



Wittgenstein Centre

FOR DEMOGRAPHY AND
GLOBAL HUMAN CAPITAL



The seminar will be
held online via Zoom.

WIC Online Colloquium

Temperature and Seasonality Related Infectious Disease Mortality Among Infants. A Retrospective Time-Series Study of Sweden, 1868-1892

Tuesday, February 14th, 2023
15:00-16:00 (CET)

Please click [here](#) to register online.
Login information will be sent to registered participants shortly before the presentation.

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Climate conditions, such as ambient temperature, are crucial to infants' vulnerability to infectious diseases. However, little is known about how climate conditions affect infectious disease mortality among infants in high mortality settings. The aim was to investigate the association between ambient temperature, seasonality and cause-specific infant mortality. We applied a retrospective study design using parish register data from Sweden covering the period 1868-1892 in combination with daily temperature data. Mortality due to water- and foodborne diseases, airborne infectious diseases, and other causes were modelled as a function of temperature exposure in the previous 14 days using distributed lagged non-linear models. We found that airborne infectious disease mortality was not related to cold temperatures while water- and foodborne infections were associated with high temperatures. The increased vulnerability to infectious diseases of infants at high temperatures is a significant future risk, given the expected global warming in the coming decades.

About the presenter

Johan Junkka is an assistant professor in historical demography at the Centre for Demographic and Ageing Research, Umeå university, Sweden. Junkka's research covers a wide range of demographic issues regarding fertility, social networks, mortality, disability and climate conditions. He uses a combination of longitudinal historical population records and modern register data to study the impact of disability on different aspects of life-course, or how climate conditions such as temperature affects health inequalities over the past centuries.

The Wittgenstein Centre is a collaboration among the Austrian Academy of Sciences (OeAW), the International Institute for Applied Systems Analysis (IIASA) and the University of Vienna.

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