

## Newsletter - Scor Chair on Mortality Research

### Fourth quarter 2024

With two years remaining in the Chair, the project is progressing steadily. To date, three articles have been published, two are under review, and several more are in development. The team has been proactive in sharing their research, submitting proposals to several international conferences to present and disseminate their findings.

#### Research and papers

This Fall, our team made significant progress with two papers published and two more submitted.

In **September**, *Silvio Cabral Patricio* and *Trifon I. Missov*'s paper, "[Makeham Mortality Models as Mixtures: Advancing Mortality Estimations Through Competing Risks Frameworks](#)," was published in *Demographic Research*. This research demonstrates that competing-risk models can be represented as mixture models, offering new insights into risk-specific mortality dynamics. [Read the full paper here: [Link to paper](#)]

In **October**, *Elizaveta Ukolova*'s article, "[A Comparative Analysis of Regional Mortality Differences Using Underlying and Multiple Causes of Death: A Case Study of Czechia](#)," was published in *Spatial Demography*. The study highlights how regional variations in death certification practices in Czechia can amplify mortality differences when comparing underlying versus multiple causes of death. [Read the full paper here: [Link to paper](#)]

Additionally, *Trifon Missov* and *Elizaveta Ukolova* submitted a paper titled "[What if Dependent Causes of Death Were Independent?](#)" The study examines the association between causes of death and explores how breaking dependencies between leading cause-of-death pairs in the USA impacts the overall cause-of-death structure.

Finally, *Elizaveta Ukolova* submitted "[An Attempt to Model Interactions Between Multiple Causes of Death Using Causal Pies](#)." This paper uses causal pie models to investigate how contributory causes of death interact and influence the sequence of events leading to mortality.

#### Conferences and dissemination

Members of the Chair submitted abstracts to several major international conferences, and we are pleased to announce that we received acceptances at two major demographic conferences this Fall

and are waiting responses from others. Additionally, the 2<sup>nd</sup> SCOR Seminar in November, hosted at the SCOR office, was a successful event that provided an excellent opportunity to discuss our ongoing work and engage with colleagues. The next SCOR seminar will be held at the University of Southern Denmark in Odense, Denmark on April 3-4, 2025.

*2<sup>nd</sup> SCOR seminar, Paris, 7-8 November 2024*

- Elizaveta Ukolova presented her ongoing work on “[Bridging Morbidity and Mortality. Analysis of \(mortality by\) disability using Czech administrative data](#)”.
- Silvia Rizzi presented her work in collaboration with Ainhoa-Elena Leger and Ugofilippo Basellini, titled “[Smoothing trends and seasonality in short-term mortality forecasting](#)”.
- Marie-Pier Bergeron Boucher presented her research “[Diversity in Causes of Death: A New Approach Using Multiple Causes of Death Life Tables](#)”, done in collaboration with Sergi Trias-Llimós and Aline Désesquelles.

*Population Association of America, 2025 Annual Meeting in Washington DC, 10-13 April 2025.*

- “[Assessing and Predicting the Impact of Mortality Shocks on Population Trends](#)” by Trifon I. Missov was accepted for an oral presentation in the session *Epidemic and Pandemic Mortality and Morbidity*.
- “[Understanding end-of-life multimorbidity: An analysis of Multiple Causes of Death in Denmark](#)” by Cosmo Strozza, Elizaveta Ukolova and Marie-Pier Bergeron Boucher was accepted for an oral presentation in the session *Chronic Disease and Multimorbidity Burden across High-Income Countries*.
- “[Diversity in Causes of Death: A New Approach Using Multiple Causes of Death Life Tables](#)”, by Marie-Pier Bergeron-Boucher, Sergi Trias-Llimós and Aline Désesquelles was accepted for a poster session.
- “[Multiple-Cause Mortality in the U.S., 2000-2021: Insights from Pattern-of-Failure Life Tables](#)”, by Elizaveta Ukolova and Marie-Pier Bergeron Boucher was accepted for a poster session.

*Young Demographer Conference, Prague, 5-7 February 2025*

- “[Hidden Mortality Dynamics in Surface Plots: A Contrasting View with Underlying vs. Multiple Causes of Death in the U.S., 1960–2022](#)” by Elizaveta Ukolova was accepted for an oral presentation.