



Course «Population and health»

30 March - 17 April 2015

Moscow (Skolkovo), Russia, New Economic School

Brief information

Increase in life expectancy is the main achievement of socio-economic development. During the periods of rapid political and economic changes, this measure can be used as the most reliable criterion for assessment of successes or failures of socio-economic policies.

During the last few decades several important methodological approaches for studying mortality and health have been developed in demography and related disciplines. The most advanced and widely applied methods are included in the program of the short course on Population and Health held by the Center for Demographic Research at the New Economic School (Moscow, Russia).

The course provides an opportunity to:

- introduce to the methods of measurement and analysis of the levels, components, and determinants of mortality and health;
- obtain practical skills by applying these methods solving scientific-practical tasks;
- understand the substantive meaning of the quantitative assessments and acquire knowledge about the basic theories explaining the observed changes in population health.

The course is devoted to lecturers, researchers, graduate students, undergraduate, and master-degree students working or studying in the fields of demography, sociology, economics, epidemiology, social medicine, social geography, and related disciplines.

Course content

How to determine life expectancy and other indicators measuring average level of population health as well as its variance within a population? What are the patterns of change in risk of death by age, sex, calendar year and year of birth, country and region, social status and other key characteristics? How are the major risk factors operating at individual and population

levels? What is the structure and the change in mortality in Russia and how they differ from other developed and developing countries?

In order to answer these and other important research questions it is necessary to know the methods of demographic analysis and to be able to apply these methods in practice. The course "Population and Health" provides a set of modern demographic methods applied for studying public health. The course focuses on explaining the ideas underlying these methods, practical use of the analytical techniques, and correct interpretation of results.

The course consists from three parts (modules). The first module is devoted to basic methods and techniques and presents: types and sources of health data; concepts of events, states, durations and intensities; Lexis diagram; demographic indicators and measures of prevalence; both classical life tables and life tables combining data on mortality and health status, as well as methods of decomposition for demographic indicators. It also includes a short introduction to R program and VBA for Excel application.

The second module provides an introduction to the most important theories and methods in population-level research. It starts from causes of death and continues with the studies of health inequalities as reflected by differences in life expectancy, mortality risk, and health status. On the basis of the substantive literature, this part also discusses historical trends and contemporary patterns of inequality in the face of death. Both methods for measuring between-group differences in mortality risk and health status and methods for measuring inter-individual differences in life tables are presented.

The third module is devoted to studies based on micro-data. This is a short introduction to an epidemiological approach to study population health issues. In this module we explain basic principles and techniques used in this type of studies. We discuss also several important topics including biomarkers in epidemiologic studies, influence of tobacco and alcohol on population health. The special emphasis will be on studies conducted in Russia.

There is possibility to apply separately for each module or for the whole course. For participants without an advanced demographic background, we strongly recommend to apply to the whole course. ***The third module may be of interest for participants of prior Population and Health course conducted in 2012-2013.***

All course participants will be provided with reading materials for each section of the course. The software implementing the methods taught in the course will be also presented.

Lecturers:

Dr. Vladimir M. Shkolnikov (Max Planck Institute for Demographic Research, Germany; New Economic School, Russia)

Dr. Domantas Jasilionis (Max Planck Institute for Demographic Research, Germany)

Dr. Dmitri A. Jdanov (Max Planck Institute for Demographic Research, Germany; New Economic School, Russia)

Dr. Evgeny M. Andreev (New Economic School, Russia)

Prof. Jaques Vallin (Institut National Etudes Démographiques, France)

Dr. France Meslé (Institut National Etudes Démographiques, France)

Prof. David A. Leon (London School of Hygiene and Tropical Medicine)

Practical information

The course is based on the NES at *Moscow, Skolkovo* (<http://www.nes.ru/ru/school/contacts/>). The duration of the course is 15 working days, from 30 March to 17 April 2015. The lectures will start at 10.00 and end at 17:00 (with a lunch break).

Please note that personal computers will be needed for the practical work during the lectures and seminars.

At the end of the course an certificate notifying a successful completion of the course will be issued.

Applications for the course should be completed online (<http://demogr.nes.ru/index.php/site/static/48>) until *February 10, 2015*. The decision about the admission to the course will be sent out until to *February 15*.

Contact:

Elena Churilova echurilova@nes.ru