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ФИО: Стегний Кирилл Владимирович
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Federal State Budget Educational Institution
of Higher Education
Pacific State Medical University
of the Ministry of Health of the Russian Federation

APPROVED BY

Head of the Department of
Epidemiology and Military Epidemiology
_____/ Skurikhina Yu.E./
"16th" of June 2025

COLLECTION OF ASSESSMENT TOOLS

Б1.О.16 Epidemiology of the basic educational program of Higher Education

Specialty	31.05.03 Dentistry for international students (in English) (code, name)
Degree	Specialist's degree
Profile	02 "Healthcare" (in the field of providing health care in patients with dental pathology)
Mode of study	Full-time
Period of mastering the BEP	5 years (nominal length of study)
Department	of Epidemiology and Military Epidemiology

Vladivostok, 2025

1. INTRODUCTION

1.1. Collection of Assessment Tools is a document that regulates the format, content, and types of assessment tools for continuous assessment, interim examination and final (state final) examination, and graded criteria for each type of assessment tools.

1.2. Assessment tools allows to evaluate the development of universal, general professional, and professional competencies (UCs, GPCs and PCs respectively) outlined in Federal State Educational Standard of Higher Education and defined in the basic educational program of higher education for the specialty 31.05.03 Dentistry for international students (in English), profile 02 "Healthcare" (in the field of providing health care in patients with dental pathology).

([BEP HE for the 31.05.03 Dentistry for international students \(in English\) specialty](#), section 3 Learning Outcomes Requirements of the Basic Educational Program of Higher Education)

2. DOCUMENT BODY

2.1. Types of Assessment, Formats of Assessment Tools

No.	Types of assessment	Assessment Tools Format
1	Continuous assessment	Tests
		Checklists
		Mini-Case Studies
2	Interim assessment	Tests
		Interview Questions

3. The contents of assessment tools for continuous and interim examination are prepared by the teacher of the course

Tests for continuous and interim assessment

	Code	Competence description / name of labor function / name of work activity / text
S	31.05.03	Dentistry for international students (in English)
C	GPC-13	Is able to achieve objectives of professional activity using information and bibliographic resources, biomedical terminology, as well as information and communication technologies, while observing basic information security procedures
I		ANSWER LEVEL 1 TEST QUESTIONS (ONE CORRECT ANSWER)
		1. The general patterns of the emergence and spread of human diseases are studied by +A) epidemiology, as a general medical science C) epidemiology of infectious diseases B) epidemiology of non-infectious diseases D) epidemiology of nutritional deficiencies 2. Infectious diseases of animals to which humans are susceptible are called A) anthroponoses +B) zoonoses

3. Transmission factors are
A) an evolutionarily developed mechanism that enables a parasite to change biological hosts
B) environmental elements that ensure the transfer of a pathogen from one organism to another
+C) environmental elements that ensure the transfer of a pathogen from one organism to another under specific epidemic conditions
4. The mechanism of transmission is
+A) an evolutionarily developed method of transmitting an infectious agent from one biological host to another
B) environmental elements that ensure the transfer of a pathogen from one organism to another
5. Of the listed categories of infection sources, the greatest epidemiological significance in the spread of an epidemic is
+A) patients with an infectious disease with a manifest (clinically expressed) form of the disease
B) transient carriers of infectious disease pathogens
6. In the reservation phase of the epidemic process (absence or isolated cases of disease), the proportion of virulent strains of the microbe
+A) low
B) high
C) increasing
D) decreasing
7. The first and most important measure aimed at eliminating an epidemic outbreak is
A) identification of infectious patients
+B) hospitalization (isolation) of infectious patients
C) disinfection measures
D) laboratory testing of persons who have been in contact with an infectious patient
8. Disinfection is
+A) the destruction (removal) of any microorganisms on external objects environments that can serve as transmission factors for infectious agents
B) destruction of infectious agents in various sources of infection
C) destruction of pathogenic microorganisms on various objects and in the bodies of animals and arthropods
9. Routine disinfection in an epidemic outbreak is organized by
A) an epidemiologist at a federal state healthcare institution
+B) a local physician (pediatrician)
C) a specialist at a disinfection station (department)
10. The control of infectious disease vectors is carried out by
A) disinfection

		<p>+B) disinfestation C) deratization D) patient isolation</p> <p>11. A study conducted using the annual reports of a dental clinic to assess the structure of morbidity is called A) cohort B) cross-sectional +C) retrospective D) prospective E) longitudinal</p> <p>12. Experimental epidemiological studies include A) case-control study +B) cohort study C) field trial D) screening study E) randomized controlled clinical trials</p> <p>13. Mass screening studies involve A) screening all patients seeking medical care B) simultaneous use of various screening tests +C) population-wide coverage D) screening of risk groups E) screening all patients undergoing hospital treatment</p>
I		<p>ANSWER LEVEL 2 TEST QUESTIONS (MULTIPLE CORRECT ANSWERS)</p>
		<p>1. Transmission routes include A) fecal-oral +B) contact C) airborne +D) foodborne +E) household contact</p> <p>2. Biological immune preparations that create active artificial immunity include +A) vaccines +B) toxoids C) serums D) immunoglobulins</p> <p>3. Pre-sterilization cleaning of medical devices (MD) is carried out for the purpose of A) disinfection +B) removal of protein contaminants +C) removal of fatty contaminants +D) removal of drugs</p> <p>4. Hospital-acquired infections (HAI) include +A) infection of patients in a hospital +B) infection of patients in a clinic +C) infection of healthcare workers during the provision of medical care in a healthcare facility D) infection of a patient outside a hospital or Polyclinics</p>

		<p>5. Airborne infections are characterized by +A) autumn-winter seasonality B) spring-summer C) summer-autumn seasonality +D) winter-spring</p> <p>6. Diseases with natural foci include +A) tick-borne encephalitis +B) tick-borne berreliosis (Lyme disease) C) typhoid fever +D) tularemia E) diphtheria</p> <p>7. Rodents can be sources of infection in +A) plague +B) pseudotuberculosis C) dysentery D) measles</p> <p>8. Descriptive epidemiological studies allow A) to evaluate hypotheses about risk factors +B) to evaluate problems of prevention +C) formulate hypotheses about risk factors D) prove hypotheses about risk factors +E) describe the incidence of disease in space, time, and by population group</p> <p>9. Descriptive epidemiological studies are +A) longitudinal +B) retrospective C) analytical +D) cross-sectional E) experimental +F) operational</p> <p>10. In the first half of the 20th century, doctors noticed that lung cancer is significantly more common in men than in women. To formulate a hypothesis about risk factors, one can use formal logic techniques A) associated changes B) residuals +C) differences +D) similarities E) similarities-differences</p> <p>11. The main stages of epidemiological research include +A) problem assessment, formulation of goals and objectives +B) research organization +C) research implementation +D) analysis of results E) planning anti-epidemic measures</p>
I		ANSWER LEVEL 3 TEST QUESTIONS (MATCHING QUESTIONS)

1. Match the sections of the epidemiological method and their goals, objectives, and purposes.

Section

- A. Descriptive Studies
- B. Epidemiological Experiments
- C. Analytical Epidemiology
- D. Mathematical Modeling
- E. Logical Modeling

Content

- 1. Formulation of a scientific worldview.
- 2. Formulating hypotheses about risk factors
- 3. Evaluating hypotheses about risk factors
- 4. Proving hypotheses.
- 5. Testing hypotheses.

Correct answer: a - 2, b - 4, c - 3, d - 5, e - 1.

2. Match the type of screening study and its content.

Type of screening study

- A. Exploratory (opportunistic)
- B. Single-profile
- C. Mass
- D. Selective (targeted)
- E. Multistage

Content

- 1. Studying a single nosological entity
- 2. Over a long period of time
- 3. Among patients seeking medical care
- 4. In population groups exposed to a risk factor
- 5. Screening the entire population

Correct answer: a - 3, b - 1, c - 5, d - 4, e - 2.

3. Match the methods of formal logic with their areas of application in planning or implementing studies (epidemiological diagnostics).

- 1. Similarities
- 2. Similarities-differences
- 3. Associated changes
- 4. Residues
- 5. Analogies
- A. Ecological studies
- B. Cohort studies
- C. Uncontrolled experiments
- D. Epidemiological diagnostics
- E. Descriptive studies

Correct answer: 1-E, 2-B, 3-A, 4-C, 5-D

4. Select the forms of implementation that best match the type of cognitive activity.

- 1. Epidemiological studies
- 2. Epidemiological diagnostics

	<p>A. Survey of an epidemic outbreak. B. Controlled randomized trial. C. Descriptive study. D. REA. E. Case-control study. F. Sanitary and epidemiological reconnaissance. G. Cohort study. H. Natural experiment. I. Outbreak investigation. J. Assessment of the epidemiological situation.</p> <p>Correct answer: 1 – B, C, E, G, H 2 – A, D, F, I, J</p>
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Assessment criteria

“Very good” – 91-100% correct answers of questions of every level

“Good” - 81-90% correct answers of questions of every level

“Satisfactory” - 71-80% correct answers of questions of every level

“Unsatisfactory” - less than 70% correct answers of questions of every level

Interview questions

	Code	Competence description / name of labor function / name of work activity / text
S	31.05.03	Dentistry for international students (in English)
C	GPC-13	Is able to achieve objectives of professional activity using information and bibliographic resources, biomedical terminology, as well as information and communication technologies, while observing basic information security procedures
I		ANSWER THE QUESTIONS
		<ol style="list-style-type: none"> 1. The concept of epidemiology as a general medical science. purpose and objectives 2. The concept of infectious disease epidemiology. Subject and object of study 3. Epidemiology of non-infectious diseases. Subject and object of study 4. The theory of the epidemiological process. The epidemiological process as a result of the co-evolution of parasite and host. 5. The epidemiological process: definition. Causes and conditions of epidemiological development 6. Basic epidemiological concepts. Source of infection, mechanism of transmission, routes and factors of transmission of infectious agents. 7. Epidemiological services for the population. Resources. Purpose and objectives. The role of the dental service in the epidemiological services system. 8. General characteristics of blood-borne infections 9. The concept of nosocomial infections. Causes and conditions of their occurrence 10. Causes of nosocomial infections in dental healthcare and

prevention facilities

11. Prevention of occupational exposure of dental healthcare workers to blood-borne infections.
12. Guidelines for working with patients or suspected cases of HIV infection and parenteral viral hepatitis.
13. Disinfection. Definition. Types and methods of disinfection.
14. The importance of disinfection measures in dental facilities.
15. Objects subject to disinfection in dentistry.
16. Sterilization of medical instruments and its importance in preventing infectious diseases.
17. Define epidemiological studies. What classifications of epidemiological studies exist?
18. What similarities exist between epidemiological and clinical studies? What is the fundamental difference?
19. What is the essence of the division of epidemiological studies into observational and experimental? Provide examples of observational and experimental studies in medicine and epidemiology.
20. Define the goals, objectives, and content of descriptive and analytical epidemiological studies.
21. In what areas is morbidity (epidemic process) studied in descriptive epidemiological studies?
22. What are screening and monitoring studies? Provide examples of the use of descriptive epidemiological studies in the work of a preventive physician.
23. Formulate the goals, objectives, and types of screening studies. How are the results evaluated? What statistical indicators are used? What indicators characterize screening tests?
24. What types of analytical epidemiological studies do you know?
25. What are the advantages and disadvantages of analytical epidemiological case-control studies?
26. How are the results of case-control studies evaluated? What statistical indicators are used? What is an odds ratio?
27. What is the difference between longitudinal and cross-sectional studies? What is the difference between retrospective and prospective studies?
28. What are the specific features of forming the experimental and control groups in case-control studies?
29. Describe cohort epidemiological studies. Organization, implementation, and recording of results. Features of forming the experimental and control groups.
30. What are the concepts of relative, absolute, and attributable risk? How are these indicators calculated? In what studies can they be obtained?
31. Describe correlational and ecological studies, their goals and objectives. What are the advantages and disadvantages of correlational studies? How are results recorded and the role of risk factors assessed?
32. What determines the reliability of epidemiological studies? How do you understand the effectiveness of epidemiological studies?
33. What is random error, and what methods exist for

	<p>eliminating random errors?</p> <p>34. What are systematic errors? What types of bias do you know, and how are they eliminated?</p> <p>35. The nature of confounding factors and methods for eliminating the effect of confounding factors.</p> <p>36. What types of experimental studies are you familiar with, conducted in preventive and clinical medicine? What are their similarities and differences?</p>
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Assessment criteria

"Very good" grade is given to a student who possesses knowledge of the subject in full scope outlined in the curriculum, has a sufficiently deep insight into the subject; is able to answer all questions clearly, exhaustively, and with no outside help; structures their answers logically, with emphasis on the most important information; is able to analyze, compare, classify, summarize, refine, and structure the course content, giving particular attention to cause-and-effect relationships.

"Good" is given to a student whose knowledge of the subject is almost in full scope outlined in the curriculum (gaps are only present in the knowledge of some especially complex aspects); is able to answer questions exhaustively with little to no outside help; does not always put emphasis on the most important information, but does not make significant mistakes.

"Satisfactory" is given to a student who possesses the bulk of knowledge on the subject; has difficulties answering questions with no outside help, uses imprecise wording; makes mistakes in substantial number of their answers.

"Unsatisfactory" is given to a student who does not have the mandatory minimum of knowledge on the subject, is not able to give an answer even with additional guiding questions.

Standardized case studies and checklists for **B1.O.16 Epidemiology** course

Case Study No. 1

	Code	Competence description / name of labor function / name of work activity / text
S	31.05.03	Dentistry for international students (in English)
C	GPC-13	Is able to achieve objectives of professional activity using information and bibliographic resources, biomedical terminology, as well as information and communication technologies, while observing basic information security procedures
I		<p>READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS</p> <p>An analysis of oral cancer incidence was performed over 10 years. The average long-term incidence rate among men aged 0–59 was 6.5 per 100 000 [95% CI 4.6–8.4], and among those over 60 – 113.0 per 100 000 [95% CI 101.1–125.5]. The average long-term incidence rate among women aged 0–59 was 7.8 per 100 000 [95% CI 6.1–9.6], and among those over 60 – 84.5 per 100 000 [95% CI 77.5-90.0]. An ecological epidemiological study was conducted to identify a statistical relationship between the level of alcohol consumption (the number of liters of pure ethanol per capita per year) and cancer incidence among the population of Russia over 25 years. The following results were obtained from the correlation analysis: Spearman's rank correlation coefficient ($r = 0.79$, $p < 0.05$).</p>
Q	1	<p>Question:</p> <p>Identify risk groups for cancer development by gender and age.</p>

Q	2	Question: Evaluate the strength, direction, and statistical significance of the correlation between alcohol consumption and cancer incidence. Based on the results of the ecological study, formulate a hypothesis about the possible influence of alcohol consumption on cancer incidence.
Q	3	Question: Develop a design of a case-control study aimed at testing the hypothesis about the influence of alcohol consumption on cancer incidence.
Q	4	Question: Statistical analysis of the case-control study data yielded the following results: odds ratio (OR) = 2.54 (95% CI 1.75 – 3.25), $p \leq 0.05$, at 95%. What conclusion can be drawn from the study results? Assess the reliability of the results. What does the odds ratio demonstrate?

Case Study No.1 Checklist

	Code	Competence description / name of labor function / name of work activity / text
S	31.05.03	Dentistry for international students (in English)
C	GPC-13	Is able to achieve objectives of professional activity using information and bibliographic resources, biomedical terminology, as well as information and communication technologies, while observing basic information security procedures
I		<p>READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS</p> <p>An analysis of oral cancer incidence was performed over 10 years. The average long-term incidence rate among men aged 0–59 was 6.5 per 100 000 [95% CI 4.6–8.4], and among those over 60 – 113.0 per 100 000 [95% CI 101.1–125.5]. The average long-term incidence rate among women aged 0–59 was 7.8 per 100 000 [95% CI 6.1–9.6], and among those over 60 – 84.5 per 100 000 [95% CI 77.5-90.0]. An ecological epidemiological study was conducted to identify a statistical relationship between the level of alcohol consumption (the number of liters of pure ethanol per capita per year) and cancer incidence among the population of Russia over 25 years. The following results were obtained from the correlation analysis: Spearman's rank correlation coefficient ($r = 0.79$, $p < 0.05$).</p>
Q	1	Question: Identify risk groups for cancer development by gender and age.
A		<p>Correct answer:</p> <p>Cancer risk groups:</p> <p>By age group:</p> <p>Older people over 60 years old – significantly increased risk Younger age group (0–59 years) – low risk</p> <p>By gender:</p> <p>Men over 60 years old – highest risk (113.0 per 100,000 population)</p>

		<p>Women over 60 years old – increased risk (84.5 per 100,000 population)</p> <p>Women aged 0–59 years old have a slightly higher risk than men of the same age group</p>
Q	2	<p>Question:</p> <p>Evaluate the strength, direction, and statistical significance of the correlation between alcohol consumption and cancer incidence. Based on the results of the ecological study, formulate a hypothesis about the possible influence of alcohol consumption on cancer incidence.</p>
A		<p>Correct answer:</p> <p>Strength of association: High ($r = 0.79$)</p> <p>Direction of association: Direct (increasing alcohol consumption increases cancer incidence)</p> <p>Statistical significance: The association is statistically significant ($p < 0.05$)</p> <p>Hypothesis: There is a direct causal relationship between alcohol consumption and cancer incidence.</p>
Q	3	<p>Question:</p> <p>Develop a design of a case-control study aimed at testing the hypothesis about the influence of alcohol consumption on cancer incidence.</p>
A		<p>Correct answer:</p> <p>Study objective: To confirm the hypothesis regarding the effect of alcohol consumption on the risk of oral cancer.</p> <p>Inclusion criteria:</p> <p>Cases — patients with a confirmed cancer diagnosis</p> <p>Controls — healthy individuals of the same age and gender</p> <p>Data collection methods:</p> <p>Questionnaire on alcohol consumption patterns</p> <p>Collection of demographic data</p> <p>Assessment of comorbidities</p> <p>Statistical analysis:</p> <p>Calculation of odds ratios</p> <p>Estimation of confidence intervals</p> <p>Test of statistical significance</p>
Q	4	<p>Question:</p> <p>Statistical analysis of the case-control study data yielded the following results: odds ratio (OR) = 2.54 (95% CI 1.75 – 3.25), $p \leq 0.05$, at 95%. What conclusion can be drawn from the study results? Assess the reliability of the results. What does the odds ratio demonstrate?</p>
A		<p>Correct answer:</p> <ul style="list-style-type: none"> • An OR of 2.54 indicates that the risk of developing cancer in alcohol drinkers is 2.54 times higher than in non-drinkers. • The confidence interval (1.75–3.25) does not include unity, confirming the statistical significance of the result. • $P \leq 0.05$ at the 95% significance level indicates the reliability of the obtained results. <p>Conclusion: The study results support the hypothesis that alcohol consumption is a significant risk factor for oral cancer. The association is statistically significant, and the odds ratio demonstrates a significant risk of developing the disease with</p>

		alcohol consumption.
R2	Very good	given to a student who gives a full correct answer, demonstrates deep, systemic knowledge of the subject, shows mastery of skills necessary to achieve objectives during professional activity, and knows and uses professional terminology correctly
R1	Good	given to a student who gives a full correct answer, demonstrates deep, systemic knowledge of the subject, shows mastery of skills necessary to achieve objectives during professional activity, and knows and uses professional terminology correctly
	Satisfactory	given to a student who gives a full correct answer, demonstrates sufficient knowledge of the subject, shows mastery of skills necessary to achieve objectives during professional activity, knows and uses professional terminology, but whose answer was slightly inaccurate without being incorrect
R0	Fail	given to a student who provides no answer or only fragments of an answer, demonstrates the lack of knowledge, and cannot provide an answer even with external help

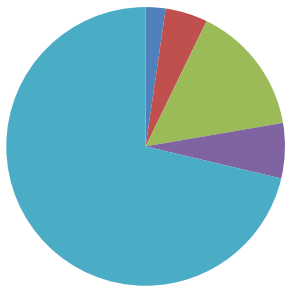
Case Study No. 2

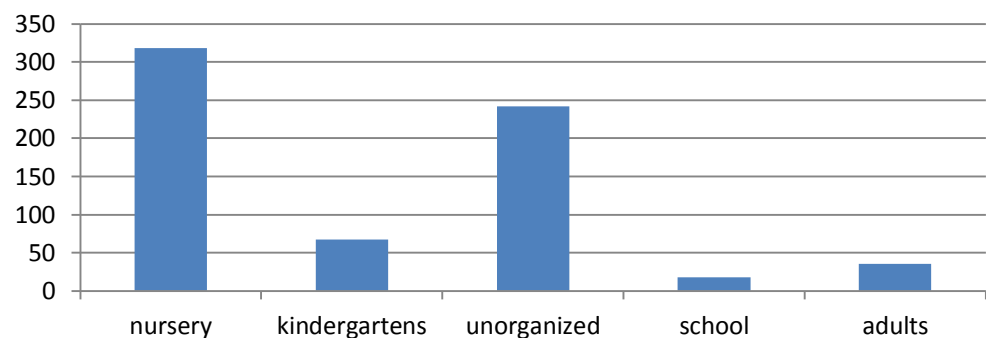
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I		<p>READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS</p> <p>In City N, 265 cases of salmonellosis were diagnosed in 2024. The population was 648,441. The distribution of cases by age and relationship to organized groups is presented in the table.</p> <p>Table Distribution of salmonellosis patients by age and relationship to organized groups.</p> <table border="1"> <thead> <tr> <th>№</th> <th>contingent number of patients</th> <th>number</th> <th>number of patients</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Children attending nursery (1-2 years)</td> <td>1.884</td> <td>6</td> </tr> <tr> <td>2.</td> <td>Children attending kindergartens (3-6 years)</td> <td>19.275</td> <td>13</td> </tr> <tr> <td>3.</td> <td>Unorganized children</td> <td>16.561</td> <td>40</td> </tr> <tr> <td>4.</td> <td>Schoolchildren (7-14 years)</td> <td>97.105</td> <td>17</td> </tr> <tr> <td>5.</td> <td>Adults</td> <td>533.219</td> <td>189</td> </tr> <tr> <td>6.</td> <td>Total</td> <td>648.441</td> <td>265</td> </tr> </tbody> </table>	№	contingent number of patients	number	number of patients	1.	Children attending nursery (1-2 years)	1.884	6	2.	Children attending kindergartens (3-6 years)	19.275	13	3.	Unorganized children	16.561	40	4.	Schoolchildren (7-14 years)	97.105	17	5.	Adults	533.219	189	6.	Total	648.441	265
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Q	1	Question: Calculate indicators describing the socio-age characteristics of the population.
Q	2	Question: Calculate extensive indicators describing the socio-age characteristics of sick individuals.
Q	3	Question: Generate a graphical representation of the presented data.
Q	4	Question: Calculate intensive indicators describing the socio-age characteristics of sick individuals.
	5	Question: Generate a graphical representation of these indicators.

Case Study No.2 Checklist

	Code	Competence description / name of labor function / name of work activity / text																												
S	31.05.03	Dentistry for international students (in English)																												
C	GPC-13	Is able to achieve objectives of professional activity using information and bibliographic resources, biomedical terminology, as well as information and communication technologies, while observing basic information security procedures																												
I		<p>READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS</p> <p>In City N, 265 cases of salmonellosis were diagnosed in 2024. The population was 648,441. The distribution of cases by age and relationship to organized groups is presented in the table.</p> <p style="text-align: right;">Table</p> <p style="text-align: center;">Distribution of salmonellosis patients by age and relationship to organized groups.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>№</th> <th>contingent number of patients</th> <th>number</th> <th>number of patients</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Children attending nursery (1-2 years)</td> <td>1.884</td> <td>6</td> </tr> <tr> <td>2.</td> <td>Children attending kindergartens (3-6 years)</td> <td>19.275</td> <td>13</td> </tr> <tr> <td>3.</td> <td>Unorganized children</td> <td>16.561</td> <td>40</td> </tr> <tr> <td>4.</td> <td>Schoolchildren (7-14 years)</td> <td>97.105</td> <td>17</td> </tr> <tr> <td>5.</td> <td>Adults</td> <td>533.219</td> <td>189</td> </tr> <tr> <td>6.</td> <td>Total</td> <td>648.441</td> <td>265</td> </tr> </tbody> </table>	№	contingent number of patients	number	number of patients	1.	Children attending nursery (1-2 years)	1.884	6	2.	Children attending kindergartens (3-6 years)	19.275	13	3.	Unorganized children	16.561	40	4.	Schoolchildren (7-14 years)	97.105	17	5.	Adults	533.219	189	6.	Total	648.441	265
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Q	1	Question: Calculate indicators describing the socio-age characteristics of the population.																												
A		Correct answer: The proportion of contingents is calculated: $P = a/A \times 100 (\%)$. 1. $1884/648441 \times 100 = 0.3\%$ - attending nursery. 2. $19275/648441 \times 100 = 3.0\%$ - attending kindergartens.																												

		3. $16541/648441 \times 100 = 2.6\%$ - unorganized 4. 15.0% - schoolchildren. 5. 82.2% - adults.
R 2	Very good	All 5 answers are correct
R 1	Good/Satisfactor y	4 out of 5 answers are correct 3 out of 5 answers are correct
R 0	Fail	0-2 out of 5 answers are correct
Q	2	Question: Calculate extensive indicators describing the socio-age characteristics of sick individuals.
A		Correct answer: 1. $6/265 \times 100 = 2.3\%$ - the proportion of sick children attending nurseries. 2. $13/265 \times 100 = 4.9\%$ - the proportion of sick children attending kindergartens. 3. $40/265 \times 100 = 15.1\%$ - the proportion of sick children in unorganized settings. 4. $17/265 \times 100 = 6.4\%$ - the proportion of sick schoolchildren. 5. $189/265 \times 100 = 71.3\%$ - the proportion of adults.
R 2	Very good	All 5 answers are correct
R 1	Good/Satisfactor y	4 out of 5 answers are correct 3 out of 5 answers are correct
R 0	Fail	0-2 out of 5 answers are correct
Q	3	Question: Generate a graphical representation of the presented data.
A		Correct answer:  <ul style="list-style-type: none"> ■ children attending nurseries ■ children attending kindergartens ■ children in unorganized settings ■ schoolchildren
R 2	Very good	A pie chart is presented, with a title and captions
R 1	Good/Satisfactor y	A pie chart is presented, there are inaccuracies in the title and captions A pie chart is presented, there are errors in data presentation
R 0	Fail	The data is depicted incorrectly. There is no chart
Q	4	Question: Calculate intensive indicators describing the socio-age characteristics of sick individuals.
A		Correct answer: 1. $I = 6/1884 \times 100000 = 318.5$ – incidence of children of nursery age. 2. $I = 13/19275 \times 100000 = 67.4$ – incidence of children attending kindergartens. 3. $I = 40/16561 \times 100000 = 241.5$ – incidence of children in unorganized

		settings. 4. $I = 17/97105 \times 100000 = 17.5$ – incidence of schoolchildren. 5. $I = 189/533219 \times 100000 = 35.4$ – incidence of adults.												
R 2	Very good	All 5 answers are correct												
R 1	Good/Satisfactor y	4 out of 5 answers are correct 3 out of 5 answers are correct												
R 0	Fail	0-2 out of 5 answers are correct												
Q	5	Question: Generate a graphical representation of these indicators.												
A		Correct answer:  <table border="1"> <caption>Data for the bar chart</caption> <thead> <tr> <th>Category</th> <th>Incidence (Number)</th> </tr> </thead> <tbody> <tr> <td>nursery</td> <td>320</td> </tr> <tr> <td>kindergartens</td> <td>70</td> </tr> <tr> <td>unorganized</td> <td>240</td> </tr> <tr> <td>school</td> <td>20</td> </tr> <tr> <td>adults</td> <td>40</td> </tr> </tbody> </table>	Category	Incidence (Number)	nursery	320	kindergartens	70	unorganized	240	school	20	adults	40
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R 2	Very good	A bar chart is presented, with a title and captions												
R 1	Good/Satisfactor y	A bar chart is presented, there are inaccuracies in the title and captions A bar chart is presented, there are errors in data presentation												
R 0	Fail	The data is depicted incorrectly. There is no chart												

4. Assessment criteria for learning outcomes

"Pass" is given to a student who has earned at least **61** credits; shown a sufficiently strong knowledge of the basic concepts of the subject; is able to complete specific practical tasks outlined in the program with no outside help, use recommended reference material, and correctly evaluate the results.

"Fail" is given to a student who has earned less than **61** credits; shown significant gaps in knowledge of the basic concepts of the subject, is not able reach the correct solution to a specific practical task outlined in the curriculum even with outside help.

Practical Skills Assessment Checklist

C	GPC-13	Is able to achieve objectives of professional activity using information and bibliographic resources, biomedical terminology, as well as information and communication technologies, while observing basic information security procedures	
F	A/06.7	Management, administrative work	
	Action	Performed	Not Performed
1.	Selecting a testing laboratory (center) accredited in accordance with the established procedure.	2 points	-2 points
2.	Reviewing the submitted documents and materials for potential hazards.	1 point	-1 point
3.	Assessing information on the sanitary and epidemiological situation.	1 point	-1 point
4.	Presenting regulatory documentation as argumentation.	1 point	-1 point
	Total	5 points	

Final grade:

"Pass" - at least 75% of required actions performed

"Fail" - 74% of required actions or less performed