



International Actuarial Association  
Association Actuarielle Internationale

## International Actuarial Association (IAA) Mortality Working Group

Website: [www.actuaries.org/mortality](http://www.actuaries.org/mortality)

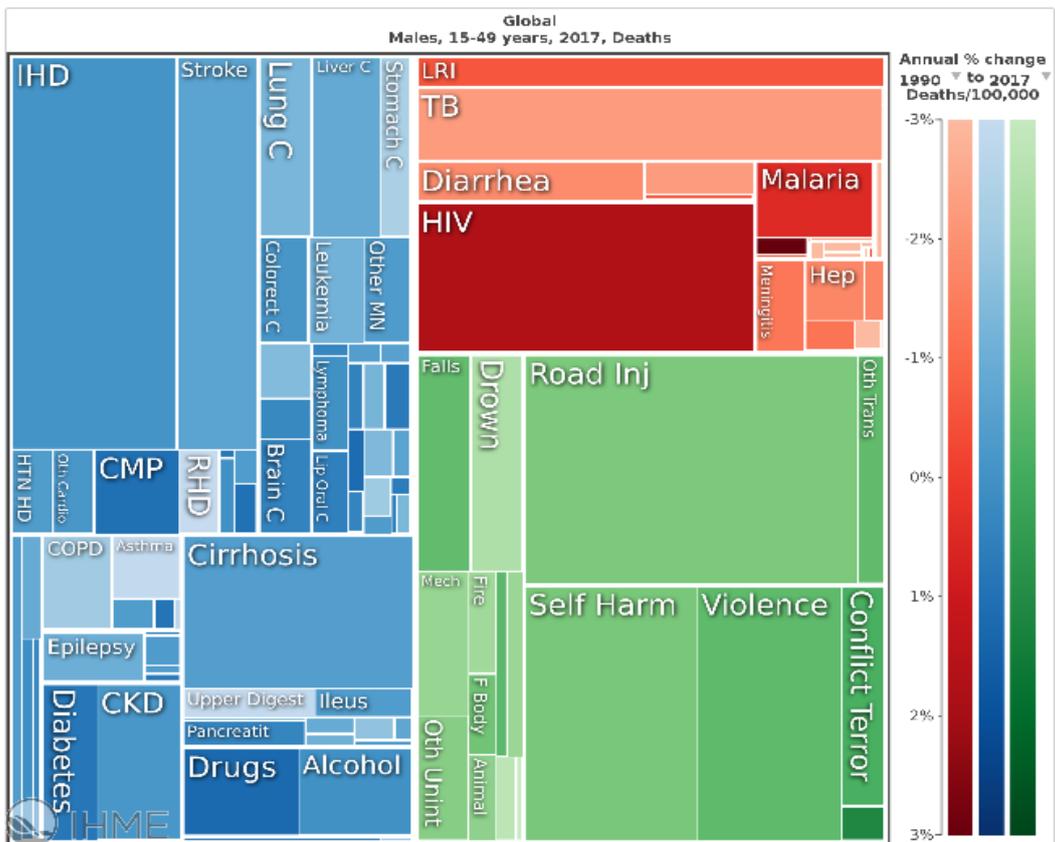
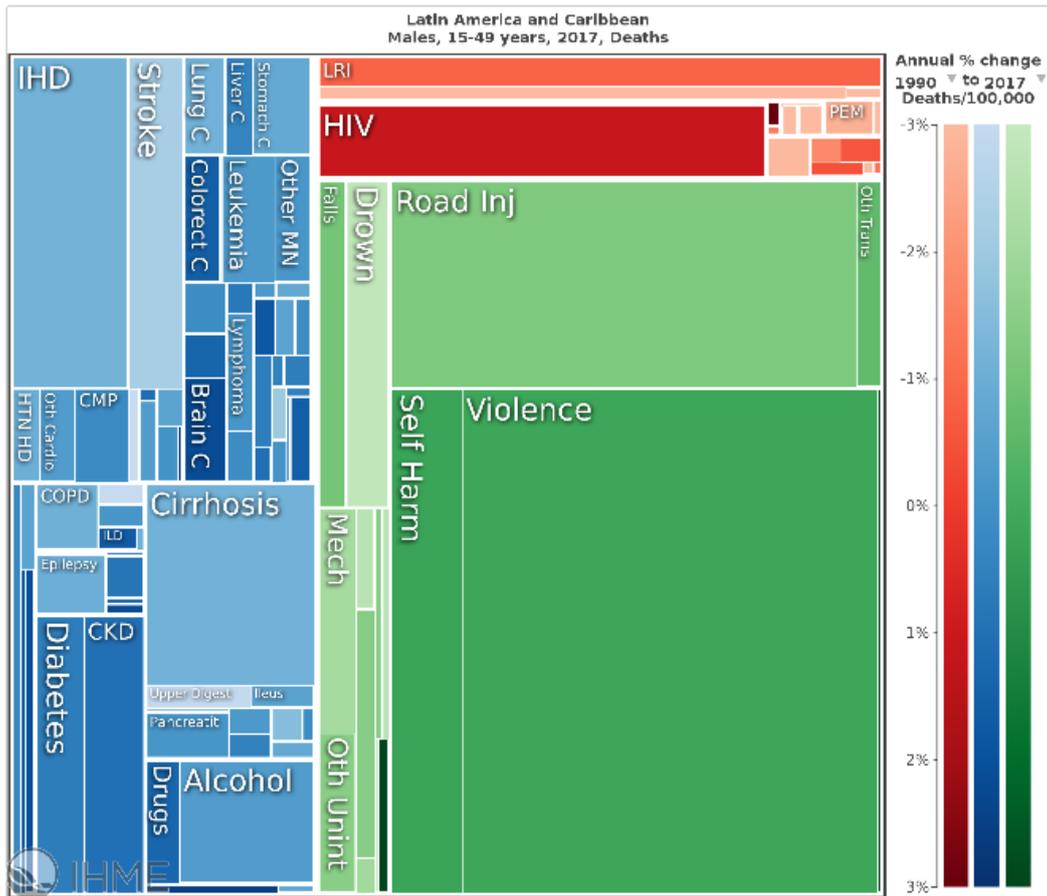
### International Mortality and Longevity Update #12

This is an International Update from the IAA Mortality Working Group (MWG) covering research in the areas of Mortality and Longevity reviewed by the MWG at its meeting in Mexico City, November 2018.

*Note: click underlined phrases to access the papers/presentations*

1. [Local and Global Issues Related to Mortality and Population Seminar](#) Mexico City, Mexico: The MWG and the Population Issues Working Group organised this seminar in Nov 2018.
  - *The presentations can be accessed by clicking on the seminar title above and then clicking on the individual presentation titles. Seminar Reports are available here: [English](#) and [Spanish](#)*
2. **Research from the USA:** Dale Hall [presented an update](#) on recent US research from the SOA. Key observations included:
  - a. US population mortality rates declined by 1.3% per year on average from 1999 through 2012, but since then the trend is flat, with rate increases in 2 of the last 5 years.
  - b. Analysis by cause of death (“COD”) shows increasing rates due to accidents, suicides & assaults, with growing influence of deaths from opioid drug overdoses.
  - c. Social Security analysis by size of benefit: lowest benefit amount quintile mortality rate is above 160% of average, while largest benefit amount quintile mortality rate is below 60% of average.
  - d. Increasing use of Socioeconomic group specific mortality tables.
3. **Research from the UK:** Brian Ridsdale (UK) [presented an update](#) on recent UK research in mortality
  - a. Items included in the [UK Mortality and Longevity Update #14](#), issued November 22
  - b. A novel approach for forecasting life expectancy, published in the Lancet (a peer reviewed medical journal). “Forecasting life expectancy, years of life lost, and all-cause and cause-specific mortality for 250 causes of death: reference and alternative scenarios for 2016–40 for 195 countries and territories, [Foreman et al. Lancet](#) October 2018”.
4. [The effect of Homicide in Latin America](#)  
**Ivan Botello**, a guest speaker indicated why homicides have such a large impact in Latin America, referencing the fact that Latin American countries represent just 10% of the world’s population but have 25% of the world’s total homicides. In contrast, Asian countries represent 65% of the world’s population but just 5% of the total homicides.

This can be illustrated by comparing male cause of death rates age 15-49 for Latin American countries (chart on top) to the World (on the bottom).



5. [Mexican Social Security](#)

**Marcela Abraham, Carlos Gonzales, and Rocio Gomez**, guest speakers, presented information regarding the emerging mortality experience of individuals who became disabled and eligible for Social Security Disability income.

## 6. [Heterogeneity in Mortality](#)

Ermanno Pitacco presented his paper on heterogeneity in mortality

## 7. Country Reports

- a. Gyula Horváth presented the [Country report](#) for Hungary and an analysis of [life expectancy in Hungary Post WWII](#).
- b. Hiroshi Yamazaki presented the updated [country report for Japan](#).

## 8. Underwriting the Elderly

Dr. Keiko Imuro presented (no slides available)

9. [Life Expectancy in Russia](#) Dmitri Pomazkin gave a presentation on the dynamics of life expectancy in Russia over the past half century and the prospects of it reaching 80 (or more) by 2030

## 10. [Selection of Mortality Models](#)

Michael Sherris was unable to attend the meeting so his research proposal on “a Data Analytics Paradigm for the Construction, Comparison, and Selection of Mortality Models” is deferred to another meeting.

## 11. Research in progress

The MWG is continuing to work on the following research projects:

- a. [E-cigarettes](#) - This project has been completed and is awaiting approval from the North American Actuarial Journal for publication.
- b. Older Age Mortality Project – This project is on hold for now
- c. Long Term Drivers of Future Mortality - Progress has been made on eight of the 10 factors and a draft paper will be completed in 2019.
- d. [Cause of Death Project](#) - Sources of cause of death (COD) data have been identified, as well as some of their similarities and differences. The next goals of the project (to be accomplished in 2019) include:
  - Perform a literature search on COD and COD data and studies and begin to document this information
  - Begin analysis on the COD data by country and trends over time
  - Share preliminary analysis at MWG meetings in 2019
- e. Proposed project on [better mortality models](#) - The object of this project is to provide a comprehensive overview of current and future developments in mortality modelling with a focus on better mortality models for actuarial applications. An important secondary objective is to stimulate future research on these areas. The outcome will be a series of papers. In 2019 the goals are:
  - A literature search will be completed on mortality models, with a focus on gaps where additional research can lead to better modeling
  - A draft paper will be completed on this topic

## 12. [Seminar](#) "Public Policy, Social Security and trends in mortality", Washington DC, 14 May 2019

IAA Mortality Working Group and Population Issues Working Group are organising a seminar for 14 May 2019, the day before the start of the IAA council and committee meetings in Washington DC. If you can make it, please diary it.