

## **Extended Abstract: Religious Affiliation and Mortality in Finland**

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### **Background and theoretical focus**

It is well-established that religious attendance is associated with better health (Chida, et al., 2009; Powell, et al., 2003; McCullough, et al., 2000). The association of religion and health (Stavrova, 2015) and mortality (Alothman & Fogarty, 2020) varies substantially across the globe. However, even in the more secularised contexts of Northern Europe, there appears to be a link between religious attendance and mortality, even though much of this interrelation seems to be weak once socioeconomic and health factors have been accounted for (Ahrendfeldt, et al., 2023; la Cour, et al., 2006; Teinonen, et al., 2005).

The link between mortality and partaking in religious activities is argued to be related to social involvement and norms of social groups, rather than to religiosity and spirituality as such (Shor & Roelfs, 2013). The social environment and norms within a religious group may thus nudge its members towards a certain life style, which has the potential to moderate health risks for both cancer and mental health outcomes (Jarvis & Northcott, 1987; Reini, et al., 2024; Thygesen, et al., 2012; Thygesen, et al., 2013; Troyer, 1988). Lifestyles attached to specific religious affiliations are also cited as potential reasons behind variation in all-cause and cause-specific mortality between Catholics and different Protestant denominations in Northern Ireland (O'Reilly & Rosato, 2008).

One aspect of particular importance in the Finnish context is the Swedish-speaking minority. They amount to about 300,000 out of 5,5 million people residing in Finland and live geographically concentrated in the Southern and Western coastal areas (Saarela, 2006). Unlike most ethnic minorities, Swedish speakers are equally well integrated into society and do not face discrimination or a noteworthy degree of socioeconomic differences. Despite this, there are distinct differences in health favouring the Swedish-speaking minority, among which is an advantage in life expectancy that has been relatively stable and amounts to about three years among men and one year among women (Saarela & Finnäs, 2006). As of 2015, Finnish-speaking men have a life expectancy of 79.1 years, and Swedish-speaking men of 81.0 years. The respective figures among women are 84.3 and 85.5 (Reini & Saarela, 2021). The differences relate to the Swedish speakers residing in areas where also the Finnish speakers have lower mortality rates (Saarela & Finnäs, 2005a; 2005b) and, to some degree, a more

favourable distribution of sociodemographic characteristics (Reini & Saarela, 2021). However, no study yet has been able to explain the entire difference in ethnolinguistic health outcomes. In terms of religious affiliation, the majority of Finns are member of the Evangelic-Lutheran church. As of 2020, 73 percent are member of the Lutheran Church, 25 percent are non-affiliated and two percent has an affiliation other than that. The Swedish-speakers continue to have a higher rate of affiliation with the Lutheran church, the highest one can be found in Ostrobothnia at almost 90 percent (Xia, et al., 2024). In a previous study, we have previously found differences in life expectancy of up to six years between Finns belonging to different religious affiliations (Klein, et al., 2025).

Other studies typically rely on survey-derived measures of religiosity and are often based in a North American context. Finland is nearly unique in keeping track of each resident's religious affiliation in great detail and over the course of several decades. We have access to population register data of the entire population of Finland, with religious affiliation of every person residing in Finland since 1971 on a yearly basis, as well as their unique recorded mother tongue. This set-up allows us to assess affiliation-specific mortality according to an objective and reliable measure of religion, for both Finnish- and Swedish-speaking Finns, by sex, and to observe time trends for a period of almost half a century. Analyses on a regional level are possible as well.

### **Data and methods**

We use register data for the entire resident population of Finland for the years 1971–2020 (used with Statistics Finland's permission number TK/3396/07.03.00/2023, U1054\_al6). This includes an annual record for religious affiliation and mother tongue, as well as a range of other socioeconomic and demographic background variables. With this data, we calculate life tables for ten-year intervals (1972–1980, 1981–1990, 1991–2000, 2001–2010, 2011–2020) for the three biggest groups of religious affiliation (Lutheran Church, no affiliation, other affiliation), by sex and mother tongue. We additionally calculate life tables for the period 2011–2020 for those regions in which the Swedish-speaking population resides.

### **(Expected) findings**

The overall difference in life expectancy between the Finnish- and Swedish-speakers is about three years among men and one year among women. This advantage in life expectancy among the Swedish speakers can be retrieved for the largest group of religious affiliation, those belonging to the Lutheran Church. The second largest group are those with no affiliation, and

among them, the difference in life expectancy shows a markedly decreasing trend. Among men, there is a decrease from about five years in the 1970s to about two years in the 2010s. Among women, this trend is not as pronounced, but also generally decreasing from two to one years. The smallest group are those with a religious affiliation other than the Lutheran Church and it largely mirrors the development among the non-affiliated.

By the time of the conference takes place, we expect to be able to present results for the time period 2011–2020 showing differences between Finnish- and Swedish-speaking Finns in the three groups of religious affiliations between a) for the probability of dying  $q_x$  over the entire life course and b) for life expectancy  $e_1$  in eight regions in which both Swedish and Finnish speakers reside.

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