

PUBLIC HEALTH AND HEALTHCARE, HEALTH ECONOMICS

LIST OF EXAM QUESTIONS (2025/2026):

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

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

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