



2022 Human Mortality Database (HMD) Users Conference

Executive Summary

Context

- The annual **HMD users conferences** started 5y ago, to provide a bridge between (i) **demographers** (incl. the HMD experts) and (ii) **actuaries**, and **foster exchanges**
 - HMD is interested in understanding the needs of actuaries and how they use the HMD data in their models to predict future mortality
 - Actuaries are interested in learning about the new HMD developments, and demographers' views on mortality trends

Description

- **Date: October 4 and 6, 2.30pm – 6.30pm (CEST)**
- **Remote event** (through Microsoft Teams)
- **Free and open to all** (mainly actuaries, demographers)
- 2022 thematic: **Mortality by cause of death**

Sponsors

- The event is sponsored by: **AXA, Milliman, SCOR, Université Paris Dauphine**
- On a rolling basis, one of those sponsors organizes the yearly event in collaboration with the others. In 2022, **AXA** is the organizer

Communication

- Via **AXA Research Fund**
- Via the **French Institute of Actuaries**
- Via the **HMD website**

Program (1/2)

Day 1 – October 4, 2022

Timing	Topic	Speakers
1.15pm – 2pm	HMD – Introduction and update on HMD methods on mortality by cause of death	Magali Barbieri (HMD)
2pm –2.30pm	Feedback/challenges of working on the mortality by cause of death	Severine Arnold (HEC Lausanne)
2.30pm-3pm	Cause-specific mortality modeling : using survival copulas to capture dependency between competing causes	Agne Ulcinaite (SCOR)
3pm-3.30pm	Diversification in causes of death in low-mortality countries	Marie-Pier Bergeron Boucher (University of Southern Denmark)
<i>3.30pm-3.45pm</i>		
3.45pm – 4.05pm	Detailed presentation of HMD methods	Magali Barbieri (HMD) & France Mesle (INED)
4.05pm-4.50pm	Cause-specific versus all-cause mortality	Mike Ludkovski (UC Santa Barbara)
4.50pm-5.35pm	Mortality improvement models using detailed cause of death data	Andrew Cairns (Heriot Watt)
5.35pm-6pm	Past and future developments of various causes of deaths	Daniel Meier (Swiss Re)

Program (2/2)

Day 2 – October 6, 2022

Timing	Topic	Speakers
2.30pm – 3.15pm	HMD – (i) Short Term Mortality Fluctuation, (ii) new HMD website	Dmitri Jdanov (HMD)
3.15pm – 4.15pm	COVID-19 roundtable: demographers vs. actuaries' views on COVID-19 consequences on mortality trends (one-off impact or changes of trend?)	Andrew Cairns (Heriot Watt)
		Jean-Marie Robine (INED)
		Al Klein (Milliman)
		Daniel Ryan (Club Vita)
		Severine Arnold (HEC Lausanne)
4.15pm – 5pm	Machine learning methods to improve the performance of mortality models	Andrea Nigri (Sapienza)
5pm-5.45pm	Climate change & mortality	Jean-Marie Robine (INED)
		Valentin Germain (Milliman)
		Gaelle Pincemin (Prim'Act)
		Papa Cheickh FALL (Generali)