Exclusion from Services Knowledge Synthesis Paper

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1. Introduction (Veerle Draulans)

This knowledge synthesis paper, written by the ROSEnet Working Group on Services Exclusion, focuses on the risk for people in older age to be excluded from the use of key service infrastructure. It involves areas such as health and social care services, general services, new technologies, transport and mobility, but also less investigated fields such as service restructuring, accessibility and affordability. The analysis aimed to attain a more in-depth understanding of how exclusion from services might negatively affect wellbeing in older age, how it can be effectively tackled and, ideally, prevented in everyday life, based on a multidimensional and multidisciplinary perspective, investigating the relationship between old-age services exclusion and different societal risks, such as poverty and material deprivation, gender gaps, and gaps related to minority groups.

Four specific domains of analysis had been defined as major topics for investigation: a) health and social care related social exclusion, b) transport related social exclusion, c) rural area-based social exclusion and d) ICT and technology related social exclusion. As temporal limits for the review, we decided not to use contributions published before 2000. No geographical limits were set, so worldwide information could be included.

2. Health and social care (coordination: Valentina Hlebec)

2.1 Material deprivation and financial status (Ágústa Pálsdóttir)

Poor financial status can have serious implications for older people, as it heightens the risk of material deprivation and exclusion from services among them. There is indication that lack of financial resources may inhibit the planning of necessary long-term care, and even lead elderly people to restrain their health expenses, such as those for medicines and medical accessories (Hrast, Hlebec & Kavčič, 2012).

Several cross-national studies have reported a relationship between material deprivation among older people and the average level of national income, as well as how the income it is distributed amongst the population. Higher degree of inequality in income distribution is likely to advance older people's deprivation, while lower material deprivation is associated with higher state expenditure on public services in relation to social protection and healthcare

(Najsztub, Bonfatti & Duda, 2015). Housing policies and state service through the provision of social housing have been identified as a factor that is most likely to reduce the effects of material deprivation among older people (Dewilde & Raeymaeckers, 2008).

The impact of the pension system on older people's economic status and material deprivation has been a focus point of studies in various countries. There is a marked difference between older people who have earned pension rights within the occupational or private system, and those who are entirely dependent on the state pension system, with the latter group being particularly vulnerable to changes in the state funded pension system (Ginn, 1998; Lloyd-Sherlocka et al., 2012; Patsios et al., 2012; Price, 2006; Zajiceka, Calasantib & Zajicekc, 2007). Older women who are widowed or live alone have repeatedly been reported to be the most disadvantaged group (Ginn, 1998; Saunders & Lujun, 2006). As they have generally spent either no or much less time than men in the labour market, their opportunities to acquire pension rights have been more limited (Bertoni et al., 2015; Burholt & Windle, 2006; Price, 2006; Zajiceka, Calasantib & Zajicekc, 2007). Therefore, their economic situation is vulnerable and, as a result, their potentials to make use of any available service is diminished.

Material deprivation has been reported to vary geographically within countries, with the financial situation of older people in rural areas being worse than that of those who live in urban areas (Bertoni et al., 2015; Walsh & Ward, 2013). Those who are at risk of poverty have been found to have more limited mobility options, particularly women who are more dependent on public transportation than men (Giesel & Köhler, 2015). Basic service tends to be more limited, or even lacking in rural areas, e.g. in relation to housing, health and transport, but due to poor financial circumstances, and/or physical illness, older people's possibilities to travel to places where they could seek service are restrained (Walsh & Ward, 2013). Hence, older people living in rural areas not only tend to be financially worse off than those in urban areas, they are also more likely to be excluded from services, which in turn may lead to difficulties in coping with everyday life and to affect their well-being.

2.2 Specific groups of population (Roberto Giua and Laura Dryjanska)

Social exclusion in older age takes on different forms depending on many factors, including characteristics of specific groups of population. In this brief review, we shall concentrate on

gender and sexuality, ethnicity, minority, race, migration, homelessness, dementia and mental health, as well as disability, including visual impairment.

First, concerning gender, a study of older women and women with disabilities receiving home care in Ontario (Aronson, 2006) revealed how managed community care generated and reinforced service users' social isolation and their spatial, institutional, and political exclusion. Attitudes about the sexuality of older adults in general and older women in particular lead to heightened concerns for the prevention, identification, and treatment of HIV disease in mature women. German researchers (Giesel and Rahn, 2015) noted that, for older people, daily outdoor activities are essential for participation in social life, which may constitute a disadvantage specifically for older women, given the lack of dedicated basic facilities.

Research in Canada (King and Dabelko-Schoeny, 2009) found that lesbian, gay and bisexual (LGB) participants in the study who were over the age of 40 and lived in rural communities, had transportation difficulties, limited choices for care, trouble with affordability of care, and the lack of connection and sense of belonging to a community. Moreover, they suffered from isolation and the lack of informal support. In Australia, the reality of non-heterosexual individuals turns out to be both problematic and exclusionary. Another study (Phillips & Marks, 2008) revealed the risk of marginalizing identities through the absence of representation in the brochures and their exclusion in the construction of aged care space.

Second, being a racial/ethnic minority older adult is often correlated with poor education and/or lower income. The social exclusion from services of people with this characteristic calls for concerted efforts to facilitate internet access among them, as evidenced by research in the United States (Choi, 2011). Similarly, older overseas-born Australians of diverse cultural and language backgrounds experience significant disparities in their health and social care needs and support systems (Johnstone and Kanitsaki, 2008).

Also in Europe, migration is often linked with the status of racial/ethnic minority. For example, a study in Denmark (Suurmond et al, 2016) explored barriers to access home care services for Turkish, Moroccan Surinamese and ethnic Dutch elderly, revealing the presence of several specific difficulties in this regard for ethnic minority elderly. British research (Manthorpe et al, 2009) emphasized the concerns related to the low recognition of culturally-specific and language needs, rather than for the development of services.

Fourth, the impact of dementia is substantial, affecting both the individuals and their caregivers on personal, emotional, financial and social levels. According to Carney, Walsh et

al. (2015), dementia is competing for ever scarcer public resources at a time of increasing need, whether austerity is a part of the context or not. In the United Kingdom, changes in the government and the 'Big Society' agenda pose a threat to dementia services (Tilki et al, 2010).

Fifth, there is increasing acceptance that social inequalities have implications for mental health. In fact, those suffering from mental illness are particularly vulnerable to the cumulative effects of lifelong and age-related inequalities (Milde and Williams, 2000).

Sixth, the homeless constitute another population group that tends to be excluded from services. They encounter deficiencies with the administration of services and social security payments, the failure or limitations of agencies to detect and respond effectively to vulnerability, and poor collaboration or information co-ordination among housing providers and welfare agencies (Warnes and Crane, 2006).

Finally, research in the US has attempted to combine various groups when assessing their exclusion from services (Solway et al, 2010). Addressing challenges to access to mental health services for diverse older adults included barriers related to race and ethnicity, socioeconomic status, location, age, gender, immigrant status, language, sexual orientation, and diagnosis.

2.3 Areas of health and social care services targeted by research (Zsuzsa Szeman and Laszlo Patyan)

Simms (2004) notes that the concept of age has changed through history in welfare capitalism. The division of the clinical and social need influenced the understanding of age and the concept of age had more formed as clinical needs. Separation of the health and the social care caused new forms of exclusion. Social and health care exclusion has multiple reasons, associated with national characteristics, as reported mostly by country experts of the EU-25 countries (Hoff, 2008).

2.3.1 Health services and exclusion

Research about the use of primary care settings pointed out the importance of environmental factors (for example public transport) in service use, especially in underserved communities. Primary care use among elderly shows that the good social relations generally improve access to local primary health care services and non-whites reported lower use of services than whites (Ryviker et al., 2012). Research showed also that the self-reported use of dental services and socioeconomic status varies in relation of neighbourhood dwelling and their socioeconomic status, with a strong association between the two being reported in England (Lang et al., 2008). Other research pointed out that the shift of oral health care's financing to the private sector leads to exclude the most vulnerable age population. The inadequate training of the health professionals also makes difficulties for the vulnerable groups for using services (Kossioni, 2011). Older and deprived people are less likely to access health services and knee replacement, too. Significant age, sex (women), geographical, and deprivation inequalities were found in access to health services. Development of services and training can reduce these inequalities (Yong et al., 2004). Hip replacement showed similar results (Milner et al., 2004) in the same research.

2.3.2 Care services and exclusion

Mixed method study about the social exclusion of older people in Slovenia observed material deprivation, spatial exclusion, poor health and access to health and social care even though the older people tried to improve their situation. The limited availability of public services and special spatial situations creates lower access to services. Despite the efforts made by older people to manage their personal situation, these strategies provide only temporary solutions. The low developed social services in most Eastern European countries highlight the trust in intergenerational solidarity in the informal level. (Filipovic et al., 2012). An Hungarian study shows that some specific conditions contribute to a relatively disadvantaged situation in the use of social benefits, such as in particular a relatively higher income (compared to the poverty line) and living alone in households in relative large buildings (since benefits are related to the size of the house, a lonely household implies higher costs of living). Lonely older people receive also less information about social services (Patyán & Fábián, 2014). Some middle-income countries (Argentina, Thailand and South Africa) have a different way

of tackling the issue of a growing older population. In this regard, main differences were found in the welfare regimes (i.e. the pension and health care system), while social services were found to be less developed (Lloyd - Sherlock, 2002).

2.3.3 Housing and exclusion

A growing number of older people live alone and the number of the oldest-old population is also increasing. In such a situation, the focus must be on the housing situation of older people and the quality of the added health and social services. Inclusive housing gives them the opportunity to live longer in their house (Peace & Holland, 2001). A Hungarian study shows that minimal home adaptions can prevent the necessity of moving into a nursing home (Széman & Pottyondy, 2004). A qualitative study examines older people living at risk of homelessness and old rough sleepers. It focused the personal perception of housing exclusion. Main findings focus on the pathways of losing housing possibilities, the physical and emotional results of the deprivation, and the possible ways, how to prevent and support these special age group in this situation in Ireland. (O'Sullivan & Breen, 2009).

2.4 Research carried out in different countries (Zsuzsa Szeman and Laszlo Patyan)

A quantitative survey in Hungary showed high exclusion of older people from basic social services, which could be decreased by the public program on labour force employment (Rubovszky, 2014). A qualitative research of remote rural regions in Eastern Hungary, however, produced contrary results (Virág, 2014). A follow up research in a backward region in North-Eastern Hungary urged a rethinking of local policy in this regard (Patyán, 2014). Exclusion from basic services in rural regions along with a higher poverty rate was found in the UK (Moffatt & Glasgow, 2009). A cross-national qualitative research on long-term care (MOPACT) (Leichsenring & Schulmann, 2016) pointed out the complexity of exclusion in older age, independent from the care regime. Living in a rural region was one of the determinant factors leading to greater exclusion.

Many ongoing/finished studies and model programs have focused on mobility, travel, transport, info-communication-related social exclusion across Europe. Evidence in this respect comes for instance from the UK (Shergold & Parkhurst, 2012), Ireland and Northern

Ireland (Ahern & Hine, 2012), Spain, Italy and Portugal (via the SIMON project: www.simon-project.eu); from the Mobility4eu project, aimed at promoting an Action Plan For The Future of Mobility in Europe by means of the direct involvement of 9 countries (Sweden, France, Belgium, Spain, Netherlands, Hungary, United Kingdom, Finland, Germany: http://www.mobility4eu.eu/); and from Hungary, through the experiences of the Elder-friendly House (Széman and Pottyondy, 2006) or of the Skype Care project (Széman, 2012). Some initiatives aimed at linking transport and health/social services to prevent social exclusion, such as for instance the Swedish program "The Patient Journey through Emergency Medical Care" (https://ec.europa.eu/eip/ageing/repository/patient-journey-through-emergency-medical-care_en) and the French project aimed at "Improving rural health services for the elderly" (http://enrd.ec.europa.eu/projects-practice/improving-rural-health-services-elderly_en).

The analysis of the European Quality of Life Survey (2007) showed significantly worse social exclusion in later life in Central and Eastern European countries with regard to access to health care, health status, material deprivation etc. (Hrast et al., 2013). Data from the fifth wave of the SHARE study and from OECD surveys pointed out that access to health care is a key dimension of social exclusion, and Eastern and Southern Europe and Israel show serious deficiency in this respect (Jürges, 2015). Analysis of SHARE's 5th wave data (Tur-Sinai et al., 2015) also pointed out the important role of neighborhood services (Stoeckel & Litwin, 2015). According to the same data source, long-term care (LTC) needs are higher in Eastern and Southern Europe, where the family role is strong, so that exclusion may be decreased by family help (Laferrére & Bosch, 2015). SHARE 5 data and cross country research pointed out the connection between unmet LTC needs, social exclusion and welfare regimes. In this regard, Eastern European welfare regimes lag comparatively behind (Srakar et al., 2015).

A quantitative survey in West Africa (Senegal and Ghana) discussed the importance of social health protection and emphasized the usefulness of a multidimensional approach (Parmar et al., 2014). Overseas regions (Thailand, South Africa, Argentina) showed a gap between family support and public social provision of services, suggesting that the system needs to be restructured (Lloyd-Sherlock, 2002).

All these examples provided above clearly show that characteristics of care/welfare regimes, regions, rural/remote areas are, among others, important determinant factors of social exclusion from social/health services across different countries.

2.5 How is social exclusion addressed in policy and how is it related to quality of life? (Iuliana Precupetu and Cosmina-Elena Pop)

Policy analyses undertaken in various countries revealed a number of issues in relation to social exclusion of older people from services.

One study undertaken in the UK (Tanner, 2003) pointed out that services are rather targeted at older people facing high risks, while those considered to have a low level of needs are not usually included. It was suggested that policy should change the emphasis from deficit, decline, disability and dependency to well-being, activity and independence. Moreover, at the community level, it was pointed out that the focus should be on community resources, capacity building, healthy ageing and empowerment that should create the conditions for full citizenship for both care givers and receivers.

Similarly, for Canada it was revealed that older people are increasingly vulnerable to social exclusion as priorities are mainly oriented towards economic, biomedical and professional determinants of care (Grenier & Guberman, 2009). From this perspective, priorities in the allocation of care services for older people should change focus, by more concentrating on the social and socio-political needs of older people, by including agency, and by paying more attention to older people who are not eligible for services, but nevertheless have limited financial resources and are marginalized.

Other studies suggest taking into consideration cultural sensitivity in services when dealing with migrant communities (Tilki et al., 2010). More practical support and information on services were pointed out as needed in the UK (Barret, 2005). One study undertaken in Ghana and Senegal showed the need to concentrate in these countries on the most vulnerable older people, in order to increase their enrollment in national health schemes (Parmar et al., 2014). More inclusion is advocated in case of care services for non-heterosexual older people in Australia (Phillips & Marks, 2007), and in case of health services in Scotland, by better education of healthcare workers and treatment decisions (Williams, 2000).

Quality of life in older age is heavily dependent on the local facilities people have at their disposal. It was proved that the provision of community resources (infrastructure, organizational partnerships), and local services offer opportunities for building individual

resources (health, skills, finances, networks), increase capabilities and enable older people to participate in their communities (Winterton et al., 2014).

Transport is an essential determinant of quality of life, as it helps people stay connected to their community and the larger society, thus helps avoiding feelings of isolation (Walsh et al., 2012; Jones et al., 2013). In this regard, the provision of a concessionary transport entitlement was found to be important in combating feelings of social exclusion faced by the older people, and ultimately in improving their well-being (Jones et al., 2013). One study undertaken in Norway pointed out that raising well-being above a decent life threshold should involve enhancing older adults' ability to drive in old age and car availability, lowering the distance to public transport stops, and improving the connectivity that public transport provides to the needed destinations (Nordbakke & Schwanen, 2014).

2.6 Factors affecting access to services (Iuliana Precupetu and Cosmina-Elena Pop)

In general, utilization of health, care and social services increases with age, as health problems and needs intensify. Access to services includes health, care, social and neighborhood services. Some quantitative studies report good access of seniors to health services in US, with only 13.7% of older people having problems (Auchincloss et al., 2001). For countries in Europe, good access is reported to neighborhood services, with only a minority of older people (less than 10%) having difficulties in this respect, while within each country the accessibility of essential services was found to vary significantly among older citizens (Stoeckel & Litwin, 2015).

An array of personal, structural and community level factors influences access to services of older people. While these factors are general, their influence on access is context and service specific and, most of times, it is the result of a particular clustering of factors that combine and impact on access. In the following, we present an inventory of barriers identified in the reviewed studies.

A series of individual factors can constitute barriers in accessing services: income, education, gender, health status, presence of disability, living arrangements, and ethnicity/race. Low income can influence access to services (especially health and care) through a lower possibility of poor people to focus on health and care when basic material needs are not satisfied, as well as through lack of transportation, poor access to uncompensated care, and

sometimes discrimination (Auchincloss et al., 2001; Grenier & Guberman, 2009). Low educational attainment can also impede on access to services and one study pointed out, for example, that highly educated individuals had more odds to receive home-care in comparison to those less educated, "due to their capability to apply literacy skills to health related issues" (Carrino & Orso, 2015: 351). Poor health status, declining physical and cognitive abilities, presence of disability, all have a higher prevalence among older persons and can constitute essential barriers in access to services (Meinow et al., 2011). Living arrangements are also important for access to services, as older people living alone have a greater disadvantage when accessing services in comparison to those living with others (Evashwick et al., 1984). Ethnicity/race was proved to be another barrier in access to services mainly in studies undertaken in Great Britain, Australia, and USA, although the evidence is mixed in this respect and it might depend on the specific context and type of service (Ryvicker et al., 2012; Johnstone & Kanitsaki, 2008; Miller et al., 1996). When looking at ethnicity and gender, one study showed the disadvantageous position of Asian older people in general, and of women in particular (Waqar & Walker, 1997).

Structural factors include macro-context as well as factors at the level of services which are strongly connected to welfare regimes. To these we can add community-level determinants of access to services. A structural role is also played by income levels, as relatively poor countries in Europe, reporting lower health expenditures, and those with large income inequalities, do not provide sufficient access to health services for older people (Jürges, 2015).

Rural areas pose special challenges for access to services, as they are characterized by a lack of general service infrastructure, inadequate transport and a depletion of local service and social centres in comparison to urban areas, as pointed out for Ireland by Walsh et al. (2012). Similarly, small metropolitan areas in the US (Auchincloss et al., 2001), sparsely populated areas in Australia with high concentration of ageing persons (Liu & Engels, 2012), and suburban and rural areas in Canada (Ryser & Halseth, 2012; Paez et al., 2010), were all found to have a higher risk of access problems.

Finally, there are barriers at the level of services which are strongly related to the generosity of welfare regimes in various countries. They include poor resources to pay for case management and services (as showed by Krout, 1997), the organization, financing, and delivery systems (Solway et al., 2010), as well as the information that services get across about their existence and particular support provided (Barret, 2005).

Community factors seem especially relevant for older people in the US, as it was found that older people residing in impoverished neighborhoods had a high probability of access problems, mainly due to combination of community factors: low health care purchasing power, low levels of education, and poorly developed public infrastructure (Auchincloss, 2001). Municipality was also found important for LTC care in Finland, mainly in terms of size and location (Pulkki et al., 2015).

2.7 Research methods and exclusion from services (Valentina Hlebec)

In research concerning exclusion from services (Walsh et al., 2017), a variety of methods and subjects is used, ranging from quantitative primary and secondary surveys to qualitative cross-country research. To be more specific, in research seeking to describe which population groups are prone to social exclusion and which factors, such as for instance material deprivation, determine social exclusion of various population groups, mostly quantitative methods are used, in particular surveys. Nevertheless, qualitative methods are also used, such as interviews and focus groups, to deepen understanding of how specific population groups experience social exclusion. Cross-country population research mostly employs SHARE survey, which is used to understand how different welfare regimes tackle social exclusion and which determinants, such as material deprivation, degree of urbanization, gender, access to transportation, of social exclusion are found to mitigate social exclusion and what barriers prevent access to services. Apart from the SHARE survey, in cross national research a combination of qualitative methods is used in smaller scale studies, comparing smaller geographical areas, such as urban vs rural, in mostly two country comparisons. How social exclusion comes about in rural and urban areas and how older people experience and understand their life situations is addressed by a variety of methodologies, ranging from quantitative surveys and administrative records to qualitative studies and mixed methods research, combining surveys with interviews or focus groups. Not surprisingly, specific groups of population such as minorities, migrants, people with disability, mental health issues, sexual minorities or homeless older people are mostly studied by qualitative methodologies or mixed methods research. On the other hand, health and social care services are mostly observed in surveys and addressed by literature reviews. Links between service exclusion and transportation (transportation being means to access the services or being a service itself), are studied by a large variety of methods, from qualitative comparative studies, to mixed methods

combining surveys and interviews to surveys and multimethod qualitative research. Similarly, policy issues are often studied using literature reviews or documentation, secondary quantitative and qualitative studies, mixed methods using document analysis and qualitative methods, as well as qualitative primary studies. Access to services, as well as exploration of barriers to access are studied, similarly as other complex topics are addressed by a variety of methods, varying from cross country survey studies to qualitative studies and literature or documentation review.

3. Transport related social exclusion (Anu Siren and Slaven Gasparovic)

3.1 Introduction and aims

"Transport and mobility" has been identified as one of the domains in which older people can experience exclusion (Walsh et al., 2012). The aim of this section is to review evidence and research literature regarding transport/mobility-related social exclusion in older age. We took work by Walsh et al. (2017) review as a starting point when designing the literature search.

3.2 Process and methodology

To this purpose, we used following search string for the literature search:

- category 1: (Social exclusion OR Social inclusion OR Disadvantage OR Vulnerability OR Cumulative disadvantage)

AND

- category 2: (Ageing OR Aging OR Older persons OR Older people OR Older adults OR Seniors OR Elderly OR Elders OR Seniors OR Senior citizens)

AND

- category 3: (Transport OR Mobility OR Driving).
-

These are the keywords used in Walsh et al. (2017), with following exceptions:

- "risk" was omitted as a keyword from category 1, because within transport and mobility this refers to accident risk (Walsh et al. wanted to grasp social exclusion risk with this keyword in their search)
- "social inclusion" was added to category 1
- "older people" and "seniors" were added to category 2
- "driving" was added to category 3.

The databases we used for the search were EBSCO, Science Citation Index and Social Science Citation Index. We limited the search to materials published in 1997-2016. The search returned 407 hits. After title screening, there were 55 references. Of these, 5 were not traceable/ accessible (a newspaper article, unpublished thesis, conference abstracts). Thus, 50 papers were selected for further review. We developed a review template to secure streamlined review procedure, and created a Mendeley group to share the materials. After a full-text review, 24 papers were relevant. The reasons to assess papers as non-relevant included following:

- Paper not dealing with transport (e.g., "mobility" as physical mobility, residential mobility etc.);
- Paper not dealing with social exclusion (e.g., "disadvantage" marginally and vaguely mentioned);
- Paper not dealing with later life /old age (e.g., older persons barely mentioned as one example of the disadvantage groups).

The 24 papers were reviewed for their overall content, main results and conclusions and relevance for our aim. We identified three themes: 1) the importance of transport mobility for well-being and inclusion; 2) Policies and solutions for reducing transport-related social exclusion; 3) Measuring and identifying transport related social exclusion. These themes are described in detail in the following subsections.

3.3 The importance of transport and mobility for well-being and inclusion

Most of the papers we identified through our review addressed the importance of mobility and/or provided empirical evidence to support the association between transport mobility and inclusion.

3.3.1 Lack of transport as a barrier for participation

A number of studies provided evidence on how lack of transport is a barrier for participation in certain activities. Anderson et al. (2013) found that lack of transport excluded older adults from employment and Hare et al. (2001) found that transport deficit was one of the major barriers for older adults to do their grocery shopping. Johnson et al. (2011) found that lack of transportation was associated with lesser participation in cultural activities, such as visiting cinema, parks, and libraries, and attending concerts, and Sowa et al. (2016) found that the participation in religious activities was affected by personal transport options available. Further, Patterson et al. (2016) found that transport was one of the determinants for participating in the education at the University of third age.

3.3.2 Determinants for transport disadvantage leading to social exclusion

A number of studies have identified factors that contribute to the likelihood of having transport disadvantage that leads or contributes to social exclusion in old age. People living in rural and other non-metropolitan areas have likelihood of transport disadvantage (Higgs & White, 1997), mainly because they are solely dependent on transport in private cars (Glasgow & Blakely, 2000). Nevertheless, as Engels & Liu (2011) point out, also in metropolitan areas with insufficient public transport, people are highly dependent on cars, leading to transport disadvantage among those who do not have the option to drive (or be driven by others). Truong & Somenhalli (2015) stress the importance of public transport provision because, they claim, public transport can offer a viable transport option for people at-risk of social exclusion.

In general, lack of option to drive is a problem from social inclusion point of view, and in particular so in the North America and Australia. Driving cessation is associated with significant decrease in social integration (Mezuk & Rebok, 2008), and as Rosenblum & Corn (2002) point out, driving cessation can lead to loss of social connectedness (Rosenblum & Corn, 2002).

3.3.3 Mobility and inclusion

A number of studies suggest that transport has a value beyond the instrumental, direct value of enabling access to various activities and services (see Winterton & Warburton, 2011, for a review)[1]. Some of these papers were analyzing more closely how transport mobility contributes to inclusion in old age. Doebler (2016) analysed a large longitudinal dataset in Northern Ireland, and concludes that access to personal transport is important for individual well-being because it is strongly associated with mental and physical health outcomes. Davey (2007) distinguished between different types of mobility, namely necessity and discretionary travel, and suggested that these aspects have different implications for inclusion. While necessity travel, that is, e.g., health care related trips and trips to grocery shopping is experienced as more "legitimate", discretionary travel done for the sake of enjoyment or for "leisurely" purposes is seen less legitimate. Consequently, older adults without personal transportation are hesitant to ask their family and friends for rides for discretionary purposes.

In their paper, Wild et al. (2013) provide a novel framework on resilience, which can be useful in understanding the conceptual connection linking transport and inclusion. They suggest that mobility is one of the domains of resilience and can be analyzed on those various levels, which resilience can be identified in or scaled to: individual, household, neighborhood, community and society.

3.4 Policies and solutions for reducing transport-related social exclusion

Another group of papers identified through our review addressed policy measures or other solutions that potentially can reduce transport-related social exclusion. First, there were a number of papers introducing various frameworks and concepts that could be used in reducing transport-related social exclusion. Audirac (2008) states that (spatial) planning is a key factor

[1] We would like to note that there is a great amount of literature on the relationship between mobility and well-being as well as on the determinants of mobility disadvantage in old age, but those do not appear in our search because they do not explicitly address social exclusion.

in reducing social exclusion in old age. She analyses the case of universal design applied to a transit system in the US and concludes that enhancing the accessibility of transit system has tremendous implications for transport disadvantaged user groups.

In his paper, Marr (2015) lays out a policy framework for understanding rural transport disadvantage and emphasizes that transport disadvantage is a continuum rather than a dichotomous measure. In general, there is a consensus among the papers on the need for better conceptual understanding of the transport planning policies that aim at reducing social exclusion in old age (Andrews et al., 2012), and that this potentially requires thinking outside the traditional boundaries of planning. For example, as Grant et al. (2010) conclude, the planning strategies for increasing transport possibilities for older adults need to go beyond density. In their study, they found that walking behavior among older adults was not solely influenced by physical design. Rather, there was an interconnection between physical walkability and urban design and neighborhood socio-economic characteristics.

A small number of papers has investigated the effects of specific, yet very diverse, policies aiming at reducing social exclusion in old age. Winters et al. (2015) investigated walking behaviour in urban environment where walkability policies had been implemented, and concluded that increased walkability makes older people walk more. Jones et al. (2013) investigated the effects of concessionary bus passes for older adults in London and concluded that concessionary transport entitlement enhanced their sense of belonging to the city and to a community. Su et al. (2010) found that special transport services for older adults such as mobility scooters that were on loan did succeed in filling gaps in unmet travel needs and reducing social exclusion.

In summary, policies in this area are predominately discussed within transport planning (planning of services and physical environments). There is a nice, well-nuanced discussion in the concept papers. What is lacking, though, is focus on social policies and on legislations that cause transport-related exclusion, such as coercive and ageist licensing policies.

3.5 Measuring and identifying transport disadvantage and/or social exclusion

All the identified papers focused on transport /spatial planning. Schönfelder & Axhausen (2003) propose measurement of spatial activity spaces as a way of operationalizing and measuring social exclusion. Similarly, Shay et al. (2016) propose a framework that is rooted

in geographical and spatial tradition. According to their framework, transport disadvantage (leading to social exclusion) could be operationalized and identified through geospatial mapping, where different risk factors are accumulating and indicating those areas where transport disadvantage is likely to occur. Mackett et al. (2008) introduce a policy analysis tool that incorporates "inclusiveness" as a quality measure of a given policy. They suggest this dimension in policy analysis has potential of developing policies leading to reduced social exclusion.

Addressing the concept of social exclusion from transport geography point of view, results in a rather technical definition of social exclusion. Nevertheless, while also focusing on the physical environment, Mackett et al. include also user perspectives and needs in their instrument.

3.6 Brief overall conclusions

There is a considerable amount of evidence on why, how and in which ways transport is important in later life. Much less evidence exists on how to identify the problems, and what to do in order to reduce transport-related social exclusion. There is a need to bridge the critical approaches on late life mobility and transport policy planning.

4. ICT and technology related social exclusion (Rytis Maskeliunas, Francesco Barbabella and Segal Sagiv)

4.1 Introduction

This overview of the European ICT and technology related social exclusions is structured in four sections: first we discuss the available research on the needs and the acceptation of ICT based services in older people communities; then we move on to discuss the potential benefits and current disadvantages in the implementations and why it is not adopted; as a third step we analyze barriers related to non-acceptance of current ICT due to older people themselves; and we conclude focusing on trends of ICT technologies for the older people, possibly contributing to them being accepted.

4.2 The needs and the acceptance of ICT based services in older people communities

A survey by Barrett (2005) found that older people are most likely to be in need of support in following areas: more practical support with everyday tasks; practical support that is far more easily accessible when needed; information on the financial help, practical help, housing, products and home adaptations, support and services at home that are available to them; correct and up-to-date information on the appropriate sources for support, practical help, information and advice, given a particular need; information that is more easily accessible via the most preferred means (face-to-face contact with other people) on a local basis. Integration of the ICT knowledge infrastructure can be used to overcome psychological and formal barriers in the problem-solving atmosphere, especially asymmetry, scarcity, and monopoly of knowledge (Vimurland et al., 2008). A more recent European study (Carretero, 2015) has shown that technology based services do indeed contribute to an increase of the independence of older people living at home, improving also the productivity of carers and enable better quality of care (Carretero et al., 2012). Support providers report instead need for support in the following: increased practical support with everyday tasks; making practical support far more easily accessible; substantially increase awareness of their existence and the types of support they provide. In general terms, there is a shortage in support and practical information access, raising a challenge to service providers.

The main line of adoption of information and communication technologies (ICTs) for older people seems to be the progressive development of eHealth services in healthcare systems, where paper records and patient's medical history, even "analog" registration services - while still representing a primary means of medical documentation in many EU countries - are becoming more and more digitized (Stroetmann et al., 2011). eHealth services for older people with multi-morbidity are recognized to have the capacity to improve access to healthcare services, enhancing care coordination and integration, enabling a better self-management of own conditions, among the other benefits (Barbabella et al., 2017). Researchers (Bujnowska-Fedak et al., 2013) surveyed a Polish community of older people and found that they were not overly enthusiastic about using ICT tools in healthcare services, but a substantial part of them (41%) supported such a development. Research by Siren (2017) on the usage of ICT in Danish older people communities has shown that the usage patterns were influenced by demographic backgrounds, age being the primary concerning factor;

however, while a large part of the surveyed agreed upon suggested advantages of digital services and e-government, the unavoidable lack of personal contact was distinguished as a major disadvantage. A similar trend was found by British studies, also in the transport area (Pangbourne et al., 2010) and by Swedish researchers (Blusi et al, 2014; Jung et al., 2010; Axelsson et al., 2013). Alternatively, authors of a German report have found that the importance of ICT in both institutional care and home care settings is growing steadily, but is not advancing significantly (Mollenkopf et al., 2010). Even using ICT for the remote care services itself shows a high perceived usefulness (Hautala et al., 2016).

4.3 The potential benefits and current disadvantages

According to Olphert et al. (2013), being digitally included can help older people to maintain their independence, social connectedness and sense of worth in the face of declining health or limited capabilities, as well as also offer new opportunities to improve their quality of life. Lack of ICT skills among older workers often reduces their possibilities of changing a career direction or even self-employment (Green et al., 2013). ICT terminology is not familiar to all older users, and efforts should be directed at introducing the technology with clear, natural language familiar to older people (Harjumaa et al., 2012). Researchers (Baxter et al., 2010) identify a number of key issues of poor ICT-based service adoption rates among older age groups. First, a group of people with no knowledge of, or engagement with, the welfare system lacks information that might enable them to access services and associated choices; second, building and maintaining trusted relationships is important but takes time, and the degree to which this can be achieved differs for different services; third, accessing an appropriate quantity of high-quality impartial information at the right time is difficult, thus raising concerns about the appropriateness of placing such emphasis on choice, when the infrastructure for enabling informed choices by disabled people appears to be not well developed. Finally, interfaces of ICT based services are often not built with older people in mind (Browsell et al., 2012), thus introducing additional design-based usability problems.

4.4 Limiting factors among older people themselves

Healthier people, according to (Heart et al. (2013), were far more likely to use computers than unhealthy people, showing that health status somewhat moderates the usage and fear

(Mordini, 2007) of technologies. Overall findings of Damant et al. (2013) show that healthier, more independent users perceived more benefits from the services compared to users who report more health problems and are less independent. Warburton and colleagues (2014) highlight the need to respond to the diverse skills, needs, and learning styles of older people, to demonstrate the benefits of ICTs, involve users and build confidence, arguing that such a low level of digital literacy may increase the vulnerability of rural, older populations and increase their risk of social exclusion. High levels of education have shown a high correlation with ICT adoption (Heart et al., 2013). General demotivating factors can be distinguished as understanding of "being too old" for technologies, as noted by Formosa (2013). However, the main reasons for non-usage and poor adoption rates of ICT based services in a group of Portuguese older people were distinguished as functional and attitudinal factors, rather than physical or associated with age (Neves et al., 2013). This might though get overcome over time, through a changing attitude in current and future generations (Amaro et al., 2011). However, findings by Park (2008) suggest that having attained the needed education for using internet based services does not necessarily help seniors to develop new ways to engage with the mainstream society. Rather, the value of internet activities was shaped by the users' pre-existing communication network and social participation. Internet teaching programs alone were not enough to resolve their fundamental social problems. Researchers (Denvir et al., 2014) have found that older people are less likely to utilize the internet for finding information pertaining to legal problems, as well as being less likely to have access within their own homes. For those who did use the internet, home access appeared to be key, suggesting that the first digital divide remains an ongoing barrier for older people. Mitseva et al. (2010) found that the living environment itself is very important. The ability to adjust the personal environment to agree with intact functioning at the degree of impairment might lead to higher effective ICT services. Barret (2005) identified disadvantaged senior groups in internet adoption and use, with risk factors including immigrants, religious people, respondents from low socio-economic backgrounds and people with health problems. Women are less likely to access and use the internet in human capital-enhancing ways compared to men and this disadvantage remained stable after controlling for socio-demographic factors. A similar study by Manthorpe et al. (2009) raised concerns were more about the incomplete recognition of the culturally specific needs of older people from black and minority ethnic groups by mainstream services, rather than about the need to develop separate services for black and minority ethnic older people. Finally, there is also a special concern regarding people who are not able to fully speak/understand English or other major European language

which is often the only interface language in some of the more universal solutions and services, like e-shops or even technological devices (Muller et al., 2015), meaning that services and solutions should be as multi-lingual as possible.

4.5 Trends of ICT developments for older people

According to (Nasi et al., 2012) the active internet use in old age has a strong positive correlation with an increased availability of free time leisure activities and the internet acception rate itself is indeed noticeable as was indicated in a research study (Niehaves et al, 2010). Usage of remote communication services very popular within the youngsters can have a positive influence on the relationship between the older person and his or her adult grandchildren (Blusi et al., 2013). ICT services, personalized (Eslami et al., 2011) and co-designed with older people, might increase adoption rates as was noted by Steen et al. (2011). Ambient Assisted Living (AAL) interfaces, while still under-developed and under-researched (Katrin et al., 2014), can offer technical assistance for older people (Brach et al., 2012) and should be able to adapt to users, in order to make emerging systems more involving (Grguric, 2015) and provide more independent living possibilities. The AAL "RITA" Project (Esposito et al. 2014) showed that a care model, in which older people live independently and safely in their own homes as long as possible, is feasible. The prototype based holistic study by Christophorou et al. (2016) showed that both older people and caregivers consider ICT services that improve safety, motivation for daily activities, socialization and communication as essential or very useful, as they provide older people with assurance and motivation to continue their active life at home. Using ICT systems, as autonomous systems, can assist in supporting and encouraging older people to preserve and develop their social activities and the relationships with their family and friends social group (Reis et al., 2016). Researchers (Cattaneo et al., 2016) noticed that involvement in higher level academic studies does increase the ICT adoption rates within the older adults. In this sense a massive online courses, requiring the initial very basic technical literacy, might work in increasing the ICT usability rates (Fernandez et al., 2016).

5. Context specific analysis

5.1 Some general notes regarding rural area-based social exclusion (Johan Barstad)

Rural areas are generally seen to be posing challenges for full accessibility to private and public services (Stoeckel et al 2015). And indeed *area-based exclusion* is identified as one of six main characteristics of the domain "Service, amenities and mobility" in relation to social exclusion of older people (Kieran et al. 2016). In the latter scoping study, a total of 15 (out of the 90 journal articles within the domain) deals with area-based issues, mainly focusing on various challenges experienced when living in rural areas.

This large body of literature shows that exclusion positively links to increased distances from the main service providers, to decreasing population density and to increased problems connected to delivering high quality services due to lack of personnel and contact points.

Still, a subjective component linked to ease of access to services is present, independent of the means of access (Haak et al 2008). Further, a scoping study of people's satisfaction with public services in Norwegian municipalities, shows that inhabitants in the smaller municipalities (which in Norway are identical to rural municipalities) are more satisfied with the quality of the public services, even if the service level can be shown to be lower (Berg Erichsen et al. 2015).

Thus, *place of residence* or *rurality* alone is not sufficient to pose as a challenge to inclusion. One needs also to study the characteristics and aspects of rural exclusion, and how these characteristics are experienced by the real world, heterogeneous group of old people. This also will enable us to address the Actions' main theme of reducing old-age exclusion, given that we can identify triggers or hindrances for rurality to be a source of exclusion, we can/may be able to ameliorate or lessen the hindrances.

Another factor is *transportation* (or lack of it). Modern societies are generally built upon the general use of private cars. Age often becomes a hindrance for self-propelled mobility (health and law combining to place hindrances). Few rural areas can establish and keep a wide and distributed transportation system to replace the loss of car-powered self-mobility. Owning or having access to a private car is generally experienced to be a mitigating element (Ward et al 2013), but Shergold et al. (2012) explore how mobility can be compromised when focus is on private car, rather than on collective means of transportation.

So is also the 'community' factor: "*Through the provision of community resources (e.g. physical and human infrastructure, organizational partnerships), local services and supports offer social and productive environments for participation. They also build individual resources (e.g. health, skills, finances, networks) to enable older people to participate within these environments, and providing assistance to allow older people to use individual and community resources*" (Winterton et al 2013). In many places, the community factor takes the form of social enterprises.

While information and communication technologies potentially can ameliorate risk of exclusion for rural older people, studies show that rural, older people are the lowest current users of technology (Warburton et al 2013). This implies a need to consider access or lack of access to IT-infrastructures in a rural-urban perspective. One item to especially consider will be how this issue will/may develop over time. Perhaps the capability to utilize modern technology will rise over time with age, as future 80-year old people are among the computer-savvy of their current age.

5.2 The case of Russia

In countries or societies with lower levels of income or higher degrees of unequal income distribution, more people might be at risk. Structural as well as cultural conditions of a particular jurisdiction impact service exclusion. The specific case study of Russia is meaningful in this regard.

5.2.1 Social exclusion in older age in Russia (Elena Golubeva)

In the Russian science, the definition of "social exclusion of the elderly" and the review of its measurement capabilities were considered by Grigoyeva (2005), Saponov and Smolkin (2012) and Dergayeva (2013). Other authors focused on the study of older people's adaptation practices (Rogozin 2012), the peculiarities of regional exclusion practices (Golubeva et al., 2011; Chernyshkova et al., 2011; Maksimova et al., 2015), strategies for social inclusion of older persons (Grishina, 2013), and inclusion of older people in the modern information society (Grigoyeva & Chernysheva, 2009). Despite the fact that certain aspects of the social exclusion of older people are widely considered in the literature, there is no comprehensive

approach to the problem in Russia. Social exclusion represents therefore one of the main risks of ageing in modern society.

Its causes are, among other things, the gap between the established age limit of retirement age and the onset of older age, the difficulty for older people to adapt to rapid changes in society, and the perception of older people as ballast (Dergayeva, 2013). The main determinants of the social exclusion of older people in Russian society are the inadequacy of external conditions for the manifestation of activity in older age, the lack of initiative by the state to promote the potential and opportunities of older people, and the inadequacy of the corresponding internal attitude of the older person. For a full-fledged social inclusion of an older person, social competence is required, which manifests itself in appropriate activity. Vital activity in older age is becoming the most effective way of preventing the social exclusion of older people. It is based on the active life position of older people and implies its full-fledged life in society, inclusion in social environments. Grishina (2013) notes that older people are not afraid of age, but of the associated socio-cultural phenomena that exclude older people from the social, economic, political, and cultural processes of modern society. The main determinants of the sociocultural exclusion of older women is the absence of external and internal conditions for the demonstration of the activity.

Separate scientific work related directly to the social exclusion of older people, due only to territorial conditions, has not been found in Russian studies. There are some works considering the inaccessibility of social and medical services, low social standards and quality of life, the poverty of the older population in geographically remote regions of Russia. The sociological reflection of the inclusion of older people into all spheres of vital activity of contemporary society is the most important aspect. The survey data indicate that older people are exposed to the process of social exclusion. It is found that in the regions of Russia the socio-economic instability remains, and it is accompanied by social exclusion with a number of negative consequences. The Altai Region is no exception to the Russian tendencies (Maximova et al., 2015). Nowadays, pensioners in this area are the most vulnerable group in social sense, and there is an issue of their extremely low living standard. The growth in number of pensioners led to the growth of governmental outcomes for the social sphere and, furthermore, to the withdrawal of resources away from programs for other groups of population. Some experts pointed out the paternalist attitudes held by older people themselves and their unwillingness to independently take care of their wellbeing while in pension age. This situation is complicated by personal principles and qualities of older people.

Chernyshkova et al. (2011) noted that empirical evidence allows to state that social inequality is evident in the field of medical services consumption for older age groups. To solve this problem, inadequate measures are taken at the macro level, because only an integrated campaign, coordinated interagency work in this direction, together with an increase in the personal motivational aspect and regular monitoring, are able to overcome the existing barriers and change the situation of social exclusion of older members of society towards their successful integration. The results of the analysis revealed the satisfaction of more than half of the interviewed older people on their own health, ranking high enough the access to medical services in the Saratov region. This may be due to the following factors: unpretentious older generation caused by a large fragmentation of society and the stigmatization of older people as a social group; low motivation of older people in the implementation of their own health measures in connection with the social "uselessness" of this age group.

Almost all older people using the inpatient service in the Arkhangelsk region are sent to residential care facilities. This occurs not for reasons of decreased functional ability, but for social reasons, such as a possibly dilapidated housing or lack of it, remoteness of residence and, therefore, the inability to obtain services, especially in the winter and spring period. Implementation of the interaction between the (formal) state social assistance system and the (informal) non-governmental organizations model and family care, especially in remote rural areas, will bring significant economic benefits and help relieve social tension among a group of older people in subarctic territories (Golubeva et al., 2006, 2011).

5.2.2 Arctic territories as a bright example of area-based exclusion (Elena Golubeva)

Vulnerability of communities and individuals varies depending on geographical location, distances, quality and quantity of developed infrastructure, resources and authority (Halford et al., 2015). In these conditions, indigenous peoples, children, pregnant women and older people are the most vulnerable groups in the Arctic region [Rasmussen, 2009]. The overall demographic trend in the Arctic is depopulation, with an increasing divide between centers and periphery. In the context of the Arctic countries, some authors deals with issues of transformation of the age structure of the population and of "gerontopolitics" in the areas of the analysis of the quality of life of older people in conjunction with the applied strategies in the field of health and social well-being, sociodemographic and gender changes in the Russian, Swedish, Norwegian and Finnish communities (Heleniak, 2010; Danilova &

Golubeva, 2011; Emelyanova & Rautio, 2013; Naskali, Seppanen & Begum, 2016). Comparative studies are also available of the indigenous and non-indigenous populations in Norway, in terms of mental and physical well-being and health (Hansen, Melhus & Lund, 2010). A stable population is crucial for maintaining viable communities and municipal services, therefore many communities are trying to curb outmigration, by creating jobs and activities that strengthen the attractiveness of places (Larsen, 2014).

Arctic regions of Russia are examples of sparsely populated remote areas, with high population density in regional and industrial centers, and an extremely low population density and remote distances in the remaining space. The basic factors determining the quality of life of older people in urban and rural places under different kinds of support are diverse. Older people living in the northern sparsely populated rural areas rely for their daily activities traditionally on the assistance of a spouse and children, as the resources of the system of social protection and the traditional forms of medical and social services are not widely available in remote Arctic regions, thus worsening the quality of life. Not surprisingly, life satisfaction in rural places is more dependent on the presence of family than on the state of health and welfare (Golubeva, 2014). The Russian territories of the Arctic region need to develop and strengthen the system of informal social support and family care for older people, as a factor significantly affecting the quality of life that can contribute to the improvement of social and health care in rural remote areas lacking of permanent transport and services infrastructure (Golubeva, 2016). Older people in this region are a large, heterogeneous group, scattered over large sparsely populated areas, who therefore require new approaches to implement the concept of "gerontosocial" policy, in order to ensure the availability of various types of services and care to the older population to increase their safety.

6. Final remarks (Veerle Draulans)

A conglomerate of factors influences access to services of older people. While these factors are general, their influence on access is context and service specific and, most of times, it is the result of a particular combination, a particular cluster of factors that has an impact on a specific person's access. In the literature, this particular cluster is referred to as 'an intersectional perspective': it is precisely this intersection of a combination of factors (see section 2.2 in this report) that is decisive to one's opportunities or hurdles.

6.1 Groups at risk and intersectional perspective

Based on the literature analysis, the following groups could be defined as groups at risk: the oldest-old, older people living in rural areas or low status areas or low SES neighborhoods (as pointed out by sections 2.6, 3, 5.1 and 4 above), people having limited financial resources and limited transport facilities (see sections 2.1, 2.2, 2.5 and 4), elder people belonging to minority groups (such as migrants, ethnic minorities, or Lesbian-Gay-Trans-Bi-Queer groups), materially deprived people and homeless people (see section 2.3), people who are, on top of their older age, confronted also with health issues, such as mental illness, dementia or disability (ibidem).

Literature refers to specific groups of women, being more at risk for services exclusion: women who are more dependent on public transportation, women living alone, women who are widowed, women who rely on a state pension system without other means of income (see sections 2.1 and 2.2).

6.2 Macro level of society

It goes without saying that the macro level of society, be it national, regional or local, influences opportunities or hurdles for services access. People who live in a context of high state expenditure in social protection and health care related public services, will meet less problems accessing services (see section 2.1), as well as people living in a context providing social housing, a context holding age-friendly housing policies (ibidem), and/or a context where easy transport facilities are available (as highlighted by sections 2.5, 3 and 5.1).

On the contrary, in countries or societies with lower levels of income or higher degrees of unequal income distribution, more people might be at risk. The specific case study of Russia (section 5.2) is meaningful in this regard.

6.3 Geographical dimension

Finally, it should be underlined that, even in countries with relatively more equal income distribution, age-friendly or generous welfare policies, people living in rural or non-metropolitan areas might face specific challenges when trying to access services, because of diminished services infrastructures or inadequate transport facilities (as clearly shown by findings reported by sections 3 and 5.1).

7. References

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ROSEnet CA15122 COST ACTION

ROSEnet aims to overcome fragmentation and critical gaps in conceptual innovation on old-age exclusion across the life course, in order to address the research-policy disconnect and tackle social exclusion amongst older people in Europe.

Research Objectives

- Synthesise existing knowledge from regional, disciplinary and sectorally disparate dialogues, forming a coherent scientific discourse on old-age exclusion;
- Critically investigate the construction of life-course old-age exclusion across economic, social, service, civic rights, and community/spatial domains;
- Assess the implications of old-age exclusion across the life course within economic, social, service, civic rights, and community/spatial domains;
- Develop new conceptual and theoretical frameworks that can be practically applied in understanding and combating the exclusion of older people in European societies;
- Identify innovative, and implementable, policy and practice for reducing old-age exclusion amongst different groups of older people and in different jurisdictional and regional contexts.

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