

Program of course exam on «Public health and health care» for students of the 5th course of Medical Faculty for International Students for the specialty 1-79 00 01 «General medicine» 2025/2026 academic year

1. Theoretical Grounds of the Academic Discipline “Public Health and Health Care”

1.1. Public health and health care as a science, academic discipline and field of practical activity

1. Public health and health Care as a science, academic discipline and field of practical activity. Impact of social conditions, environmental factors and lifestyle on population health.
2. Public health and health Care as a science, academic discipline and field of practical activity. Objectives, object and subject of study of the academic discipline.
3. Public health and health Care as a science, academic discipline and field of practical activity. Main research methods and their characteristics.
4. Public health and health Care as a science, academic discipline and field of practical activity. Role of the discipline in the system of medical education, professional activity of a medical specialist, activities of health management bodies and health care organizations.

1.2. Health care. Health care systems. International cooperation

5. Health care. Health care systems. State health care system. Organizational principles of the state health care system.
6. Health care. Health care systems. Insurance medicine. Organizational principles of insurance medicine. Features of compulsory and voluntary medical insurance. Advantages and disadvantages of insurance medicine.
7. Health care. Health care systems. Private health care system. Characteristics. Advantages and disadvantages of the private health care system.
8. Health care. Health care systems. Common characteristics inherent in health care systems of all countries. Directions of health care reform (WHO). Types of health care system reforms (WHO).
9. Health care. Law of the Republic of Belarus “On Health Care”. Main principles of the state health care policy of the Republic of Belarus.
10. Health care. Law of the Republic of Belarus “On Health Care”. Ensuring the rights of citizens of the Republic of Belarus to accessible medical care.
11. Health care. Law of the Republic of Belarus “On Health Care”. Issues of medical ethics and medical deontology in legislative documents of the Republic of Belarus.
12. Health care. Law of the Republic of Belarus “On Health Care”. Physician’s oath of the Republic of Belarus. Concept of medical confidentiality.
13. International cooperation in the field of health care. International medical organizations, associations and societies. Belarus in integration communities. The Union State of Belarus and Russia.

14. World Health Organization (WHO): structure and main directions of activity. Significance of WHO in solving international health care issues. Participation of the Republic of Belarus in WHO activities.

1.3. Theoretical foundations of health care management

15. Theoretical foundations of health care management. Management functions: planning, organization, motivation, control.
16. Planning in health care: definition, principles, objectives. Main planning methods.

1.4. Economics and financing of health care

17. Health economics: definition of concepts, object and subject of study. Sections of health economics, objectives and methods.
18. Health care financing: definition of concepts. Sources of health care financing. Features of financing public, private and insurance medicine.

2. Medical statistics

19. Statistics: subject, content and objectives.
20. Medical statistics: content and objectives. Sections of medical statistics. Use of statistics in medicine.
21. Medical statistics. Structure of the statistical method. Characteristics of types of research.
22. Basic principles and methodological foundations of evidence-based medicine. Object and subject of statistical research. Statistical population, types. Unit of observation. Accounting features.
23. Basic principles and methodological foundations of evidence-based medicine. Organization of statistical research. Stages of statistical research.
24. Basic principles and methodological foundations of evidence-based medicine. Research plan and program. Errors in planning and program development.
25. Basic principles and methodological foundations of evidence-based medicine. Statistical observation method. Errors of statistical observation.
26. Basic principles and methodological foundations of evidence-based medicine. Application of statistical values in evidence-based medicine (absolute, relative, average).
27. Basic principles and methodological foundations of evidence-based medicine. Sampling method in statistics and medicine. Representativeness of the sample, representativeness criteria.
28. Basic principles and methodological foundations of evidence-based medicine. Sampling error. Probability of faultless prognosis. Margin of error. Confidence intervals.
29. Basic principles and methodological foundations of evidence-based medicine. Statistical hypotheses. Concept of reliability and statistical significance.
30. Basic principles and methodological foundations of evidence-based medicine. Parametric and non-parametric methods, classification.

31. Basic principles and methodological foundations of evidence-based medicine. Assessment of the significance of differences between average values of two samples. Comparison of two independent samples. Student's t-test.
32. Characteristics of study types. Systematic reviews and meta-analyses. Randomized controlled clinical trials.
33. Characteristics of study types. Cohort study: implementation, advantages and disadvantages.
34. Characteristics of study types. Cohort study. Definition of risk. Incidence, relative risk, etiological fraction. Risk assessment.
35. Characteristics of study types. Case-control study: implementation, advantages and disadvantages.
36. Characteristics of study types. Case-control study. Probability. Definition of odds. Odds ratio.
37. Methods for analyzing dynamics of phenomena. Time series: definition, types. Equalizing of time series.
38. Methods for analyzing dynamics of phenomena. Time series indicators: calculation and application.
39. Presentation of results in scientific publications. Statistical tables: design requirements.
40. Presentation of results in scientific publications. Graphic method: design requirements.

3.1. Medical demography

41. Medical demography. Regulatory legal acts governing the foundations of demographic security in the Republic of Belarus. National Security concept of the Republic of Belarus.
42. Medical demography. Powers of state authorities in the field of ensuring demographic security.
43. Medical demography. Law "On Demographic Security of the Republic of Belarus": legal and organizational foundations of ensuring demographic security. Demographic security. Principles of ensuring demographic security. Demographic threats.
44. Medical demography. State Program "People's Health and Demographic Security" for 2021–2025. Purpose. Consolidated target indicators of the State Program.
45. Medical demography. State Program "People's Health and Demographic Security" for 2021–2025. Subprograms. Subprogram "Family and Childhood": objectives and expected results.
46. Medical demography: definition of concepts, main sections. Significance of demographic data for assessing population health, analysis and planning of activities of health management bodies and health care organizations.
47. Medical demography. Leading medical and social population problems. Problems of population size and structure. Population ageing as a modern demographic trend in developed countries and its medical and social significance.

48. Medical demography. Population statics. Population censuses as a source of information on population statics, methodology of conducting censuses. Characteristics of population size changes in the Republic of Belarus, age structure of the population, types of age structures.
49. Medical demography. Population dynamics and its types. Mechanical movement of the population. Population migration: definition and types. Impact of migration on population health indicators. Urbanization: definition and significance for health care authorities.
50. Medical demography. Natural population movement and factors influencing it. Main regularities of natural population movement in the Republic of Belarus.
51. Medical demography. Fertility as a medical and social problem. Methodology for calculating fertility indicators. Assessment of fertility indicators according to WHO evaluation criteria. Current trends in the Republic of Belarus and worldwide.
52. Medical demography. Special fertility indicators (gross reproduction rate, age-specific fertility rate, total fertility rate), methods of calculation.
53. Medical demography. Population reproduction, reproduction indicators, calculation methodology, types of population reproduction.
54. Medical demography. Population mortality as a medical and social problem. Crude mortality rate. Methodology for calculating mortality indicators. Assessment according to WHO evaluation criteria. Main causes of mortality in the Republic of Belarus.
55. Medical demography. Infant mortality: main causes. Factors determining its level. Methodology for calculating indicators and assessment according to WHO evaluation criteria.
56. Medical demography. Maternal mortality. Methodology for calculating the indicator. Leading causes of maternal mortality in the Republic of Belarus.
57. Medical demography. Natural population growth: methods of calculating the indicator, trends in the Republic of Belarus. Life expectancy at birth: definition and trends in the Republic of Belarus.
58. Medical demography. Demographic situation: types and characteristics. Demographic situation in the Republic of Belarus.

3.3. Morbidity and disability of the population

59. Morbidity as a medical and social problem. Current trends and specific features in the Republic of Belarus. Types of pathological conditions of the population. Characteristics.
60. Morbidity. International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10). Principles and features of its structure. Significance in studying population morbidity and mortality.
61. Morbidity. Morbidity indicators. Organizational factors determining the level of population morbidity.
62. Major non-communicable diseases as a medical and social problem. State Program “People’s Health and Demographic Security” for 2021–2025.

Subprogram “Prevention and Control of Non-Communicable Diseases”:
objectives and expected results.

63. Disability. Disability as a medical and social problem. Definitions of concepts: disabled person, disability, health impairment, limitation of life activity, social insufficiency. Disability of the population of the Republic of Belarus. Indicators characterizing disability.

3.4. The morbidity studying methods of the population

64. Morbidity. Methods of studying population morbidity and their comparative characteristics.

65. Morbidity. Methods of studying population morbidity. Primary and general population morbidity: methods of study, accounting and reporting documentation, algorithms for calculating indicators. Current levels and structure of primary and general morbidity in the Republic of Belarus.

66. Morbidity. Methods of studying morbidity. Study of acute infectious morbidity. Accounting and reporting documentation. Indicators and calculation algorithms. Directions of medical prevention.

67. Morbidity. Methods of studying morbidity. Study of population morbidity from major non-epidemic diseases. Accounting and reporting documentation. Indicators and calculation algorithms. Directions of medical prevention.

68. Morbidity. Methods of studying morbidity. Study of hospitalized morbidity. Accounting and reporting documentation. Indicators and calculation algorithms. Directions of medical prevention.

69. Morbidity. Methods of studying morbidity. Study of morbidity with temporary disability. Accounting and reporting documentation. Indicators and calculation algorithms. Directions of medical prevention.

70. Morbidity. Methods of studying morbidity. Method of studying morbidity according to medical examinations data. Types of preventive medical examinations. Dispensary observation groups. Concepts of “point prevalence”. Algorithms for calculating indicators.

71. Morbidity. Methods of studying morbidity. Method of studying morbidity based on reasons of death. Characteristics of the method. Indicators and calculation algorithms. Accounting document and rules for completion.

4.1. Organizational grounds of health care. Types of medical care, forms and conditions of rendering medical care

72. Fundamentals of medical care organization. Legislation of the Republic of Belarus on health care. The right of citizens of the Republic of Belarus to health protection. Ensuring the rights of citizens of the Republic of Belarus to accessible medical care.

73. Health care. Law of the Republic of Belarus “On Health Care”. Rights and duties of medical and pharmaceutical workers.

74. Health care. Law of the Republic of Belarus “On Health Care”. Rights and duties of patients.

75. Fundamentals of medical care organization. Nomenclature of health care organizations. Indicators of resource provision of health care.

4.2. Primary Health Care

76. Fundamentals of medical care organization. Types, forms and conditions of rendering medical care.

77. Fundamentals of medical care organization. Types of medical care. Primary health care as a priority of state policy in the field of public health protection. Principles, functions and structure of primary health care.

4.3. Specialized Medical Care

78. Fundamentals of medical care organization. Types of medical care. Organization of specialized medical care for the population in outpatient and inpatient settings. Dispensary: definition of the concept. Classification of dispensaries. Objectives. Structure of dispensaries.

79. Fundamentals of medical care organization. Types of medical care. Specialized medical care: definition of the concept. Centers: objectives. Classification of centers. Scientific and practical centers.

80. Fundamentals of medical care organization. Types of medical care. Directions for improving specialized medical care.

81. Fundamentals of medical care organization. Types of medical care. Medical and social care. Definition. Organizations. Functions.

82. Fundamentals of medical care organization. Types of medical care. Palliative medical care. Definition. Organizations. Functions.

4.4. Organization of health care to the population in outpatient conditions

83. Organization of outpatient medical care for the adult population. Basic principles. Objectives. Nomenclature of outpatient health care organizations.

84. Organization of outpatient medical care. City polyclinic: objectives, organizational structure and management. Interaction and continuity with other health care organizations (hospitals, dispensaries, etc.).

85. Organization of outpatient medical care. City polyclinic. Organization of work. Accounting and reporting documentation of outpatient health care organizations. Main performance indicators of the polyclinic.

86. Organization of outpatient medical care. Types of doctor's districts: characteristics and standards.

87. Organization of outpatient medical care. City polyclinic. Scope of activities of a general practitioner.

88. Organization of outpatient medical care. City polyclinic. Infectious disease office of the polyclinic. Sections and methods of work of the physician of the infectious disease office.

89. Organization of outpatient medical care. Dispensary observation of the population: definition, objectives and stages. Dispensary observation groups of the adult population.

90. Organization of outpatient medical care. Dispensary observation of the population. Accounting documentation. Indicators of volume, quality and effectiveness of dispensary work.
91. Organization of outpatient medical care. Prevention department: objectives. Methods and means of hygienic education and upbringing of the population.
92. Organization of outpatient medical care. City polyclinic. Medical rehabilitation department (MRD) of the polyclinic: objectives and structure. Procedure for referring patients to the MRD

4.5. Organization of health care to the population in inpatient conditions

93. Organization of inpatient medical care. Nomenclature of hospital organizations. Indicators of population provision with inpatient medical care.
94. Organization of inpatient medical care. City hospital: objectives and organizational structure.
95. Organization of inpatient medical care. City hospital. Documentation. Performance analysis: indicators of bed fund utilization.
96. Organization of inpatient medical care. City hospital. Performance analysis: indicators characterizing the quality of medical care for hospitalized patients.
97. Organization of inpatient medical care. City hospital. Performance analysis: indicators characterizing surgical activity.
98. Organization of inpatient medical care. City hospital. Admission department and emergency room: objectives. Functions of the physician of the admission department. Patient admission procedure. Organization of work of the admission department. Documentation.
99. Organization of inpatient medical care. City hospital. Characteristics of treatment and safety, anti-epidemic and sanitary-hygienic regimes of the hospital. Measures for prevention of health care-associated infections.

4.6. Organization of health care to women and children

100. Organization of medical care for women and children. Leading medical and social health problems of women and children. Directions of medical prevention.
101. Organization of medical care for women and children. Multilevel system of obstetric, gynecological and perinatal care delivery.
102. Organization of medical care for women. Main types of health care organizations providing obstetric and gynecological care. Main directions of activities aimed at protecting women's reproductive health.
103. Organization of medical care for women. Women's consultation: objectives and structure. District-based principle and dispensary method of work.
104. Organization of medical care for women. Women's consultation. Sections of activities of the obstetrician-gynecologist: characteristics, workload standards, accounting documentation.
105. Organization of medical care for women. Women's consultation. Performance indicators.

106. Organization of medical care for women. Maternity hospital: objectives and structure. Organization of admission of pregnant women, parturient women, puerperal and patients with gynecological diseases.
107. Organization of medical care for women. Maternity hospital. Characteristics of treatment and safety, anti-epidemic and sanitary-hygienic regimes in the maternity hospital. Continuity in the work of the women's consultation, maternity hospital and children's polyclinic.
108. Organization of medical care for women. Maternity hospital. Accounting and reporting documentation. Performance indicators of the maternity hospital.
109. Organization of medical care for the pediatric population. Leading medical and social health problems of children. Main types of health care organizations providing medical care for children.
110. Organization of medical care for the pediatric population. Children's polyclinic: objectives and structure. Specific features of outpatient medical care for children.
111. Organization of medical care for the pediatric population. Children's polyclinic. Sections of activities of the district pediatrician: characteristics, workload standards, accounting documentation.
112. Organization of medical care for the pediatric population. Children's polyclinic. Organization of dispensary observation. Indicators of dispensary observation effectiveness.
113. Organization of medical care for the pediatric population. Children's polyclinic. Organization of patronage observation of newborns. Performance indicators for care of children in the first year of life.
114. Organization of medical care for the pediatric population. Children's hospital: objectives, organizational structure and specific features.
115. Organization of medical care for the pediatric population. Children's hospital. Analysis of inpatient activity: indicators of bed fund.

4.7. Organization of emergency medical care to the population

116. Organization of emergency medical care (EMC). Regulatory legal documents governing the organization of EMC. Stages of EMC organization. Service management.
117. Organization of emergency medical care (EMC). Objectives of the EMC service. Structure of the service at the prehospital stage. Operating modes of EMC. Continuity and interaction with outpatient and inpatient health care organizations.
118. Organization of emergency medical care (EMC). EMC brigade. Types of brigades. Classification of calls according to priority of medical care delivery and their characteristics.
119. Organization of emergency medical care (EMC). Analysis of EMC service performance. Continuity and interaction with outpatient and inpatient health care organizations.
120. Organization of emergency medical care. Emergency medical care hospital: objectives, structure and organization of activities.

4.8. Organization of health care to the population living in rural areas

121. Organization of medical care for the rural population. Principles and features of medical care delivery. Mobile forms of population servicing.
122. Organization of medical care for the rural population. Technological levels of medical care delivery in the Republic of Belarus. Characteristics.
123. Organization of medical care for the rural population. District-level health care organizations. Feldsher-midwifery station: staff composition, type of medical care and objectives.
124. Organization of medical care for the rural population. Outpatient clinic of a general practitioner. Outpatient clinic of a general practitioner: staff composition, main tasks, organization of work, records.
125. Organization of medical care for the rural population. General practitioner: functions, workload standards and criteria for specialization.
126. Organization of medical care for the rural population. District-level health care organizations. Rural district hospital: objectives, organization of work and accounting documentation.
127. Organization of medical care for the rural population. District-level health care organizations. Nursing hospital: staff composition, objectives and organization of work.
128. Organization of medical care for the rural population. Central district hospital: objectives, structure and functions. Role of the central district hospital in organizing primary and specialized medical care for the rural population.
129. Organization of medical care for the rural population. Regional hospital: objectives, structure and functions. Interaction with other health care organizations.

4.9. A model for assessing the performance of health care organizations

130. Model for assessing the performance of health care organizations. Purpose of the model. Calculation of the final performance assessment indicator. Evaluation criteria.
131. Performance indicators of health care organizations providing outpatient medical care and evaluation criteria.
132. Performance indicators of health care organizations providing inpatient medical care and evaluation criteria.

4.10. Organization of activities of agencies and institutions that carry out the state sanitary inspection in the Republic of Belarus

133. Organization of activities of agencies and institutions that carry out the state sanitary inspection in the Republic of Belarus. Regulatory legal documents governing their activities.

134. Organization of activities of agencies and institutions that carry out the state sanitary inspection in the Republic of Belarus. State sanitary supervision: definition, principles of organization and objectives.
135. Organization of activities of agencies and institutions that carry out the state sanitary inspection in the Republic of Belarus. Levels of management and authorities, institutions and officials exercising state sanitary supervision.
136. Organization of activities of agencies and institutions that carry out the state sanitary inspection in the Republic of Belarus. Sanitary and epidemiological situation. Sanitary and epidemiological well-being of the population. Characteristics.
137. Organization of activities of agencies and institutions that carry out the state sanitary inspection in the Republic of Belarus. Center of Hygiene, Epidemiology and Public Health: objectives. Interaction with health care organizations.
138. Organization of activities of agencies and institutions that carry out the state sanitary inspection in the Republic of Belarus. Center of Hygiene, Epidemiology and Public Health (CHEPH): structure. Organization and content of activities of the main structural units.

5. Modern problems of medical prophylactics

139. Medical prevention as a priority direction of public health protection.
140. Definitions of health, healthy lifestyle, risk factor and prevention.
141. Health indicators and determinants. Yu.P. Lisitsyn's health formula.
142. Medical prevention: goals, objectives, levels and types.
143. Hygienic education and training: objectives, principles, methods and means.
144. Healthy lifestyle as a tool for implementing preventive programs at individual, group and population levels.
145. Preventive programs: structure, approval procedure, implementation control and effectiveness assessment.

Head of Public health and health care department,
D.Sc., Professor



I.N.Moroz

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