

Algorithm for performing practical skills for a student.

Conducting epidemiological and statistical studies of public health (on the example of primary incidence)

1. Define and articulate the purpose, objectives of public health studies
2. Ask for and describe the official data of the State Statistics Service of Ukraine about primary incidence (absolute numbers) and the structure of primary incidence (as a percentage) in 2017
3. List the groups by nosology belonging to the category of the most important non-epidemic (noncommunicable) pathologies, identify possible of them in the presented structure of primary incidence
4. Calculate the share of the most important non-epidemic (noncommunicable) pathology (sum up the selected groups in percentage) and the share of other pathology in the structure of primary incidence
5. Choose one method of graphical display of a data (diagrams: sectoral or radial) for the analysis of indicators and graphically present the results of study (Excel)
6. Formulate conclusions

Algorithm for performing practical skills for a student.

Processing of medical information (on the example of migration balance)

1. Define and articulate the purpose, objectives of the study
2. Ask for and describe the official data of the State Statistics Service of Ukraine about migration (absolute numbers) and the average annual population (absolute numbers) in 2018 and 2019
3. Explain the concept of "migration balance" and methods of its analysis
4. Calculate the indicators of the migration balance for 2018 and 2019 according to the formula:

$$\frac{\textit{Migration increase (or decrease)} \times 1000}{\textit{Average annual population}}$$

5. Choose one method of graphical display of a data (charts: bar, linear) for the analysis of indicators and graphically present the results of study (Excel)
6. Formulate conclusions

Algorithm for performing practical skills for a student.

Carrying out the analysis of activity of the doctor, division, health care institution (on an example of voluntary insurance)

1. Define and articulate the purpose, objectives of the study
2. Ask for a summary of data about program of the insurance policy "Outpatient care" of the insurance company TEKOM for voluntary health insurance
3. Explain the concept of "insurance indemnity" and methods of its analysis
4. Calculation of the share of insurance indemnity in the cost of the insurance policy according to the formula:

$$\frac{\text{Net - insurance} \times 100\%}{\text{Gross rate}}$$

5. Choose the method of graphical display of data (diagrams: sector, radial) for the analysis of indicators according to the condition and graphically present the results of the study (Excel)
6. Formulate conclusions

Algorithm for performing practical skills for a student.

Carrying out examination of working capacity

1. Define and articulate the purpose, objectives of the study
2. Voice out the main functions of Medical Certificate (Sick Note - SN)
3. Make a request for the necessary regulatory and legal documentation, in accordance with the task (order of the Ministry of Health of Ukraine № 455 of 13.11.2001, which regulates the correctness of filling LN, ICD-10 codes)
4. Analyze the information obtained on the following points: the date of issuance of SN (the number indicates the day, the letters - the name of the month, the number - the year); information about gender and age of the patient; diagnosis code according to ICD-10; the reason for temporary disability; treatment regimen; column "Dismissal"
5. Comparative analysis of the compliance of the filling of the SN of the patient Ivanov IP in accordance with the established diagnosis, diagnosis code in accordance with the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, adopted by the 43rd World Health Assembly on 01.01.93 (hereinafter - ICD-10) and instructions for filling out the SN.
6. Summing up: make and voice adjustments in the SN (if inaccuracies will be detected).

Algorithm for performing practical skills for a student.

Processing of medical information (on the example of natural movement of the population)

1. Define and articulate the purpose, objectives of the study
2. Ask for and describe the official data of the State Statistics Service of Ukraine about natural population movement (absolute numbers) and the average annual population of Ukraine and in the Odessa region in the relevant years (absolute numbers)
3. Explain the concept of "natural movement" and methods of its analysis
4. Calculate the indicators of natural population movement by the formula:

$$\frac{\text{Natural increase (or decrease)} \times 1000}{\text{Average annual population}}$$

5. Choose one of the method of graphical display of data (charts: bar, linear) for the analysis of indicators according to the condition and graphically present the results of the study (Excel)
6. Formulate conclusions

Algorithm for performing practical skills for a student.

Conducting epidemiological and statistical studies of public health (on the example of malignant neoplasms by types of localization)

1. Define and name the purpose, objectives of public health studies
2. Ask for and describe the official data of the State Statistics Service of Ukraine on the number of patients with malignant neoplasms by certain localizations (absolute numbers).
3. Calculate the share of malignant neoplasms by certain localization (percentage)
4. Calculate the share of neoplasms of other localizations in the morbidity structure.
5. Choose one method of graphical display of a data (diagrams: sectoral, radial, column) for the analysis of indicators and graphically present the results of study (Excel)
6. Make a conclusion.

Algorithm for performing practical skills for a student.

Conducting epidemiological and statistical studies of public health

(Primary Incidence by the region)

1. Define and name the purpose, objectives of public health studies
2. Ask for and describe the official data of the State Statistics Service of Ukraine on the number of first-time registered cases of diseases by classes of diseases, by regions (absolute numbers)
3. Select three regions with the highest rates of cases of diseases of a certain class (absolute numbers).
4. Calculate the incidence of a certain class of diseases in selected regions in permille.
5. Choose one method of graphical display of a data (diagrams: sectoral, radial, column) for the analysis of indicators and graphically present the results of study (Excel)
6. Make a conclusion.

Algorithm for performing practical skills for a student

"Carrying out the analysis of activity of a doctor, department, health care institution: dynamic of the outpatients visits"

1. Define and articulate the purpose, objectives of the study activity outpatient clinics
2. Ask for and / or describe the official data of the State Statistics Service of Ukraine for 2016 and 2017 on the average population and visits to outpatient clinics (absolute numbers).
3. Calculate the rate of visits to outpatient clinics (per 1000 inhabitants) and analyze the dynamics of visits for two years (2016-2017).
4. Choose the method of graphical display of data (charts: columnar, linear) for the analysis of indicators according to the condition and graphically present the results of the study (Excel)
5. Formulate conclusions

Algorithm for performing practical skills for a student

“Processing of medical information: statistics population by gender and age”

1. Define and voice the purpose, objectives of the study of medical - demographic indicators
2. Ask for and / or describe the official data of the State Statistics Service of Ukraine for 2017 on the average number and distribution of the permanent population of Nikolaev region by sex aged 25-29 years old (absolute numbers).
3. To calculate structure of the constant population of the Nikolaev area (as a percentage) by sex in this age group.
4. Choose the method of graphical display of data (diagrams: sector, radial) for the analysis of indicators according to the condition and graphically present the results of the study (Excel)
5. Formulate conclusions

Algorithm for performing practical skills for a student

“Carrying out the analysis of activity of a doctor, department, health care institution: beds provision”

1. Define and articulate the purpose, objectives of the study activity outpatient clinics
2. Ask for and / or describe the official data of the State Statistics Service of Ukraine for 2016 and 2017 on the population and the provision of hospital beds (absolute numbers).
3. Calculate the indicator of the population's hospital beds in two years.
4. Choose the method of graphical display of data (charts: columnar, linear) for the analysis of indicators according to the condition and graphically present the results of the study (Excel)
5. Formulate conclusions

Algorithm for performing practical skills for a student
“Processing of medical information: analysis of marital status”

1. Define and voice the purpose, objectives of the study of medical - demographic indicators
2. Ask for and / or describe the official data of the State Statistics Service of Ukraine for 2017 and 2018 on the population and the number of registered marriages in the Odessa region (absolute numbers)
3. Calculate the total number of showy registered marriages in the Odessa region for 2017-2018 (per 1000 inhabitants)
4. Choose the method of graphical display of data (charts: columnar, linear) for the analysis of indicators according to the condition and graphically present the results of the study (Excel)
5. Formulate conclusions

Algorithm for performing practical skills for a student
“Conducting epidemiological and statistical studies of public health: dynamic
of Primary Incidence”

1. Define and articulate the purpose, objectives of public health research
2. Ask for and / or describe the official data of the State Statistics Service of Ukraine for 2016 and 2017 on primary morbidity and average population (absolute numbers).
4. Calculate the rate of primary morbidity of Ukraine for 2016 and 2017 (per 1000 inhabitants).
5. Choose the method of graphical display of data (charts: columnar, linear) for the analysis of indicators according to the condition and graphically present the results of the study (Excel)
6. Formulate conclusions

Algorithm for performing practical skills for a student
Conducting epidemiological and medical-statistical studies of public health
(on the example of analysis of the structure of mortality)

1. Identify and articulate the purpose, objectives of the study of the structure of causes of death.
2. Ask for and describe the official data of the State Statistics Service of Ukraine for the relevant year on the number of deaths from various causes (absolute numbers) and the structure of causes of death (as a percentage)
3. List the groups of causes of death by nosology which belong to the category of socially significant diseases.
4. Choose the method of graphical display of data (diagrams: sector, radial) for the analysis of indicators according to the condition and graphically present the results of the study (Excel)
5. Formulate conclusions

Algorithm for performing practical skills for a student
Conducting epidemiological and medical-statistical studies of public health
(dynamic of the mortality rate)

1. Identify and articulate the purpose, objectives of the study of the structure of causes of death.
2. Ask and describe the official data of the State Statistics Service of Ukraine for 2018 and 2019 on the number of deaths from various causes (absolute numbers) and the structure of causes of death (as a percentage)
3. Analyze the difference between the indicators of the structure of causes of death according to the table for 2018 and 2019.
4. Choose the method of graphical display of data (diagrams: sector, radial) for the analysis of indicators according to the condition and graphically present the results of the study (Excel)
5. Formulate conclusions

Algorithm for performing practical skills for a student
Conducting epidemiological and medical-statistical studies of public health:
Primary disability (by type of area)

1. Define and articulate the purpose, objectives of public health research
2. Ask and describe the official data of the State Statistics Service of Ukraine for 2019 on indicators of first-time persons with disabilities in rural and urban areas (absolute numbers) and the structure of the causes of disability in these areas (as a percentage).
3. Analyze the difference between these indicators of the structure of different causes of disability in rural and urban areas.
4. Calculate the share of people with disabilities in rural and urban areas, analyze the found numerical values.
5. Choose the method of graphical display of data (diagrams: sector, radial) for the analysis of indicators according to the condition and graphically present the results of the study (Excel)
6. Formulate conclusions

Algorithm for performing practical skills for a student
Conducting epidemiological and medical-statistical studies of public health:
Primary disability (by type of pathology)

1. Define and articulate the purpose, objectives of public health research
2. Ask and describe the official data of the State Statistics Service of Ukraine for 2019 on the number of people first recognized with a disability from various types of diseases (absolute numbers) and structures of primary disability (as a percentage)
3. Analyze the structure of primary disability of the population depending on the class of the disease.
4. Choose the method of graphical display of data (diagrams: sector, radial) for the analysis of indicators according to the condition and graphically present the results of the study (Excel)
5. Formulate conclusions

Algorithm for performing practical skills for a student
Conducting epidemiological and medical-statistical studies of public health
(Infectious morbidity)

1. Define and articulate the purpose, objectives of the study.
2. Ask for and / or describe the official data of the State Statistics Service of Ukraine for October 2019. on infectious morbidity (absolute numbers) and the structure of infectious morbidity (as a percentage).
3. Highlight the most important pathologies in the overall structure of infectious diseases.
4. Calculate the share of the most important epidemic pathology and the total share of other pathology in the structure of infectious diseases.
5. Choose a method of graphical display of data for the analysis of indicators according to the condition and / or graphically present the results (Excel).
6. Formulate conclusions.

Algorithm for performing practical skills for a student

Medical information processing: Population statistics (age structure)

1. Define and articulate the purpose, objectives of the study.
2. Ask for and / or describe the official data of the State Statistics Service of Ukraine on the number of permanent populations of Ukraine by age and gender (estimated) on January 1, 2020.
3. Allocate the age range (under the condition of the task) in the total permanent population of Ukraine.
4. Analyze data on the dynamics of the population of the appropriate age in the total permanent population of Ukraine.
5. Choose a method of graphical display of data for the analysis of indicators according to the condition and / or graphically present the results (Excel).
6. Formulate conclusions.

Algorithm for performing practical skills for a student

Medical information processing: Population statistics (Fertility or Birth rate)

1. Define and articulate the purpose, objectives of the study.
2. Ask for and / or describe the official data of the State Statistics Service of Ukraine on the number of live births by gender and by region of Ukraine in 2019.
3. To allocate data on live-born boys in oblasts (according to the condition of the task) in the total number of live-born by gender and by regions of Ukraine.
4. Analyze the data and calculate the share of live births of boys or girls by region in 2019 (according to the terms of reference).
5. Choose a method of graphical display of data for the analysis of indicators according to the condition and / or graphically present the results (Excel).
6. Formulate conclusions.