4th HMD Symposium
"Similarities and peculiarities on the way to longer life"
WissenschaftsForum, Berlin

Human Mortality Database

15 years of work for the international scientific community

MAX PLANCK INSTITUTE FOR DEMOGRAPHIC RESEARCH
MAX-PLANCK-INSTITUT FÜR DEMOGRAFISCHE FORSCHUNG

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15 years of work for the international scientific community

Introductory note

Vladimir M. Shkolnikov, Dmitri Jdanov, Magali Barbieri, Domantas Jasilionis, Carl Boe

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New data requirements

Questions:
What are the prospects of the longevity rise and population aging?
What are the major components, determinants, and consequences of rising longevity and population aging?

Demography addresses these questions through in-depth analyses and modeling of longevity and survival in human populations with a special emphasis on advanced (frontier) ages.

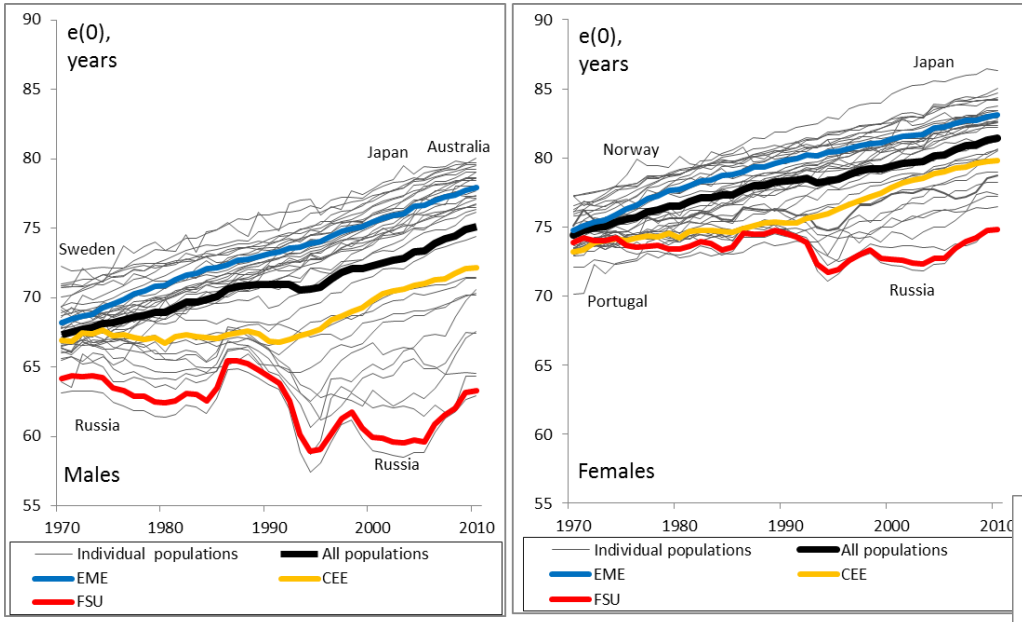
Need for data that could reflect historical transformations of the mortality curve and the longevity revolution of the modern era by:

- providing long-term continuous series without gaps or ruptures;
- running up to the highest ages;
- providing fine details according to age, time, and cohort dimensions;
- ensuring sufficient quality and comparability across time and populations.

The international databases of the 1990s did not meet these criteria. HMD does.

Mortality divergence and steep progress at old ages

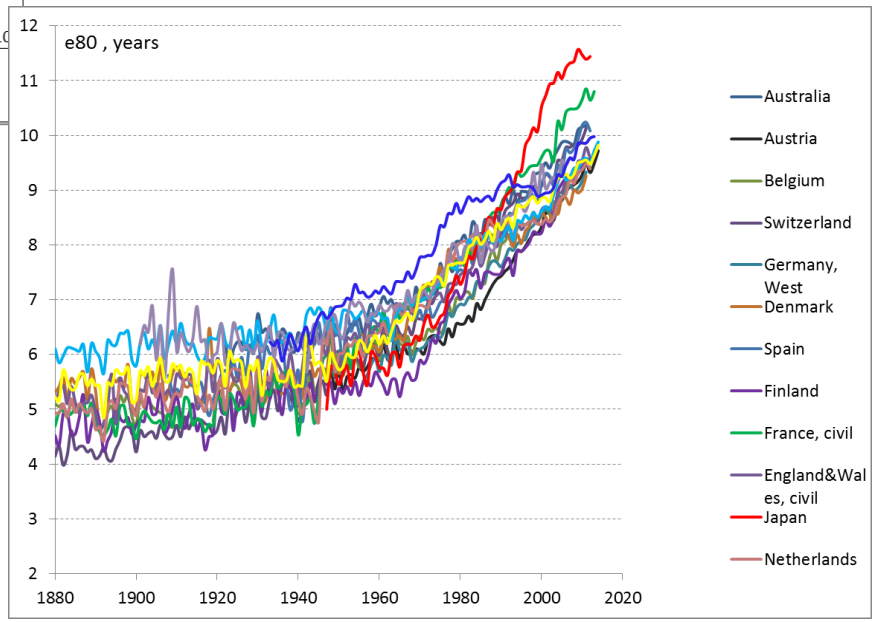
Life expectancy divergence after 1970



Source: Timonin et al, 2015; Barbieri et al. 2015

Life expectancy divergence:
- unexpected health crisis in communist and post-communist countries of the former USSR and CEE;
- unexpected further progress in the established market economies (EME)

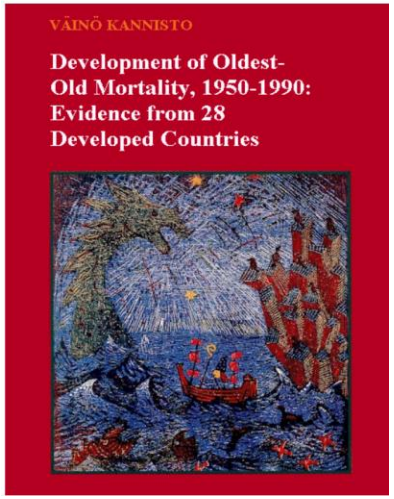
Life expectancy at age 80 since 1880

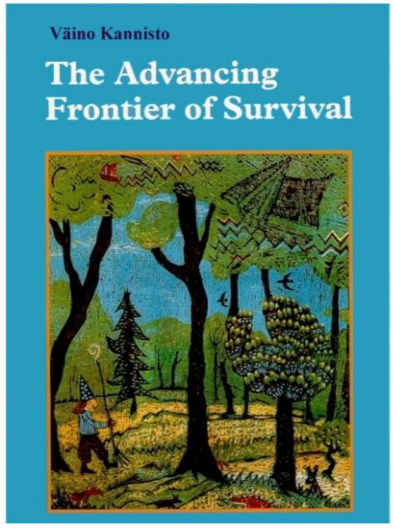


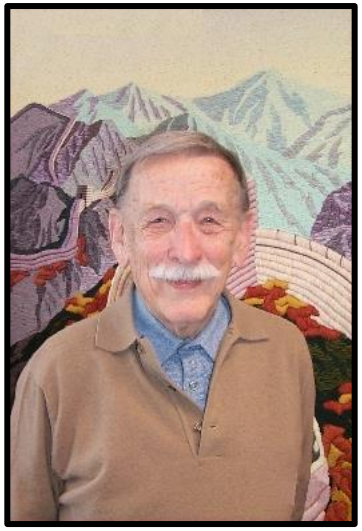
Source: Built on HMD data

Success in fight with CVD and other "degenerative" diseases led to spread of mortality reduction toward very old ages.

V.Kannisto, R.Thatcher, J.Vaupel begin filling the gap







Väinö Kannisto

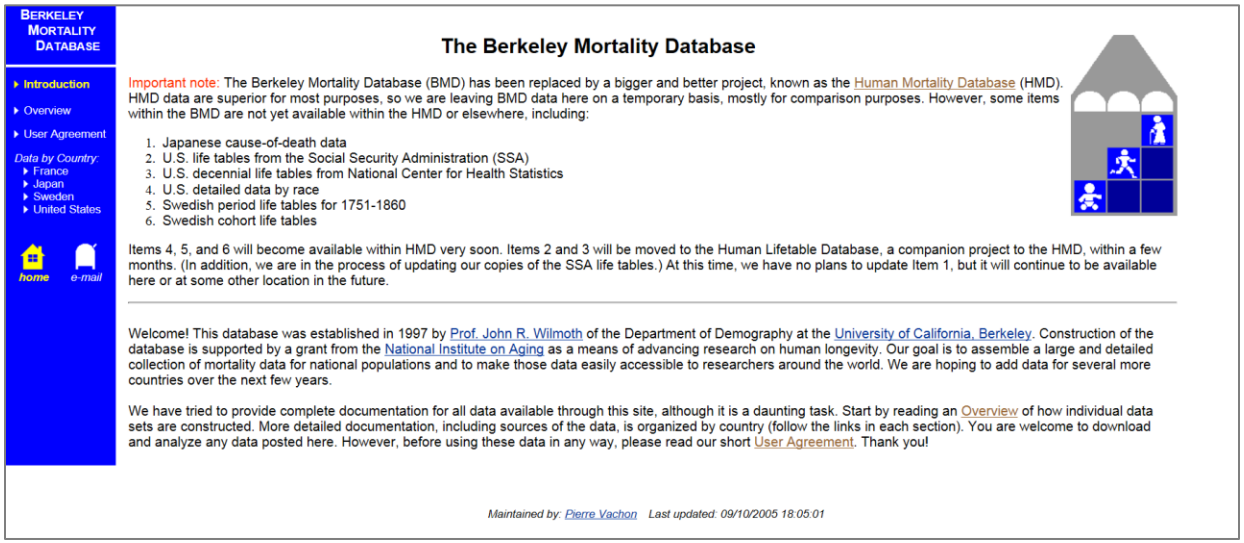
Roger Thatcher

James W. Vaupel

In 1994-96 Väinö Kannisto produced two books documenting advances in survival and longevity on the basis of data from 28 developed countries.

The books contained numerous and detailed data tables. In 1988-2001 Thatcher, Vaupel and Kannisto published important works on old-age survival, assessment of data quality, and re-estimation of populations aged 80+.

BMD and K-T DB: predecessors of HMD



BERKELEY MORTALITY DATABASE

- Introduction
- Overview
- User Agreement

Data by Country:
- France
- Japan
- Sweden
- United States

home e-mail

The Berkeley Mortality Database

Important note: The Berkeley Mortality Database (BMD) has been replaced by a bigger and better project, known as the Human Mortality Database (HMD). HMD data are superior for most purposes, so we are leaving BMD data here on a temporary basis, mostly for comparison purposes. However, some items within the BMD are not yet available within the HMD or elsewhere, including:

1. Japanese cause-of-death data
2. U.S. life tables from the Social Security Administration (SSA)
3. U.S. decennial life tables from National Center for Health Statistics
4. U.S. detailed data by race
5. Swedish period life tables for 1751-1860
6. Swedish cohort life tables

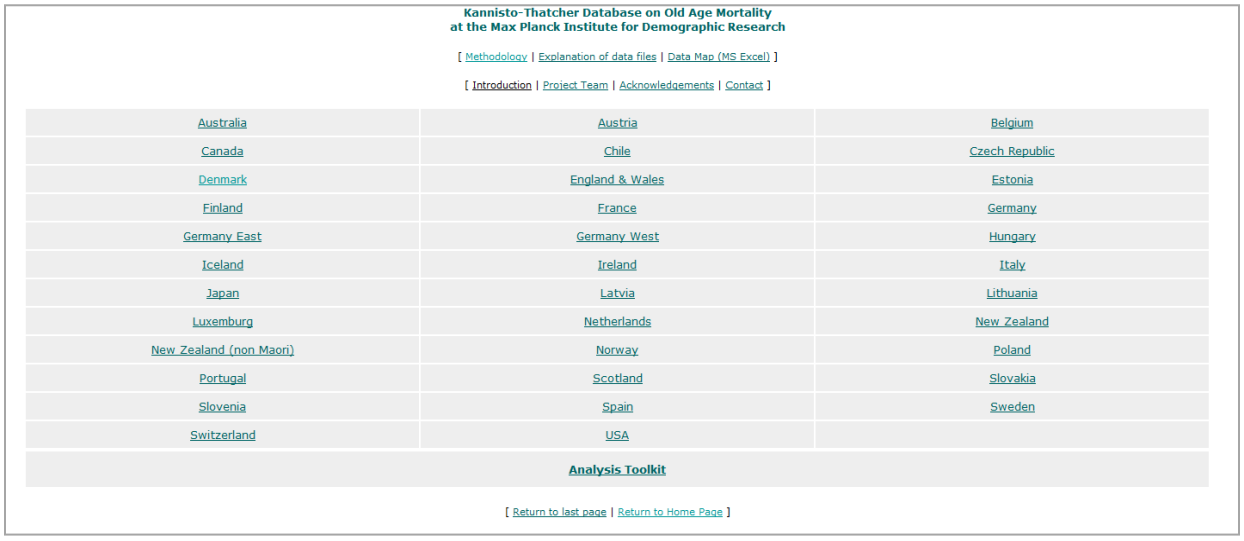
Items 4, 5, and 6 will become available within HMD very soon. Items 2 and 3 will be moved to the Human Lifetable Database, a companion project to the HMD, within a few months. (In addition, we are in the process of updating our copies of the SSA life tables.) At this time, we have no plans to update Item 1, but it will continue to be available here or at some other location in the future.

Welcome! This database was established in 1997 by Prof. John R. Wilmoth of the Department of Demography at the University of California, Berkeley. Construction of the database is supported by a grant from the National Institute on Aging as a means of advancing research on human longevity. Our goal is to assemble a large and detailed collection of mortality data for national populations and to make those data easily accessible to researchers around the world. We are hoping to add data for several more countries over the next few years.

We have tried to provide complete documentation for all data available through this site, although it is a daunting task. Start by reading an Overview of how individual data sets are constructed. More detailed documentation, including sources of the data, is organized by country (follow the links in each section). You are welcome to download and analyze any data posted here. However, before using these data in any way, please read our short User Agreement. Thank you!

Maintained by: Pierre Vachon Last updated: 09/10/2005 18:05:01

The Berkeley Mortality Database launched in 1997 by John R. Wilmoth (Dept. of Demography at UCB). Four countries. Data up to age 110. Single-year divide by age, time, year of birth. Variety of age x time format: 1x1, 5x1, 5x5, …



Kannisto-Thatcher Database on Old Age Mortality at the Max Planck Institute for Demographic Research

[Methodology | Explanation of data files | Data Map (MS Excel)]

[Introduction | Project Team | Acknowledgements | Contact]

Australia	Austria	Belgium
Canada	Chile	Czech Republic
Denmark	England & Wales	Estonia
Finland	France	Germany
Germany East	Germany West	Hungary
Iceland	Ireland	Italy
Japan	Latvia	Lithuania
Luxemburg	Netherlands	New Zealand
New Zealand (non Maori)	Norway	Poland
Portugal	Scotland	Slovakia
Slovenia	Spain	Sweden
Switzerland	USA	

Analysis Toolkit

[Return to last page | Return to Home Page]

The Kannisto-Thatcher database launched in 2001 at MPIDR. 30 countries. Covers ages 80 to 110+. Use of the Kannisto quality checks. Re-estimation of populations at ages 80+.

HMD: General information

Collaboration

Max Planck Institute for Demographic Research (MPIDR)

Department of Demography at the University of California, Berkeley (UCB)

www.mortality.org

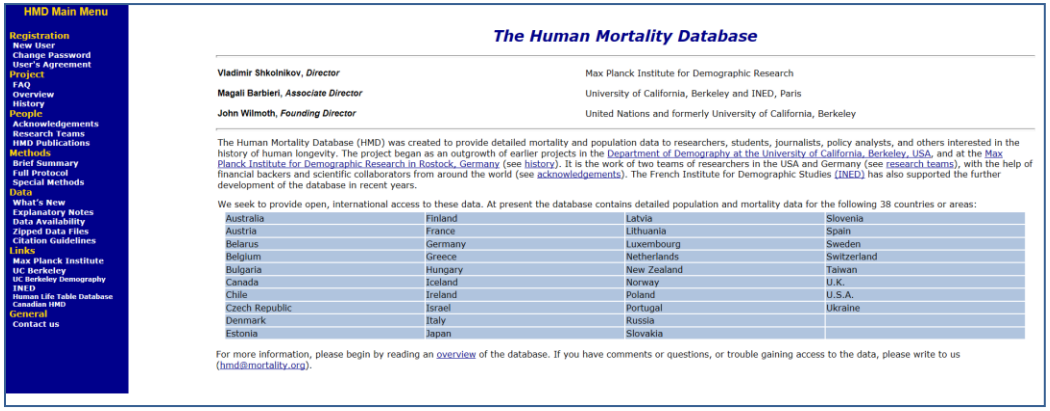
HMD Data Resource Profile in the
International Journal of Epidemiology

http://ije.oxfordjournals.org/content/44/5/1549

Support

Max Planck Society (Germany), National Institute of Aging (USA), Institut national d'études démographiques (France), UC Berkeley Center on the Economics and Demography of Aging, University of California at Berkeley (USA)

HMD: basic facts



HMD Main Menu

Registration
New User
Change Password
User's Agreement
Project
FAQ
Overview
History
People
Acknowledgements
Research Teams
HMD Publications
Methods
Brief Summary
Full Protocol
Special Methods
Data
What's New
Explanatory Notes
Data Availability
Zipped Data Files
Citation Guidelines
Links
Max Planck Institute
UC Berkeley
UC Berkeley Demography
INED
Human Life Table Database
Canadian HMD
General
Contact us

The Human Mortality Database

Vladimir Shkolnikov, *Director* — Max Planck Institute for Demographic Research

Magali Barbieri, *Associate Director* — University of California, Berkeley and INED, Paris

John Wilmoth, *Founding Director* — United Nations and formerly University of California, Berkeley

The Human Mortality Database (HMD) was created to provide detailed mortality and population data to researchers, students, journalists, policy analysts, and others interested in the history of human longevity. The project began as an outgrowth of earlier projects in the Department of Demography at the University of California, Berkeley, USA, and at the Max Planck Institute for Demographic Research in Rostock, Germany (see history). It is the work of two teams of researchers in the USA and Germany (see research teams), with the help of financial backers and scientific collaborators from around the world (see acknowledgements). The French Institute for Demographic Studies (INED) has also supported the further development of the database in recent years.

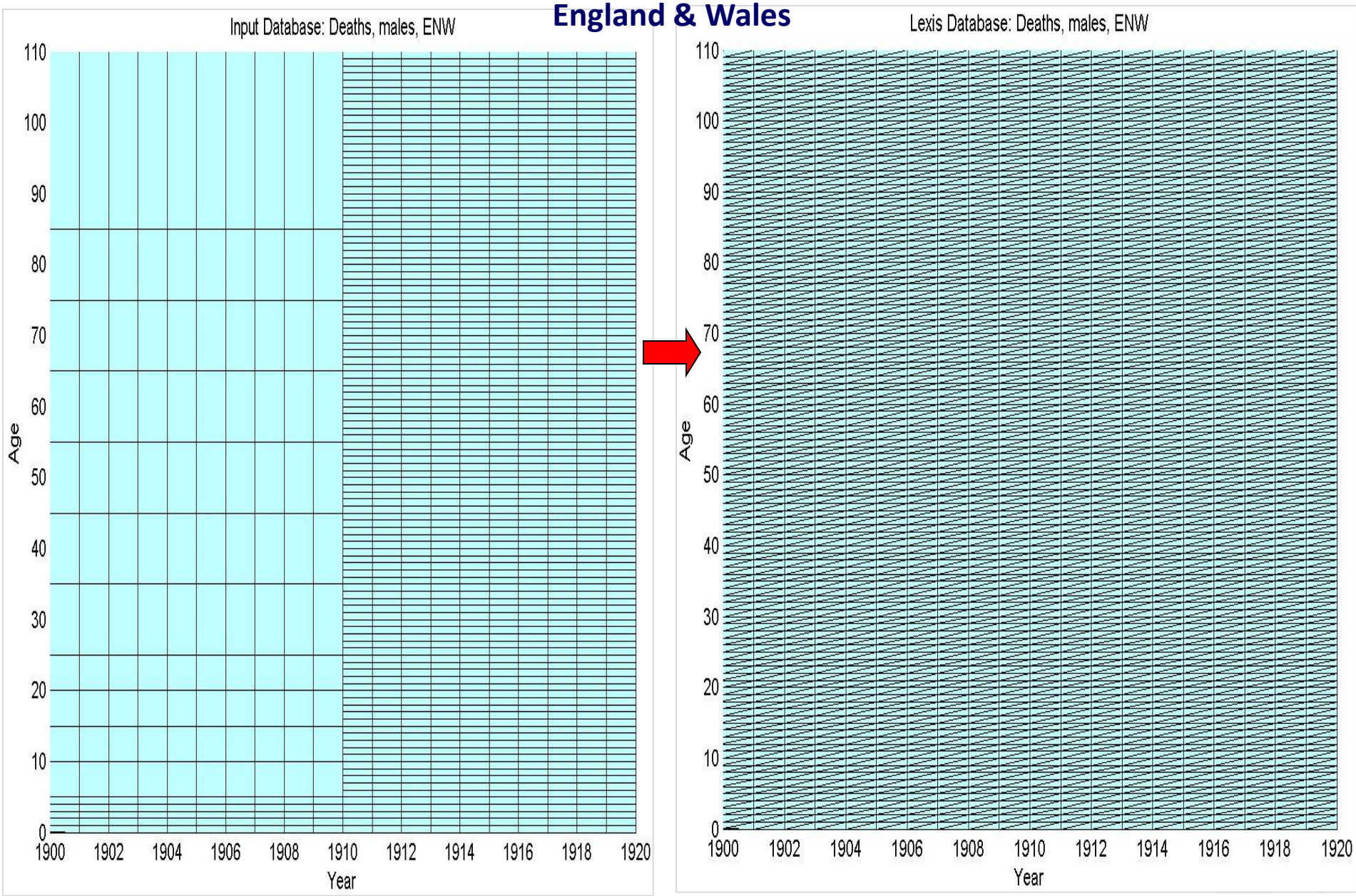
We seek to provide open, international access to these data. At present the database contains detailed population and mortality data for the following 38 countries or areas:

Australia	Finland	Latvia	Slovenia
Austria	France	Lithuania	Spain
Belarus	Germany	Luxembourg	Sweden
Belgium	Greece	Netherlands	Switzerland
Bulgaria	Hungary	New Zealand	Taiwan
Canada	Iceland	Norway	U.K.
Chile	Ireland	Poland	U.S.A.
Czech Republic	Israel	Portugal	Ukraine
Denmark	Italy	Russia	
Estonia	Japan	Slovakia	

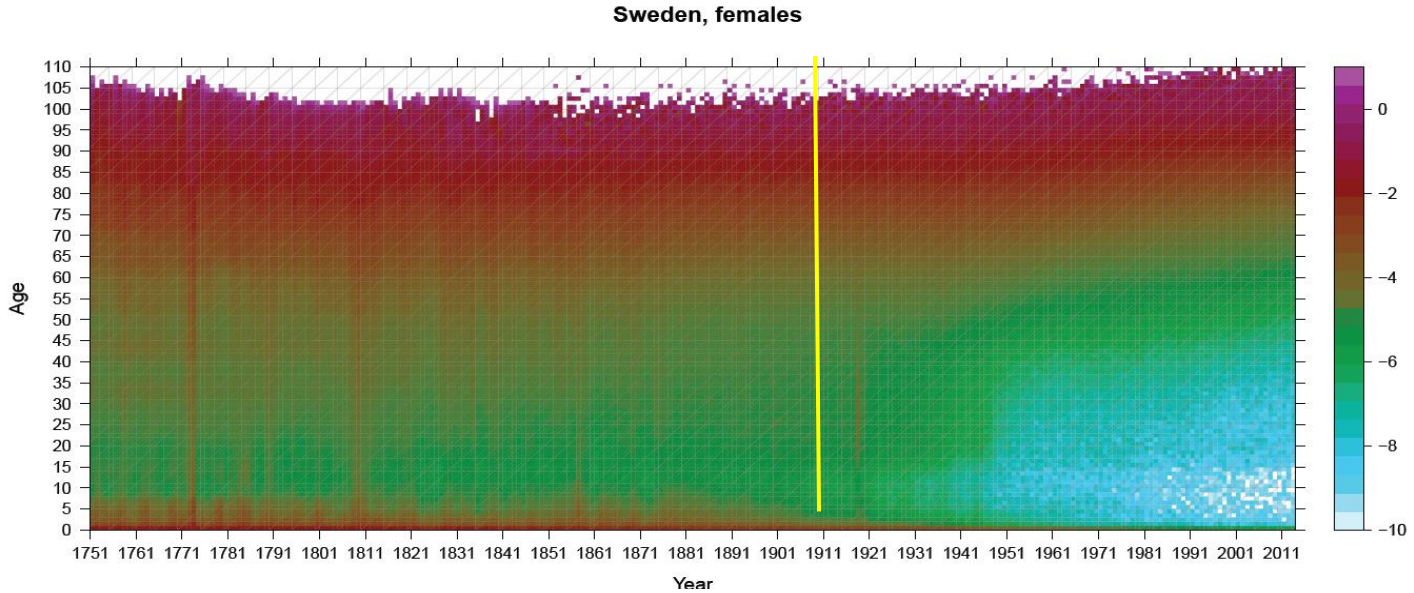
For more information, please begin by reading an overview of the database. If you have comments or questions, or trouble gaining access to the data, please write to us (hmd@mortality.org).

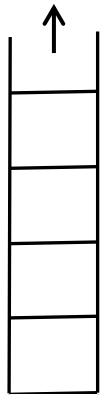
- Work began in autumn 2000
- Launched online in May 2002 with 17 country series
- Now: 39 countries and areas (+8 regions), 43,000+ users
- Comparability across time and space
- Continuous, long-term series without gaps or ruptures
- Data by age, year, cohort, in age-by-time formats 1x1, 5x1, 1x5 etc.
- Uniform data files compatible with stat. packages, research applications, and Excel
- Detailed documentation on origins and quality of the data

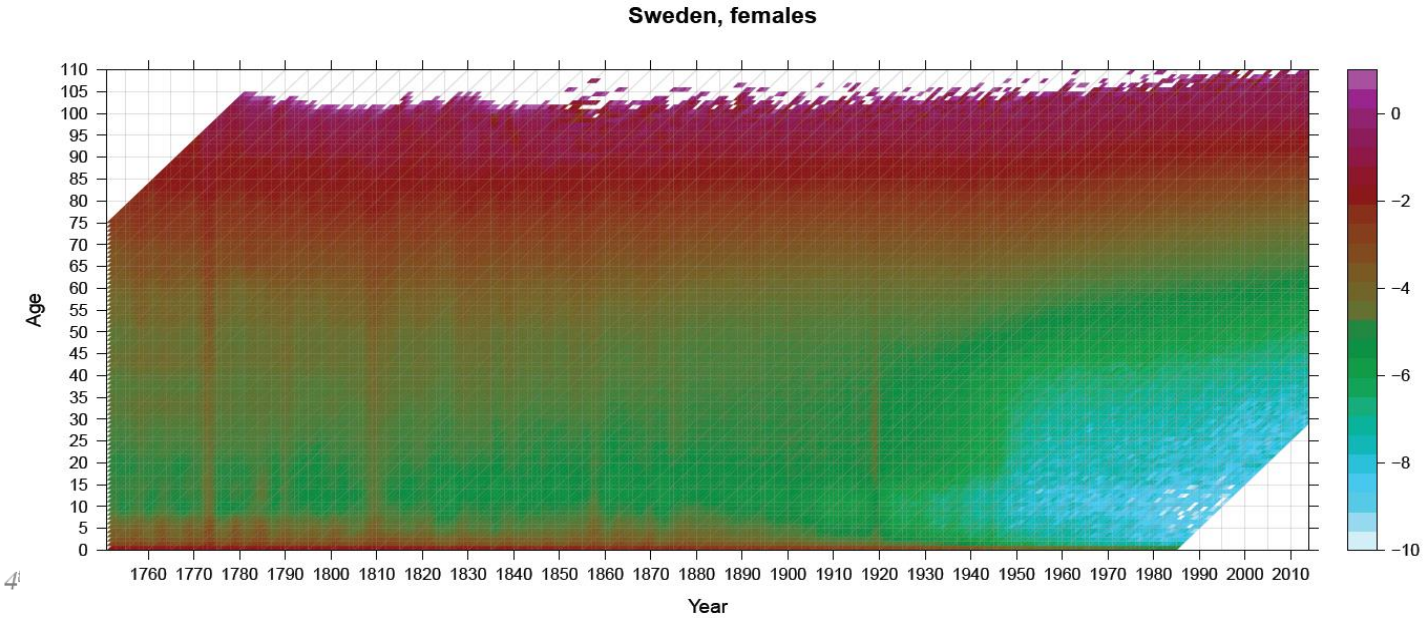
HMD processing of raw data into Lexis surface

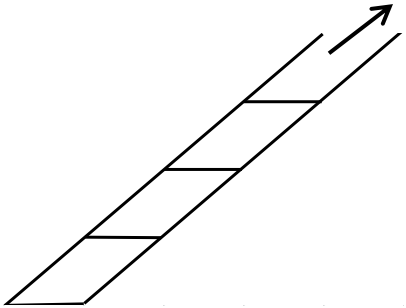


Lexis surfaces of period and cohort mortality

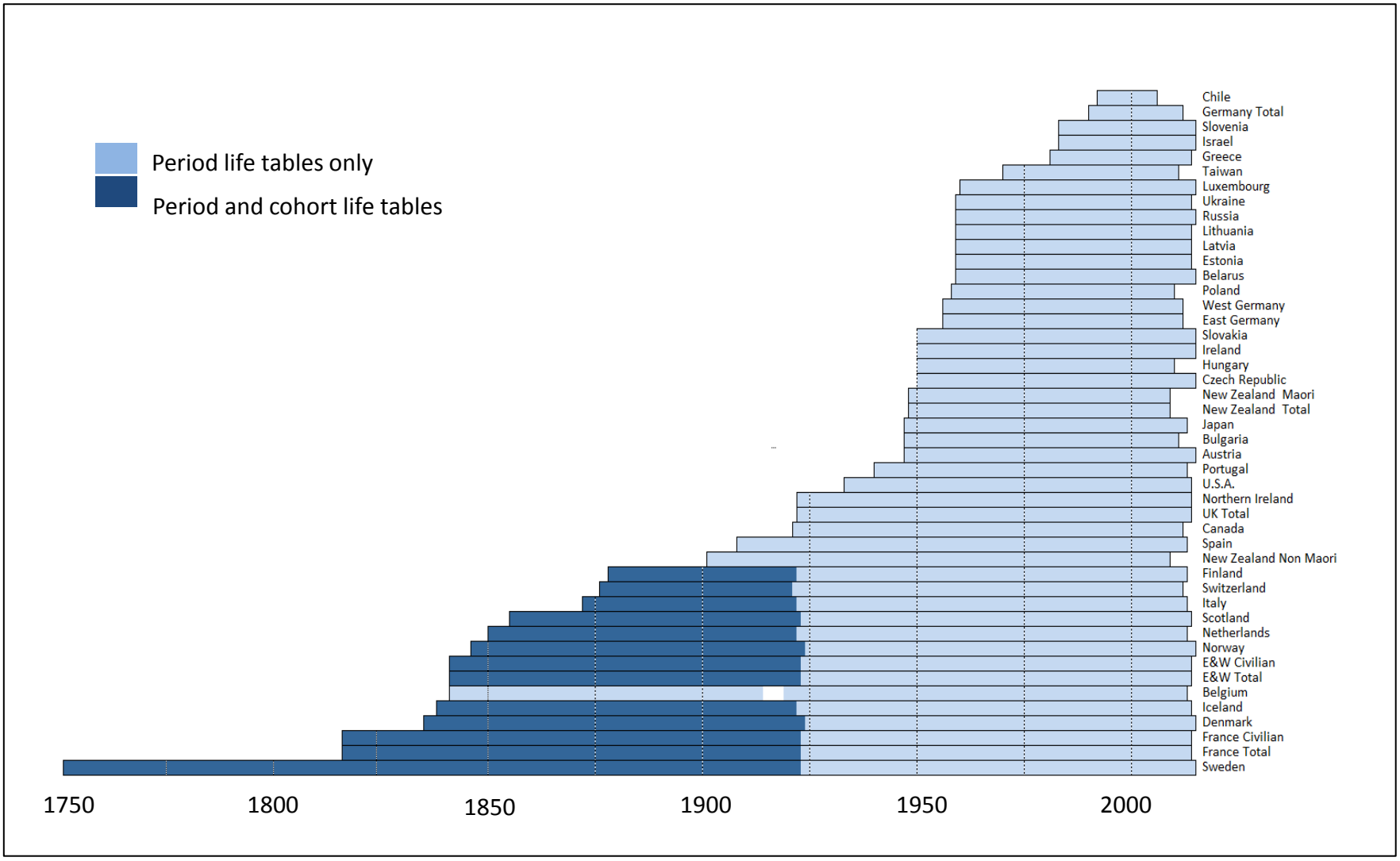








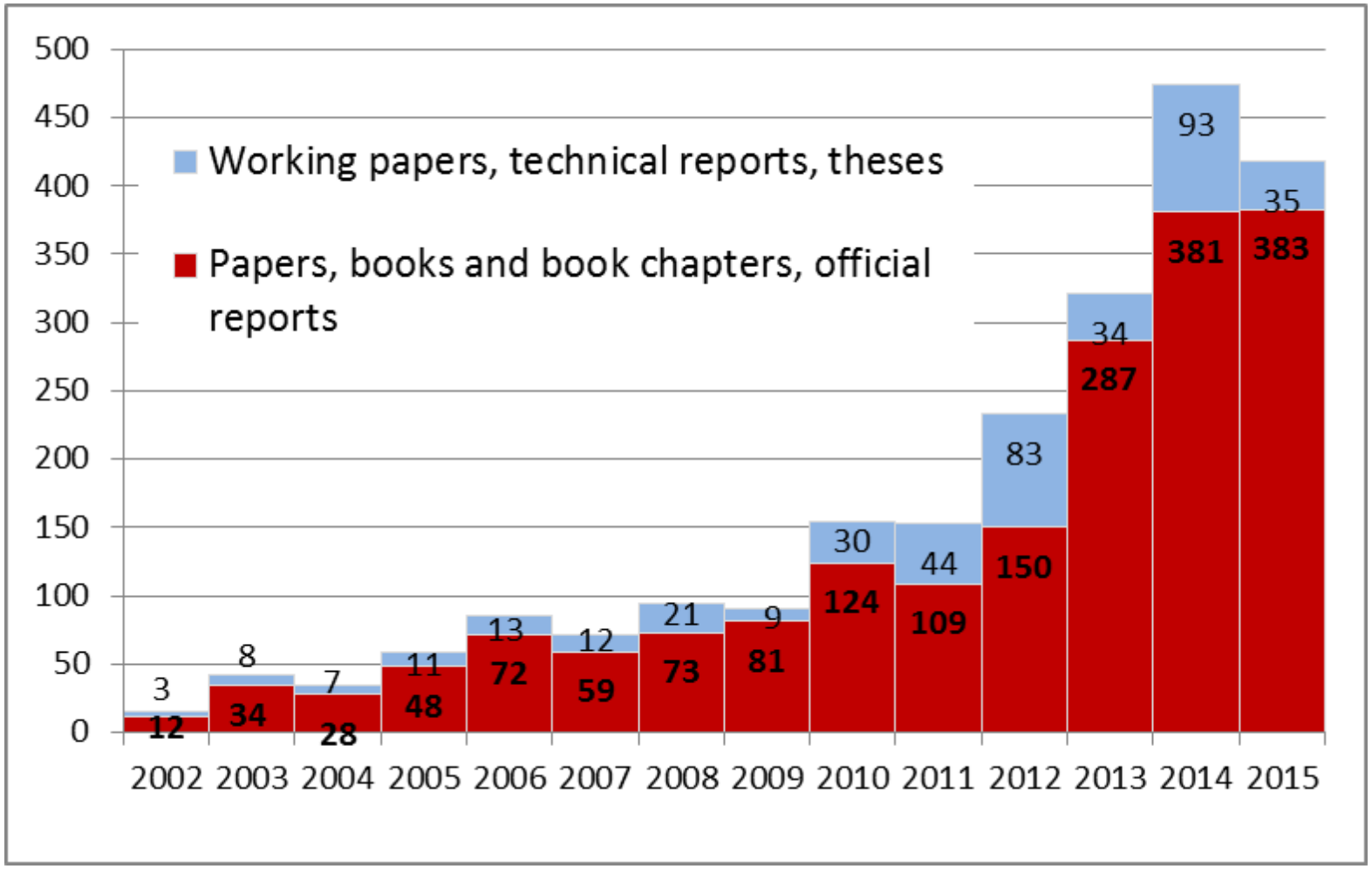
HMD: available data



Period and cohort mortality data series across time and populations

Source: An updated version of the data map by Barbieri et al, 2015

HMD citing, as of December 2015



Total 2002-2015:
All items - 2,244
Journal papers - 1,766

John R. Wilmoth
Founding Director,
UCB in 2000, now UN

Vladimir M. Shkolnikov
Director, MPIDR

Magali Barbieri
Associate Director,
Head of the UCB Team,
UCB&INED

Dmitry Jdanov
Head of the MPIDR
Team, MPIDR

Max Planck Team

(members present and some former)

Domantas Jasilionis

Evgeny Andreev

Sebastian Kluesener

Pavel Grigoriev

Eva Kibele

Sigrid Gellers

Rembrandt Scholz

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