# Everyday Activity Limitations and Social Networks of Older Adults: Longitudinal Evidence from the SHARE survey

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## Background

With population ageing, older adults' health is in the focus because of the tendency of health declining in later age. The definition of health encompasses also a socal element in addition to physical and mental well-being (WHO 1948). Studying the role of social networks in health outcomes helps to understand how surrounding social environment, particularly interactions with other people, influence health.

Research on older Americans has shown that people with everyday activity limitations have social networks which constitute of the so-called strong ties since these are more likely to follow the reciprocity principle of relationships in times of need (Cornwell 2009). Cross-sectional analysis of the European older adults showed that network size is slightly bigger for those with less severe limitations, but smallest for those with severe limitations compared to the non-limited population, indicating that there is a changing dynamic with regard to networks depending on the level of activity limitations (Abuladze & Sakkeus 2013). Some countries such as Switzerland, France and Belgium indicated having more diverse networks whereas Austria, Estonia, Hungary and Portugal had more family-based networks.

One of the critiques of analyses on social networks and health outcomes, as mentioned by Cornwell (2015), is that even in longitudinal analysis static indicators of social networks are used that mask the real dynamics of networks. Cornwell (2015) finds that over 80% of older Americans who reported no change in network size over time (6 years), did experience a change in who their network members are. Therefore, there is a high turnover in networks of older Americans, which usually means replacing old weak ties with new weak ties (in terms of frequency of contact and emotional closeness). The results of analysis on health and social networks suggest that there are health benefits to be gained from increasing the number of confidants – cognitive health may be positively influenced by the activity of seeking new ties, and through having access to different people also access to health information, treatment and prevention options improves which might slow the onset of diseases (Cornwell 2009, Cornwell 2015).

This paper aims to understand how the dynamics of social networks are related to disability outcomes among older Europeans. We focus on people that have developed either less severe or severe limitations by Wave 6 of SHARE. The main research question is the following: Which type of social networks lead to the onset of disability?

The sub-questions are the following:

- a) Which network size leads to the development of less severe limitations?
- b) Which network size leads to the development of severe limitations?

- c) Which network composition (in terms of weak or strong ties) leads to the development of less severe limitations?
- d) Which network composition (in terms of weak or strong ties) leads to the development of severe limitations?

We also aim to distinguish country differences in terms of the role of social networks in health outcomes.

#### Data and Method

We use the Survey of Health, Ageing and Retirement in Europe (SHARE) Waves 4, 5 and 6. Wave 4 included a special social networks' module mapping respondents' egocentric confidant networks. These networks were followed up again in Wave 6. We include countries that have participated in both Wave 4 and 6.

The change in the Global Activity Limitation Index (GALI), identifying the level of severity of activity limitations is our main health outcome variable. GALI has been proved to be an objective and validated disability status measurement (Verbrugge 1997, Jagger et al. 2010). We distinguish three limitation categories: severely limited; limited, but not severely and not limited.

Tha main independent variables are social network size, social network composition (family member, spouse, friend), average contact frequency with network members and emotional closeness with network members. The main demographic controls include age, gender, origin (foreign-origin or native), education, partnership status, and employment status (at Wave 4). Time-varying variables include divorce, separation or widowhood, change in employment status, and change in long-term illnesses to observe the transformations between the survey waves. Information from Wave 5 will be used as supplemental information regarding disappearance of close ties (e.g. spouse, child) during the time between mapping social networks. A separate variable will account for deaths or attrition of respondents since Wave 4.

### **Preliminary Results**

Descriptive results from Waves 4-6 of SHARE show that Estonian older adults have remained the most disabled people among the participating countries. The proportion of severely limited people in Estonia has increased from 23,6% in Wave 4 to 29% in Wave 6 (Figure 1), despite the addition of new 50-53-year-olds to Wave 6.

Wave 6 data indicate that Estonian and Italian older adults have lost the most of its network members since Wave 4 (Figure 2). These are also the only countries where people have lost more members than added during this time. Swiss older adults see no change in the number of social networks while Austrian, Spanish and Slovenian older adults have added the most network members.

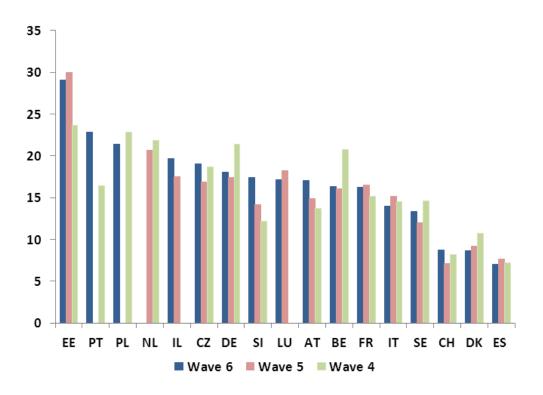


Figure 1. Proportion of severely limited people among SHARE countries during Wave 4, 5, and 6

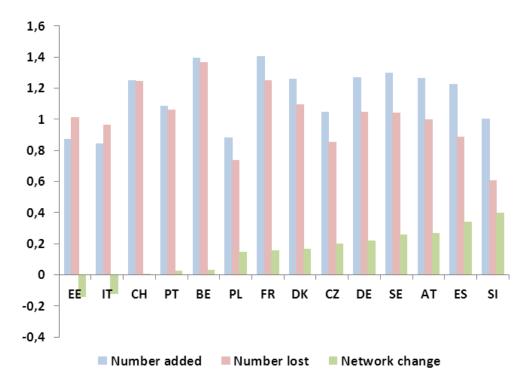


Figure 2. The average number of network members added, lost and an overall network change since Wave 4

#### References

Abuladze, L., Sakkeus, L. (2013). Social networks and everyday activity limitations. In: Börsch-Supan, A., Brandt, M., Litwin, H., Weber, G.(editors). Active ageing and solidarity between generations in Europe: First results from SHARE after the economic crisis. Boston: De Gruyter; 2013. p. 311–321.

Cornwell, B. (2009). Good health and the bridging of structural holes. Social Networks 31, 92–103.

Cornwell, B. (2015). Social disadvantage and network turnover. Journals of Gerontology, Series B: Psychological Sciences and Social Sciences, 70(1), 132–142, doi:10.1093/geronb/gbu078.

Verbrugge, L.M.(1997). A global disability indicator. Journal of Aging Studies 1997;11:337–362.

Jagger, C., Gillies, C., Cambois, E., et al. (2010). The global activity limitation index measured function and disability similarly across European countries. Journal of Clinical Epidemiology 2010;63:892–899.

WHO (1948). Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization), 1948.