

# PUBLIC HEALTH AND HEALTHCARE, HEALTH ECONOMICS

## LIST OF EXAM QUESTIONS (2024/2025):

#	Section	Topic	Exam questions
1	<b>Public Health. Methods of Public Health</b>	<ul style="list-style-type: none"> <li>Introduction to the Public Health. History of Public Health</li> </ul>	<ul style="list-style-type: none"> <li>Main stages in the history of medicine and public health (Ancient World, Early Medieval period, Late Medieval period, 1500-1750 period, Scientific Revolution (1750-1830)</li> <li>Foundations of health statistics and epidemiology. Social reform and the sanitary movement (1830-1875). Hospital reform. The bacteriologic revolution. Microbiology and immunology.</li> </ul>
		<ul style="list-style-type: none"> <li>Concepts of Health and Disease</li> </ul>	<ul style="list-style-type: none"> <li>Concepts of Health and Disease: definition of health, 3+2 dimensions of health, determinants of health</li> </ul>
		<ul style="list-style-type: none"> <li>Health and Well-Being. Health Indicators. International Classification of Diseases</li> </ul>	<ul style="list-style-type: none"> <li>Health and Well-Being: standard of living, HDI, PQLY, HPI</li> </ul>
		<ul style="list-style-type: none"> <li>Basics of Biostatistics. Biostatistics in Public Health</li> </ul>	<ul style="list-style-type: none"> <li>Biostatistics: definition, types of data, graphical presentation of research results</li> <li>Biostatistics: measures of central tendency and measures of spread (calculation and application in biostatistics)</li> <li>Biostatistics: normal distribution and confidence interval (calculation of CI for the simple mean value)</li> <li>Biostatistics: testing statistical hypotheses</li> </ul>
		<ul style="list-style-type: none"> <li>Demography. Family Planning and Contraception</li> </ul>	<ul style="list-style-type: none"> <li>Demography: definition, demographic methods, demographic statics (indicators)</li> <li>Demography: components of population change (incl. fertility, mortality &amp; migration)</li> </ul>
		<ul style="list-style-type: none"> <li>Measurements in Epidemiology. Analytical and Experimental Epidemiology</li> </ul>	<ul style="list-style-type: none"> <li>Epidemiology: definition, basic definitions, measurements of occurrence, measures of effect</li> <li>Observational study designs: schemes, scientific problems when are effective, limitations and advantages</li> <li>Interventional study designs: schemes, scientific problems when are effective, limitations and advantages</li> <li>Systematic review &amp; Meta-analysis as a source of information in public health (description, limitations, and advantages)</li> </ul>
		<ul style="list-style-type: none"> <li>Evidence Based Medicine / Practice</li> </ul>	<ul style="list-style-type: none"> <li>Definition and aims of Evidence-Based Medicine. History of Evidence-Based Medicine.</li> <li>Ranking the quality of evidence. Levels of evidence. The 'evidence pyramid'.</li> </ul>
2	<b>Global Burden of Diseases. Concept of Prevention</b>	<ul style="list-style-type: none"> <li>Natural History of Disease. Control of Disease. Prevention of Diseases</li> </ul>	<ul style="list-style-type: none"> <li>Natural History of Disease (differences of communicable and non-communicable diseases' NH)</li> <li>Concepts of Control of Disease. Monitoring and Surveillance</li> <li>Prevention of Disease: principles, levels</li> </ul>
		<ul style="list-style-type: none"> <li>Screening of Disease</li> </ul>	<ul style="list-style-type: none"> <li>Types of screening. Wilson and Jungner classic screening criteria, WHO 1968</li> <li>Basic Criteria of Screening: sensitivity, specificity, positive and negative predictive value. The Yield of a Screening Program</li> </ul>
		<ul style="list-style-type: none"> <li>Principles of Health Promotion</li> </ul>	<ul style="list-style-type: none"> <li>Definition and tasks of Health Promotion. History of Health Promotion</li> <li>Approaches of Health Promotion</li> </ul>
		<ul style="list-style-type: none"> <li>Nutrition and Health</li> </ul>	<ul style="list-style-type: none"> <li>Nutritional Requirements: Daily Nutritional Requirements for Macronutrients, Nutritional requirements during pregnancy. Malnutrition (types, indicators)</li> </ul>

		<ul style="list-style-type: none"> <li>• Mental Health Care. Genetics and Health</li> </ul>	<ul style="list-style-type: none"> <li>• Mental disorders as a public health problem: burden of mental illness, methods of prevention and control</li> <li>• Alcohol and drug addiction as a public health problem: burden methods of prevention and control</li> <li>• Suicides as a public health problem: worldwide epidemiology and prevention.</li> </ul>
		<ul style="list-style-type: none"> <li>• Preventive Obstetrics, Preventive Pediatrics &amp; Preventive Geriatrics</li> </ul>	<ul style="list-style-type: none"> <li>• Preventive Obstetrics: definition, aims, basic activities &amp; objectives of antenatal care, criteria of ‘at risk infants’ &amp; ‘at risk mothers’</li> <li>• Preventive Obstetrics: definition, aims, basic activities &amp; objectives of intranatal care; clean and safe delivery; domiciliary midwifery service, &amp; institutional delivery</li> <li>• Preventive Obstetrics: definition, aims, basic activities &amp; objectives of postnatal care; neonatal screening</li> <li>• Antenatal, Postnatal and Social Preventive Pediatrics: basic activities</li> </ul>
		<ul style="list-style-type: none"> <li>• Family Planning and Contraception</li> </ul>	<ul style="list-style-type: none"> <li>• Family cycle, types of family (nuclear family, joint family, extended family, and astronaut family) and their characteristics</li> </ul>
		<ul style="list-style-type: none"> <li>• Infectious Diseases as a Public Health Problem. Immunity. Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• Communicable diseases as a public health problem: definitions (CD, agent of CD, host of CD, transmission of host), principles of prevention</li> <li>• Smallpox, Measles, Whooping Cough: definition, causative agent, incubation period, source of infection, mode of transmission, period of communicability, secondary attack rate, rash, and vaccination</li> <li>• Rubella, Mumps, Influenza (Flu): definition, causative agent, incubation period, source of infection, mode of transmission, period of communicability, secondary attack rate, rash, and vaccination</li> <li>• Tuberculosis, Polio, Hepatitis: definition, causative agent, incubation period, source of infection, mode of transmission, period of communicability, secondary attack rate, rash, and vaccination</li> </ul>
		<ul style="list-style-type: none"> <li>• Non-Communicable Diseases as a Public Health Problem</li> </ul>	<ul style="list-style-type: none"> <li>• Non-Communicable diseases (NCD) as a public health problem: definitions (NCD, risk factors, iceberg phenomenon of NCD)</li> <li>• International Classification of Diseases, 10th revision and 11th revision (definition, purpose, coding principles)</li> <li>• Cardiovascular diseases: definition (blocks of categories in ICD-10), risk factors, peculiarities of natural history and prevention of CVD)</li> <li>• Chronic obstructive pulmonary disease (COPD): definition (blocks of categories in ICD-10), risk factors, peculiarities of natural history and prevention of COPD)</li> <li>• Cancer: definition (blocks of categories in ICD-10), risk factors, peculiarities of natural history and prevention of cancer)</li> </ul>
		<ul style="list-style-type: none"> <li>• Environmental Health. Occupational Health</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental health. The major subdisciplines</li> <li>• of environmental health</li> <li>• Water as an environmental concern: sources of water supply, quality of water, methods of water purification</li> <li>• Air as an environmental concern: indoor and outdoor air, ventilation, air pollution</li> <li>• Waste as an environmental concern, types of waste disposal.</li> </ul>
3	<b>Healthcare. Health Economics. National Health Systems</b>	<ul style="list-style-type: none"> <li>• Social Sciences and Health</li> </ul>	<ul style="list-style-type: none"> <li>• Sociology &amp; Sociological Perspective. Sociological Approach to Health and Medicine</li> </ul>
		<ul style="list-style-type: none"> <li>• Health Legislation</li> </ul>	<ul style="list-style-type: none"> <li>• Levels of public health legislation: international, national, regional, local.</li> <li>• Public health laws and their functions</li> </ul>
		<ul style="list-style-type: none"> <li>• Quality of Medical Care</li> </ul>	<ul style="list-style-type: none"> <li>• The concept of quality of medical care, its evolution</li> </ul>

		<ul style="list-style-type: none"> <li>• Characteristics of quality of medical care</li> <li>• Legal regulation of the quality of medical care in Russia</li> </ul>
	<ul style="list-style-type: none"> <li>• Human Resources for Healthcare</li> </ul>	<ul style="list-style-type: none"> <li>• Monitoring and evaluation of human resources for health: monitoring, evaluation, indicators, data.</li> <li>• Data sources for monitoring of human resources for health.</li> <li>• Key indicators for monitoring and evaluation of human resources for health.</li> </ul>
	<ul style="list-style-type: none"> <li>• Biomedical Waste Management. Disaster Management</li> </ul>	<ul style="list-style-type: none"> <li>• Health, social and economic effects of disasters. Disaster management cycle</li> </ul>
	<ul style="list-style-type: none"> <li>• Health Economics. Health Planning and Management</li> </ul>	<ul style="list-style-type: none"> <li>• Models of health system financing.</li> <li>• Social health insurance financing model in health care financing: principles, advantages, and disadvantages</li> <li>• Socio-economic status and health. Socio-economic status scales. Social gradient</li> <li>• Management: definition, principles of management. Administration vs. Management</li> <li>• Management functions. Concepts in management. Styles of management</li> <li>• Health Planning. Steps in planning. Human resources' planning</li> </ul>
	<ul style="list-style-type: none"> <li>• Health care in Russia</li> </ul>	<ul style="list-style-type: none"> <li>• Health care in Russia: basic principles of health protection, organization of health protection</li> <li>• Health care in Russia: classification of medical care by types, conditions, and forms of delivering</li> <li>• Primary health care in Russia: functions of district doctor, peculiarities of primary health care provision to the residents of the rural territories</li> </ul>
	<ul style="list-style-type: none"> <li>• Maternal and Child Care</li> </ul>	<ul style="list-style-type: none"> <li>• Antenatal care in Russia: objectives, antenatal visits</li> <li>• Birth Weight: ELBW, VLBW, LBW, NBW, HBW. LBW prevention. Management of LBW Infants)</li> </ul>
	<ul style="list-style-type: none"> <li>• Health Education and Communication</li> </ul>	<ul style="list-style-type: none"> <li>• Health communication: functions, stages, approaches.</li> <li>• Areas for health communication: health literacy, health education, social marketing, risk communication, crisis communication, outbreak communication, health advocacy.</li> <li>• Health education: definition, principles, ways and forms of health education, approaches in health education</li> <li>• Group approach in health education: advantages and disadvantages.</li> </ul>
	<ul style="list-style-type: none"> <li>• National Health Programs, Policies and Legislations</li> </ul>	<ul style="list-style-type: none"> <li>• Health policy: definition, differences between private and public policy. Policy triangle, its main components.</li> <li>• Stages of health policy making process.</li> <li>• International and national programs in the field of maternal and child health.</li> <li>• International and national programs in the field of communicable diseases.</li> </ul>
	<ul style="list-style-type: none"> <li>• International Health. International Health Agencies</li> </ul>	<ul style="list-style-type: none"> <li>• Global types of health care: classification.</li> <li>• World Health Organization: structure, functions. International Health Agencies.</li> </ul>