



# **MEDICO-SOCIAL PROBLEMS OF DEMOGRAPHIC PROCESSES: POPULATION STATICS**

*Guidelines to the practical lesson  
for students in the specialties 222 “Medicine”  
and 228 “Pediatrics” on the course “**Social Medicine,  
Public Health (Public Health)**”*

МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ  
Харківський національний медичний університет

## **MEDICO-SOCIAL PROBLEMS OF DEMOGRAPHIC PROCESSES: POPULATION STATICS**

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lesson for students in the specialties 222 "Medicine"  
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## **МЕДИКО-СОЦІАЛЬНІ ПРОБЛЕМИ ДЕМОГРАФІЧНИХ ПРОЦЕСІВ: СТАТИКА НАСЕЛЕННЯ**

*Методичні вказівки  
до практичного заняття студентів  
спеціальностей 222 «Медицина» та 228 «Педіатрія»  
з дисципліни «Соціальна медицина,  
громадське здоров'я» (Громадське здоров'я)*

Затверджено Вченою радою ХНМУ.  
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ХНМУ  
2021**

Medico-social Problems of Demographic Processes: Population Statics : guidelines for students to the practical lesson for students in the specialties 222 “Medicine” and 228 “Pediatrics” on the course “Social Medicine, Public Health (Public Health)” / compil. V. A. Ohniev, P. O. Tregub, M. M. Mishchenko. – Kharkiv : KhNMU, 2021. – 20 p.

Compilers            V. A. Ohniev  
                          P. O. Tregub  
                          M. M. Mishchenko

Медико-соціальні проблеми демографічних процесів: статика населення : метод. вказ. до практичного заняття студентів спеціальностей 222 «Медицина» та 228 «Педіатрія» з дисципліни «Соціальна медицина, громадське здоров'я» (Громадське здоров'я)/ упоряд. В. А. Огнев, П. О. Трегуб, М. М. Міщенко. Харків : ХНМУ, 2021. – 20 с.

Упорядники        В. А. Огнев  
                          П. О. Трегуб  
                          М. М. Міщенко

## GUIDELINES FOR TOPIC TRAINING

**The aim of the class:** to learn the medical and social aspects of demography and methods of analysis of population statistics.

**Students need to know:**

➤ **Programme Issues:**

- what is demography as a science;
- sources of information on the population size, composition of the population and movement of the population, population censuses;
- dynamics of the population size and composition of the population of the population in various regions of the world, individual countries and in Ukraine:
  - gender and age composition of the population, type of age structure of the population (progressive, regressive, stationary), aging of the population;
  - indicator of demographic load, population changes, mechanical and natural movement of the population,
  - urbanization, depopulation, analysis of regional characteristics and dynamics of demographic indicators, assessment of the demographic situation.

➤ **accounting and reporting documentation:**

- census form

**Need to be able:**

- to analyze the change in the basic processes of population statistics;
- to develop measures to preserve and strengthen demographic processes.

### Recommended literature

#### Basic literature

1. Little William Chapter 19. Health and Medicine // In: Introduction to Sociology, 1<sup>st</sup> edition. / W. Little. – Victoria: Rice University, 2014. – 32 p. URL: <https://opentextbc.ca/introductiontosociology/chapter/chapter19-health-and-medicine/>
2. Conrad P, Barker KK The social construction of illness: key insights and policy implications. J Health Soc Behav. 2010;51 Suppl:S67–79. Doi: 10.1177/0022146510383495. URL: <http://www.ncbi.nlm.nih.gov/pubmed/20943584>
3. Fran Baum The New Public Health. 4<sup>th</sup> edition / F. Baum. Oxford: Oxford University Press, 2016. – 720 p. URL: <https://global.oup.com/academic/product/the-new-public-health-9780195588088?cc=ua&lang=en&>
4. Talbot Lyn, Verrinder Glenda Promoting Health: The Primary Health Care Approach, 6<sup>th</sup> edition / L. Talbot, G. Verrinder. – Australia: Elsevier, 2017. – 400 p. URL: <https://elsevier.com/books/promoting-health/talbot/978-0-7295-4257-9>
5. Vivian Lin, James Smith and Sally Fawkes Public Health Practice in Australia. The organized effort / V. Lin et al. – Australia: A&U Academic, 2014. – 560 p. URL:

<https://www.allenandunwin.com/browse/books/academic-professional/health/Public-Health-Practice-in-Australia-Vivian-Lin-James-Smith-and-Sally-Fawkes-9781743314319>

6. Methodical materials on the subject “Public Health”.
7. Summary of lectures in Social Medicine and Public Health / Kharkiv National Meedical University, Department of Public Health and Healthcare Management.

### **Additional literature**

1. Gebbie K, Rosenstock L, Hernandez LM Who Will Keep the public Healthy? Educating Public Health Professionals for the 21<sup>st</sup> Century / K. Gebbie et al. – Washington D.C.: National Academy Press, 2003. – P. 33–144.
2. Last John M. A Dictionary of Epidemiology 4<sup>th</sup> edition. Ed. by International Epidemiology Association / J. Last – New York, NY: Oxford, University Press, 2001. – 219 p. URL:  
[https://pestcontrol.ru/assets/files/biblioteka/file/19-john\\_m\\_last-a\\_dictionary\\_of\\_epidemiology\\_4th\\_edition-oxford\\_university\\_press-usa\\_2000.pdf](https://pestcontrol.ru/assets/files/biblioteka/file/19-john_m_last-a_dictionary_of_epidemiology_4th_edition-oxford_university_press-usa_2000.pdf)
3. Lorber, J. Women Get Sicker, but Men Die Quicker : Gender and Health / J. Lorber. / In Phil. Brown ed. Perspectives in Medical Sociology. – Illinois: Waveland Press, 2000. – P. 40–70.

### **Information Resources**

1. U.S. National Library of Medicine – <http://www.nlm.nih.gov/>
2. University of West Florida – University libraries. LibGuides. Public Health. Statistics and Data <https://libguides.uwf.edu/c.php?g=435443&p=2968919>
3. Scientific Library of Kharkiv National Medical University – <http://libr.knmu.edu.ua/index.php/biblioteki>
4. Vernadsky National Library of Ukraine – <http://www.nbu.gov.ua/>
7. National Scientific Medical Library of Ukraine – <http://www.library.gov.ua/>
8. Korolenko State Scientific Library – <http://korolenko.kharkov.com>
10. Central Scientific Medical Library of Sechenov State Medical University in Moscow – <http://www.scsml.rssi.ru>

## **THEORETICAL MATERIAL FOR PREPARING TO THE LESSON**

### **1. Demography as a science**

The implementation of an effective demographic policy is one of the main tasks of the economic and social development of the state. It should be aimed at the increasing of life expectancy, labour activity as well as preservation and strengthening the health of the whole population.

Demographic data are widely used by health authorities and institutions in the process of planning of preventative healthcare measures, for a complex

assessment of the population health status, for providing rational and high-quality medical care, for making scientifically based forecasts, and etc.

That is why demographic indicators are so important medical indicators of public health.

**Demography** is the science of population (from Ancient Greek “demos” meaning “the people”, “graphō” is “writing, description”), or in other words it is the study of population statistics.

There are many subfields in demography, such as: economic, social, historical, political, military, environmental, medical demography, and others.

**Medico-social demography** is a study that investigates the correlation of medico-social factors and population reproduction, and develops measures for the improvement of demographic processes and public health.

**Medico-social demography** studies population from two points of view: statics and dynamics.

1) **Statics** is a **population characteristic** at a certain time (number, composition, density, gender, place of residence, etc.);

2) **Dynamics (or movement) of population** is a **characteristic of the processes** of changing the population in definite periods of time.

## 2. Population statics

**Population statics** is the oldest field of statistical science. **The census** is the main source of information. This is a large-scale statistical study aimed at establishing accurate data on the population size and composition of the population of a country. The first known attempt to register the population was made in China in 283 B.C. And the first scientifically based census was conducted in Belgium in 1846.

The census has to be carried out once in 10 years, usually in winter or autumn, in the middle of a week (during the lowest migration rate). The last census was held in Ukraine on December 5, 2001.

Between censuses, special recalculations of the population are made, taking into account data on fertility, mortality and population migration in a certain territory.

### **Strict requirements are imposed on the census:**

- universality and a common program for the whole population;
- nominality (during further processing the data are depersonalized);
- direct reception of information from the population (according to the self-identification of the respondent, without submission of documents);
- a personal survey of each adult is carried out by counters at the place of actual residence;
- Strict census secrecy.

*The statics of a population is characterized by population size, density, gender, age, place of residence, and etc.*

**The world population in 2015 was 7.26 billion people**, and by 2050 it is expected the increasing of it for more than 2 billion. According to the UN, the most growth of the population in future will be given by undeveloped regions. There is a significant diversity in the expected future dynamics of demographic changes in various large regions and countries. It can happen mainly due to differences in rates and trends of fertility. In the coming decades, the population of Africa and Asia will rise dramatically. On the other hand, it is expected that due to the low birth rate the amount of population in some countries will fell significantly. According to the UN, the absolute annual population growth of the Earth is approximately 80–90 million, mainly due to the developing countries. The population growth rate in economically developed countries is the lowest just 0.3–0.4 % per year.

**In 2019 the largest population was in China** (1.39 billion), India (1.35 billion), the USA (329 million), Indonesia (268 million), Brazil (209 million), Pakistan (204 million), Nigeria (200 million), Bangladesh (166 million), Russia (142 million), Japan (126 million), Mexico (126 million) and Philippines (107 million). 2/3 of the world's population, about (4.5–5 billion) live in above-mentioned countries.

In 2019, in Ukraine the amount of population was 43.95 million (according to the 2001 census, there was 48.457 million).

In Kharkiv region in 2019 the population was 2 659 000 people, it was the 4<sup>th</sup> region after Donetsk and Dnipropetrovsk regions and Kyiv).

*Information on the amount and composition of the population* is used to calculate health indicators, in planning a network of preventative medical institutions, as well as in planning of medical personnel training.

**Population density** is the number of people lived per 1 km<sup>2</sup>.

The highest population density is in Monaco – 18 679 per 1 km<sup>2</sup>, Singapore – 7 389 per 1 km<sup>2</sup>, Vatican – 1 914 people per 1 km<sup>2</sup>, in Bahrain – 1 753 per 1 km<sup>2</sup>, in Malta – 1 432 per 1 km<sup>2</sup>, in the Maldives 1 359 per 1 km<sup>2</sup>, in Bangladesh – 1 154 per 1 km<sup>2</sup>, in Barbados – 663 per 1 km<sup>2</sup>, in China – 650 per 1 km<sup>2</sup>.

The lowest population density is in Mongolia is 2.0 people per 1 km<sup>2</sup>, in Namibia – 2.6 people per 1 km<sup>2</sup>, in Australia – 2.8 people per 1 km<sup>2</sup>.

In Ukraine it reaches 75 people per 1 km<sup>2</sup>, in Kharkiv region it is about 84.6 people per 1 km<sup>2</sup>.

In the whole world the population density is 53.4 people per 1 km<sup>2</sup> (without Greenland and Antarctica).

**The distribution of population by place of residence.** The largest part of urban population in the world is noted in: Belgium (97.5 %) Venezuela (93.5 %), Argentina (92.5 %), Japan (91.3 %), Chile and Australia (89.2 %). As for rural population it dominates in Republic of South Africa (38 %), Iraq (33.5 %), and Ecuador (32.5 %).

In recent years, Ukraine has a practically stable ratio of urban to rural population: 70.1 % of urban population and 29.9 % of rural population, respectively. In Kharkiv region there are 80.2 % and 19.8 % respectively.

Thus, the urban population prevails in the structure, so there is a tendency towards *urbanization*.

**Urbanization** is the process of increasing role of cities in the development of society. The social significance of urbanization is the formation of a specific “urban relations” that are covering the population, its lifestyle, culture, distribution of productive forces, and resettlement.

The growth of industry in cities and the development of their cultural and political functions are prerequisites of urbanization. Urbanization is characterized by an influx of rural population into cities. The process of urbanization is inherent to the majority of countries of the world.

There are some cities in the world with the largest population (according to 2019 data): Shanghai (China) – 24.15 million people, Karachi (Pakistan) – 23.5 million people, and Beijing (China) – 21.52 million people.

In Ukraine, there were 4 cities with the population of more than 1 million in 2019: Kyiv (3 066 023), Kharkiv (1 450 082), Odesa (1 011 494) and Dnipro (1 002 111).

***The distribution of population by gender.*** In general, female population dominates in the sexual structure of Ukraine – 53.8 % in comparison to the male one – 46.2 %, despite the fact that 104–105 boys are born per 100 girls.

The gender structure of the population is mostly depends on the different mortality rates among men and women. Biological and social factors affect the lethality significantly.

***The distribution of population by age.*** Economists sub-divide population into 3 age groups:

- disabled children from 0 to 16 years old;
- able-bodied population (men from 16 to 59 and women from 16 to 54 years old);
- the people of retirement age: men over 60 and women 55 years old (according to the present pension legislation, but nowadays the state tries to reform it).

Analyzing the age structure of the population, it is necessary to determine the number of people a definite age group.

The ratio of these three age groups determines **the type of age structure** of the population that lives in a particular territory.

With the ***progressive type*** of age structure, the number of children (0–14 years) exceeds the number of aged people (50 years and older).

For the ***regressive type*** of age structure the number of older people (50 years or more) prevails over the number of people from 0 up to 14 years.



**Stationary** type of age structure of the population is considered in the case when the number of children (0 – 14 years) is approximately equal to the number of people aged ones (50 years and older).

*In Ukraine we have **regressive type** of age structure.*

**The age structure Ukrainian population** is characterized by two major trends:

- 1) reduction the number of children;
- 2) and increasing the proportion of older people.

The proportion of children in Ukraine in 2017 was 15.76 %, at the same time we had 16.3 % of people over 65 years.

However, the age of **50 years** for many countries is recognized as a working age, therefore, according to international criteria, population aging is estimated by the proportion of the population **over 65 years**. The population is considered old if the proportion of aged people **exceeds 7 %**. The process of population aging is inherent to the majority of economically developed countries. Thus, in 18 out of the 20 countries with the largest number of aged population are European ones. In these countries the group of aged people (over 65 years) reaches from **13 %** up to **18%** (16.8 % in Ukraine).

*The aging process of the population poses important problems to the health system:*

- an increasing proportion of people 60+ in the population leads to the decrease of the birth rate and a rise of general mortality rate. It must be taken into account in analyzing the demographic processes of population reproduction;
- a substantial rise of age population appeals for outpatient and inpatient medical care;
- a dramatic rise of the rate of demographic load.

A significant fall of the number of infant population from one hand, and a steady increase of 60+ groups from the other hand, lead to a gradual increase of the indicator of “economical (demographic) load” on the working population. This indicator can be calculated as a correlation of children and pensioners to the able-bodied population.

### **3. The importance of statics for public health**

Population statistics or demographic statistics is widely used in public health. In particular, it is used for:

- planning a network of medical institutions;
- the determination of the population needs in medical care (outpatient or inpatient ones, etc.);
- training of medical personnel;
- organization and planning of epidemiological measures;
- calculation of vital rate;
- determining the budget of public health;
- analyzing the activity of the health care institutions.

# RECORDS AND REPORTS

## ДЕРЖАВНИЙ КОМІТЕТ СТАТИСТИКИ УКРАЇНИ

### ВСЕУКРАЇНСЬКИЙ ПЕРЕПИС НАСЕЛЕННЯ 2001 р.

Зразки написання міток

форма 1  
 Затверджено  
 Наказ Держкомстату  
 України  
 30.03.2001 № 175

Зміст відповідей загальної персонної документації зберігається повністю в будинку. Ці дані використовуються лише для статистичних цілей у зведеному зваженому вигляді.

№ [ ] приміщення у межах лічильної ділянки

Список проживаючих у приміщенні членів домогосподарства № [ ] та їх житлові умови [ ] [ ]

[ ] [ ] [ ] [ ]

На парового виду  
 На інструкторської ділянки  
 На лічильної ділянки  
 На приміщення у межах лічильної ділянки  
 список проживаючих у приміщенні членів домогосподарства № [ ]  
 На бланка у межах портфеля  
 На портфеля

01 [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Республіка, область [ ]

Населений пункт [ ]

Прозект, вулиця, площа, провулок [ ]

№ будинку [ ]

№ квартири [ ]

Прізвище домогосподарника [ ]

- Інституційна установа (будинки-інтернат для осіб похилого віку, інвалідів, дитячий будинок, монастир тощо)
- Безпритульний(і)
- тимчасово проживаючий(чі) у даному приміщенні

Резерв

1  
 2  
 3  
 А  
 Б  
 В

#### 1. Список проживаючих у приміщенні членів домогосподарства на [ ] осіб

№ з. л. особи у межах домогосподарства	Прізвище, ім'я, по батькові	Для постійно проживаючого члена домогосподарства, але тимчасово відсутнього, записати	
		причину відсутності	тривалість відсутності (вказати кількість місяців або "менше місяця")
1	2	3	4
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
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[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]




+

+

2. Житлові умови домогосподарства

+

+ (питання 1-7 на тимчасово проживаючих, проживаючих в інституціональних установах та безпритульних не заповнюються)

<p>1. Тип житлового приміщення</p>	<p>1 <input type="checkbox"/> Індивідуальний будинок</p> <p>2 <input type="checkbox"/> Частина індивідуального будинку</p> <p>3 <input type="checkbox"/> Окрема квартира</p> <p>4 <input type="checkbox"/> Загальна (комунальна) квартира</p> <p>5 <input type="checkbox"/> Гуртожиток</p> <p>6 <input type="checkbox"/> Готель</p> <p>7 <input type="checkbox"/> Інше приміщення</p> <p>8 <input type="checkbox"/> Наймане житлове приміщення у окремих громадян</p>
<p>2. Кількість зайнятих житлових кімнат</p>	<p><input type="checkbox"/>  житлових кімнат</p> <p>1 <input type="checkbox"/> частина кімнати</p>
<p>3. Розмір площі індивідуального будинку, частини індивідуального будинку, окремої або загальної (комунальної) квартири (кв. м)</p>	<p>+ <input type="checkbox"/>  загальна</p> <p><input type="checkbox"/>  житлова</p>
<p>4. Ви або члени Вашого домогосподарства маєте земельні ділянки сільськогосподарського призначення</p>	<p>1 <input type="checkbox"/> так      2 <input type="checkbox"/> ні</p>
<p>5. Якщо так, то на яких правах</p>	<p>1 <input type="checkbox"/> на правах приватної власності</p> <p>2 <input type="checkbox"/> на правах оренди</p> <p>3 <input type="checkbox"/> інше</p>
<p>6. Яка загальна площа Ваших земельних ділянок</p> <p>+</p>	<p>1 <input type="checkbox"/> менше 0,1 га      4 <input type="checkbox"/> від 1,1 до 5 га</p> <p>2 <input type="checkbox"/> від 0,1 до 0,5 га      5 <input type="checkbox"/> від 5,1 до 10 га</p> <p>3 <input type="checkbox"/> від 0,51 до 1 га      6 <input type="checkbox"/> більше 10 га</p>
<p>7. Чи даєте Ви свої земельні ділянки в оренду</p>	<p>1 <input type="checkbox"/> так      2 <input type="checkbox"/> ні</p> <p style="text-align: right;">+</p>

Form 1 (F 1) – “List of household members and their housing conditions” (filled in for each independent household that resided in a certain room permanently or temporarily. Whereby, questions 1–7 for temporary residents, living people in an institutional establishment or homeless ones were not filled).

Зміст відповіддей заповненої переписної документи забороняється повідомляти будь-кому. Ці дані використовуються лише для статистичних цілей у зведеному знеособленому вигляді.

**ДЕРЖАВНИЙ КОМІТЕТ СТАТИСТИКИ УКРАЇНИ**  
**ВСЕУКРАЇНСЬКИЙ ПЕРЕПИС**  
**НАСЕЛЕННЯ 2001 р.**

Форма 2С  
ЗАТВЕРДЖЕНО  
Наказ Держкомстату  
України  
30.03.2001 № 175  
Зразки нанесення міток

**ПЕРЕПИСНИЙ ЛИСТ**

				1	2				
№ переписного відділу	№ інструкторської дільниці	№ лінійної дільниці	№ приміщення у межах лінійної дільниці	список проживаючих у приміщенні членів домогосподарства №	№ а.п. особи у межах домогосподарства	№ бланка у межах портфеля	№ портфеля		Резерв
2С									1
									2
									3

Прізвище та ініціали

**1. Ваші родинні стосунки з особою, що записана першою у домогосподарстві**

1  член домогосподарства, зарисаний першим

2  дружина, чоловік

3  дочка, син

4  мати, батько

5  сестра, брат

6  невістка, зять

7  свекрука, свекор, тесть

8  баба, дід

9  онука, онук

10  інший ступінь споріднення та свояцтва

11  не родич

№ матері (Батька)

**2. Ваша стать**

1  чоловіча 2  жіноча

**3. Тимчасово**

1  відсутній 2  проживаючий

**4. Ваша дата народження**

число  місяць  рік

скільки виповнилося років

**5. Ваше місце народження** (вказуйте: Автономна Республіка Крим, область, м.м. Київ, Севастополь, інша держава — назва)

**6. Ваше етнічне походження** (вказуйте, національність, народність) або етнічну групу

**7. Ваші мовні ознаки**

а) рідна мова (вказуйте)

б) якщо Ваша рідна мова не українська, то вкажіть чи володієте вільно українською мовою 1  так 2  ні

в) інша мова, якою Ви вільно володієте (вказуйте)

**8. Ваше громадянство**

1  Україна 2  без громадянства

інша держава — назва

**9. Ваш сімейний стан** (для осіб віком 15 років і старших)

1  ніколи не перебував(ла) у шлюбі

2  перебуваю у зареєстрованому шлюбі

3  перебуваю у незареєстрованому шлюбі

4  удівець, удова

5  розлучений(на)

6  розійшовся(лася)

№ дружини (чоловіка)

**10. Ваша освіта** (для осіб віком 6 років і старших)

1  повна вища (вища)

2  базова вища (середня-спеціальна)

3  початкова вища (середня-спеціальна)

4  незакінчена вища (для осіб, які закінчили навчання в 1996 році і раніше)

5  середня (середня загальна)

6  базова загальна (неповна середня)

7  початкова загальна (початкова)

8  не мав початкової загальної

9  неписьменний(на)

Навчальний заклад, який закінчив(ла), сільські класи (курсів), в якому році

**11. Ви закінчили професійно-технічний навчальний заклад** (для осіб віком 15 років і старших)

1  так 2  ні

**12. Тип навчального закладу, в якому Ви навчаєтесь** (для осіб віком 6 років і старших)

1  вищий 2  професійно-технічний 3  загально-освітній 4  інший навчальний заклад (курсів)

5  інше навчання

Для осіб віком до 7 років, які не відвідують школи, вказати, чи відвідують дошкільний заклад 6  так 7  ні

**13. Ваші джерела засобів існування**

1  робота на підприємстві, в організації, установі, сільському (фермерському) господарстві

2  робота у окремих громадян

3  робота на власному підприємстві

4  робота на індивідуальній основі

5  робота у власному селянському (фермерському) господарстві

6  робота на сімейному підприємстві без оплати праці

7  робота в особистому підсобному господарстві

8  прибуток від власності

9  пенсія

10  стипендія

11  допомога (крім допомоги по безробіттю)

12  допомога по безробіттю

13  інший вид державного забезпечення


14  на утриманні інших осіб

15  інше джерело


номер основного джерела засобів існування

Питання 14-19 на тимчасово проживаючих не заповнюються

**14. Повна назва установи, організації, підприємства, власної справи, де Ви зайняті основною роботою, вид діяльності** (вказіть)




**15. Ваше заняття на основній роботі**

+   
   
*(вказіть докладну назву професії, посади або роботи, що виконується Вами)*

**16. Місцезнаходження Вашої роботи**

на території проживання

+  на іншій території (вказіть)    
*(Автономна Республіка Крим, область, м.м. Київ, Севастополь, інші держави – назва)*


**17. Ваше положення у занятті** (ким Ви працюєте)


1  працівник(и) за наймом      3  роботодавець      5  безоплатно працюючий член сім'ї

2  член колективного підприємства, кооперативу      4  самозайнят(и)я

**18. У цьому населеному пункті Ви проживаєте безперервно з народження**

1  так      2  ні

а) якщо «ні», то вкажіть рік, з якого безперервно проживаєте    
 час переїзду припадає на період з 5.12.2000 до 5.12.2001 3

б) місце попереднього проживання (вказіть)    
*(Автономна Республіка Крим, область, м.м. Київ, Севастополь, інші держави – назва)*

в) тип населеного пункту, з якого Ви прибули

4  міський      5  сільський +



г) чи Ви є:

6  біженець      7  депортований

**19. Ви народжували дітей** *Для жінок (віком 15 років і старших)*

так       ні

якщо «так», вкажіть

+ а) скільки дітей народили   б) скільки з них живі   +

Form 2 C – “The Census form” (was drawn up for each person in form 1. Questions 14–19 for temporary residents were not completed).

## TEST TASKS

1. Demography (from Greek “demos” – “people” and “graphō” – “to write”) is a science of population, processes and phenomena that characterize quantitative and qualitative changes in the human environment. Determine which of the following is the subject of demography study?

- A. *Population morbidity.*
- B. *Population disability.*
- C. *Population mortality.*
- D. *Number and age composition of the population.\**
- E. *Number of hospitalized people.*

2. Demography is the science of population. Its subject and tasks include study the size, composition, mechanical and natural movement of the population and other processes. In Ukraine, a negative population growth has been recorded over the past decade. Which of the following is the essence of this concept?

- A. *The birth rate corresponds the mortality rate.*
- B. *The prevalence of the birth rate over the death rate.*
- C. *The prevalence of the death rate over the birth rate.\**
- D. *The increase of demographic burden.*
- E. *The decrease of infant population.*

3. Demographic data is widely used by health authorities and institutions for the planning of preventive health measures. It is also used for a comprehensive assessment of the health status of the population, to ensure rational and quality of medical care for the population, etc. Which of the following indices are demographic?

- A. *Morbidity.*
- B. *Disability.*
- C. *Mortality.*
- D. *The prevalence of donozological conditions.*
- E. *Birth rate.\**

4.\*\* *The indices that characterize the health of the population include demographic ones. Which one out of the following is the field for calculating these indices?*

- A. *Patients number.*
- B. *Number of population, which is a subject to preventive examinations.*
- C. *Population number.\**
- D. *Employment size.*
- E. *Hospitalized patients number.*

5. The organizational and methodological department of the regional hospital of the city of K., together with the demographic department of the regional statistical office, conducted an analysis of population health indices. Which of the following demographic data was used to study population health indices?

- A. *The size and composition of the population, including patients.*
- B. *The size and composition of the population, including disabled people.*
- C. *The size and composition of the population, including sex composition.*
- D. *The size and composition of the population, died in hospital.*
- E. *The size and composition of the population, newborn, dead.\**

6. Demographic data is used by the healthcare system for a comprehensive assessment of the health status of the population, the preparation of scientifically based forecasts and the targeted organization of medical care. Which of the following group of indices describes the demographic situation the most accurately?

- A. Total mortality, natural increase.
- B. Results of periodic medical check-ups.
- C. Birth rate and mortality.
- D. Birth rate, general mortality, natural increase.\*
- E. Complete census.

7. The assessment of processes among the population was carried out according to the following demographic characteristics: birth rate, mortality, reproduction, nuptiality, the number of divorces, the size and composition of the population, emigration and immigration. Which of the following demographic characteristics reflect static processes?

- A. Nuptiality and the number of divorces.
- B. Reproduction and population growth.
- C. Birth rate, mortality.
- D. Number and composition of the population.\*
- E. Emigration and immigration.

8. The distribution of the population by sex is primarily caused by the different mortality rates among male and female population. Which of the following is the proportion of male and female population in Ukraine?

- A. Men – 43 %, women – 57 %.
- B. Men – 46 %, women – 54 %.\*
- C. Men – 49 %, women – 51 %.
- D. Men – 52 %, women – 48 %.
- E. Men – 55 %, women – 45 %.

9. Age composition of population is an important data for the assessment of the reproduction processes. Which of the following type of age structure is typical for Ukrainian population?

- A. Negative.
- B. Stable.
- C. Progressive.
- D. Regressive.\*
- E. Stationary.

10. Periodic census is the main and the most reliable source of information on the size of the population in the state. Which of the following tendency is observed in the statics of Ukrainian population?

- A. Population aging.\*
- B. Increasing the group of women under 30.
- C. Population growth.
- D. Increasing the number of working age people.
- E. Rural mortality reduction.

11. In the analysis of the age structure of the population usually define the correlation of three main groups. Which of the following is typical for the stationary type of age structure of the population?

- A. *The highest specific gravity is in the age group from 15 up to 49.*  
 B. *The highest specific gravity is in the age group of 50+.*  
 C. *The specific gravity of children and people 50+ is approximately the same.\**  
 D. *The specific gravity of people 50+ exceeds the proportion of children.*  
 E. *The number of children (0–14 years) exceeds the number of people aged 50+.*
- 12.** Types of the population age structure are used for characterization of the population of different countries. Which of the following is regressive type of age structure?  
 A. *The number of children under 14 and 50+ is approximately the same.*  
 B. *The proportion of retired people prevails.*  
 C. *The number of children under 14 exceeds the number of people 50+.*  
 D. *The number of people 50+ exceeds the number of children under 14.\**  
 E. *The number of people 65+ exceeds the number of children under 14.*
- 13.** Types of the population age structure are used for characterization of the population of different countries. Which of the following is the progressive type of age structure?  
 A. *The specific gravity of children and people 50+ is approximately the same.*  
 B. *The specific gravity of retired people prevails.*  
 C. *The number of children under 14 exceeds the number of people 50+.\**  
 D. *The number of people in the age group 15–49 years prevails exceeds the number of people 50+.*  
 E. *The number of people over 50 exceeds the number of children.*
- 14.** The age structure of the district population is distributed as follows: the proportion of children (0–14 years old) is 15%, the proportion of the population aged 15–49 years is 50 %, and the proportion of the population 50+ is 35 %. Which of the following is the type of age structure of the population of the area?  
 A. *Depopulation.*                      C. *Regressive.\**                      E. *Stationary.*  
 B. *Progressive.*                      D. *Retrospective.*
- 15.** In the population structure of the M-region, the proportion of people aged 0–14 years is 15 %, at the age of 50+ is 30 %. Which of the following is the best characteristic of this demographic situation?  
 A. *Immigration.*  
 B. *Progressive composition of the population.*  
 C. *Regressive composition of the population.\**  
 D. *Stationary composition of the population.*  
 E. *Emigration.*
- 16.** In the structure of the region population, the proportion of people aged 0 to 14 years is 25 %, the proportion of people 50+ is the same. Which of the following is the best characteristic of this demographic situation?  
 A. *Population immigration.*  
 B. *Progressive composition of the population.*  
 C. *Regressive composition of the population.*



*D. Stationary composition of the population.\**

*E. Population emigration.*

**17.** In the population structure of the N region, the category of people aged 0 to 14 years is 31 %, the category of people 50+ is 20 %. Which of the following is the best characteristic of this demographic situation?

*A. Population migration.*

*B. Progressive composition of the population.\**

*C. Regressive composition of the population.*

*D. Stationary composition of the population.*

*E. Population emigration.*

**18\*\*.** In the structure of the region population, the proportion of people from 0 to 14 years old is 25 %, the proportion of people of 50+ is 30 %. Which concept describes given demographic situation the most accurately?

*A. Population immigration.*

*B. Generation type of the population.*

*C. Progressive composition of the population.*

*D. Regressive composition of the population.\**

*E. Stationary composition of the population.*

**19.** Based on social, economic, as well as biological and geographical factors, demography explores the patterns of phenomena and processes that occur in the structure, location and dynamics of the population. Which of the following is the type of age structure in Ukraine?

*A. Negative.*

*C. Progressive.*

*E. Stationary.*

*B. Positive.*

*D. Regressive.\**

**20.** The coefficient of demographic load is a generalized quantitative characteristic of the age structure of the population shows the burden on society by an unproductive population. Which of the following is the indicator of “demographic burden”?

*A. The ratio of the number of children and retired people to the total population.*

*B. The ratio of the number of retired people to the total population.*

*C. The ratio of the number of children and retired people to the working-age population.\**

*D. The ratio of the number of children to the retired people,*

*E. The ratio of the number of children to people of senior working age.*

**21.** Age-specific indicators of population are widely used to measure population health. Which of the following is the coefficient of demographic burden?

*A. The ratio between children died in the first year of life and people 50+.*

*B. The ratio between people of non-working age (children, pensioners) and able-bodied population.\**

*C. The ratio between the total number of disabled people to the number of the whole population.*

*D. The ratio between birth rate and mortality.*

*E. The ratio between the average life expectancy of disabled and working age people.*

**22.** The process of population ageing poses important problems to the system of organs and healthcare institutions, among which the rise of demographic burden is the most important. Which of the following information should be used for calculation of “demographic burden” indicator?

*A. The number of total population.*

*B. The number of retired people to the number of children.*

*C. The number of retired people, children and working age population.\**

*D. The number of retired people and able-bodied population.*

*E. The number of people of working age and the number of children.*

**\*\*** – test items are required when preparing for exams of *KROK*

## CONTROL QUESTIONS

1. What is demography and its main sections?
2. What is the statics of the population?
3. How to conduct a population census and what are the basic requirements for its organization?
4. What are the main features of the population in the world and in Ukraine?
5. What is the density of population and what are its regional characteristics?
6. What are age and sex characteristics of the population in the world and in Ukraine?
7. What is the type of age structure and the procedure of its determination?
8. What are the features of population distribution by place of residence?
9. Which problems does the health system of any state face because of the aging of population?
10. What is the indicator of “demographic burden” and methodic of its calculation?
11. What is urbanization?
12. Describe the demographic picture of Ukraine.
13. What is the importance of statics for health system?

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*Навчальне видання*

# **МЕДИКО-СОЦІАЛЬНІ ПРОБЛЕМИ ДЕМОГРАФІЧНИХ ПРОЦЕСІВ: СТАТИКА НАСЕЛЕННЯ**

*Методичні вказівки до практичного заняття  
студентів спеціальностей 222 «Медицина» та 228 «Педіатрія»  
з дисципліни «Соціальна медицина, громадське здоров'я»  
(Громадське здоров'я)*

Упорядники      Огнев Віктор Андрійович  
                         Трегуб Павло Олегович  
                         Міщенко Марина Михайлівна

Переклад І. Чухно, Н. Мартиненко

Відповідальний за випуск      В. А. Огнев



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**Редакційно-видавничий відділ  
ХНМУ, пр. Науки, 4, м. Харків, 61022  
izdatknmurio@gmail.com, vid.redact@knu.edu.ua**

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