

## **Projecting elderly populations in ageing society: methods and issues**

1. Population ageing and elderly: intro
2. Population projections. Issues in mortality estimation and projection. Data quality. Lifespan expansions: models and paradigms.
3. Elderly households and familial networks

### **Summary:**

Increasing size and share of elderly population brings important research agenda and poses methodological challenges in population estimation and projection. These include extending life tables to older ages, projecting mortality trends, projecting elderly households and family networks. The course will cover these topics focusing on estimating and extending life tables; alternative paradigms in projecting mortality trends; and producing household and familial-network projections. Availability and accuracy of life tables at old age is a key input for analysis and projection of ageing populations. When estimating life tables to older age, we will discuss how to improve models by Horiuchi-Coale and Mitra as well as the classical life table method when dealing with age exaggeration and/or abridged input life tables. We will also learn how to improve accuracy of extrapolations of life table to older ages when using extrapolation models, such as the Gompertz or logistic ones. Conventional projections tended to underestimate mortality improvements and population growth at old age. We will discuss sources and alternative ways to address of this shortcoming. Using the population projection as the starting point, we will discuss how to build household and familial-network projections consistent with the observed tendencies and available population projection.

### **Biography:**

Dalkhat Ediev has graduated from the Moscow Institute for Physics and Technology and holds scholar degrees of PhD, Docent and Doktor Nauk. He is vice-rector and professor at North-Caucasian State Humanitarian-Technological Academy (Karachay-Cherkessia, Russia), professor at Lomonosov Moscow State University (Russia), and guest research scholar at the World Population Program (POP) of the International Institute for Applied Systems Analysis (IIASA). Prof. Ediev has numerous publications and has given multiple trainings and consultancies on the topics covered in the lecture. He has led and participated in several related projects including the currently active ones by Russian Foundation for Basic Research (leader of the project №18-01-00289\18) and ERC (participant of the project ERC2012-AdG 323947-Re-Ageing at IIASA). His research interests include mathematical demography and developing methodology for population projections and analysis.