

# **Module Handbook**

2019/2020

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In cooperation with: **Centre for Medicine and Society (ZMG)** Prof. Dr. Ursula Wittwer- Backofen Faculty of Medicine Hebelstr. 29, 79104 Freiburg

in collaboration with:

Other Faculties at the University of Freiburg and Partner Universities in Freiburg: Freiburg Protestant University of Applied Sciences Catholic University of Applied Sciences Freiburg Freiburg University of Education



Master of Science in Global Urban Health

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# 1. Programme

#### 1.1 Purpose and characteristics of the MSc Global Urban Health

The following module handbook holds for the postgraduate programme Master in Global Urban Health (MSc GUH) at the University of Freiburg, Germany. After successful completion of this Master's programme the academic degree Master of Science (abbreviated MSc) is awarded. The internationally oriented, English-language Master's programme offers students a broad interdisciplinary training in the field of urban health. It is designed as an intensive, full-time postgraduate programme and has a focus both on practical interventions and on operational/implementation research.

With the establishment of the MSc Global Urban Health the Faculty of Humanities at the University of Freiburg together with the University Centre For Medicine and Society: Global Health (ZMG) offers professionals from different backgrounds - medical, social sciences, municipal planning, anthropological, psychological and others - the opportunity of a high-quality practice-oriented postgraduate training, which opens career opportunities at national and international level. All major institutions working in development cooperation (such as GiZ, KfW, MsF, Red Cross) and international organizations (including WHO, The Global Fund, World Bank, UNEP, UNICEF, GAVI) require a postgraduate Master's Degree in Public Health, International Health, Global Health and related areas. Likewise academic institutions with emphasis on Public Health, International Health, Global Health, Environmental Sciences, Urban Planning, Health Economy, Health Policy and similar areas will select and maintain staff with a relevant Master's training. Ministries of Health, Social Security, Environment, Transport, Public Services and related areas in Low and Middle Income Countries (LMICs) prefer staff with post-graduate training for solving the enormous health problems in urban environments. In all professional areas mentioned above a certain amount of research skills is required mainly in the field of Operational/Implementation Research and Intervention Research – in order to develop innovative evidence-based intervention strategies. Participants coming from research institutions will have the opportunity of strengthening their skills and competences in these areas while the others will learn the basics which enable them to conduct with the appropriate tools relevant studies in their professional area and/or to assess the relevance and quality of studies conducted by others (see below).

# The overall goal of the intensive MSc programme is to strengthen participants` competence in the following areas:

- To develop analytical and management skills to meet the challenges of urban health
- To identify and quantify biological-psychological-social threats to health and risk factors in urban areas

- To develop knowledge and skills in the field of prevention, control, programme development and implementation, monitoring and evaluation for improving urban health
- To design and conduct research projects in the field of urban health
- To make proactive evidence-based decisions and to gain leadership qualities and effective working skills according to the professional background
- To enhance independent and reflective thinking and inspire an interest for lifelong learning.

# The expected learning outcomes are:

### Knowledge

After the successful completion of the programme, the participant will be able to:

- Understand the current issues and priorities in the field of urban health, social determinants and interconnectivity
- Use relevant research methods and understand how the methods can be applied to address particular research questions
- Apply epidemiological/statistical and social science research tools to design an operational research study and to analyse and interpret research questions
- Use appropriate skills related to the prevention, control and management of health problems and health services problems related to the challenges of urbanisation

# **Cognitive skills**

After the successful completion of the programme, the participant will be able to:

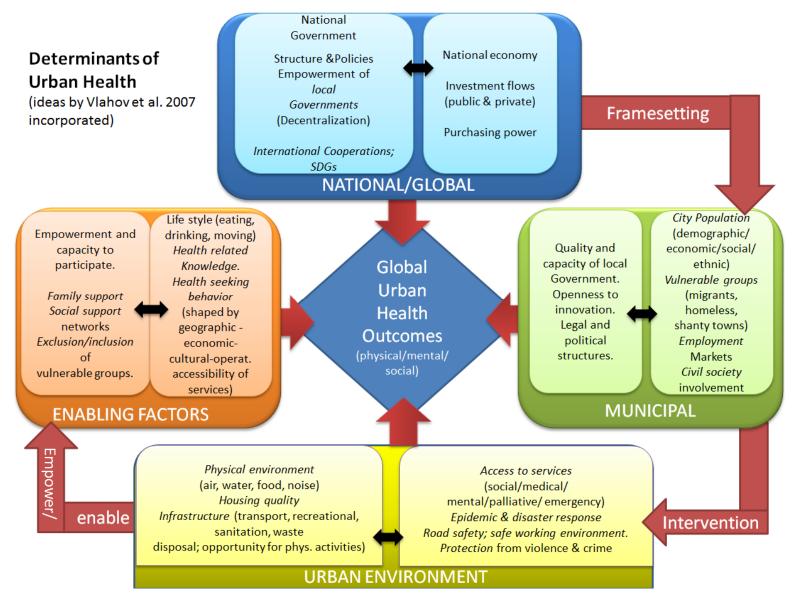
- Analyse, synthesise and evaluate information from a variety of sources in a critical manner
- Apply knowledge in a variety of contexts to analyse and reach evidence-based conclusions on complex situations, health problems and opportunities in the field of urban health
- Put into practice the principles and values of ethical practice with regard to the design and implementation of operational research studies, consent and confidentiality in the collection, analysis, presentation, publication and dissemination of data
- Demonstrate creativity, innovation, inspiration and originality in the application of knowledge

# **Practical skills**

After the successful completion of the programme, the participant will be able to:

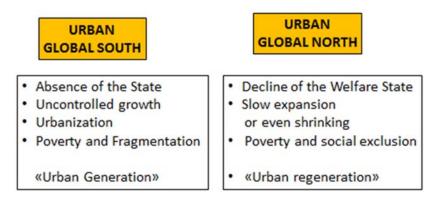
- Formulate research questions, develop an appropriate research strategy and implement a systematic approach to urban health planning and quality management
- Undertake research studies in an ethical and responsible manner and accurately record and store the collected data
- Efficiently and effectively collect, analyse, manage and disseminate data collected in the field
- Inform policy-makers and other actors (including community leaders) about short-, medium- and long-term policy options for urban health systems design and preparedness in an increasingly interconnected urban health context in a global environment.

# 1.2. Conceptual framework of the MSc Global Urban Health



Handbook "Global Urban Health"

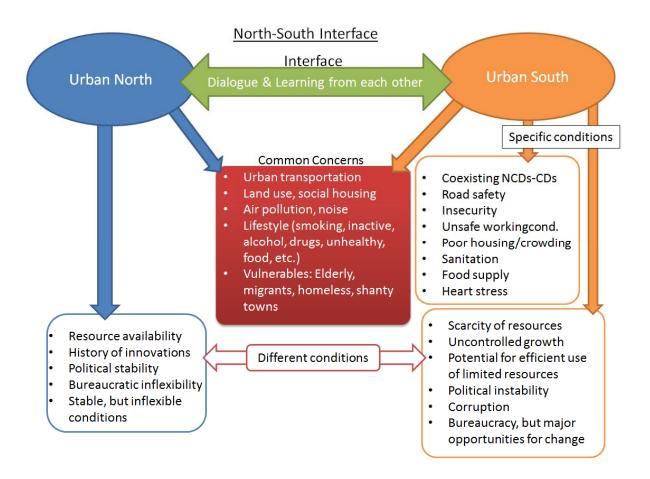
The "urban setting" is shaped by an infinite number of conditioning factors or determinants. Many of them have a direct or indirect health impact. In the diagram 1.2 these have been ordered into different layers, which belong to the global and national level (shaping legislation and depending on macro-economic variables), to the municipal level (where many interventions are being initiated), as well as to the urban environment including individual living conditions and work. Enabling and limiting "intermediary" factors that rest in the community and/or the individual are also mentioned. The social and political conditions in the "Urban Global South" and the "Urban Global North" are not stable but in a continuous transformation, a process that appears to be faster in the South compared to the North. These features (see diagram below) will be analysed in the MSc GUH.



### Urban South& Urban North: Social and political characteristics

Source: Eberhard Rothfuss

The Master's programme will facilitate the dialogue and interface between the urban South and the urban North. There are numerous common concerns in urban environments of the South and the North, which have been addressed in different ways due to contrasting economic, political, social and environmental conditions:



Learning from each other does not mean that the same solution can be adopted in every setting, but the wealth of approaches both in poverty-driven, intermediate and better-off settings will stimulate new ideas about what can be done and where more evidence has to be collected. This environment of dialogue, exchange of experiences and networking between South and North will be provided by the MSc GUH.

# 2. Structure and Organisation

# 2.1 Interdisciplinarity and collaborating institutions

The Master's programme is a truly interdisciplinary undertaking at Freiburg University; it is cross-cutting disciplines and faculties. The programme is under the responsibility of the Faculty of Humanities but organised by the Centre for Medicine and Society (ZMG) Global Health. Alongside the ZMG the University of Freiburg has fifteen such interdisciplinary academic centres one of them being the Centre for Transcultural Asian Studies (CETRAS). It is dedicated to interdisciplinary research on Asia bringing together five different faculties. One of its three research foci, "metropolitan growth, health and environment", is closely related to the contents of the GUH Master's programme. Most of

the CETRAS research staff are teaching at the MSc GUH. Thus, teaching and research are closely interlinked.

### Faculty of Humanities (Philosophical Faculty)

The Faculty includes a number of disciplines such as Archaeology, Ethnology, European Ethnology, History Sciences, Oriental Studies, Sociology and others. They are all contributing to the teaching of the MSc GUH using the "city" as a cross cutting topic. Examples are: Urban development in the Islamic world; urbanisation in a historical perspective; the devastating effect of urban epidemics in the past; displaced families, migrants and refugees in the urban context; urban geography; sustainable development in Iran. External lecturers will broaden the analysis of "urbanity". Examples are: Health in Megacities; City and global South; Health governance in cities; urban malaria.

### Centre for Medicine and Society (ZMG)

The Centre was founded in 2014 as a central unit of the University of Freiburg. It is committed to research and training in the field of Global Health with a special focus on urban settings. The Centre is hosted by the Department of Anthropology (Prof. Ursula Wittwer-Backofen) and is responsible for the organisation of the MSc GUH on behalf of the Faculty of Humanities.

### Freiburg Academy of Continuing Education

The Freiburg Academy of Continuing Education (FRAUW) coordinates continuing education programmes for those already working in a full-time job. These programmes include certificate courses designed to provide further theoretical grounding for practical work experience and a selection of master's programmes, which can also be taken as distance learning programmes.

### 2.2 Responsible Persons

### Dean of Studies

Prof. Dr. Sabine Dabringhaus Department of History, University of Freiburg Rempartstr. 15-KG-IV D-79085 Freiburg

Director of Studies Prof. Dr. Ursula Wittwer Backofen Centre for Medicine and Society (ZMG) Hebelstr. 29 D-79104 Freiburg

## Scientific Advisor

Prof. Dr. Axel Kroeger World Health Organisation (WHO) Liverpool School of Tropical Medicine (UK) Centre for Medicine and Society (ZMG) Hebelstr. 29 D-79104 Freiburg **Teaching Coordination** Dr. Sonia Diaz-Monsalve Centre for Medicine and Society (ZMG) Hebelstr. 29 D-79104 Freiburg

Administrative Coordination Julia Kettner Centre for Medicine and Society (ZMG) Hebelstr. 29 D-79104 Freiburg

**Technical Officer** Gayatri Salunkhe Centre for Medicine and Society (ZMG) Hebelstr. 29 D-79104 Freiburg

# **Teaching staff**

The teaching staff includes professors and lecturers of the University of Freiburg from a variety of faculties, external lecturers from partner universities and institutions as well as external experts with long-term practical experiences (see list of lecturers in the Annex).

# 2.3 Prerequisites and selection criteria of the MSc GUH

The Master course is open to professionals in health, social sciences including economics, urban planning and others, holding a higher academic degree with a minimum 4 years of academic full time training (240 ECTS; see below 2.4). Candidates are expected to have at least 1 year of working experience in a relevant field.

The medium of instruction is English. Proficiency in reading and speaking English is required (TOEFL (550 paper / 213 computer / 72 - 94 online), IELTS (5+), DAAD (a, b or c in all categories), GER-Level B2 or more).

20 participants will be accepted each year, drawn from a wide range of countries. We aim to achieve a balance in gender, discipline and between participants from industrialised and LMICs (Low and Middle Income Countries).

# 2.4 European Credit Transfer System (ECTS)

ECTS is a learner-centred system for credit accumulation and transfer, based on the principle of transparency of the learning, teaching and assessment processes. Its objective is to facilitate the planning, delivery and evaluation of study programmes and student mobility by recognizing learning achievements and qualifications, and periods of learning. http://ec.europa.eu/education/library/publications/2015/ects-users-guide\_en.pdf

According to the European Credit Transfer and Accumulation System (ECTS), one Credit Point corresponds to an average workload of 25-30 hours.

In Continuing University Education of the University of Freiburg, one Credit Point corresponds to an average workload of 30 hours (student effort). MSc students follow 37 CP (ECTS) of taught modules plus 23 CP (ECTS) in the Research Project module, **total 60 CP** (ETCS).

The programme consists of 40 working hours per week (including theory and self-study).

# 2.5 General information on structure

The MSc GUH is a modular programme consisting of three major parts

Research Concepts	Advanced	Advanced	Advanced	Research Project
& Methods	Module I	Module II	Module III	and Thesis
16 ECTS	7 ECTS	7 ECTS	7 ECTS	23 ECTS (3+3+17)

Duration and ECTS: See duration of the core module and advanced modules in table 2.

Language: English

Participants: 20

# Study performance

The various elements of a module are made up from formal contact time (lectures, tutorials, discussions, practical exercises, excursions and others), assessment (preparing and completing assignments and examinations) and self-studies.

# **Examination regulations**

To pass examinations associated with the different modules participants need to achieve at least the grade 4.0 (sufficient).

The final grade is calculated from the grade for the taught modules (core module and advanced modules 1 to 3 where the arithmetic mean of the core and advanced modules represent the overall grade for taught modules) and the master module (oral examination and master thesis). The taught courses count for 60% and the master module for 40% of the overall grade. Grades are awarded according to the German grading scale (1-5) specified on Table 1.

ECTS system	German system	Definition
А	1 (1-1,3)	excellent
В	2 (1,7-2,3)	good
С	3 (2,7-3,3)	satisfactory
D	4 (3,7-4,0)	sufficient
F	5 (>4,0)	fail

Table 1: Grades according to the German and ECTS grading system and their definition.

For being awarded credit points requirements are the following:

- Students take active part in each course/seminar/hands-on of the module and in its course.
- Self-study; independent preparation; reworking of the lectures; and reading materials
- Completing the examinations during and after the sub-modules, presentation at seminars and participation at discussions.

Methodologies: In the morning sessions usually formal teaching (lectures) and group work; in the afternoon usually exercises, excursions, group work and self-study.

The postgraduate programme M.Sc. Global Urban Health starts in the winter semester. The courses offered within this programme are repeated annually. This full-time programme leads participants to a Master's degree usually in one year (for more details see the document "Study- and Examination Regulations").

# 3. Module Overview and Timetable

# 3.1. Module Overview

# **Research Concepts and Methods**

Research methods, epidemiology/ statistics/ social sciences methods, health services, and other general issues of health and risk factors in urban settings

Module conveners: Prof. Dr. Axel Kroeger, Dr. John Nyirenda, Prof. Dr. Sabine Dabringhaus

# ADVANCED MODULES

# MODULE 1:

Communicable diseases and quality assured programmes in urban settings

- 1.1 Managing communicable diseases and outbreaks in urban environments Conveners: Prof. Dr. Winfried Kern, Prof. Dr. Hartmut Hengel
- 1.2 Needs assessment, planning tools and quality assurance in health systems for the urban poor

Conveners: Dr. Sonia Diaz-Monsalve, Prof. Dr. Axel Kroeger

# MODULE 2:

Environmental Management and control of Non-Communicable Diseases (NCDs) in urban areas

2.1 Environmental determinants of health in urban areas: magnitude, measurement and interventions

Conveners: Dr. Richard Gminski, Dr. Armin Schuster

2.2 Social determinants and behavioural risk factors of NCDs in urban environments: Identification and preventive programmes Conveners: Prof. Dr. Ursula Wittwer-Backofen, Mag. Anna Lagia

# MODULE 3:

Migration, violence and mental health among the urban poor

- 3.1 Migration in urban environments: Social-political determinants and search for solutions Conveners: Dr. Laura Wall, Prof. Dr. Cornelia Helfferich
- 3.2 Mental health in urban environments: Diagnosis, treatment and programme management. Conveners: Dr. Cornelia Dremel, Prof. Michael Wirsching

# **RESEARCH PROJECT:**

Conveners: Prof. Axel Kroeger, Prof. Dr. Sabine Dabringhaus, Dr. Sonia Diaz-Monsalve

Wee	k	Mon	Tues	Wed	Thurs	Fri	
Indu	ction	Administrativ	e issues				Topic areas
1		D	Epidemiology				
2	1	R	Research Concepts and Methods 16 ECTS)				Statistics
3	1		(September 2	<mark>23 – Decemb</mark>	er 13, 2019)	Qualitative studies	
4						Social Science methods	
5		Research	Methods	Special Topics			Economical appraisals
6	hs)					Urbanisation	
7	ont						Health systems
8	Ĕ						Urban planning
9	(3						Traditional Medicine
10	lle						Social mobilisation
11	lpo						Pro-social behaviour
12	ž						Excursions
	Core Module (3 months)	Christman Lla	lidava	•			
	Ŭ	Christmas Ho	bildays				
13		1.1 Communi	icable Diseas	es			1. Communicable
14		(2 weeks,	(2 weeks, January 6-17, 2020)				Diseases &
15		1.2 Quality in Urban Health Programmes				Quality Assured	
16	1	(2 weeks, January 20 – January 31, 2020)				Programmes	
17	1	Revision + A	Revision + Assessments (1 week, February 3-7, 2020)				(7 ECTS)
18		2.1 Environm	ental Determ	inants			2. Environmental
19	ks)	(2 weeks,	February 10-2	21, 2020)			Management and
20	ea	2.2 Non-Com	municable Di	seases in U	rban Environm	ents	Control of NCDs
21	Ja I	(2 weeks,	February 24 -	- March 6, 20	20)		in Urban Areas
22	ing	Revision + A	ssessments (	1 week, Marc	h 9-13, 2020)		(7 ECTS)
23 24	Jolud	3.1 Mental He	ealth (2 weeks	s, March 16-2	7, 2020)		
25	s ir	3 2 Migration	(2 wooks Ma	rch 30 - Apri	l 3, 2020, see b		-
26	ţ	J.Z IVIIgration	(Z WEEKS, IVIA	icii 30 – Apri	1 5, 2020, 566 b	elow)	3. Migration,
27	(6 months including breaks)	Easter Holida	ys (2 weeks, /	April 6 – Apri	I 17, 2020)		Violence and Mental Health
	odules	3.2 Migration (Continued, April 20-24, 2020)				Among Urban Poor (7 ECTS)	
		Revision + Assessments (1 week, April 27 – May 1, 2020)					
28 29 30	Advanced N				dule & Advance er. <b>(May 2020</b> )		s. Final oral
			roject (15 we nesis develoj		S, including	protocol	development oral
		Graduation					

Table: Structure of the Master's programme

# **Master GUH Thesis Timeline**

A -11, :11 .	<b>T</b> :
Activity	Time
1. Presentation: Preparing a research protocol	16 October 2019
<ol> <li>Selection of topics &amp; objectives; identification of supervisor</li> </ol>	Until 25 November 2019
3. Interaction with supervisor (advice)	Continuous
4. Outline of the proposal; presentation of draft protocol	3 December 2019
5. Draft protocol submission	Until 10 February 2020
6. Presentation of proposals	3 February 2020
7. Accepted full research protocols	Until 16 March 2020
8. Submission to University ethics committee	Week 16 March 2020
9. Oral exam (may include questions on the thesis)	8 May 2020
10. Preparation for the implementation of the protocol	From May 2020 onwards
11. Presentation of updated protocol and implementation issues	Late June 2020
12. Presentation update of Master's thesis	Late July 2020
13. Submission of thesis	4 September 2020
14. Graduation	Week of 21 September 2020

 $\ensuremath{^*\text{For}}$  exact timeline details, please check the Master's Thesis Guidelines

# 3.2. Timetable

23/09/2019	Start
23/09/2019 – 13/12/2019	Research Concepts and Methods
14/12/2018 - 05/01/2020	Christmas Holidays
06/01/2020 - 17/01/2020	1.1 Communicable Diseases in Urban Environments
20/01/2020 - 31/01/2020	1.2 Needs Assessment, Planning Tools and Quality Assurance in Health Systems
03/02/2020 – 07/02/2020	Revision + Assessments of Module
10/02/2020 - 21/02/2020	2.1 Environmental Determinants of Health in Urban Areas
24/02/2020 - 06/03/2020	2.2 Non-Communicable Diseases and Risk Factors
09/03/2020 - 13/03/2020	Revision + Assessments of Module
16/03/2020 - 27/03/2020	3.1 Mental Health in Urban Environments
30/03/2020 - 03/04/2020	3.2 Migration in Urban Environments
06/04/2020 - 17/04/2020	Easter Holidays
20/03/2020 - 24/04/2020	3.2 Migration in Urban Environments (Continued)
27/04/2020 - 01/05/2020	Revision + Assessments of Module
04/05/2020 – 26/05/2019	Overall Course Assessment Including Oral Examination
04/05/2020 - 04/09/2019	Research Project and Submission of Thesis
07/09/2020 - 18/09/2019	Marking of Thesis and Overall Marking
21/09/2020	Graduation (exact date to be determined)

Research Concepts and Methods: Research methods, epidemiology/statistics/ social science methods, health services and other general issues of health and risk factors in urban settings (12 weeks)

The Research Concepts and Methods Module (12 weeks duration) includes formal lectures, group exercises, outdoor exercises, excursions and self-directed-studies plus integrated written and oral assessments.

The Research Concepts and Methods Module has different teaching blocks: A) The basic knowledge of epidemiology, statistics, research design (qualitative and quantitative studies, economic appraisals), research implementation and analysis will be taught and practiced. B) Concepts of Global Health applied to cities and urban living will be explored including the rural-urban interface, the challenges of Megacities, characteristics of middle-sized cities; C) A better understanding of demographic, social, psychological, cultural and environmental determinants of urban health will be generated or strengthened; D) Processes of urbanisation will be illustrated from a historical perspective; E) The role of formal and non-formal health care systems and health programmes as well as health policy and governance aspects will be analysed and linked to Urban Health. F) The importance of research ethics will be underlined.

The written and oral assessment of the different components of the Research Concepts and Methods Module are integrated (see coloured parts in the timetables).

The Research Concepts and Methods Module is designed by lecturers from the following disciplines:

**Faculty of Humanities**: Qualitative social research, history of urbanisation, sociology of living in communities, governance, cultural aspects, traditional healers, gender issues, policy analysis.

**Faculty of Medicine**: epidemiology, statistics, demographic factors, health education, international cooperation, evidence-based medicine, drug supply.

**Faculty of Economics and Behavioural Sciences**: Pro-Social Behaviour, Economic measurements (cost-effectiveness, etc.), cost analysis.

## Learning objectives

At the end of the module, participants will be able to:

- A1) Define key terminology, concepts and different perspectives of global health and urban health including Global Health Concepts applied to the city and North-South interface.
- A2) Analyse urban health and risk factors from different perspectives: Social sciences view (historical, political, behavioural and others), biological-medical view, health systems view (governance, financing, equity, access issues and others).
- A3) Measure and analyse health, disease, risk factors, economic issues, health services and social phenomena.

- A4) Summarise major health interventions in urban areas, particularly of LMICs (low and middle income countries), as well as the role of international organisations.
- A5) Start writing a research protocol under the supervision of a tutor paying attention to ethical issues.
- A6) Describe the main aspects for responding effectively to global and urban health challenges through improved health governance, international agreements (SDGs and others) and other forms of international cooperation.

# Topics to be covered:

1) Concepts and challenges in Global Urban Health:

- Key terminology and conceptual frameworks
- Theory of the city and urban society
- Determinants of health
- 2) Research Methods and Evidence Base for Global Urban Health:
  - Principles of epidemiological study designs (details below)\*
  - Basic statistical and epidemiological concepts
  - Qualitative research and other social sciences research tools
  - Critical appraisal skills
  - Systematic literature reviews
  - Translating research into policy
  - Principles and rules of research ethics
- 3) Governance in Global Urban Health:
  - History (from rural to urban; from Primary Health Care to SDGs)
  - Key stakeholders in the Global Urban Health Arena
  - Issues of governance
- 4) Health Systems in Global Urban Health:
  - Key elements of health systems
  - Economic appraisals. Performance based funding
  - Policy responses for promoting equity, quality and sustainability
  - Health systems research

The module includes practical exercises, field trips as well as study tours to the World Health Organisation (WHO), The Global Fund, GAVI and the UN Development Programme (UNDP) in Geneva, Swiss Tropical Institute (STI) in Basel and Freiburg- Vauban.

Module conveners: Axel Kroeger, John Nyirenda, Sabine Dabringhaus

Lecturers: J. Nyirenda, S. Reiß, S. Dabringhaus (Phil. Fac.), D. Müller (Phil. Fac.), G. Antes (Cochrane Centre), U. Wittwer, A. Kroeger, S. Diaz, M. Koerner (Soc. Med.), J. Osterhammel (Dpt. History), UAEM (Universities Allied for Essential Medicines) team Freiburg.

External experts: E. Alfonso-Sierra (economics), J. Meyer (GIZ), F. Konold (Food security), Ch. Knauth (European Commission), E. Rothfuss (Bayreuth), A Krämer (Bielefeld), M. Otmani (WHO), A. Kuesel (WHO), G. Schiffer (Freiburg).

\*More detailed information on the sessions on Epidemiology, Statistics and quantitative research methods are given in the text box below.

# General structure of the epidemiology sessions

The sessions will be structured into 3-hour units, separated by two breaks of about 15 minutes each. Usually, the first part will be lecture-based and the two following parts will be practical exercises. Session 8 will not have a lecture but a presentation of all student groups of their study design.

Additionally, in week 7 and 8 there will be complementary sessions in the second half of the week with practical indoor and outdoor exercises on sampling, household surveys and questionnaire design. Also, the lectures and exercises on demographic indicators in week 3 will be complementary to the epidemiological and statistical sessions.

# Learning objectives

After this unit students will be able to understand and explain:

- The difference between association and causation.
- Use and calculate measures of disease frequency, of effect, and of population impact.
- Systematic errors and where they come from in epidemiological studies.
- Bias in epidemiological studies and suggest measures to minimize its impact.
- The concept of effect modification and indicate examples.
- The basic epidemiological study types.
- What type of systematic error each study type is prone to and how to avoid it.
- The design of an epidemiological study and for which problem which design is most appropriate.
- The merits and limitations of a scientific paper.
- Ethical issues

# **Contents of sessions**

- 1. Introduction to Epidemiology, measures of disease frequency
  - a. Basic concepts: Outcome, exposure, intervention
  - b. Association and causation
  - c. Prevalence and incidence
  - d. Risk, odds and rate
- 2. Measures of effect and population impact
  - a. Risk ratio and odds ratio
  - b. Population attributable risk, Population attributable risk ratio
  - c. Number needed to treat, number needed to harm
- 3. Confounding/Interaction
  - a. Bias (Selection bias, Information bias)
- 4. Disease dynamics

- a. Study designs 1 (Cross sectional/surveys, ecological study, sampling)
- b. Study designs 2 (Case control study, cohort study)
- c. Study designs 3 (Intervention study)
- 5. Practical study design

Timetable Research Concepts and Methods Research methods, epidemiology/statistics/social sciences methods, health services and other general issues of health and risk factors in urban settings

1 <sup>st</sup> week	Monday 23.09.2019	Tuesday 24.09.	Wednesday 25.09.	Thursday 26.09.	Friday 27.09.
Morning	Introduction to Freiburg and the course(Dabringhaus, Wittwer,Kroeger, Diaz) Preparation of self- presentations with posters (Diaz)	Introduction to student life (Salunkhe) Introduction to the University Library	Introduction to ILIAS (Sassiat) Poster preparation	Urbanisation: A global & historical view (1) (Wittwer)	Introduction to the core module: Concept of Global Health (Kroeger) and of Urban Health (Salunkhe)
Afternoon		Poster preparation	Poster preparation	Poster present. (Diaz)	Self-study
2 <sup>nd</sup> week	Monday 30.09.2019	Tuesday 1.10.	Wednesday 2.10.	Thursday 3.10.	Friday 4.10.
Morning	Epidemiology (1) (Nyirenda)	Statistics (1) (Reiß)	Global Urban History (1) (Dabringhaus)	Public Holiday (German Unification Day)	Globalisation and the rise of global economy (Boatca). Glob. Urban history (2) (Dabringhaus)
Afternoon	Aid effectiveness in health (Knauth)	Sustainable Development Goals (SDGs) (Horstick)	Self-study	Public Holiday (German Unification Day)	Self-study
3 <sup>rd</sup> week	Monday 7.10.2019	Tuesday 08.10.	Wednesday 9.10.	Thursday 10.10.	Friday 11.10.
Morning	Epidemiology (2) (Nyirenda)	Statistics (2) (Reiß)	Global Urban History (3)(Dabringhaus) Introd. to the Research Project (Diaz, Dabringhaus, Kroeger)	Megacities (Krämer)	City and global South, a social-science view (Rothfuß, Bayreuth)
Afternoon	Epidemiology (3) (Nyirenda)	17.00 Guided city tour (Wittwer) 19.00 Inaugural Ceremony Uniseum	Safety and Orientation (Wall L.)	Self-study	City & Global South, exercises.(Rothfuß)

4th week	Monday 14.10.2019	Tuesday 15.10.	Wednesday 16.10.	Thursday 17.10.	Friday 18.10.
Morning	Epidemiology (4) (Nyirenda)	Statistics (3) (Reiß)	Qualitative research (Niemann)	Qualitative research (Niemann)	Health Systems Analysis/Health Services Research (Körner)
Afternoon	Self-study	14:00 Preparing the research protocol (Salunkhe)	Qualitative research (Niemann)	Demographic indicators (Niemann)	Assessment Qualitative Research
5th week	Monday 21.10.2019	Tuesday 22.10.	Wednesday 23.10.	Thursday 24.10.	Friday 25.10.
Morning	Epidemiology (5) (Nyirenda)	Statistics (4) (Reiß)	Urban agriculture (Konold) 11.30 urban gardening	Visit to Geneva (WHO, IRCCC, UNDP, GAVI, Global Fund)	Visit to Geneva (WHO, IRCCC, UNDP, GAVI, Global Fund)
Afternoon	Epidemiology (6) (Nyirenda)	14:00 – 15:30 The American Health System under President Trump (Knapp)	Urban gardening: Excursion (Schiff)	Visit to Geneva (WHO, IRCCC, UNDP, GAVI, Global Fund)	Visit to Geneva (WHO, IRCCC, UNDP, GAVI, Global Fund)
6th week	Monday 28.10.2019	Tuesday 29.10.	Wednesday 30.10.	Thursday 31.10.	Friday 1.11.
Morning	Epidemiology (7) (Nyirenda)	Statistics (5) (Reiß)	Evidence Based Health Care systematic reviews; literature search (Labonte)		Public Holiday (All Saints' Day)
Afternoon	Urban history, development and religious infrastructure: A case study from the Muslim world (Pink)	Self-study	Self-study	Self-study	Public Holiday (All Saints' Day)

7th week	Monday 4.11.2019	Tuesday 5.11.	Wednesday 6.11.	Thursday 7.11.	Friday 08.11.
Morning	Epidemiology (8) (Nyirenda)	Statistics (6) (Reiß)	Sampling; sampling exercises (Kroeger)	Household interview surveys (Kroeger)	Practical of HH interview surveys (Kroeger), Mensa survey
Afternoon	Self-study	Women´s rights (Earbin)	Outdoor practical exercise	Group analysis of sampling exercise	Questionnaire analysis (support by Salunkhe)
8th week	Monday 11.11.2019	Tuesday 12.11.	Wednesday 13.11.	Thursday 14.11.	Friday 15.11.
Morning	Epidemiology (9) (Nyirenda)	Statistics (7) (Reiß)	Questionnaire analysis (by group) (support by Salunkhe and Nyirenda)	Questionnaire analysis (by group) (support by Salunkhe and Nyirenda)	Group presentation: assessment of sampling exercise & survey analysis (Kroeger)(Course work)
Afternoon	Self-study	Self-Study	"Diversity starts with me – international – interdisciplinary – intercultural interaction" (L. Wall)	Questionnaire analysis (by group)	Self-study

9th week	Monday 18.11.2019	Tuesday 19.11.	Wednesday 20.11.	Thursday 21.11.	Friday 22.11.
Morning	Epidemiology (10) (Nyirenda)	Statistics (8) (Reiß)	The sociology of urban living (Brüggemeier)	Introduction to the Research Project (Diaz, Dabringhaus, Kroeger)	Urban financing, urban development. Internat. cooperation (Meyer,GIZ)
Afternoon	Referencing (Salunkhe)		Self-study	Research Ethics: principles and rules (Korinthenberg)	Self-study

10th week	Monday 25.11.2019	Tuesday 26.11.	Wednesday 27.11.	Thursday 28.11.	Friday 29.11.
Morning	Review Statistics (9) (Reiß)	Review Epidemiology (11) (Nyirenda)	Economic appraisal (Alfonso)	Economic appraisal (Alfonso)	Assessment Economic appraisal
Afternoon	Self-study	Self-study	Economic appraisal (Alfonso)	Self- study	Self-study
11th week	Monday 2.12.2019	Tuesday 3.12.	Wednesday 4.12.	Thursday 5.12.	Friday 6.12.
Morning	PowerPoint presentations of research proposal	Qualitative research (Schlehe)	Review sampling, household surveys (Kroeger) Alternative medical systems (Kroeger)	Self- study	Drug licensing (Maintz, Specht). Drug availability & licensing issues (Ch. Wagner)
Afternoon	Self-study	(cont.)	Self-study	Self- study	Self-study
12th week	Monday 9.12.2019	Tuesday 10.12.	Wednesday 11.12.	Thursday 12.12.	Friday 13.12.
Morning	Self-study	Statistics Assessment	Self-study	Self-study	Module Assessment Epidemiology (MCQs, short answer questions)
Afternoon	Self-study	Self-study	Self-study	Self-study	
Comment	Overall assessment of the core	e module will be done in the	oral examination after comp	pleting the specific modules	

#### Module assessment: Research Concepts and Methods

The assessment will be done in the following way:

- Week 4: In-class assessment of qualitative research methodologies .

- Week 10: In-class assessment of <u>economic appraisals</u> will be done through short answer questions (weighing factor for qualitative studies & economics 8).

- Week 11: The assessments of the <u>research proposal/protocol</u> will be done through power point presentations with a written summary (weighing factor 8).

- Week 12: In-class assessment of short answer questions/ calculations related to

terminology, concepts, use of statistical tools (weighing factor 5);

- Week 12: In-class assessment of <u>epidemiological methods</u> including sampling (weighing factor 5).

(NB: Total weighing factor for the Core Module assessment = 26. This means that the mark of the core module contributes 26% to the total mark of the MSc)

#### **Recommended reading for Epidemiology and Statistics:**

- Kirkwood BR, Sterne JAC. 2003. Essential Medical Statistics. 2nd edition, Blackwell Science.

- Porta M. 2008. A Dictionary of Epidemiology. 5th edition.

- Hennekens CH, Buring J, Mayrent SL (ed.). 1987. Epidemiology in Medicine. Boston/Toronto.

- WHO-TDR Implementation Research Toolkit. Workbook. TDR-WHO, Geneva 2014.

# **Recommended reading for Urban Health:**

- Kraemer A, Hossain Khan M, Kraas F (eds). 2011. Health in Megacities and Urban Areas. Heidelberg, London, New York. doi 10.1007/978-3-7908-2733-0

- W. H. Baumgartner, E. 2016. Creative Inequality in the Mid-sized University City – Sociospatial Reflections on the Brazilian Rural-urban Interface.

- International Council for Science (ICSU). 2011. Report of the ICSU Planning Group on Health and Wellbeing in the Changing Urban Environment: a Systems Analysis Approach. Paris [www.icsu.org].

#### Compulsory reading for Qualitative Studies (copies provided on ILIAS):

- Bernard, H. Russell. 2011. Research Methods in Anthropology. Qualitative and Quantitative Approaches. 5th edition, Lanham. Chapter 12: "Participant Observation", pp. 256-290.

- Gobo, G. 2008. Doing Ethnography. Los Angeles. Chapter 11: "Ethnographic Interviewing," pp. 190-200.

- O'Reilly, K. 2005. Ethnographic Methods. London, New York, Routledge. Chapter 3: "Ethical ethnography," pp. 59-69.

# 3.3. Advanced Modules 1 – 3

# **MODULE 1**

# Communicable Diseases in Urban Environments and Quality Assured Health Programmes

The first sub-module focuses on pathogens, transmission dynamics and early outbreak detection of communicable diseases as well as disease control strategies and epidemic responses including social mobilization and inter-sectoral approaches for vaccination programmes, antimicrobial resistance management and special challenges like sanitation systems in urban areas.

The second submodule provides technical skills for designing, implementing and promoting the quality of health systems in urban contexts as well as assuring, monitoring and evaluating quality using concrete examples and case studies. Current challenges such as the unequal distribution of health care professionals result from a lack of delivery of quality health services and care to under-served regions of the world. These critical shortages, inadequate skills, and uneven geographic distribution of health professionals pose major barriers to achieving the preferred state (i.e. quality) of the global health care system.

Together the two sub-modules will link crucial basic knowledge of endemic/epidemic disease control with knowledge about practical strategies to improve health services with the existing resources in low and middle income countries. It will help participants to apply tools and models for quality improvement through team work and creative approaches.

The module is conducted by the following faculties/institutions:

Faculty of Humanities: The history of epidemic diseases

WHO Geneva: Urban malaria, HIV / AIDS in the urban context

**Faculty of Medicine:** Infectious diseases, vaccination, antibiotic resistance, public health aspects including notifiable infections and control programmes

# SUB-MODULE 1.1:

# Managing communicable diseases and outbreaks in urban environments

# Learning objectives

At the end of the module participants will be able to:

- 1.1.1<sup>1</sup>Recognise the magnitude and transmission dynamics of communicable diseases in urban environments
- 1.1.2 Explain principles of early identification, management and control of communicable diseases in urban environments
- 1.1.3 Interpret key indicators related to the control of communicable diseases in urban environments
- 1.1.4 Develop a proactive and creative approach in controlling infectious diseases
- 1.1.5 Implement in their work environment epidemiological investigations and formulate strategies for effective control of communicable diseases with community involvement
- 1.1.6 Understand the role of different national and international institutions as well as of different professionals and apply the concept of inter-sectoral collaboration in their work environment

# Topics to be covered:

- 1) Understanding communicable diseases in urban environments
  - Pathogens and transmission routes
- 2) Transmission dynamics and outbreak detection
  - Disease surveillance and burden
  - Vector surveillance
  - Dengue fever: transmission dynamics and interventions
  - Tuberculosis: transmission risk in crowded environments and migrants
  - Urban malaria: determining the magnitude and interventions
  - HIV-AIDS and other sexually transmitted infections in urban environments
- 3) Establishing disease control and epidemic response
  - Social mobilization
  - Vaccination programmes
  - Resistance management

Module conveners: Winfried V. Kern, Hartmut Hengel

Lecturers: G. Haecker, H. Grundmann, W.V. Kern, A. Kroeger, J. Nyirenda, S. Rieg, D. Wagner, M. Panning, H. Hengel

External experts: T. Callejas (WHO), F. Pagnoni (WHO)

<sup>&</sup>lt;sup>1</sup> This number stands for "Objective number 1 of the Sub-Module 1.1".

1 <sup>st</sup> week	Monday 6.1.2020	Tuesday 7.1.	Wednesday 8.1.	Thursday 9.1.	Friday 10.1.
Morning	Introduction to the module (Kroeger) Introduction to modern infectious disease epidemiology (Nyirenda) Geospatial analysis (Grundmann)	Transmission routes, infection surveillance (Kroeger) Special infectious diseases: Rabies (Panning)	Important pathogens and infections for urban planning I: Salmonella and other water/food- borne pathogens (Häcker) Important pathogens and infections for urban planning II: Influenza and other viruses (Hengel)	Important pathogens and infections for urban planning III: Tuberculosis (Lange) Special infectious diseases: STIs other than HIV (Rieg)	Urban epidemics: Dengue and other emerging viruses, alarm signals and response (Kroeger) Water & Sanitation (Kroeger)
After- noon	Self-study	Self-study	Self-study	Self-study	Visit to diagnostic lab. (Panning & Häcker)

Timetable Module 1.1: Communicable Diseases in Urban Environmer	nts
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2 <sup>nd</sup> week	Monday 13.1.2020	Tuesday 14.1.	Wednesday 15.1.	Thursday 16.1.	Friday 17.1.
Morning	HIV/AIDS pandemic (Callejas, WHO)	Urban malaria & community involvement in control (Pagnoni, WHO) Antimicrobial resistance as a global threat (Grundmann)	Vaccination strategies (Hengel) More on emerging viral diseases (Panning)	Important pathogens and infections for urban planning IV: air-borne & infections other than influenza (Kern) Important pathogens & infections V: Miscellaneous vector- borne infections (Kern)	Presentations on communicable diseases in urban areas (Course work)
After- noon	Preparation for ppt	Preparation for ppt.	Preparation for ppt.	Preparation for ppt.	Visit to Colmar (Kern/Kroeger)

# **Recommended reading:**

- Connolly MA (ed.). 2005. Communicable Disease Control in Emergencies. A Field Manual. WHO Geneva.

- Detels R, Gulliford M, Abdool Karim Q, Tan CC (eds). 2015. Oxford Textbook of Global Public Health. London.

- Heymann DL (ed.). 2015. Control of Communicable Diseases Manual. Washington D.C.

- Gould IM, van der Meer JWM (eds.). 2008. Antibiotic Policies: Fighting Resistance. New York, London.

- WHO/TDR 2016. Technical handbook for dengue surveillance, dengue outbreak prediction/detection and outbreak response (Model contingency plan), <a href="http://www.who.int/tdr/publications/year/2016/tech\_handbook\_dengue/en/">http://www.who.int/tdr/publications/year/2016/tech\_handbook\_dengue/en/</a>

# SUB-MODULE 1.2:

# Quality assurance, needs assessment and planning tools in health systems for the urban poor

# Learning objectives

At the end of the module participants will be able to:

1.2.1<sup>2</sup> Apply the elements of planning and quality assurance in health programmes taking notice of social planning.

1.2.2 Initiate the process of monitoring through defined indicators for their own institutions, including data collection, data analysis, interpretation and dissemination.

1.2.3 Use the information as a quality assurance tool to aid local decision making.

1.2.4 Encourage an interdisciplinary approach and team work in solving problems related

to quality of health service delivery.

1.2.5 Create a "culture of quality", sensitive to clients' needs (urban poor/displaced).

# Topics to be covered

1) Concepts, QA models and management tools:

- Key terminology and conceptual frameworks and models
- QA cycle
- Management tools
- 2) Applying tools at local urban level:
  - Nine epidemiological questions
  - Risk Approach
  - Causal models
- 3) Human Resources for Health (HRH)
  - Assessments
  - Planning HRH
- 4) Identifying areas for quality improvement and measuring progress at urban level:
  - Developing and monitoring defined indicators
  - Sources of Information, how to analyse, present data and disseminate information to different actors
  - Barriers and enabling factors when establishing QA systems

Module conveners: Sonia Diaz- Monsalve and Axel Kroeger

Lecturers: S. Diaz-Monsalve, A. Kroeger, D. Niermann External experts: N. Dreesch (WHO), Vicki Doyle (Liverpool).

<sup>&</sup>lt;sup>2</sup> This number stands for "Objective number 1 of the Sub-Module 1.2".

1 <sup>st</sup> week	Monday 20.1.2020	Tuesday 21.1.	Wednesday 22.1.	Thursday 23.1.	Friday 24.1.
Morning	Introduction to the module (Diaz) Needs assessment and planning tools (1) (Diaz, Kroeger)	Needs assessment and planning tools (2) (Diaz, Kroeger)	Needs assessment and planning tools (3) (Diaz, Kroeger)	Human resources: Assessment and planning (Dreesch)	Human resources: Assessment and planning (Dreesch)
Afternoon	Continued (Kroeger)	Self-study	Self-study	Continued (Dreesch)	Self-Study

2 <sup>nd</sup> week	Monday 27.1.2020	Tuesday 28.1.	Wednesday 29.1.	Thursday 30.1.	Friday 31.1.
Morning	Social Planning & Qualitative research and recognition of gender issues (Niermann)	Core concepts & models for QA and improvement Defining the role of the client in QA (Doyle)	Case study: embedding quality in community health services in Kenya (Doyle)	Logical framework and other planning tools (Doyle)	Summary of SQALE Programme Communication approaches for QA Challenges of institutionalising QA in urban health settings (Doyle)
Afternoon	Master thesis research analysis (Niermann)	Group work on Quality Assurance (Doyle)	Group work on QA (Doyle)	Group work on QA (Doyle)	Self-study

## **Recommended reading**

- Diaz S., Kroeger A. Needs Assessment and Planning Tools. A Workbook. (will be provided on ILIAS)

- Green A. 2009. An Introduction to Health Planning for Developing Health Systems. 4th edition. Oxford.

- Massound M R et al (2016). How do we learn about improving health care: a call for a new epistemological paradigm. International Journal for Quality in Health Care, 2016, 1–5 doi: 10.1093/intqhc/mzw03

- Tulloch O (2015) What does 'adaptive programming' mean in the health sector ?, ODI,

UK. https://www.odi.org/publications/10228-adaptive-programming-health-sector

- Donabedian, A. (1992) The Lichfield Lecture. Quality assurance in health care:

consumers' role. Quality & Safety in Health Care, 1, pp. 247-251.

http://qualitysafety.bmj.com/content/1/4/247.full.pdf+html

- Further reading materials to be presented at the beginning of the module.

# Assessment Module 1.1 and 1.2: Communicable Diseases & Needs assessment, Planning tools and Quality assurance in health systems

The assessment will be done for both sub-modules together (presentation after the CDs module and an essay at the end of both modules). At the end of module 1.1 you will have selected a communicable disease in a city of your choice; you will describe the characteristic of the pathogen, the transmission route and the disease as far as this understanding is important for the prevention and control of the disease. The presentation will be done on Friday morning (19.1.). You can choose the way in which you present (ppt, poster, oral, document; marked with a weighing factor of 3). After completing Module 1.2 on Planning, you will be able to do a proper situational analysis of "your" disease and formulate the operational plan (see below). The essay is to be submitted by 8.2.19.

# ESSAY (covering 1.1 and 1.2)

Participants write an essay about the following case study:

You are the health manager of an urban district. Take the communicable disease of your choice (see 1.1) and work through the following questions:

- 1. Describe the health risks, health services and health in your district in a tabular form with s short summary
- 2. How would you improve the health and health services situation of your district?
- 3. How would you reduce health inequalities?
- 4. How would you show to the political actors that you are a "good" manager?

Critically present and analyse the current situation of your urban district and develop your plan for the next year.

The essay should not have more than 3,000 words (weighing factor 9).

(NB. Total weighing factor for Advanced Module 1 assessment = 12 (3+9). This means that the mark of the module contributes 12% to the total mark of the MSc)

# MODULE 2

# Environmental Management and Control of Non-Communicable Diseases in urban areas

The first part of the module focuses on the assessment and measurement of environmental risk factors and health impact. These are: air and water pollution, noise exposure, heat (in relation to climate change), environmental modifications within urban development and local legislations, building plans as a threat or as a positive determinant to health. The second part of the module addresses the impact of unhealthy environments and unhealthy behaviour (eating, physical inactivity) on health dealing with the complexity and interrelations of NCDs' factors and shows possible mitigation and solution strategies from healthy city programmes.

The module is conducted by the following faculties:

**Faculty of Environment and Natural Resources:** urban geography, regional concepts of urban development, land use and development, microclimate, climate change

**Faculty of Medicine (IUK):** air pollution, noise pollution, toxicology, water, sequelae, growth, cancer, obesity, diabetes, CVDs, National Cohort Study

Faculty of Economics and Behavioural Sciences: lack of physical activity and motivational training, nutrition

ZHAW School of Management and Law, Winterthur Institute of Health Economics: social marketing, health behaviour change

Steiger Stiftung: traffic accidents and medical rescue services

WHO Geneva: pandemic of cancer, Global health agenda, WHO strategies & NCDs

### SUB-MODULE 2.1:

Environmental determinants of health in urban areas: magnitude, measurement and interventions

### Learning objectives:

At the end of the module, participants will be able to:

- 2.1.1<sup>3</sup>. Define major types, sources and spatial distribution of environmental agents and stressors
- 2.1.2. Recognise and use environmental indicators
- 2.1.3. Describe how the agents and environmental conditions (e.g. heat) interact with systems and describe the mechanisms by which they exert adverse effects
- 2.1.4. Use models for predicting the magnitude of adverse effects in biological systems
- 2.1.5. Identify gaps in current knowledge concerning health effects of environmental agents
- 2.1.6. Describe current legislation and regulation regarding environmental issues in different settings

<sup>&</sup>lt;sup>3</sup> This number stands for "Objective number 1 of the Sub-Module 2.1".

2.1.7. Formulate practical interventions to improve environmental problems in the riskassessment process

# Topics to be covered

- 1) Concepts and challenges in environment and urban health:
  - Key terminology and conceptual frameworks and models
  - Sustainable development
  - Current debates in environment and human health
  - Regional concepts of environmental protection
  - Urban Geography
- 2) Key environmental and human challenges in urban health:
  - Environmental pollution (air, water and soil)
  - Noise
  - Housing conditions
  - Microclimate in urban environments
  - Biodiversity, climate change and resilience
  - Human health policies
- 3) Measuring environmental factors and health effects:
  - Environmental pollution (air, water): Measurement and health effects
  - Noise: Measurement and health effects
  - Environment-related syndromes (MCS, IEI, SBS, CFS, CS, BS)
- 4) Interventions at micro and macro level:
  - Healthy housing
  - Indicators for healthy housing
  - Fauna and Flora in urban environments

Module convener: Richard Gminski & Armin Schuster

Lecturers: I. Nazarenko, R. Gminski, A. Schuster, M. Garcia-Käufer, C. Schultz, H.

Fünfgeld, T. Epkenhans/J. Pink, Peerenboom, Christen

External experts: N.N. (Meteorology), G. Alabaster (WHO, Geneva), K. O'Sullivan, W.

Zacher, N. Robitaille-Brown

1 <sup>st</sup> week	Monday 10.2.2020	Tuesday 11.2.	Wednesday 12.2.	Thursday 13.2.	Friday 14.2.
Morning	Introduction to the module (Gminski) Urban development and planning (Fünfgeld)	Geography of Global Change (Fünfgeld)	Housing and Health (O`Sullivan)	Self-study	Contribution of environmental factors to cancer risk (Nazarenko) Measuring environment. determinants of health: practical aspects: (Schuster)
Afternoon	Introduction to student presentation for the following week on Friday (R. Gminsky)	Environmental determinants of health in urban areas (Gminski) Ambient air pollution (Gminski) Indoor air pollution (Gminski) Environmental-related	Traditional Medicine (Huber)	St. Peter, Bio-energy service (Bohnert)	Urban planning in Freiburg: visit to Vauban (Gminski)
		Environmental-related diseases (Naumann)			

# Timetable Module 2.1: Environmental Determinants of Health in Urban Areas (Institute of Hosp. Hygiene, Breisacherstr 115b, Videothek)

2 <sup>nd</sup> week	Monday 17.2.2020	Tuesday 18.2.	Wednesday 19.2.	Thursday 20.2.	Friday 21.2.
Morning	Water & sanitation in urban LMICs (Alabaster)	Recycling (Robitaille-Brown)	Urban climate & micro- climate (Christen)	Environ. determinants of health in urban areas: exercises (Gminski, Nazarenko, Schuster)	Summary of environmental factors through student presentations (Course Work)
Afternoon	Visit to Kommunale Kläranlage Forchheim (Schuster, Gminski)	Fauna in urban environments (Peerenboom)	Climate change and health (W. Zacher)	Self-study	Summary session continued

### **Recommended reading:**

- WHO. 2012. Measuring Health Gains from Sustainable Development. Public Health and Environment Department (PHE), WHO. Geneva.

http://www.who.int/hia/green\_economy/en/index.html

- WHO. 2011. Health in the Green Economy: Health Co-benefits of Climate Change

Mitigation-housing Sector. PEH, WHO. Geneva.

- Rothenberg R, Stauber C, Weaver S, Dai D, Prasad A and Kano M. 2015. Urban Health Indicators and Indices — Current Status. *BMC Public Health*, 15, 494.

- Schwela D. 2000. Air Pollution and Health in Urban Areas. *Rev Environ Health*, 15 (1-2), 13-42.

SUB-MODULE 2.2:

Social determinants and behavioural risk factors of Non-Communicable Diseases (NCDs) in urban environments: Identification and preventive programmes

# Learning objectives

At the end of the module participants will be able to:

- 22.1<sup>4</sup>. Define the complex nature of urban NCD risk factors
- 22.2. Perform a situation analysis of social determinants, risk factors and NCDs including identifying data sources and data constraints
- 22.3. Determine and quantify the different behavioural risk factors for obesity, hypertension, other causal factors for cardiovascular diseases and for cancer
- 22.4. Detect the complex of child growth and developmental risk factors
- 22.5. Assess risk behaviour and possible causal factors including public policies
- 22.6. Design locally adapted response mechanisms including community based advocacy initiatives aimed at advancing healthy environments that promote physical activity and healthy eating and discourage alcohol abuse and smoking particularly in vulnerable, marginalised populations
- 22.7 Design public health campaigns considering social contagion effects of health information

#### Topics to be covered

1) Concepts of NCDs in Global Urban Health:

- Key terminology
- Burden of NCDs

Handbook "Global Urban Health"

<sup>&</sup>lt;sup>4</sup> This number stands for "Objective number 1 of the Sub-Module 1.2".

- Political issues
- Human Adaptability
- 2) Determinants of NCDs:
  - Urban Inequalities and NCDs risk factors
  - Qualitative social research
  - Quantitative research
  - Data management and analysis
  - Ethical issues
  - Causal effects and interpretation
- 3) Behavioural strategies and policy in NCDs:
  - Healthy eating
  - Enhancing physical activity
  - Surveillance of child growth and development, detecting growth and developmental disorders
  - Gender issues
- 4) Putting healthy life in urban contexts into practice:
  - Intersectorial approach
  - Community based initiatives

Module conveners: Ursula Wittwer-Backofen & Anna Lagia

Lecturers: R. Fuchs, D. König, U. E. Lamy, J. Lindenmeier, D. Schmid, K.O. Schwab, A. Supady, U. Wittwer-Backofen,

External experts: F. Liberatore (ZHAW School of Management & Law), A. Ullrich (WHO, NCDs), Steiger Stiftung

# Timetable Module 2.2: Non-Communicable Diseases and Risk Factors

1 <sup>st</sup> week	Monday 24.2.2020	Tuesday 25.2	Wednesday 26.2.	Thursday 27.2	Friday 28.2.
Morning	Introduction to Module - Overview of NCDs & Risk Factors (Wittwer-Backofen) Introduction to "Food diary"	Global health agenda & NCDs; WHO strategies to reduce NCD risks; NCD	Cardiovascular Diseases (Supady)	Enhancing physical activity (Lindenmeier)	Diabetes – Obesity (Schwab)
	and International Night. Assignment of ppt. presentations	management: Ca, diabetes, CVD, CO=PD. The burden of Cancer (Ullrich)	RESQSHIP (Supady)	Non-profit and Public Sector Marketing (Jors)	
Afternoon	Self-study	Self-study	Self-study	Social Marketing/Health Behavior Change – Case Studies in Public Health Campaigns (Liberatore)	Evening (18pm): International Night

2 <sup>nd</sup> week	Monday 2.3.2020	Tuesday 3.3.	Wednesday 4.3.	Thursday 5.3.	Friday 6.3.
	Growth, Development Research Projects &	Nutrition and NCDs in western societies (König)	Global Aspects of Emergency Rescue Services	Diet, secondary plant compounds and cancer prevention	Group analysis of food diaries and PowerPoint presentations
Morning	Networks on NCDs. Longitudinal risk factor studies. NCDs in model cities (Wittwer-Backofen)	Changing health behavior: The MoVo- concept (Fuchs)	(Steiger Stiftung)	(Lamy)	
Afternoon	Nurses' Health study (Schmid)	Self-study	Self-study	Self-study	Assessment: PowerPoint presentations cont'd

#### **Recommended reading:**

Alwan A. and D.R. & MacLean (2009) A Review of non-communicable disease in low- and middle-income countries. International Health 1, 3-9.

Ezzati et al. 2018. Acting on non-communicable diseases in low- and middle-income tropical countries. Nature 559, 507-516.

Freudenberg N, Klitzman S, Saegert S (eds). 2009. Urban Health and Society. Interdisciplinary Approaches to Research and Practice. San Francisco.

Global Action Plan for the Prevention & Control of NCDs 2013-2020\_WHO 2013.

Global Strategy on Diet, Physical Activity & Health WHO 2004.

Kohl H, Murray T. 2012. Foundations of Physical Activity and Public Health. Human Kinetics.

Nonini, D.N. 2014. A Companion to Urban Anthropology. Wiley-Blackwell.

Shanghai Declaration on Promoting Health in the 2030 Agenda for Sustainable Development\_Nov 2016.

WHO 2012. Addressing the Social Determinants of Health: The Urban Dimension and the Rome of Local Government

WHO 2008. Our cities, our health, our future. Acting on Social Determinants for Health Equity in Urban Settings.

WHO 2013. Global Action Plan for the Prevention & Control of NCDs 2013-2020

Winchester M.S., C. A. Knapp and R. BeLue, eds. 2018. Global Health Collaboration. Challenges and Lessons. SpringerBriefs in Public Health.

#### Module assessment, 2.1 Environmental determinants of health in urban areas

i) PowerPoint presentation by each student on the final day:

The participant can select one example from several case studies about environmental

issues in urban areas and has to present the steps of analysis and control/treatment. Particular emphasis will be on the correct use of environmental indicators.

(Weighing factor = 6).

Module assessment 2.2 Non-communicable diseases and risk factors

i) Short PowerPoint presentation by each student at the end of the module (Friday 8.3.) on a non-communicable disease or risk factor in a city/country/context of their choice. (Weighing factor = 6).

(NB.: Total weighing factor for Module 2 assessment = 12. This means that the mark of the module contributes 12% to the total mark of the MSc)

#### MODULE 3

#### Migration, Violence and Mental Health Issues among the Urban Poor

The first part of the module focusses on different aspects and influencing factors of migration illustrated with practical examples from Freiburg and surrounding areas. Strategies of management and prevention of specific issues such as children without parents, adolescents and intercultural conflicts and violence among heterogeneous groups are discussed.

In the second part, the global burden of mental illnesses, diagnosis at primary healthcare level and the management of treatment and care of affected patients in resource poor settings is illustrated and discussed. Particularly the problems of rural-urban migration, disintegration of families, increase of population density and other phenomena of urbanisation are discussed.

The module is conducted by the following faculties/institutions:

**Faculty of Humanities:** Cultural and ethnical aspects of migration, religious and cultural challenges, solutions from an ethnological point of view.

**Protestant University of Applied Sciences and University of Education:** Migration research and contributions to conflict resolution.

**Faculty of Medicine:** Global Mental Health, basic health care for mental health, health programmes for Urban Mental Health.

### SUB-MODULE 3.1:

#### Mental health in urban environments

#### Learning objectives:

At the end of the module participants will be able to:

- 3.1.1<sup>5</sup> Understand psychosocial problems and needs in Urban Health in different cultural contexts.
- 3.1.2 Recognise psychic and psychosomatic problems by applying the Bio-Psycho-Social Model and anamnesis of psychosomatic medicine.
- 3.1.3 Know and measure the burden of disease in an urban context related to mental health caused by: environmental threats, occupational stress, poverty, migration, life style and eating behaviour.
- 3.1.4 Explain the concept of Family Systems Medicine and the systems approach to mental health. Apply practical skills in health related helpful professional communication, deriving from psychosomatic medicine and the Bio-Psycho-Social Model.
- 3.1.5 Understand ways of cooperation and networking in the medical care system, mental health care and professional psychosocial support systems and the related health care professionals such as psychiatrists, medical and psychological psychotherapists, psycho-social consultants, social workers and others.
- 3.1.6 To develop strategies for establishing primary mental care in urban settings.

#### Topics to be covered:

1) Concepts and challenges of Global Urban Mental Health:

- Key terminology and conceptual frameworks and models
- Critiques and challenges in Global Mental Health
- 2) Models for primary mental care in urban settings:
  - Common mental disorders and diagnostic criteria relevant for Urban Health Care
  - Urbanisation and stress (modern life stress) Family Systems Approach / Family Systems Medicine
  - Culture and mental health

Module convener: Cornelia Dremel & Michael Wirsching

Lecturers: C. Lahmann, M. Wirsching, P. Scheib, A. Zeek, E. Wetzler-Burmeister, T. Bay, C. E. Scheidt, A. Lipphard, E. Waller, A. Sandholz, S. Schlegel, A-M. Müller External experts: Dremel, W. Geigge

<sup>&</sup>lt;sup>5</sup> This number stands for "Objective number 1 of the Sub-Module 3.2".

1 <sup>st</sup> week	Monday 16.3.2020	Tuesday 17.3.	Wednesday 18.3.	Thursday 19.3.	Friday 20.3.
Morning 9:00 – 13:00	The Global Burden of Mental Health - psychosocial problems and needs in an Urban Health Care System (Dremel) <i>Group work:</i> Exploring psychos. Aspects of urban living (Dremel)	The Bio-Psycho-Social Model and psychosomatic medicine (Dremel) <i>Group work:</i> The bio-psycho-social anamnesis (Dremel)	Stress – theories and interventions; Environmental threats, strain and (mental) health. (Dremel) <i>Group work:</i> Resilience (Dremel)	Transcultural aspects of psychosomatic medicine (Salunkhe)	Aging Cities Dealing with the elderly (Himmelsbach)
	Assessment instruction (Dremel)				
Afternoon	Self Study	Self-study	14:30-16:00: Beneficial effects of exercise for physical and mental health. Practice: Zumba (Perez) Location: Pochgasse 1, Ecke Höheweg, Zähringen	Preparing poster	Self-study
2 <sup>nd</sup> week	Monday 23.3.20	Tuesday 24.3.	Wednesday 25.3.	Thursday 26.3.	Friday 27.3.
Morning 9:00 – 12:45	Family relations and health (Bay) Group work: Family therapy techniques (Wirsching)	Mental Health Care System in Germany: the role of Psychosomatic Medicine and Psychotherapy (Scheidt) Group work:	Embodiment – the body in Psychosomatic Medicine and Psychotherapy (Lahmann) <i>Group work</i> : Self-experience and	Life style, eating behavior and mental health in an urban setting (Zeeck) <i>Group work:</i> Eating behavior Lunch with healthy food brought	Note: Assessment for Mental Health sub-module is combined with the Migration sub-Module. (Tentative date – 29.04 – 30.04)
12:45 – 13:00	Poster Presentation by Susana Koo	Mental health care in different countries (Dremel)	reflection on body perception (Lahmann)	by participants	
Afternoon	Preparing poster	15.00 – 17.00 Occupational stress and psychosomatic rehabilitation Location: Rehaklinik Glotterbad (Wirsching)	Preparing poster Homework: prepare a healthy snack for tomorrow's lunch	Preparing poster	

# Timetable Module 3.1: Mental Health in Urban Environments

#### **Recommended reading**

- Patel V, Prince M. 2010. Global Mental Health. A New Global Health Field Comes of Age. *JAMA*, 303(19), 1976-1977. doi:10.1001/jama.2010.616.

- Fritzsche K, McDaniel SH, Wirsching M (eds). 2014. Psychosomatic Medicine. An International Primer for the Primary Care Setting. Heidelberg, London, New York.

- Meyer-Lindenberg A, Tost H. 2012. Neural Mechanisms of Social Risk for Psychiatric Disorders. *Nature Neuroscience*, 15, 663–668.

- Lederbogen F, Haddad L, Meyer-Lindenberg A. 2013. Urban Social Stress – Risk Factor for Mental Disorders. The Case of Schizophrenia. *Environmental Pollution* 183, 2–6. doi: 10.1016/j.envpol.2013.05.046

- Levold T, Wirsching M. 2014. Systemische Therapie und Beratung. Das große Lehrbuch. Heidelberg. (selected chapters to be summarized in English)

- Scheib P. 2015. Global Mental Health. Does the 'Global South' need Psychotherapy?

Lecture. (ppt; to be provided on ILIAS)

#### SUB-MODULE 3.2:

Migration in urban environments: Social-political determinants and search for solutions

#### Learning objectives

At the end of the module participants will be able to:

3.2.1<sup>6</sup> Understand the key aspects of the relationship between migration, politics, inequalities, and health related issues at global, regional, national and local levels.

3.2.2 Differentiate the terms of migration in terms of motives and dynamics.

3.2.3 Recognise the interplay of migration with social mobility, poverty, violence, identity,

gender, urban space and health.

3.2.4 Apply relevant interdisciplinary research methods.

#### Topics to be covered

1) Concepts, history and challenges of global migration:

- Key terminology, definition of "migrants"
- Migration flows and processes (including economic, demographic and ethnographic approaches)
- Brain drain and migration in the public health arena
- 2) Institutional frameworks: Models for primary mental care in urban settings:
  - State Policy, legal and institutional framework
  - Culture and Identity
  - Trauma therapy for migrants
- 3) The effects of migration:
  - Change in fertility, mortality and other health indicators
  - Violence and its determinants
- 4) Interventions at macro and micro level:
  - Options
  - Raising public awareness
  - Addressing irregular migration
  - Challenges in research on health problems of migrants

Module conveners: Laura Wall & Cornelia Helfferich

Lecturers: C. Helfferich, K. Töns, A. Lipphardt, I. Schwarz, S. Rother, T. Epkenhans, A. Scherr (PH), Wägerle (PH), L. Wall, A-M. Müller External experts: W. Veit, M. McClaren; NGOs working for migrant

<sup>&</sup>lt;sup>6</sup> This number stands for "Objective number 1 of the Sub-Module 3.1".

# Timetable Module 3.2: Migration in Urban Environments: Social-Political #

1st. Week	Monday 30.3.20	Tuesday 31.3.	Wed. 1.4.	Thursday 2.4.	Friday March 3.4.
Morning 9:00-13:00	Module Introduction (Wall, 9:00-10:00) Scenario planning and global migration (Winfred Viet, 10:00- 13:00)	Excursion to Basel, Switzerland (Wittwer-Backofen, Hotz)	Migration: National and International Policy Frameworks (Maclaren)	Causes, reasons and forms of forced migration (Scherr)	Religious responses to implications of labour migration in post-Soviet Central Asia (Epkenhans)
Afternoon 14:00-17:00			Migration and Mental Health: Practical Example in a Refugee Camp (Müller)		

#### Easter Break (06.04.20 – 17.04.20)

2nd. Week	Monday 20.4.20	Tuesday 21.4.	Wed. 22.4.	Thursday 23.4.	Friday 24.4.	
Morning 9:00-13:00	Violence Protection Standards in German refugee camps (Wall) Visit to refugee housing projects in Freiburg <b>12:30-*15:00</b> (Wall)	Migration, Health and Violence: experience of violence and cases of human trafficing and exploitation (Helfferich / Heneke)	Working Example: International NGO support and assistance for female victims of violence in post-conflict and crisis regions (Serra, Amica e.V.)	Reproductive health of female migrants in Germany (especially contraception, abortion, STDs) Empirical findings and methodological challenges (Wägerle)	Module Assessment: Powerpoint presentations on health-related issues for refugees / migrants in students own countries Module Evaluation: (Dremel/ Wall)	
Afternoon 14:00-17:00	* With Lunch at the Refugee Camp Canteen					
Tentative Assessment Date for Modules 3.1 and 3.2 : 29.04 (Wednesday) OR 30.04 (Thursday)						

### **Determinants and Search for Solutions**

#### **Recommended reading:**

- Bommes M, Thränhardt D. 2010. National Paradigms of Migration Research. 1st edition. (IMIS-Schriften Bd. 13). Osnabrück . Introduction pp. 9-38.
- Caglar A, Glick Schiller N (eds). 2010. Locating Migration: Rescaling Cities and Migrants. Ithaca.
- Düvell F, Triandafyllidou A, Vollmer B. 2009. Ethical Issues in Irregular Migration Research in Europe. *Population Space and Place* 16.3, 227–239.
- Genova, N de. 2009. Conflicts of Mobility, and the Mobility of Conflict: Rightlessness, Presence, Subjectivity, Freedom. *Subjectivity*, 29.1, 445–466.
- Lipphardt A, Schwarz I. 2015. Follow the People! Examining Migration Regimes through Emerging Trajectories of Unauthorized Migrants. In: Andreas Pott et al. (ed.) *Migration Regimes. Approaches to a Key Concept*, pp... Wiesbaden.
- Zetter R. 2014. Protection in Crisis: Forced Migration and Protection in a Global Era. Download: http://www.migrationpolicy.org/research/protection-crisis-forced-migrationand-protection-global-era
- Castles S. 2017. Towards a Sociology of Forced Migration and Social Transformation. (will be provided at Online-Platform ILIAS).

Betts A. What History Can Teach Us About the Worst Refugee Crisis Since WWII. September 2015 (http://www.huffingtonpost.com/entry/alexander-betts-refugeeswwii\_55f30f7ce4b077ca094edaec).

#### Module assessment

#### Module assessment 3.2 Mental health in urban environments

Participants will prepare a poster about mental health issues in urban areas. The poster will be presented on the last day of the module (*weighing factor 6*).

# 3.1 Migration in urban environments: Social-political determinants and search for solutions

PowerPoint presentation on health-related issues for refugees and migrants (*weighing factor 6*).

(NB.: Total weighing factor for Module 3 assessment = 12. This means that the mark of the module contributes 12% to the total mark of the MSc)

# 3.5 Research Project

The research project offers the opportunity to apply the methods and skills acquired during the training to a concrete project. First information and possible topics of the research project will be introduced during the core module at the beginning of the course (possible topics, arrangements, requirements, marking) and will be followed throughout the whole course. By this way, the participants have sufficient time to choose a theme and to become familiar with the field. The students also get the opportunity to propose own topics and research ideas, for example questions from their individual professional background. Each student will be guided by a personal supervisor who will determine or help to define the research question and accompany and support the project throughout the whole process. The students will have three months for the preparation, data collection, analysis and writing. The format and the regulations for subsequent marking of the Master's thesis are described in the study and examination regulations.

The supervisors come mainly from the Faculty of Humanities (for social sciences subjects), Faculty of Medicine (for subjects with a focus on health) and Economics and Behavioural Sciences (cost analysis, economic analysis and behavioural change). There are also external supervisors from the United States through the collaboration between the University of Freiburg and Penn State University.

Conveners: Prof. S. Dabringhaus (for social sciences topics), Dr. S. Diaz-Monsalve and Prof. A. Kroeger (for public health topics)

#### Weighing factor of the Research Project

The oral exam in May has a weighing factor of 5, the marking of the research proposal submitted to the ethics committee has a weighing factor of 5 and the Master's Thesis a weighing factor of 28. The total weight of the research project is 38. This means that the marks of the research project contributes 38% to the total mark of the MSc.

#### Assessment of the master thesis

As described in the Study and Exam Regulations for the MSc GUH Programme.

#### **Recommended reading**

Reading materials will be discussed with the thesis tutor of each individual participant.

# Annex:

# Lecturers and external experts of the MSc GUH (Master of Science Global Urban Health)

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