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MEDICAL UNIVERSITY - PLEVEN

DEPARTMENT OF PUBLIC HEALTH SCIENCES

APPROVE:

DEAN:

/ Prof. Dr. A. Asparuhov, MD,PhD,DSc/


FROM ACADEMIC YEAR 2020/2021

PROGRAMME SOCIAL MEDICINE

**MEDICAL STUDENTS
MASTER DEGREE**

PLEVEN

2020

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Compulsory

Second year, third and fourth semester

Credits: 6,5

Total hours: 90 - 30 hours lectures and 60 hours seminars

Faculty

Prof. Dr Silviya Aleksandrova-Yankulovska, MD, PhD, DSc, MAS

Assoc. Prof. Stela Georgieva, MD, PhD

Assoc. Prof. Mariela Kamburova, MD, PhD

Chief Assistant Prof. Dima Canova, MD, PhD

OBJECTIVES


Social medicine teaching aims at enabling students to distinguish between different levels of studying health and the specific tasks of health professionals on the level of public health. The course also aims at developing skills of autonomous analysis and evaluation of public health indicators and relating this study to appropriate measures at local, national and international level.

The programme is organized in two parts:

1. Fundamental part of public health – scope and methods of public health
2. The practice of public health

At the end of the course students should be able to:

- Define the subject field of social medicine;
- Apply the socio-medical approach and to prepare social history of disease;
- Define health and public health;
- Enlist the main public health indicators;
- Be familiar with the main principles of organization and functioning of health systems and the main criteria for health systems assessment;
- Be familiar with the key strategies of WHO for primary health care development and health promotion;
- Determine the main medico-social problems of the vulnerable groups of the population: children, mothers, elderly, disabled;
- Be able to calculate and interpret demographic and morbidity indicators as well as indicators for assessment of hospital beds utilization;

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- Distinguish between different levels of prevention and suggest measures for each of it in relation to specific leading public health problems
- Prepare self-administered questionnaire for specific scientific purposes;
- Prepare appropriate health education materials.

Educational forms:

- Lectures
- Practicals

Methods of education:


- interactive lectures
- seminars
- analysis of statistical data
- individual assignments

Control and assessment:

- Semestrial tests.
- Individual assignments.
- Examination test.
- Theoretical questions discussion.


CONTENT

№	LECTURES	Hours
THIRD (SUMMER) SEMESTER		
1	Social medicine as a science. Social determinants of health and disease.	2
2	Sociology as applied to medicine and health care system.	2
3	Epidemiology Part 1 – Definition and scope of epidemiology. Basic concepts.	2
4	Epidemiology Part 2 - Types of studies. Descriptive and analytical studies.	2
5	Epidemiology Part 3 – Experimental studies. Biases. Causation	2


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№	LECTURES	Hours
6	Prevention and health promotion.	2
7	Public health–concept. Measurement, sources and methods of studying morbidity.	2
8	Demographic approaches to health assessment. Demography statics.	1
FORTH (WINTER) SEMESTER		
1	Demography dynamics. Fertility. Mortality.	2
2	Demography dynamics. Infant Mortality. Life expectancy.	2
3	Health care system as a social system – definition, objectives, evolution, reforms.	2
4	Typology of health systems. Priorities of health policy.	2
5	Primary health care. Hospital care - current situation and future development.	2
6	Public health needs of population groups. Needs assessment. Health inequalities.	2
7	International health collaboration. Strategy “Health for all in the 21 century”.	2
8	Principles of infectious disease control. The role of WHO in epidemics control.	1
TOTAL		30

№	PRACTICALS	Hours
THIRD (SUMMER) SEMESTER		
1	Social determinants of health and disease.	2
2	Family health.	2
3	Sociological approaches to investigation. Self-administered questionnaire.	2
4	Sociological approaches to investigation. Interview. Observation.	2
5	COLLOQUIM ON SOCIOLOGY	2

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№	PRACTICALS	Hours
6	Epidemiology: Basic concepts. Measuring disease frequency.	2
7	Epidemiology: Comparing disease occurrence.	2
8	Epidemiology: Types of studies in epidemiology. Potential errors.	2
9	Epidemiology: Cohort and Case-control studies.	2
10	COLLOQUIUM ON EPIDEMIOLOGY	2
11	Morbidity - basic measures. Systems of morbidity registration - ICD-10.	2
12	Prevention - levels and strategies. Screening.	2
13	International trends and leading causes of morbidity. Major risk factors.	2
14	TEST ON MORBIDITY AND PREVENTION	2
15	Sociological and epidemiological approaches in Public health – overview	1
FORTH (WINTER) SEMESTER		
1	Demographic approaches to health assessment. Demography statics.	2
2	Demography dynamics. Fertility.	2
3	Demography dynamics. Mortality.	2
4	Standardization. Direct and indirect method.	2
5	Demography dynamics. Infant mortality.	2
6	Demographic approaches to health assessment: Life expectancy.	2
7	COLLOQUIUM ON DEMOGRAPHY	2
8	Health care system - goals, principles of organization, structure.	2
9	Primary health care - Organizational models.	2
10	Hospital care.	2
11	TEST ON HEALTH CARE SYSTEM. Health promotion and education.	2
12	Medical and social problems and health services for women and children.	2
13	Health care for the elderly people and migrants.	2
14	PRESENTATION OF STUDENTS' HEALTH EDUCATION MATERIALS	2
15	Annual overview.	1
TOTAL		60

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CONTROL

During the semester


During the semesters students get individual assignments to prepare self-administered questionnaire and health education material. Both assignments are assessed and considered in the semestrial mark as well as all results from tests and colloquiums. The threshold to pass tests successfully is 60% right answers. Managing practical tasks at class is also taken into account.

The semestrial mark is calculated as average from the individual assignment assessment, tests and colloquium results and practical tasks management.

SEMESTRIAL EXAM

- I. Exam consists of two parts:
 1. Test of 30 questions on the whole synopsis
 2. Theoretical questions:
 - One question from the fundamental part
 - One question from the practice of public health
- II. Assessment criteria:
 1. Test assessment criteria:

Number of right answers	Mark
18	3.00
19	3.25
20	3.50
21	3.75
22	4.00
23	4.25
24	4.50
25	4.75
26	5.00
27	5.25
28	5.50
29	5.75
30	6.00

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2. Final examination mark is calculated as follows:

$$\text{Final mark} = (0,40 \times A^*) + (0,40 \times B^*) + (0,10 \times C^*) + (0,10 \times D^*)$$

A - mark on the examination test

B - mark on the theoretical questions

C - average mark for the first semester of social medicine course

D - average mark for the second semester of social medicine course

A, B, C, and D should be different from Poor (2.00), i.e. A, B, C, and D should be at least Average (3.00) to proceed to calculation of final mark.


EXAMINATION SYNOPSIS IN SOCIAL MEDICINE 2020/2021

Specialty "Medicine", Second year students


(January 2021 examination session)

I. FUNDAMENTAL PART OF PUBLIC HEALTH – SCOPE AND METHODS OF PUBLIC HEALTH

1. Social medicine as a science. Subject matter. The disciplines of sociology, demography, epidemiology, statistics and their relation to social medicine. Descriptive and prescriptive parts of social medicine. Methods of social medicine.
2. The concept of health and disease. Dimensions of health. Positive health. Social determinants of health and disease. Socio-medical approach for studying social determinants of health on individual level.
3. Sociological approaches in social medicine - sources and methods of collecting sociological data. Questionnaire design - questions and questionnaire formats. Self-administered questionnaire.
4. Interview: types, methods of conducting, interview process. Sociological observation: types, advantages and disadvantages, observer roles.
5. Epidemiology - definition and scope of epidemiology. Achievements in epidemiology. Uses of epidemiology. Basic concepts - risk, risk factors, population at risk, rate, ratio, proportion.
6. Measuring health and disease. Measuring disease frequency - prevalence, incidence rate, cumulative incidence. Relationships between different measures.


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7. Comparing disease occurrence. Absolute comparison - risk difference, attributable fraction, population attributable risk. Relative comparison - relative risk, odds ratio.
8. Types of epidemiological studies - classification. Descriptive studies. Analytical studies (ecological and cross-sectional studies).
9. Cohort studies - types, design, conducting, advantages and disadvantages of cohort studies. Potential errors in cohort studies.
10. Case-control studies - types, design, conducting, advantages and disadvantages. Potential errors in case-control studies.
11. Experimental (interventional) epidemiological studies. Randomized controlled studies. Field trials. Community trials.
12. Causation in epidemiology. The concept of cause. Establishing the cause of disease.
13. Demographic approach to health assessment. Population size and population composition by sex and residence. Population age structure - types, dependency ratios, medical and social consequences of population aging.
14. Fertility-related indicators: definitions of different indicators, assessment scales, worldwide trends.
15. Population reproduction rates - Total fertility rate, Gross reproduction rate, Net reproduction rate - definitions, worldwide trends, problems.
16. Mortality-related indicators: definitions of different indicators, assessment scales, worldwide trends, problems. Leading causes of deaths in developed and developing countries. Standardization – standard populations, standardized death rates.
17. Infant mortality-related indicators - definitions of different indicators, scale, worldwide trends, leading causes of infant mortality in developed and developing countries. Under 5 mortality rate.
18. Life expectancy - definition, life tables, worldwide trends.
19. Morbidity-related indicators: measures of morbidity - incidence, point and period prevalence, iceberg of morbidity. Factors, influencing incidence and prevalence.
20. Morbidity - sources and methods of studying morbidity. International classification of diseases.

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II. THE PRACTICE OF PUBLIC HEALTH

21. Communicable diseases - worldwide trends, leading causes of infectious morbidity. Global burden of infectious diseases. Principles of infectious disease control.
22. Major non-communicable diseases - significance for the population health, worldwide trends of CVD, cancer, COPD, accidents and diabetes. The burden of non-communicable diseases - DALYs.
23. Major determinants of non-communicable diseases - life style risk factors, environmental risks, biological and genetic factors, health care services factors. Dahlgren and Whitehead's social model of health.
24. Health care system as a social system – definitions of main terms (health system, health care, medical care), objectives, evolution, reforms. WHO approach to health systems assessment.
25. The concept of health care. Main characteristics of health care. Levels of health care.
26. Typology of health systems in developed countries. State monopoly system. Health insurance system. Health system of liberal pluralism. Reforms in health systems in UK and USA.
27. Health policy. Priorities of health policy in developed countries.
28. International health collaboration. World Health Organization. Other UN agencies. Millennium goals.
29. Development, main goal and basic targets of WHO global strategy “Health for all in the 21 century”.
30. Primary health care – definition, elements. WHO strategy for primary health care. Declaration of Alma-Ata.
31. Hospital care – mission, structure and goals. Assessment of utilization of hospital beds. Quality of hospital care.
32. Public health needs of specific population groups: mothers. Maternal mortality, family planning. Health services for mothers - antenatal, intranatal, postnatal care. Risk approach. Delivering health care to mothers.
33. Public health needs of specific population groups: children and adolescents. Health problems of children and adolescents. Health services, community health and policies.

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34. Public health needs of specific population groups: people with disabilities. Assessment. Measures of health and disability. Public health services and interventions.
35. Public health needs of specific population groups: older people. Health problems and health needs of older people. Health promotion and prevention. Public health implications of ageing.
36. Public health needs of specific population groups: family health. Processes within families and health effects. Macro-level processes: demographic, technological, economic and political factors. Future challenges.
37. Needs assessment. Health inequalities. Impact of sex and gender on specific health problems. Gender and the delivery of health care. Socio-economic inequalities. Reducing health inequalities.
38. Prevention - scope and levels of prevention. Primordial prevention. Primary prevention - population and high risk strategy.
39. Secondary prevention - screening. Criteria for screening. Sensitivity, specificity and predictive values of screening test. Screening programmes.
40. Health promotion - definition, development of the concept and practice of health promotion, basic principles.
41. Health education - definition, objectives, content, principles. Communication in health education. Practice of health education.

REFERENCE MATERIALS:

I. Main reference materials:


1. Textbook: **Public health - basic course.** Autor: Silviya Aleksandrova-Yankulovska. Publishing center of Medical University of Pleven, 2017.
2. Lectures 2017.

II. Additional reference materials:

1. Bonita R, Beaglehole R, Kjellstrom T. Basic Epidemiology, 2nd edition. World Health Organization, 2006.

Free download available in Internet at:

http://www.google.bg/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CB4QFjAA&url=http%3A%2F%2Fwhqlibdoc.who.int%2Fpublications%2F2006%2F9241547073_eng.pdf&ei=ysJMVK7uBay17gay6IGYCG&usq=AFQjCNFolv51nOEG44oePL790x2Uiqc48Q&sig2=cSRihTe8elU4FYJ4eIJTCg&bvm=bv.77880786,d.bGQ

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2. *The Organisation for Economic Co-operation and Development (OECD) Factbook 2014. Health (pp. 236-254).*

Free download available in Internet at:

<http://www.oecd-ilibrary.org/signinredirect?fmt=ahah&docserverurl=http%3A%2F%2Fwww.oecdilibrary.org%2Fdocserver%2Fdownload%2F3013081e.pdf%3Fexpires%3D1414320028%26id%3Did%26accname%3Dguest%26checksum%3D7FC07E8BCE04E044361E808411FB3F9E>

3. WHO. European Health for All database.

Free access available in Internet at: <http://data.euro.who.int/hfad/>

4. WHO. Health 21 – Health for all in the 21st century. An introduction.

Free download available in Internet at:

http://www.google.bg/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCEQFjAA&url=http%3A%2F%2Fwww.euro.who.int%2F_data%2Fassets%2Fpdf_file%2F0004%2F109759%2FEHFA5-E.pdf&ei=O9BMVomOCaSE7gbsyYBY&usg=AFQjCNHPP9CLF9f_VIyNjHR_X_FHDcPHIg&sig2=vIRdgefNI6x5eCqsS8ZXfw&bvm=bv.77880786,d.bGQ

5. WHO. Global burden of disease. Definitions and statistics by regions and countries.

Free access available in Internet at:

http://www.who.int/topics/global_burden_of_disease/en/

6. WHO. Women's health. Facts sheets, links to relevant publications.

Free access available in Internet at:

http://www.who.int/topics/womens_health/en/

7. WHO. Maternal, newborn, child and adolescent health.

Free access available in Internet at:

http://www.who.int/maternal_child_adolescent/en/


8. Declaration of Alma Ata. International Conference on Primary Health Care, 6-12 September 1978.

Free download available in Internet at:

http://www.google.bg/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CB4QFjAA&url=http%3A%2F%2Fwww.who.int%2Fpublications%2Falmaata_declaration_en.pdf&ei=HtFMVITdJc-M7Abho4GACg&usg=AFQjCNFfHojVtggpww73WmyIYsVvaar4fg&sig2=8LccDbNi7_0jHeQ6dLcWdw&bvm=bv.77880786,d.bGQ

9. Bohm K, Schmid A, Gotze R et al. TranState Working Papers. Classifying OEDC Healthcare systems: A Deductive Approach. Bremen, 2012

Free download available in Internet at:

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THE PROGRAMME WAS DEVELOPED BY

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