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Effects of country of origin and patterns of cause- specific mortality among migrants from the Former Soviet Union residing in Israel and Germany

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This first study on mortality of Former Soviet Union (FSU) - immigrants in the two countries Israel and Germany illustrates their mortality patterns in comparison to their country of origin and destination, and factors influencing these patterns.

As previous research has focused on economically-motivated migrants and refugees, not much is known from diaspora migrants, a group comprising millions of people. In the aftermath of the fall of the Iron Curtain, there has been a substantial immigration to Israel and Germany from the republics that comprised the Former Soviet Union. These migrations cannot be regarded as typical economically motivated on the one hand, nor forced migrations or refugee movements on the other. Nevertheless, these individuals were exposed to risk factors in a country with some of the highest non-communicable disease mortality rates and experienced adaptation challenges inherent in the migration process.

The main questions that have dominated this research are central in epidemiology and medical sociology. These topics comprise the selectivity and relative social deprivation of migrants and the impacts of migration and resettlement processes on specific causes of death.

Although for most causes of death immigrants from the FSU had a lower mortality than the Russian population, the results indicate that cancer tends to be strongly influenced by either migration or effects of the destination country. Cancer mortality especially that from stomach appeared to be significantly lower in migrants compared to their country of origin, however much higher than in their respective destination country.

For some sites, FSU-immigrants acquired much higher cancer risks that exceed the rates of their country of origin. Among these malignancies were colorectal cancer, pancreatic cancer, and particularly among FSU-immigrants in Israel, brain cancer and leukaemia. Female migrant cancer mortality showed a worse picture in general and a very prominent breast cancer risk difference between the cohorts with female immigrants in Israel being at much higher risk

and female immigrants in Germany having a much lower risk than Russians.

FSU-immigrants did not display the high cardiovascular and external cause mortality of their country of origin, which can be explained in part by the fact that they are selected and relatively healthier than their source population in Russia. Results showed that this is particularly true for those who migrated from the FSU in the early 1990s since they demonstrated an overall lower mortality than those who arrived in Israel and Germany after 1993. However, it cannot be determined from these data whether their relatively low mortality is due to a healthy migrant effect in diaspora migration only. Changes in mortality and mortality differences to the country of origin in migrants result from complex patterns and are presumably related to life style, environmental and genetic factors, health care settings in the country of origin and destination as well as the migration process itself.

Results from the multivariate analysis have shown that length of residence in Israel and Germany significantly decreases mortality in all major cause of death categories, which is an indicator either of assimilation to the host country or of an already healthier lifestyle in the Russian Federation together with a tendency for less health- risky behaviour.

This study restates evidence for the association between socioeconomic status and mortality. For all major causes of death, FSU-immigrants in Israel with the highest educational achievement had the lowest mortality risk, on a significant level. This was repeated for all single cancer sites, except female breast cancer mortality, for which high education may act as a risk factor.

Migrants form an important part of populations and the findings underscore the importance of analytic studies using accurate mortality data to investigate how much of the changes in mortality are attributable to medical services, socioeconomic status, lifestyle factors, and social support. Future epidemiologic migrant studies should take into account the life course perspective to identify risk factors acquired early in life and associated with the country of origin.

Differences between the two migrant cohorts indicate that targeted policies are required to pinpoint factors that modify mortality, particularly for causes which are of public health concern and provide intervention potential.