

# Database of questions for the Medical-Dental Final Examination (LDEK)

## Part 2

### Public health

Modified 18.12.2023

**No 1.** A set of measures aimed at lowering the number of patients by reducing the body's functional disorders as a consequence of a specific disease is referred to as:

- A. direct prevention.
- B. primordial prevention.
- C. primary prevention.
- D. indirect prevention.
- E. secondary prevention.

**No 2.** The rate denoting the average number of children that would be born to a female over their entire reproductive life, assuming that in each phase of their reproductive life she would give birth at the intensity observed among women in the year under review.

- A. fertility rate.
- B. total fertility rate.
- C. basic reproduction rate.
- D. live birth rate.
- E. stillbirth rate.

**No 3.** It is true that in the case of rare diseases the odds ratio for rare diseases is:

- A. approximately equal to the relative risk.
- B. twice as big as the relative risk.
- C. twice smaller than the relative risk.
- D. inversely proportional to the relative risk.
- E. impossible to determine.

**No 4.** Which cause of death is taken into account in international statistics comparing causality of deaths?

- A. initial.
- B. secondary
- C. immediate.
- D. indirect.
- E. final.

**No 5.** The populations of two districts of a city were selected for a study.

A fluoridation program was carried out among the inhabitants of one of the districts over a period of six months, and these actions were abandoned in the other district. After the indicated period of time, the results were compared in both groups. The above description provides an example of:

- A. ecological study.
- B. cross-sectional study.
- C. case-control study.
- D. cohort study.
- E. field study.

**No 6.** The main strategic document for public health is:

- A. National Program for Combating Cancer.
- B. National Health Program.
- C. National Health Program for the Development of Transplant Medicine.
- D. Program for Prevention and Treatment of Cardiovascular Diseases.
- E. Program for the Reduction in Mortality from Chronic Lung Diseases.

**No 7.** Mortality rate:

- A. is the basic negative health measure.
- B. describes the local epidemiological situation.
- C. is a measure of the severity of course of the disease.
- D. is a measure of the level of healthcare.
- E. depends on the level of knowledge of health.

**No 8.** Indicate the basic function of public health for individuals:

- A. identification and combating health threats in the environment, place of residence, work, food and water.
- B. health promotion, organization of active participation of the society in activities for health, determinants of health and disease.
- C. assessment of the quality of health services, legal issues in medicine, bioethics, medical certification and evaluation.
- D. organization of active counseling for high-risk groups.
- E. epidemiological surveillance, laboratory control of infectious diseases, including those imported from abroad and environmental threats.

**No 9.** Indicate **the false** statement regarding the dimensions of public health:

- A. public health activities refer to individual activities aimed at those health determinants which are not subject to change as a result of activities undertaken by an individual.
- B. public health activities are done in structures other than private companies operating for profit.
- C. public health activities involve health services focused on social environment problems.
- D. public health activities relate to health problems that are particularly common or treated as particularly important in a given society.
- E. public health activities are subordinated to the principle of maximizing health outcomes at a minimum price with an acceptable level of quality.

**No 10.** Financing healthcare exclusively from the central state budget and central planning of investment and medical activities are the main assumptions of the:

- A. Beveridge model.
- B. Bismarck model.
- C. Siemaszko model.
- D. free market model.
- E. based on the principle of public health.

**No 11.** According to the Public Health Act of September 11, 2015, public health tasks **do not include**:

- A. monitoring and assessing the state of health of the society, health threats and the quality of life related to health of the society.
- B. reducing health inequalities resulting from socio-economic conditions.
- C. health education adapted to the needs of high-risk groups, only.
- D. activities to recognize, eliminate or reduce threats and damage to physical and mental health in the environment of residence, study, work.
- E. analysis of the adequacy and effectiveness of healthcare services provided in relation to the identified health needs of the society.

**No 12.** The demographic structure, which is dominated by the participation of people in pre-working age, while the proportion of people in post-working age is low, is called the:

- A. progressive structure.
- B. stationary structure.
- C. regressive structure.
- D. stationary-progressive structure.
- E. regressive-progressive structure.

**No 13.** Screening for a specific disease requires meeting the criteria:

- 1) the disease should have an asymptomatic period, and its detection and treatment during this period significantly reduces morbidity and mortality.
- 2) accepted methods of treating the disease must be available.
- 3) the incidence of this disease should be large enough to justify the cost of screening.
- 4) the disease must have a significant impact on the length or quality of life.

The correct answer is:

- A. 1,2.    B. 1,3.    C. 1,4    D. 2,3.    E. 2,4.

**No 14.** Randomization is a process that consists in:

- A. random selection of people for the control and study groups.
- B. deliberate selection of people for the control and study groups.
- C. selection of people for the control group and examined in terms of a given feature.
- D. selection of people for the control and study groups in terms of age.
- E. selection of people for the control and study groups in terms of gender.

**No 15.** Which of the following factors is particularly useful for assessing the prevalence of severe acute diseases:

- A. incidence.
- B. morbidity.
- C. mortality.
- D. deaths.
- E. proportional mortality.

**No 16.** An epidemiological cross-sectional study was conducted to determine the frequency of dental caries in children in the first grades of primary school located in urban and rural areas. In order to determine whether the frequency of caries varies statistically significantly between children from urban and rural environments, it is necessary to use:

- A. Student's t-test.
- B. linear correlation analysis in Pearson modification.
- C. linear correlation analysis in Spearman modification.
- D. chi-square test.
- E. analysis of variance (ANOWA).

**No 17.** A study was conducted to determine the relationship between body mass index and duration of anesthesia (in minutes), after an injection of the same dose in all participants. The appropriate method of statistical data analysis to achieve the goal in this case is:

- A. Student's t-test.
- B. analysis of variance (ANOWA).
- C. linear correlation analysis.
- D. chi-square test.
- E. Shapiro-Wilk test.

**No 18.** Indicate the true statements regarding the circumstances of the choice of a disease for a population screening test:

- 1) the disease is an important health problem.
- 2) the disease has identified risk factors.
- 3) the disease is characterized by the existence of a sufficiently long pre-symptomatic period.
- 4) the disease can be treated with a recognized therapy.
- 5) the disease is on the list of preventive recommendations developed annually by the Ministry of Health.

The correct answer is:

**A.** 1,2,3.    **B.** 1,3,4.    **C.** 1,3,5.    **D.** 1,2,5.    **E.** 3,4,5.

**No 19.** The results of studies aimed at estimating the impact of different circumstances on premature deaths in the societies of industrialized countries show that the largest share in shaping the risk of premature mortality has/ have:

- A.** medical care.
- B.** genetic factors.
- C.** exposure to biological environmental factors.
- D.** exposure to physico-chemical environmental factors.
- E.** lifestyle.

**No 20.** In Poland, the National Health Program is a program that:

- A.** is directed by the Ministry of Health, aimed at improving an access to services financed from the state budget.
- B.** is directed by the National Health Fund, aimed at securing the financing of guaranteed services.
- C.** is aimed at modernizing hospital and outpatient treatment infrastructure.
- D.** is aimed at reducing the effects of the most important health threats to the population.
- E.** is aimed at implementing a unified system of health education system as part of education programs at all educational levels.

**No 21.** A synthetic measure of the state of health of a population reflecting the burden of diseases on the population and their consequences (e.g. reduction in the quality of life due to disability), useful, among others, in assessing the effectiveness of health programs is an indicator showing:

- A.** life expectancy (LE indicator).
- B.** disability adjusted life years (DALY indicator).
- C.** potential years of life lost (PYLL indicator).
- D.** quality adjusted life years (QALY indicator).
- E.** healthy life years (HLY indicator).

**No 22.** The epidemiological surveillance program for infections related to healthcare activities must include:

- 1) hand washing control and procedures.
- 2) glove use control and procedures.
- 3) control and monitoring procedures of the individual immunity of the personnel providing healthcare.
- 4) control and procedures for cleaning and disinfecting rooms and equipment.
- 5) control and procedures for monitoring the drug resistance of natural microflora present on the hands of healthcare professionals.

The correct answer is:

**A.** 2,3.    **B.** 1,2,4.    **C.** 1,2,5.    **D.** 3,4.    **E.** 2,4,5.

**No 23.** A study was conducted to analyze the effect of past bacterial infections of the respiratory system in infancy on the risk of developing bronchial asthma. The research protocol included the current recruitment of 7-year-old children diagnosed with asthma and the recruitment of healthy children of the same age without an asthma diagnosis, as well as an analysis of medical records of these children to identify episodes of bacterial infections of the respiratory system in infancy. Which type of epidemiological study does it represent?

- A. descriptive study.
- B. cross-sectional test.
- C. prospective cohort study.
- D. retrospective cohort study
- E. case-control study.

**No 24.** Despite an earlier informed declaration, each participant in a clinical trial has the right to withdraw their consent to participate in this study:

- A. after prior notification of the sponsor about the reason for withdrawing from further participation in the study.
- B. having received the sponsor's confirmation of the receipt of the decision to resign from further participation in the study.
- C. having obtained the written consent of the researcher to resign from further participation in the study.
- D. without giving a reason for discontinuing further participation in the study.
- E. having notified the relevant bioethics committee of their decision to resign from further participation in the study.

**No 25.** As part of tasks related to public health priorities identified in the city, the local government has developed, implemented and financed a school children study program to detect malocclusion at an early stage. The program undertaken and implemented is an example of activities in the field of:

- A. health promotion.
- B. primary prevention.
- C. secondary prevention.
- D. tertiary prevention.
- E. population-based epidemiological analytical study.

**No 26.** Social inequalities in health condition are a problem that most countries face, including those with a high level of socio-economic development. In Poland, the actions necessary to directly reduce / limit this problem are a strategic goal outlined in the:

- A. Public Health Act.
- B. National Health Fund Program.
- C. National Action Program for Equal Treatment.
- D. Act on Medical Activity.
- E. National Health Program.

**No 27.** The complete healthcare policy of the state, through legal, organizational regulations and financial decisions, should be focused on:

- 1) development of medical care and effectiveness of diagnostic and therapeutic activities.
- 2) providing conditions conducive to health in the living and working environments.
- 3) providing healthy food.
- 4) health promotion activities and disease prevention measures.
- 5) providing opportunities for rest, recreation and physical development.

The correct answer is:

- A.** 2,3,4,5.    **B.** 1,4,5.    **C.** 1,2,3,4.    **D.** 1,3,5.    **E.** all of the above.

**No 28.** According to the immunization classification adopted in vaccinology, immunization acquired as a result of symptomatic or asymptomatic infection is called:

- A. active immunization.
- B. passive immunization.
- C. active-passive immunization.
- D. natural immunization.
- E. parenteral immunization.

**No 29.** Activities in the field of health promotion, both internationally and nationally, are an undertaking:

- A. addressed to the entire population, including people in various health conditions.
- B. addressed only to people with an increased risk of developing civilization diseases.
- C. consisting in planning and implementing population programs for the prevention of civilization diseases.
- D. implemented only by health care institutions.
- E. consisting in planning and implementing population screening tests.

**No 30.** In the economic assessment of medical programs and for the purposes of pharmacoeconomic analysis, various types of healthcare related costs are taken into account. In this classification, the costs associated with a patient's sick leave represent:

- A. direct medical costs.
- B. direct non-medical costs.
- C. indirect costs.
- D. immeasurable costs.
- E. incommensurable costs.

**No 31.** A new diagnostic test X was evaluated for diagnostic accuracy in a group of 1,000 people, including 500 people with clinical diagnosis of X disease and 500 healthy people without the diagnosis of X disease. A positive test result was found in 400 people with X disease and 100 healthy people. The results obtained indicate that:

- A. the diagnostic sensitivity of test X is 40%.
- B. the diagnostic specificity of the test is 40%.
- C. the test is characterized by higher diagnostic sensitivity than specificity.
- D. the test is characterized by lower diagnostic sensitivity than specificity.
- E. the test is characterized by equal diagnostic sensitivity and specificity.