная помощь

1. Расчет потребного числа коек терапевтического профиля (для беременных и рожениц, педиатрических):

$$К=\frac{Н×Р×П}{Д×1000}=$$

1. Расчет потребного числа врачей ординаторов (отдельно по каждому направлению):

$$В=\frac{K}{норматив коечной нагрузки на 1 врача}=$$

1. Расчет потребности врачей группы усиления (на примере заведующих подразделениями):

$$Ву=\frac{В×Кву}{Кв}=$$

Амбулаторно-поликлиническая помощь

1. Определение необходимого числа врачей – терапевтов (акушеров-гинекологов, педиатров):

$В=\frac{Л×Н}{Ф}$=

1. Расчет потребного числа врачей группы усиления (заведующие подразделением)

$$Ву=\frac{В×Кву}{Кв}=$$

Вывод:

Case-задание № 5.

Используя методику составления плана медицинского обслуживания населения, составьте элемент плана обслуживания жителей г. Оренбурга по основным направлениям медицинской деятельности (терапевтическому, акушерско-гинекологическому, педиатрическому) профилю стационарной и амбулаторной медицинской помощи, если известно, что численность взрослого населения города составляет 417095 человек; детского населения - 139032. Результаты работы представьте в рабочей тетради в следующей форме:

Элемент плана медицинского обслуживания населения г. Оренбурга

Стационарная помощь

1. Расчет потребного числа коек терапевтического профиля (для беременных и рожениц, педиатрических):

$$К=\frac{Н×Р×П}{Д×1000}=$$

1. Расчет потребного числа врачей ординаторов (отдельно по каждому направлению):

$$В=\frac{K}{норматив коечной нагрузки на 1 врача}=$$

1. Расчет потребности врачей группы усиления (на примере заведующих подразделениями):

$$Ву=\frac{В×Кву}{Кв}=$$

Амбулаторно-поликлиническая помощь

1. Определение необходимого числа врачей – терапевтов (акушеров-гинекологов, педиатров):

$В=\frac{Л×Н}{Ф}$=

1. Расчет потребного числа врачей группы усиления (заведующие подразделением)

$$Ву=\frac{В×Кву}{Кв}=$$

Вывод:

Case-задание № 6.

Используя методику составления плана медицинского обслуживания населения, составьте элемент плана обслуживания жителей г. Абдулино по основным направлениям медицинской деятельности (терапевтическому, акушерско-гинекологическому, педиатрическому) профилю стационарной и амбулаторной медицинской помощи, если известно, что численность взрослого населения составляет 14765 человек; детского населения - 4921. Результаты работы представьте в рабочей тетради в следующей форме:

Элемент плана медицинского обслуживания населения г. Абдулино

Стационарная помощь

1. Расчет потребного числа коек терапевтического профиля (для беременных и рожениц, педиатрических):

$$К=\frac{Н×Р×П}{Д×1000}=$$

1. Расчет потребного числа врачей ординаторов (отдельно по каждому направлению):

$$В=\frac{K}{норматив коечной нагрузки на 1 врача}=$$

1. Расчет потребности врачей группы усиления (на примере заведующих подразделениями):

$$Ву=\frac{В×Кву}{Кв}=$$

Амбулаторно-поликлиническая помощь

1. Определение необходимого числа врачей – терапевтов (акушеров-гинекологов, педиатров):

$В=\frac{Л×Н}{Ф}$=

1. Расчет потребного числа врачей группы усиления (заведующие подразделением)

$$Ву=\frac{В×Кву}{Кв}=$$

Вывод:

Case-задание № 7.

Используя методику составления плана медицинского обслуживания населения, составьте элемент плана обслуживания жителей г. Бугуруслана по основным направлениям медицинской деятельности (терапевтическому, акушерско-гинекологическому, педиатрическому) профилю стационарной и амбулаторной медицинской помощи, если известно, что численность взрослого населения составляет 40325 человек; детского населения - 10081. Результаты работы представьте в рабочей тетради в следующей форме:

Элемент плана медицинского обслуживания населения г. Бугуруслана

Стационарная помощь

1. Расчет потребного числа коек терапевтического профиля (для беременных и рожениц, педиатрических):

$$К=\frac{Н×Р×П}{Д×1000}=$$

1. Расчет потребного числа врачей ординаторов (отдельно по каждому направлению):

$$В=\frac{K}{норматив коечной нагрузки на 1 врача}=$$

1. Расчет потребности врачей группы усиления (на примере заведующих подразделениями):

$$Ву=\frac{В×Кву}{Кв}=$$

Амбулаторно-поликлиническая помощь

1. Определение необходимого числа врачей – терапевтов (акушеров-гинекологов, педиатров):

$В=\frac{Л×Н}{Ф}$=

1. Расчет потребного числа врачей группы усиления (заведующие подразделением)

$$Ву=\frac{В×Кву}{Кв}=$$

Вывод:

Case-задание № 8.

Используя методику составления плана медицинского обслуживания населения, составьте элемент плана обслуживания жителей г. Бузулука по основным направлениям медицинской деятельности (терапевтическому, акушерско-гинекологическому, педиатрическому) профилю стационарной и амбулаторной медицинской помощи, если известно, что численность взрослого населения составляет 63066 человек; детского населения - 21022. Результаты работы представьте в рабочей тетради в следующей форме:

Элемент плана медицинского обслуживания населения г. Бузулука

Стационарная помощь

1. Расчет потребного числа коек терапевтического профиля (для беременных и рожениц, педиатрических):

$$К=\frac{Н×Р×П}{Д×1000}=$$

1. Расчет потребного числа врачей ординаторов (отдельно по каждому направлению):

$$В=\frac{K}{норматив коечной нагрузки на 1 врача}=$$

1. Расчет потребности врачей группы усиления (на примере заведующих подразделениями):

$$Ву=\frac{В×Кву}{Кв}=$$

Амбулаторно-поликлиническая помощь

1. Определение необходимого числа врачей – терапевтов (акушеров-гинекологов, педиатров):

$В=\frac{Л×Н}{Ф}$=

1. Расчет потребного числа врачей группы усиления (заведующие подразделением)

$$Ву=\frac{В×Кву}{Кв}=$$

Вывод:

Case-задание № 9.

Используя методику составления плана медицинского обслуживания населения, составьте элемент плана обслуживания жителей г. Гая по основным направлениям медицинской деятельности (терапевтическому, акушерско-гинекологическому, педиатрическому) профилю стационарной и амбулаторной медицинской помощи, если известно, что численность взрослого населения составляет 28200 человек; детского населения - 9400. Результаты работы представьте в рабочей тетради в следующей форме:

Элемент плана медицинского обслуживания населения г. Гая

Стационарная помощь

1. Расчет потребного числа коек терапевтического профиля (для беременных и рожениц, педиатрических):

$$К=\frac{Н×Р×П}{Д×1000}=$$

1. Расчет потребного числа врачей ординаторов (отдельно по каждому направлению):

$$В=\frac{K}{норматив коечной нагрузки на 1 врача}=$$

1. Расчет потребности врачей группы усиления (на примере заведующих подразделениями):

$$Ву=\frac{В×Кву}{Кв}=$$

Амбулаторно-поликлиническая помощь

1. Определение необходимого числа врачей – терапевтов (акушеров-гинекологов, педиатров):

$В=\frac{Л×Н}{Ф}$=

1. Расчет потребного числа врачей группы усиления (заведующие подразделением)

$$Ву=\frac{В×Кву}{Кв}=$$

Вывод:

Case-задание № 10.

Используя методику составления плана медицинского обслуживания населения, составьте элемент плана обслуживания жителей г. Кувандыка по основным направлениям медицинской деятельности (терапевтическому, акушерско-гинекологическому, педиатрическому) профилю стационарной и амбулаторной медицинской помощи, если известно, что численность взрослого населения составляет 18955 человек; детского населения - 6318. Результаты работы представьте в рабочей тетради в следующей форме:

Элемент плана медицинского обслуживания населения г. Кувандыка

Стационарная помощь

1. Расчет потребного числа коек терапевтического профиля (для беременных и рожениц, педиатрических):

$$К=\frac{Н×Р×П}{Д×1000}=$$

1. Расчет потребного числа врачей ординаторов (отдельно по каждому направлению):

$$В=\frac{K}{норматив коечной нагрузки на 1 врача}=$$

1. Расчет потребности врачей группы усиления (на примере заведующих подразделениями):

$$Ву=\frac{В×Кву}{Кв}=$$

Амбулаторно-поликлиническая помощь

1. Определение необходимого числа врачей – терапевтов (акушеров-гинекологов, педиатров):

$В=\frac{Л×Н}{Ф}$=

1. Расчет потребного числа врачей группы усиления (заведующие подразделением)

$$Ву=\frac{В×Кву}{Кв}=$$

Вывод:

**Критерии оценивания, применяемые при текущем контроле успеваемости, в том числе при контроле самостоятельной работы обучающихся**

|  |  |
| --- | --- |
| **Форма контроля**  | **Критерии оценивания** |
| **устный опрос** | В 5 баллов оценивается ответ, который показывает прочные знания основных вопросов изучаемого материала, отличается глубиной и полнотой раскрытия темы; владение терминологическим аппаратом; умение объяснять сущность явлений, процессов, событий, делать выводы и обобщения, давать аргументированные ответы, приводить примеры; свободное владение монологической речью, логичность и последовательность ответа. |
| В 4 балла оценивается ответ, обнаруживающий прочные знания основных вопросов изучаемого материла, отличается глубиной и полнотой раскрытия темы; владение терминологическим аппаратом; умение объяснять сущность явлений, процессов, событий, делать выводы и обобщения, давать аргументированные ответы, приводить примеры; свободное владение монологической речью, логичность и последовательность ответа. Однако допускается одна - две неточности в ответе. |
| На 3 балла оценивается ответ, свидетельствующий в основном о знании изучаемого материала, отличающийся недостаточной глубиной и полнотой раскрытия темы; знанием основных вопросов теории; слабо сформированными навыками анализа явлений, процессов, недостаточным умением давать аргументированные ответы и приводить примеры; недостаточно свободным владением монологической речью, логичностью и последовательностью ответа. Допускается несколько ошибок в содержании ответа. |
| На 2 балла оценивается ответ, обнаруживающий незнание изучаемого материла, отличающийся неглубоким раскрытием темы; незнанием основных вопросов теории, несформированными навыками анализа явлений, процессов; неумением давать аргументированные ответы, слабым владением монологической речью, отсутствием логичности и последовательности. Допускаются серьезные ошибки в содержании ответа. |
| **письменный опрос** | В 5 баллов оценивается ответ, который показывает прочные знания основных вопросов изучаемого материала, отличается глубиной и полнотой раскрытия темы; владение терминологическим аппаратом. |
| В 4 балла оценивается ответ, обнаруживающий прочные знания основных вопросов изучаемого материла, отличается глубиной и полнотой раскрытия темы; владение терминологическим аппаратом. Однако допускается одна - две неточности в ответе. |
| На 3 балла оценивается ответ, свидетельствующий в основном о знании изучаемого материала, отличающийся недостаточной глубиной и полнотой раскрытия темы; знанием основных вопросов теории; слабо сформированными навыками анализа явлений, процессов. Допускается несколько ошибок в содержании ответа. |
| На 2 балла оценивается ответ, обнаруживающий незнание изучаемого материла, отличающийся неглубоким раскрытием темы; незнанием основных вопросов теории, несформированными навыками анализа явлений, процессов. Допускаются серьезные ошибки в содержании ответа. |
| **тестирование** | 5 баллов выставляется при условии 91-100% правильных ответов |
| 4 балла выставляется при условии 81-90% правильных ответов |
| 3 балла выставляется при условии 71-80% правильных ответов |
| 2 балла выставляется при условии 70% и меньше правильных ответов. |
| **решение case-заданий** | 5 баллов выставляется если обучающимся дан правильный ответ на вопрос задачи. Объяснение хода ее решения подробное, последовательное, грамотное, с теоретическими обоснованиями (в т.ч. из лекционного курса), с необходимым схематическими изображениями и демонстрациями практических умений, с правильным и свободным владением терминологией; ответы на дополнительные вопросы верные, четкие. |
| 4 балла выставляется если обучающимся дан правильный ответ на вопрос задачи. Объяснение хода ее решения подробное, но недостаточно логичное, с единичными ошибками в деталях, некоторыми затруднениями в теоретическом обосновании (в т.ч. из лекционного материала), в схематических изображениях и демонстрациях практических действий, ответы на дополнительные вопросы верные, но недостаточно четкие. |
| 3 балла выставляется если обучающимся дан правильный ответ на вопрос задачи. Объяснение хода ее решения недостаточно полное, непоследовательное, с ошибками, слабым теоретическим обоснованием (в т.ч. лекционным материалом), со значительными затруднениями и ошибками в схематических изображениях и демонстрацией практических умений, ответы на дополнительные вопросы недостаточно четкие, с ошибками в деталях. |
| 2 балла выставляется если обучающимся дан правильный ответ на вопрос задачи. Объяснение хода ее решения дано неполное, непоследовательное, с грубыми ошибками, без теоретического обоснования (в т.ч. лекционным материалом), без умения схематических изображений и демонстраций практических умений или с большим количеством ошибок, ответы на дополнительные вопросы неправильные или отсутствуют. |

1. **Оценочные материалы промежуточной аттестации обучающихся**

Промежуточная аттестация по дисциплине в форме зачета проводится в форме тестирования.

Критерии, применяемые для оценивания обучающихся на промежуточной аттестации

(Расчет дисциплинарного рейтинга осуществляется следующим образом: Рд=Рт+Рб+Рз, где

Рб - бонусный рейтинг;

Рд - дисциплинарные рейтинг;

Рз - зачетный рейтинг;

Рт - текущий рейтинг;

**Критерии, применяемые для оценивания обучающихся на промежуточной аттестации для определения зачетного рейтинга**

|  |  |
| --- | --- |
| **тестирование** | 5 баллов выставляется при условии 91-100% правильных ответов |
| 4 балла выставляется при условии 81-90% правильных ответов |
| 3 балла выставляется при условии 71-80% правильных ответов |
| 2 балла выставляется при условии 70% и меньше правильных ответов. |

**Тесты для промежуточной аттестации и их соответствие формируемым компетенциям и дескрипторам освоения дисциплины.**

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| **Компетенция** | **Дескриптор** | **Тестовые задания** |
| ОК-1 способностью к абстрактному мышлению, анализу, синтезу | ОК-1 **Знать** формы и методы научного познания; учение о здоровье человека и населения методы его сохранения | \* Medical statistics include the following parts:+statistics of public healthveterinary statistics+statistics of scientific researches+statistics of public health servicescrime statistics\* Statistics of public health are studying indicators+Medico-demographicHealth services status+Morbidity of the populationQuality of careEfficiency of care+Disability of the population+Physical health of the population\* Statistics of public health services include:Medico-demographic+Health services statusMorbidity of the population+Quality of care+Efficiency of careDisability of the populationPhysical health of the population# How many stages are there in the statistical study:+4382# The first stage of the statistical study is…:The analysis of the received data, conclusions, suggestions+Preparatory (organizational) stage: scheduling and investigation programsCollecting of statistical materialWorking out and summarizing of material# The plan of statistical investigation:It reflects the content of research+It reflects the organizational aspect of the studyIt reflects the received dataIt reflects the conclusions# The program of statistical investigation:+It reflects the content of researchIt reflects the organizational aspect of the studyIt reflects the received dataIt reflects the conclusions\* The plan of statistical investigation include:+Object of studyUnit of observation+Time of study+Research ResourceRegistration forms\* The program of statistical investigation include:Object of study+Determining the unit of observationTime of study+Definition of the registration signsResearch Resource+Definition of the registration forms\* Type of study by volume may be:single supervision+continuous+selectivecurrent supervision\* Type of study by time may be:+single supervisioncontinuousselective+current supervision |
| ОК-1 **Уметь** пользоваться учебной, научной, научно-популярной литературой, сетью Интернет для профессиональной деятельности. Проводить сбор, разработку и анализ данных о здоровье населения и деятельности медицинских организаций**Владеть** навыками изложения самостоятельной точки зрения, анализа и логического мышления, публичной речи, морально-этической аргументации ведения дискуссий и круглых столов; основными терминами в области общественного здоровья и здравоохранения. | # A selective observation is…:+observation, covering a part of the units of the population for the characterization of the wholeobservation, confined to one or another momentmonitoring in the order of the current registrationexamination of all units of the studied population# A continuous observation is…:observation, covering a part of the units of the population for the characterization of the wholeobservation, confined to one or another momentmonitoring in the order of the current registration+examination of all units of the studied population# A single supervision is…:observation, covering a part of the units of the population for the characterization of the whole+observation, confined to one or another momentmonitoring in the order of the current registrationexamination of all units of the studied population# A current supervision observation is…:observation, covering a part of the units of the population for the characterization of the wholeobservation, confined to one or another moment+monitoring in the order of the current registrationexamination of all units of the studied population |
| ОПК-3 способностью использовать основы экономических и правовых знаний в профессиональной деятельности | ОПК-3 **Знать** понятие «Здоровье» как экономическую категорию. Место и роль здравоохранения в экономике общественного производства. Предмет, цель и задачи экономики здравоохранения как науки. | # The economics of public health is -:+the study of the use of objective economic laws and relations in public health services, as one of the branches of state economya branch of medicine that deals with public health and risk-factor evaluationa branch of medicine that deals with disease prevention and health promotiona complex economic knowledge of forms, methods, results of the activity in the field of medicine# What is the main purpose of the economics of public health:rational use of the available resources +maximal satisfaction of the population health care requirementsintroduction of the new organizational forms and methods of medical careintroduction of economic efficiency of public health services# Which type of available medical institution′s resources do you know:financial and worker resources+material, financial and manpower resourcesmanpower, material and technical resourcesinformation, material and technical resources# With reference to public health services we distinguish:social and economic efficiencymedical and economic efficiency+social, medical and economic efficiencysocial and medical efficiency# Which type of efficiency is most important for public health:social efficiencymedical efficiencyeconomic efficiency+social and medical efficiency# What is health economic efficiency:a change of the level and character of disease and its tendencie+a positive contribution that public health system brings by improving the population’s health in relation to with the national income growthoptimization of levels of birth rate, reduction of death rate and increase of life expectancyreceiving profit on medical activity# What is public health social efficiency:a change of the level and character of disease and its tendenciesa positive contribution that public health system brings by improving the population’s health in relation to with the national income growth+optimization of levels of birth rate, reduction of death rate and increase of life expectancyreceiving profit on medical activity# What is health medical efficiency:+a change of the level and character of disease and its tendenciesa positive contribution that public health system brings by improving the population’s health in relation to with the national income growthoptimization of levels of birth rate, reduction of death rate and increase of life expectancyreceiving profit on medical activity# Public health is –:+a branch of non-productive sphere of the state economya branch of productive sphere of the state economyseparate direction of economypart of the scientific sphere# The economic efficiency of health care can be calculated as:Number of patients satisfied with medical care × 100 / Number of estimated casesNumber of positive medical outcomes × 100 / Number of estimated cases+Economic effect / costNumber of patients / expense |
|  | ОПК-3 **Уметь** рассчитать и оценить медицинскую, социальную и экономическую эффективность деятельности врача, медицинской организации. Оценить медицинскую, социальную и экономическую эффективность системы здравоохранения с помощью популяционных критериев оценки.**Владеть** Основными терминами экономического анализа здравоохранения | \* Statistical values are:+Absolute values+Relative values+Average valuesRatio values# What values reflect the true size of the phenomenon being studied:Relative valuesAverage values+Absolute valuesStatistical values# Relative values are all listed, except:Intensive valuesExtensive values+Average valuesRatio valuesObvious values# Which values characterizes frequency of the phenomenon in the condition where this phenomenon is observed:+Intensive valuesExtensive valuesRatio valuesObvious values# Which values is calculated as the relation of a part to the whole:Intensive values+Extensive valuesRatio valuesObvious values |
| ОПК-5 способностью и готовностью анализировать результаты собственной деятельности для предотвращения профессиональных ошибок | ОПК-5 **Знать** методику проведения анализа деятельности медицинской организации, основные показатели состояния, качества и эффективности медицинской помощи. | # Primary health care (phc) may be granted in the following conditions:Outpatiently and in day hospital+Outpatiently, in day hospital and at homeIn medical establishments, outpatiently and in a hospitalOutpatiently and in a hospital# Which specialists provide primary health care:Only doctors who conduct ambulatory appointmentsDoctors and nurses working in a hospital+General practitioners, nurses and other doctors providing medical care to the population on an outpatient basis and at homeDoctors and nurses working out-patient and in the emergency medical service# What types of medical care are provided to the population in a city polyclinic:Primary health care and specialized carePrimary care, specialized care including high technological medical careEmergency care and palliative medical carePrimary health care and emergency care+Primary health care including primary pre-medical, primary care and primary specialized care# Describe the main principles of outpatient care in russian federation:+District principle of service, continuity and stages, prevention priority, availabilityPreventive focus, professionalism, compassion, accessibilityСontinuity and stages, preventive orientation, professionalismPreventive orientation, compassion, accessibilityProfessionalism, preventive orientation, availability, compassion# What departments are included in the polyclinic:Registration, doctors' offices, an ambulance station, auxiliary medical diagnostic unitsRegistration, outpatient clinics, inpatient+Registration, doctors' offices, auxiliary diagnostic units, auxiliary medical units# Give a definition of the concept of «primary health care»:+Phc is the first level of contact of individuals, families and communities with the national health systemPhc is the first medical aid provided at the pre-medical levelPhc is a complex of measures to provide emergency (emergency and urgent) carePhc is a complex of actions for granting the qualified and specialized medical care# Objectives of ambulatory-polyclinic assistance are all, except:Assisting the attached populationServicing of industrial workersPreventive and dispensary work+The examination of persistent disability# The sections of the work of the district doctor are all listed except:PreventionTreatment+Coordination of work between the structural units of the polyclinic RehabilitationPalliative care# The main sections of the doctor's work, which provides specialized assistance in the polyclinic, are all listed except:Medical-diagnostic workAdvisory workCarrying out preventive measures according to their profile+Control over the activities of a district doctor# Which of the indicators is not used in the analysis of the polyclinic:Staffing of medical posts in a polyclinicIndicators of morbidity of the population living in area of service of out-patient-polyclinic establishmentShare of preventive visits in a polyclinicShare of visits in-home+Hospitalization level# The tasks of the city hospital are all listed except:Training of medical personnel and his postgraduate specializationDiagnosis and treatment of diseases, care, rehabilitation and emergency careMedical and recreational activities, prevention of complications, chronic and infectious diseases, disability, etc+Examination of a permanent loss of work incapable of work and recognition of a patient with a disabilityResearch activities# The structure of the city hospital does not include:Admission officeProfiled medical departmentsOperational unit+Research departmentDepartment of morbid anatomy# The patient may be hospitalized in a hospital:At self-referral to the admissions officeIf there is a referral for hospitalizationWhen delivered by a brigade of ambulance services+All of the above is true |
|  | ОПК-5. **Уметь** рассчитать показатели состояния, качества и эффективности деятельности медицинской организации.**Владеть** терминологией анализа деятельности медицинской организации | # Hospital report includes data about number of operated patients and number of deaths after surgery. Which efficiency index of inpatient care can be calculated on the basis of these data:Admission ratePostoperative mortality rateGeneral lethality rateStandardized lethality rate+Postoperative lethality rate# Lethality rate is used to analyze:MorbidityBed fundEfficiency of outpatient careNatural dynamics of population +Efficiency of inpatient care# What indicators can be defined when we have: population number, total amount of hospitalized patients and on separate nosologies:General morbidity and its structure on specific nosologiesIncidence rate in hospitalsIncidence rate structure on disease classes+Admission rate in the whole and on specific nosologies# Lethality rate is indicator which characterizes:+Hospital activitiesWork of the polyclinicNatural dynamics of populationMorbidity rate# Which indicators are used to analyze satisfaction of population in inpatient care:+Admission rate; inpatient care sufficiencyInpatient lethality rate Frequency of refusals in hospitalizationTimeliness of hospitalization; bed useBed population ratio; structure of bed fund# Indicate basic functions of inpatient facilities according to WHO:+Preventive, emergency care, research, educativeTherapeutic, anti-epidemic, informational, educativeDispensarization, medical, preventive, emergency careMedical, statistical, educative, researchMedical and rehabilitative, preventive and anti-epidemic, educative and research# Specify basic forms of inpatient primary medical records:«inpatient medical card»; «outpatient medical card»«medical death certificate»; «vaccination card»«statistical coupon»; «extract from inpatient medical card»+»inpatient medical card»; «statistical card of the patient discharged hospital»«control card of dispensary observation»; «inpatient medical card |
| ОПК-6 готовностью к ведению медицинской документации | ОПК-6 **Знать** основную медицинскую документацию медицинской организации. Рекомендации и правила по формированию неофициальной учетной медицинской документации. | # The unit of observation is…:+The primary element of the statistical population, which is the bearer of the characteristics subject to registrationThe array of units that carry the feature being studiedObserving timed to any pointDetermining the volume of observation# When studying the incidence of myocardial infarction in the adult population, the unit of observation is…:AdultPatients with myocardial infarction+Each patient with myocardial infarctionAdult patients\* Statistical tables may be…:+Simple tablesGraphic tables+Group tables+Combinational tablesMixed tables# Of these kinds of statistical tables, the best representation of the target population gives:Simple tablesGroup tables+Combinational tablesMixed tables\* When conducting a selective observation, the types of statistical material collecting…:+Random+MechanicalMain array+Typological+SerialContinuous# Which source of information to study morbidity will allow primary care physician to take greater account of the incidence of acute diseases:+Data of patient visits to a doctor in medical institutionsData of special selective studiesData about causes of deathSurvey of the populationData of medical examinations# What are the main sources to study morbidity:+Appealability in medical facilities, data of medical examinations, and data of death causes Data of death causes, data of medical records, data of surveyData of medical examinations, data of survey, data of outpatient cardsData of the census, data of polyclinic visits, data of medical recordsAdmission data, data of census, data of press reports# Which of the following indices does not apply to morbidity:Incidence ratePrevalence ratePoint prevalence rate+Crude mortality rateThe structure of morbidity# What is the best source to study morbidity with aim of maximal registration of «acute» diseases:+Data of visits to medical establishmentsEpidemiological studyMedical examinationsPopulation surveysData of death causes# What is the best source to study morbidity with aim of maximal registration of «chronic» diseases:Data of visits to medical establishmentsEpidemiological study+Medical examinationsPopulation surveysData of death causes |
|  | ОПК-6 **Уметь** заполнить основную официальную документацию медицинской организации. Сформировать неофициальный статистический учетный документ. | # Specify basic forms of inpatient primary medical records:«Inpatient medical card»; «Outpatient medical card»«Medical death certificate»; «Vaccination card»«Statistical coupon»; «Extract from inpatient medical card»+«Inpatient medical card»; «Statistical card of the patient discharged hospital»«Control card of dispensary observation»; «Inpatient medical card# Specify basic forms of dispensary observation:«Inpatient medical card»; «Outpatient medical card»«Medical death certificate»; «Vaccination card»«Statistical coupon»; «Extract from inpatient medical card»«Inpatient medical card»; «Statistical card of the patient discharged hospital»+«Outpatient medical card»; «Control card of dispensary observation»# Specify basic forms of outpatient primary medical records:«Inpatient medical card»; «Outpatient medical card»«Medical death certificate»; «Vaccination card»«Extract from inpatient medical card»«Inpatient medical card»; «Statistical card of the patient discharged hospital»+«Outpatient medical card»; «Statistical coupon»; «Control card of dispensary observation»# Records about the issued document, certifying temporary disability, have to be made in all documents except:«Inpatient medical card»; «Outpatient medical card»+«Vaccination card»«Statistical card of the patient discharged hospital»# What doctor cannot issue the document certifying temporary disability:TherapistPediatricianGynecologist+Doctor ultrasonic diagnostics |
| ПК-17 способностью к применению основных принципов организации и управления в сфере охраны здоровья граждан, в медицинских организациях и их структурных подразделениях | ПК-17 **Знать** основные принципы охраны здоровья населения. Уровни, виды и условия оказания медицинской помощи населению. Типы медицинских организаций, их управление, задачи, типовую организационную структуру, функции. Принципы, уровни, методы управления в здравоохранении. Функции управления. Стили управления, их слабые и сильные стороны. Принципы планирования в здравоохранении. Методы планирования медициной помощи населению. | # Specify the correct definition of management:Management is the science of meeting the needs of the population through exchange (marketing)+Management is a science and a kind of practical activity, consisting in the formation of an integrated planning, organization, motivation and control over organizational resources to achieve the organization's goalsManagement the study of the use of objective economic laws and relations in public health services, as one of the branches of state economyManagement is a science about formation of administrative structures# What are management objects:+Personnel, organization, financial and material resources, quality of activitiesMaterial, financial and manpower resourcesSenior managers (top managers), mid-level managers (deputies), the managers of the grass-roots levelThe ideas about increase in management efficiency# What are management subjects:Personnel, organization, financial and material resources, quality of activitiesMaterial, financial and manpower resources+Senior managers (top managers), mid-level managers (deputies), the managers of the grass-roots levelThe ideas about increase in management efficiency# Management functions are:Licensing, accreditation, certificationControl, searching for defects, punishing those responsible Forecasting, marketing, standardization, licensing, calculation of economic efficiency+Planning, organization, motivation, control# Under what management style can we expect a timely and disciplined approach to the solution of the tasks:+AuthoritarianDemocraticLiberalDynamic# What style of management is best for revealing the creative potential of the team:AuthoritarianDemocratic+LiberalDynamic# Under what management style can you expect to see increased personal commitment to work:Authoritarian +DemocraticLiberalDynamic# What is the most optimal management style:AuthoritarianDemocraticLiberal+Dynamic# Choose character features of economic management methods:Make it possible to compensate for miscalculations in planning, to react quickly to a changing situation, to bring the object of management to new paths by means of directives, orders, instructions, orders, resolutions, regulations+Include economic analysis of health organizations, methods of planning and forecasting, statistical analysisA set of means of influencing the collective, the ability to motivate the employee to work efficiently, partner relations, creating a favorable psychological climate in the teamImplies the democratization of management, increasing the participation of employees in the performance of management functions# Approval of standards of maintenance of population of medical assistance this is the objective of …:Program-targeted health planning+Functional-sectoral health care planningStrategic planningComprehensive planning#The style of the management is:+system of methods of impact of the head on subordinatesdevelopment strategy of the organizationcontrol of implementation of plans of workintroduction of economic incentives#The style of leadership does not reflect:+education level of the heada habitual manner of behavior of the head in relation to subordinatesthe used type of the powerextent of delegation by the head of powers by the subordinate# The management decision is the choice of an alternative in conditions:definitenessprobable definitenessuncertainty+concrete administrative situation# Can be a non-material incentive of formation of motivation:remuneration for participation in innovative processes+change of content of workthe services of social character provided by establishmentsettlement of problems of compensation taking into account its quality# Promotes improvement of quality of medical care:emphasis on short-term objectives+effective managementtough planningaccounting only of quantitative indices |
|  | ПК-17 **Уметь** на практике реализовывать принципы организации и управления в здравоохранении. Применить нормативный и аналитический методы планирования медицинской помощи населению.**Владеть** основной терминологией организации и управления здравоохранением | # With reference to public health services we distinguish:social and economic efficiencymedical and economic efficiency+social, medical and economic efficiencysocial and medical efficiency# Which type of efficiency is most important for public health:social efficiencymedical efficiencyeconomic efficiency+social and medical efficiency# What is health economic efficiency:a change of the level and character of disease and its tendencie+a positive contribution that public health system brings by improving the population’s health in relation to with the national income growthoptimization of levels of birth rate, reduction of death rate and increase of life expectancyreceiving profit on medical activity# What is public health social efficiency:a change of the level and character of disease and its tendenciea positive contribution that public health system brings by improving the population’s health in relation to with the national income growth+optimization of levels of birth rate, reduction of death rate and increase of life expectancyreceiving profit on medical activity# What is health medical efficiency:+a change of the level and character of disease and its tendenciea positive contribution that public health system brings by improving the population’s health in relation to with the national income growthoptimization of levels of birth rate, reduction of death rate and increase of life expectancyreceiving profit on medical activity |
| ПК-18 готовностью к участию в оценке качества оказания медицинской помощи с использованием основных медико-статистических показателей | ПК-18 **Знать** определение понятия «Качество медицинской помощи», его компоненты и составляющие. Методы оценки качества медицинской помощи. Методику расчета показателей состояния, качества и эффективности медицинской помощи. | # The main components of quality medical according to WHO are all but:qualifications of personnel+free of charge medical careoptimality of use of resourcessafetysatisfactions of patients\* The main components of quality of medical care are:+quality of structure+quality of technology (process)quality of compensationquality of monitoring procedure+quality of result\* The quality of structure includes:+skill level of medical personnelresults of medical activity+level of material equipment+financing levelobservance of standards of medical and diagnostic procedures\* The quality of process (technology) includes:+ directly, quality of performance of workresults of medical activity+ correctness of the choice of medical technologyfinancing level+observance of standards of medical and diagnostic procedures at their performance\* The quality of result of medical care includes:+share of positive result (recovery, improvement) of medical activity+cost efficiency of medical activityobservance of standards of medical and diagnostic procedures at their performance+ satisfaction of patients with quality of medical care |
| \* Participants of internal quality control are:+chief physician+deputy chief physicians+managers of structural divisionsdoctors of the medical organizationaverage medical personnelall above-mentioned\* The most difficult questions and problems of rendering high-quality medical care can jointly be solved:+within work of the medical commissions and subcommittees of the medical organization+at meetings of labor collectiveat trade-union meetings+medical council of the medical organization \* The main methods of quality control of medical care are:+ statistical method+ method of standardsclinical laboratory method+ method of expert evaluations# To the cases which are subject to obligatory consideration within internal quality control of medical care is all but:cases of lethal outcomescases of intrahospital infection and complications+cases of delivery of health care not at the place of residence of the patientcases of a divergence of diagnosescases of diseases with the extended or shortened treatment terms (or temporary disability)# Standardization of medical activity is directed on all but:economy of human and material resourcesthe choice of an optimal solution when maintaining patients+identifications of defects and punishment of responsible at negative medical results of activityprotection of interests of the patient on the basis of stable ensuring the required level of quality# Medical standards on level happen:internationalfederalregionalterritoriallocal (internal)+everything listed truly |
|  | ПК-18. **Уметь** Рассчитать и оценить основные показатели состояния, качества и эффективности медицинской помощи. | # The main advantage of a statistical method of assessment of quality of medical care is:+the reliable generalized characteristic of a condition of quality and efficiency of medical careidentification of the individual reasons of unsatisfactory resultshigh capacity of a methodcheap method of assessment# The main lack of a statistical method of assessment of quality of medical care is:subjectivity of a method+it is inapplicable for assessment of the individual reasons of unsatisfactory resultslow capacity of a methodcheap method of assessment# The main advantage of a method of standards as method of assessment of quality of medical care is:+ objectivity of estimatesidentification of the individual reasons of unsatisfactory resultsthe reliable generalized characteristic of a condition of quality and efficiency of medical carecheap method of assessment# The main lack of a method of standards as method of assessment of quality of medical care is:subjectivity of a method+it is inapplicable for assessment of the individual reasons of unsatisfactory resultslow capacity of a methodsimplicity of application# The main advantage of method of expert evaluations as method of quality control of medical care is:objectivity of estimates+identification of the individual reasons of unsatisfactory resultsthe reliable generalized characteristic of a condition of quality and efficiency of medical caresimplicity of application# The main lack of method of expert evaluations as method of quality control of medical care is:+subjectivity of a methodit is inapplicable for assessment of the individual reasons of unsatisfactory resultshigh cost of a methodsimplicity of application |
| ПК-20 Готовностью к анализу и публичному представлению медицинской информации на основе доказательной медицины | ПК-20 **Знать** основные параметрические и непараметрические методы оценки достоверности медицинских данных. Методы визуализации статистических данных | \* Statistical values are:+absolute values+relative values+average valuesratio values# What values reflect the true size of the phenomenon being studied:relative valuesaverage values+absolute valuesstatistical values# Relative values are all listed, except:Intensive valuesextensive values+average valuesratio valuesobvious values# Which values characterizes frequency of the phenomenon in the condition where this phenomenon is observed:+Intensive valuesextensive valuesratio valuesobvious values# Which values characterizes a numerical parity of the sets not connected among themselves and compared only under their maintenance:Intensive valuesextensive valuesobvious values+ratio values# Which values is calculated as the relation of a part to the whole:Intensive values+extensive valuesratio valuesobvious values# Which values is needed to study the temporally changes of the phenomenon and to compare two or more similar phenomena:intensive valuesextensive valuesratio values+obvious values# Which values is used to characterize the structure of the phenomenon:intensive values+extensive valuesratio valuesobvious values# Why do you need standard error of assessment relative values:+Using a standard error, you can generalize the results to similar objects with a certain probabilityTo determine the error in collecting statistical dataTo determine the statistical significance of the differences between the two phenomena#  what is this formula used for:For calculation of intensive values+For calculation standard errorFor calculation of extensive valuesFor determine the statistical significance of the differences between the two phenomena# Normal distribution or assimential distribution definitely for …:qualitative data+quantitative dataany datademocratic data# Which of the average values will better characterize the statistical set with normal distribution:+arithmetic meanmedianmodegeometrical mean# What is the average value that best characterizes the statistical set in a distribution different from normal:arithmetic mean+medianmodegeometrical mean# What is the best value to use if there is a strong tendency to dominate any value in the statistical set:arithmetic meanmedian+modegeometrical mean# What is the best measure of the variability of quantitative data in a statistical set with a normal distribution:mode+standard deviationquartilescoefficient of variation# What is the best measure of the variability of quantitative data in a statistical set in a distribution different from normal:coefficient of variationstandard deviation+сentels (percentiles, deciles, quartiles)obvious values# In the limit m ± 2sd located:68,3% all observations+95,5% all observations99,7% all observations100% all observations# What is the value of t - test confirms the presence of a statistically significant difference between the groups being compared:+t ≥ 1,98t ≤ 1,98t = 1t = 0,05# What characterizes the standard error of the average value:variability of analyzed quantitative datathe reliability of the differences between two mean values+the number by which the value of the average value of the sample population will differ from the average value calculated in the general populationmaterial collection error# What characterizes the standard deviation:+variability of analyzed quantitative datathe reliability of the differences between two mean valuesthe number by which the value of the average value of the sample population will differ from the average value calculated in the general populationmaterial collection error\* What can be the time series:+intervalcomplex+momentvariational # Difference of levels of this year and previous indicates…:+absolute increasegrowth raterate of increasethe value of 1% increaselevel of distribution# Ratio of absolute increases to the previous level expressed as a percentage shows…:absolute increase+growth raterate of increasethe value of 1% increaselevel of distribution# What is the rate of increase:The ratio of the next level to the previous one+The ratio of absolute growth to the previous level, expressed as a percentageThe difference between the levels of a given year and the previous oneThe ratio of absolute growth to growth rate# How to calculate the absolute increase:The ratio of the next level to the previous oneThe ratio of absolute growth to the previous level, expressed as a percentage+The difference between the levels of a given year and the previous oneThe ratio of absolute growth to growth rate# When it is necessary to apply the methods of converting the time series:it is always desirableto confirm a pronounced trend+in cases where there is no pronounced trendis optional\* By what methods can you convert the time series:+mechanical+mathematicalmixedmagical# Which of the methods refers to the methods of mechanical transformation of time series:+method of integration of the intervalthe method of exponential smoothingthe method of linear smoothingthe subtraction method# What is the method to apply to methods of mathematical transformation of time series:method of integration of the interval+the method of exponential smoothinglogarithmic analysis methodthe subtraction method# What is the essence of the method of integration of intervals:+In the summation of data for a number of adjacent levelsIn calculating the average value of each aggregate periodEach level is replaced by an average of the same and neighboring levelsIn obtaining the data difference for a number of adjacent levels# What is a correlation relationship:describes the strong dependence of phenomena on the strictly defined amount. +The relationship in which changing one value can lead to a change in the other by different values.# On the direction correlation relationship may be:+direct and reversestrong and weakparallelonly the inversepositive and negative# Strength correlation relationship may be:direct and reverse+strong, medium and weakparallelonly the inversepositive and negative# Direct correlation relationship understand such contact when:+increase (decrease) of one value corresponds to an increase (decrease) associated with it anotheran increase (decrease) in one value corresponds to a decrease (increase) associated with it anotherthere is an increase in the value of the characteristic by some amountthe value of the characteristic decreases by some amount# At the values of the correlation coefficient 0 – 0,29 say of:strong relationshipconnections of medium strength+weak relationshipabout its absenceits presence# At the correlation factor values 0.3 - 0.69 say about:strong relationship+relationship of medium strengthweak relationshipabout its absenceits presence# At the correlation factor values 0,7 – 1,0 say about:+strong relationshipconnections of medium strengthweak relationshipabout its absenceits presence# What coefficient is calculated by this formula :Kendall rank correlation coefficientSpearman’s rank correlation coefficient+Pearson correlation coefficientCoefficient of gamma# What coefficient is calculated by this formula :Kendall rank correlation coefficient+Spearman’s rank correlation coefficientPearson correlation coefficientCoefficient of gamma# Why is regression analysis necessary:It is determined by physical, mathematical and chemical phenomenaIt can be represented in formulas+It is necessary to identify the presence, strength and degree of influence of one or several factor quantitative characteristics on the resultant oneIt is necessary for determination of dependence between qualitative and quantitative dataIt is necessary for determination of reliability of differences between the bound data |
|  | ПК-20 Уметь проводить описательную статистику медицинских данных. Проводить оценку достоверности медицинских данных в одной, двух и более статистических совокупностях. Проводить корреляционный анализ. Проводить оценку динамики явлений.Представлять данные в виде простых, групповых и комбинационных таблиц, графического изображения. | # Mean + 1,96 SD include following % of values in a distribution:68%99,5%88,7%+95%# The frequently occurring value in a distribution of data is:Median+ModeStandard deviationMean# Standard deviation is defined as:Value of middle observation when data is arranged in ascending orderArithmetic mean+Dispersion of values about the meanMost frequently occurring value# Significant value of «p» is:0,010,020,04+0,05# All of the following are measures of dispersion Except:Mean Deviation+ModeRangeStandard deviation# Percentage of a data can be depicted on a:+Pie chartBar diagramHistogramGraph# A continuous quantitative data can be depicted with the help of:Bar diagramPie chart+HistogramPictogram# In a normal distribution curve, the true statement is:Mean = standard deviationMedian = standard deviationMean = 2 median+Mean = mode |
| ПК-21 Способностью к участию в проведении научных исследований | ПК-21 **Знать** Основы статистического метода исследования в медицине и здравоохранении. | \* Medical statistics include the following parts:+statistics of public healthveterinary statistics+statistics of scientific researches+statistics of public health servicescrime statistics\* Statistics of public health are studying indicators:+Medico-demographicHealth services status+Morbidity of the populationQuality of careEfficiency of care+Disability of the population+Physical health of the population\* Statistics of public health services include:Medico-demographic+Health services statusMorbidity of the population+Quality of care+Efficiency of careDisability of the populationPhysical health of the population# How many stages are there in the statistical study:+4382# The first stage of the statistical study is…:The analysis of the received data, conclusions, suggestions+Preparatory (organizational) stage: scheduling and investigation programsCollecting of statistical materialWorking out and summarizing of material# The plan of statistical investigation:It reflects the content of research+It reflects the organizational aspect of the studyIt reflects the received dataIt reflects the conclusions# The program of statistical investigation:+It reflects the content of researchIt reflects the organizational aspect of the studyIt reflects the received dataIt reflects the conclusions\* The plan of statistical investigation include:+Object of studyUnit of observation+Time of study+Research ResourceRegistration forms\* The program of statistical investigation include:Object of study+Determining the unit of observationTime of study+Definition of the registration signsResearch Resource+Definition of the registration forms\* Type of study by volume may be:single supervision+continuous+selective+current supervision\* Type of study by time may be:+single supervisioncontinuousselective+current supervision\* A selective observation is…:+observation, covering a part of the units of the population for the characterization of the wholeobservation, confined to one or another momentmonitoring in the order of the current registrationexamination of all units of the studied population# A continuous observation is…:observation, covering a part of the units of the population for the characterization of the wholeobservation, confined to one or another momentmonitoring in the order of the current registration+examination of all units of the studied population# A single supervision is…:observation, covering a part of the units of the population for the characterization of the whole+observation, confined to one or another momentmonitoring in the order of the current registrationexamination of all units of the studied population |
|  | ПК-21 **Уметь** участвовать в сборе, разработке и анализе медицинских данных при научных исследованиях | # The unit of observation is…:+the primary element of the statistical population, which is the bearer of the characteristics subject to registrationthe array of units that carry the feature being studiedobserving timed to any pointdetermining the volume of observation# When studying the incidence of myocardial infarction in the adult population, the unit of observation is…:adultpatients with myocardial infarction+each patient with myocardial infarctionadult patients\* Statistical tables may be…:+simple tablesgraphic tables+group tables+combinational tablesmixed tables# Of these kinds of statistical tables, the best representation of the target population gives:simple tablesgroup tables+combinational tablesmixed tables\* When conducting a selective observation, the types of statistical material collecting…:+Random+MechanicalMain array+Typological+SerialContinuous |
| ПК-4 способностью и готовностью к применению социально-гигиенических методик сбора и медико-статистического анализа информации о показателях здоровья населения | ПК-4 **Знать** критерии оценки здоровья населения. Методику статистического исследования здоровья населения. | \* Medical statistics include the following parts:+statistics of public healthveterinary statistics+statistics of scientific researches+statistics of public health servicescrime statistics\* Statistics of public health are studying indicators:+Medico-demographicHealth services status+Morbidity of the populationQuality of careEfficiency of care+Disability of the population+Physical health of the population\* Statistics of public health services include:Medico-demographic+Health services statusMorbidity of the population+Quality of care+Efficiency of careDisability of the populationPhysical health of the population# How many stages are there in the statistical study:+4382# The first stage of the statistical study is…:The analysis of the received data, conclusions, suggestions+Preparatory (organizational) stage: scheduling and investigation programsCollecting of statistical materialWorking out and summarizing of material# The plan of statistical investigation:It reflects the content of research+It reflects the organizational aspect of the studyIt reflects the received dataIt reflects the conclusions# The program of statistical investigation:+It reflects the content of researchIt reflects the organizational aspect of the studyIt reflects the received dataIt reflects the conclusions\* The plan of statistical investigation include:+Object of studyUnit of observation+Time of study+Research ResourceRegistration forms\* The program of statistical investigation include:Object of study+Determining the unit of observationTime of study+Definition of the registration signsResearch Resource+Definition of the registration forms\* Type of study by volume may be:single supervision+continuous+selective+current supervision\* Type of study by time may be:+single supervisioncontinuousselective+current supervision# A selective observation is…:+observation, covering a part of the units of the population for the characterization of the wholeobservation, confined to one or another momentmonitoring in the order of the current registrationexamination of all units of the studied population# A continuous observation is…:observation, covering a part of the units of the population for the characterization of the wholeobservation, confined to one or another momentmonitoring in the order of the current registration+examination of all units of the studied population# A single supervision is…:observation, covering a part of the units of the population for the characterization of the whole+observation, confined to one or another momentmonitoring in the order of the current registrationexamination of all units of the studied population |
|  | ПК-4 **Уметь** составить план и программу статистического исследования. Организовать и провести сбор, разработку и анализ информации о здоровье населения. Применить основные параметрические и непараметрические методы оценки статистических данных . **Владеть** основной терминологией статистического метода исследования общественного здоровья | # The unit of observation is…:+the primary element of the statistical population, which is the bearer of the characteristics subject to registrationthe array of units that carry the feature being studiedobserving timed to any pointdetermining the volume of observation# When studying the incidence of myocardial infarction in the adult population, the unit of observation is…:adultpatients with myocardial infarction+each patient with myocardial infarctionadult patients\* Statistical tables may be…:+simple tablesgraphic tables+group tables+combinational tablesmixed tables# Of these kinds of statistical tables, the best representation of the target population gives:simple tablesgroup tables+combinational tablesmixed tables\* When conducting a selective observation, the types of statistical material collecting…:+Random+MechanicalMain array+Typological+SerialContinuous |

1. **Методические рекомендации по применению балльно-рейтинговой системы**

В рамках реализации балльно-рейтинговой системы оценивания учебных достижений обучающихся по дисциплине «Общественное здоровье и здравоохранение, экономика здравоохранения» в соответствии с положением «О балльно-рейтинговой системе оценивания учебных достижений обучающихся» определены следующие правила формирования

* текущего фактического рейтинга обучающегося;
* бонусного фактического рейтинга обучающегося.

**4.1. Правила формирования текущего фактического рейтинга обучающегося**

Текущий фактический рейтинг (Ртф) по дисциплине (**максимально 5 баллов**) рассчитывается как среднее арифметическое значение результатов (баллов) всех контрольных точек, направленных на оценивание успешности освоения дисциплины в рамках аудиторной и внеаудиторной работы (КСР):

* текущего контроля успеваемости обучающихся на каждом практическом занятии по дисциплине (Тк).

По каждому практическому занятию предусмотрено от 3 контрольные точки (входной контроль, устный опрос, выполнение практических заданий), за которые обучающийся получает от 0 до 5 баллов включительно. Входной контроль, устный опрос, выполнение практических заданий – являются обязательными контрольными точками.

В модуле «Основы статистического метода исследования общественного здоровья и здравоохранения» контрольных точек: 15 контрольных точек по темам модуля, 1 – рубежный контроль.

В модуле «Общественное здоровье» контрольных точек: 6 контрольных точек по темам модуля, 1 – рубежный контроль.

В модуле «Организация здравоохранения» контрольных точек: 8 контрольных точек по темам модуля, 1 – рубежный контроль, 1 – КСР.

В модуле «Экономика здравоохранения» контрольных точек: 5 контрольных точек по темам модуля, 1 – рубежный контроль.

Критерии оценивания каждой формы контроля представлены в ФОС по дисциплине.

Среднее арифметическое значение результатов (баллов) рассчитывается как отношение суммы всех полученных студентом оценок (обязательных контрольных точек и более) к количеству этих оценок.

При пропуске практического занятия за обязательные контрольные точки выставляется «0» баллов. Обучающему предоставляется возможность повысить текущий рейтинг по учебной дисциплине в часы консультаций в соответствии с графиком консультаций кафедры.

**4.2. Правила формирования бонусного фактического рейтинга обучающегося**

Бонусный фактический рейтинг по дисциплине.

Бонусные баллы начисляются только при успешном выполнении учебного процесса (средний балл успеваемости выше 3,0). При среднем балле ниже данного значения бонусные баллы не начисляются.

Бонусный фактический рейтинг по дисциплине складывается из суммы баллов, набранных в результате участия обучающихся в следующих видах деятельности (см. таблица 1).

**Таблица**

**Виды деятельности, по результатам которых определяется бонусный фактический рейтинг**

|  |  |  |  |
| --- | --- | --- | --- |
| **№** | **Вид бонусной работы** | **Баллы** | **Примечание** |
|  | Опубликование тезисов НИР | 5 | Предоставить электронный вариант и копии тезисов |
|  | Доклад на СНК | 3 | Презентация и доклад |
|  | Участие в конференциях различного уровнятезисывыступление | 5-8 | 5 - за публикацию тезисов, статьи в сборнике конференции8 - выступление на секции. |
|  | Разработка дидактических материалов | 5-6 | 5–разработка монотематическая6–разработка политематическая.  |
|  | Участие в творческих конкурсах | 5-8 | 5 - за подготовку и представление творческого продукта на конкурс6 - за призовое третье место на конкурсе7 - за призовое второе место на конкурсе8 - за призовое первое место на конкурсе |