

Extended Abstract: Life Expectancy Inequalities between Natives and Migrants in the Netherlands – Effects of Mortality Differentials and Selection

EPC Theme: Mortality and Longevity

Abstract

This paper aims at analyzing current differences in mortality between Dutch natives and three migrant groups and the identification of social processes which underlie these differences. The overall theoretical framework of the "healthy-migrant-paradox" is conceptualized for the Dutch case. Also, the salmon-bias, one of the mechanisms contributing to the paradox, is dealt with in particular. Mortality inequalities are analyzed with different life table techniques as well as survival analysis. Additional attention is paid to the different datasets and methodological approaches used in the different components of the analysis. Detailed Dutch registration data is used in order to counter a possible salmon effect. The results suggest that the healthy migrant effect is viable mostly for Moroccans. Additionally, Turkish individuals show mortality advantages throughout adult age-groups, but not in total life expectancy and older ages. The Surinamese population is found to be almost uniformly disadvantaged. Composition effects are identified to an important driver of life expectancy differences, and selective return migration (i.e. salmon bias) might also contribute, but our preliminary results are so far inconclusive. In the final paper we will systematically test this last hypothesis by censoring or not the migration trajectory at the time of out-migration.

Background

Because of social and health adversities and growing societal importance of migrant groups in western societies, research on health differences between population subgroups has been a hot topic in Social science in general, and Demography in particular. In this field of research, the *Migrant Mortality Paradox* (MMP) has become the topic of intense research. The MMP refers to paradoxically high life expectancy values of some migrant groups as compared to natives of the host country. The paradoxicality stems from the socioeconomically deprived stance of many migrant populations which would imply higher mortality, as proven in class related mortality research. Hypotheses explaining this phenomenon include the salmon bias, which refers to selective emigration from the host country in case of illness and subsequent death in the home country. This leaves migrants in the host country with more advantaged mortality patterns. Other explanations include health behavior and demographic composition. Latter refers to migrant populations being made up by selective groups with advantageous mortality patterns.

Despite a fast-growing literature on the topic, some cases such as the one of the Netherlands have only been examined for specific cases in the recent past. For instance, only the city of Amsterdam, with focus on specific groups (Mackenbach et al. 2011, Uitenbroek and Verhoeff, 2002, Uitenbroek, 2015). Moreover, classic life table analyses have been shown to be limited in their ability to give an evaluation of the hypotheses formulated to explain the paradox. For example, they are unable to account for individual migratory histories or residential status which are needed to identify selection through in- or out-migration.

To deliver new insights we analyze the whole of the Netherlands throughout the last few years with individual population data. We compare different origins in order to test whether the contributing factors of MMP have a similar weight across different cultural contexts. Lastly,

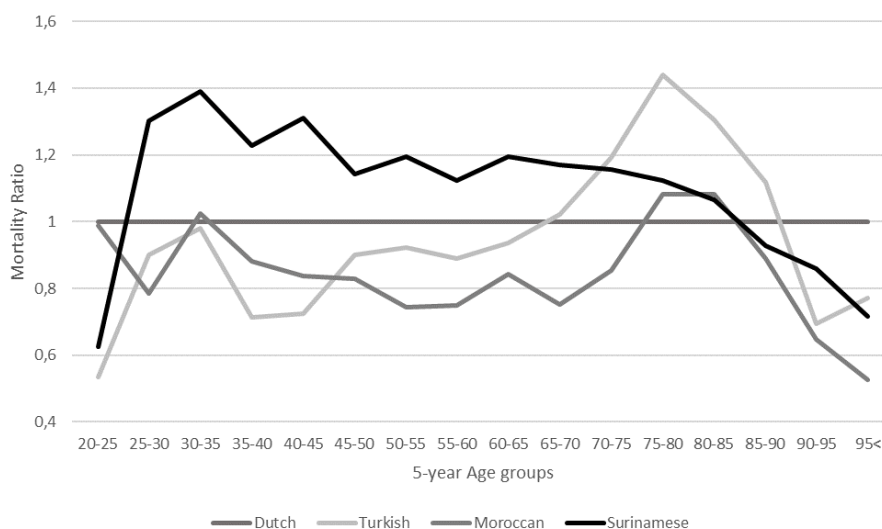
the combination of migration records and data on health status make it possible to shed light on the salmon bias. Conclusively, the aim of this paper is to present current developments in mortality differentials between migrants and natives in the Netherlands, to quantify a possible Dutch MMP, and look into the sociodemographic and cultural mechanisms that are driving it.

Data and Methods

We use individual data from the national population register ([Basisregistratie Personen](#)). It is unique because, contrarily to most register data, it keeps track of people even after they have left the country, making it possible to test the existence of selective return migration (i.e. salmon bias). The Dutch legislative framework (i.e. state pension funds and health care) and way of collecting register data makes it possible to follow-up on people that used to live in the Netherlands. Thus, longitudinal analyses do not lose respondents in case of a salmon bias. All of the data was made accessible by Statistics Netherlands (CBS) and the research project was carried out in concert with the “Demography” Team and supported by other branches of the institution. The migrant groups which are included into the analyses are Turks, Moroccans and Surinamese, which are separately compared to native Dutch. The window of observation is the beginning of 2010 to the end of 2018. We first aggregate the data and extract age-specific death rates for each origin, from which we compute classical life tables together with confidence intervals. We then compare the results by censoring or not the trajectories at the time of return migration. Finally, we estimate parametric survival models. Moreover, the salmon bias specifically is tested with health sample data while applying a survival structure which is oriented on the migration moves of the individuals.

Preliminary results

Preliminary results based on aggregate data show that Moroccans are the only group of migrants that exhibit an MMP, both Turks and Surinamese have lower values than their native counterparts. Additionally, Turkish individuals show mortality advantages throughout adult age-groups, but not at older ages, resulting in a lower life expectancy than natives. The Surinamese population is found to be almost uniformly disadvantaged compared to natives (s. Figure below).



Source: CBS, own calculation

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The effect of censoring at out-migration is not clear yet, but published data that indicate death abroad as a cause of death reveal that both Turks and Moroccans have a stronger tendency to die abroad than Surinamese. In the final paper, we will investigate this more thoroughly with our own dataset.

The individual survival models show significant effects of the origin. Differences shrink as more control variables are introduced (Sex, Cohabitation, Marital Status), suggesting a composition effect, although the difference persists, meaning that a health behavior hypothesis cannot be ruled out. The effect of censoring at out-migration has not been tested yet in time of writing, but we expect that Turks and Moroccans, who display a larger tendency to die abroad, will display a stronger mortality advantage after censoring than when considering the entire migration trajectory.

Conclusion

This paper examines the mortality patterns of Dutch natives in comparison to three important migrant groups: Turks, Moroccans and Surinamese. Classical life table methods show the presence of a Migrant Mortality Advantage, but only for Moroccans. Composition effects are identified to an important driver of life expectancy differences, and selective return migration (i.e. salmon bias) might also contribute, but our preliminary results are so far inconclusive. In the final paper we will systematically test this last hypothesis by censoring or not the migration trajectory at the time of out-migration.

References

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