

Gender and Social Class Inequalities in Active Ageing: Policy meets Theory





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GENDER AND SOCIAL-CLASS INEQUALITIES IN ACTIVE AGEING: POLICY MEETS THEORY

EXECUTIVE SUMMARY

SOCIO-ECONOMIC AND GENDER INEQUALITIES IN OLD-AGE SHOULD BECOME AN INTEGRAL PART OF THE ACTIVE AGEING DISCOURSE

WE PROPOSE AN ENRICHED THREE-TIER FRAMEWORK FOR ANALYSIS, INCLUDING 27 INDICATORS ACROSS THE 4 ACTIVE AGEING DOMAINS

WE FOUND THAT...

... LOW EDUCATION LIMITS OPPORTUNITIES FOR CONTINUED EMPLOYMENT IN LATER LIFE

The concept of active ageing has gained a significant normative importance in European social policy in the XX century, as reflected in the 2012 European Year for Active Ageing and Solidarity between Generations. Despite this growing salience, the issues of possible inequalities in active ageing or in the ability to actively age have received much less attention in the normative discourse and research community. Still, the study of inequalities in the resources needed to lead a fulfilling life such as income, health, education, and social inclusion is of great relevance within the context of the active ageing discourse, as the availability of these resources may profoundly impact on an individual's ability for well-being and quality of life in old age. In fact, the choices promoted by the active ageing discourse are rarely equally possible for men and women, for high-and low-income individuals and for members of socially disadvantaged groups. We aim to reveal these gaps and to show that a country's high achievement in active aging is not necessarily paralleled and should not be equated with an equal or fair distribution of key resources for successful ageing.

The added value of the study consists in going beyond measures that assess active ageing for the average older population, such as those included in the Active Ageing Index, a policy tool for comparing progress in different fields of active ageing across (European) countries. While such measures are useful for gaining an overview across countries, this study aims to go deeper by identifying inequalities both in the experiences of ageing (in the areas of employment, health and independence and social participation) and in the capacity to actively age that each individual is endowed with. Gender and socio-economic status (proxied by income and/or education) are the main dimensions of inequality in old age considered. In order to better capture the complex nature of ageing experiences, the proposed analytical framework complements standard outcome indicators for the various active ageing domains (1st tier) with inequality-sensitive indicators that emphasize inequalities in the ageing experience of different groups (2nd tier) and indicators that aim to capture inequalities throughout the life course (3rd tier). Based on available cross-country comparative data, we propose a total of 27 indicators distributed between the three analysis levels and four different domains: employment, participation in society, independent, healthy and secure living and capacity and enabling environment.

Concerning employment, we find some indications that the lower educated are less likely to remain employed as they age, and this is especially the case in countries where overall employment levels are low. A few countries represent exceptions to this pattern, suggesting that in some cases the lower-skilled may remain employed due to financial constraints. Older women's employment rates not only systematically lie below those of men but when employed, women are much more likely to work part-time, in many cases involuntarily, i.e. due to not being able to find a full-time position. Poor health and caring obligations also are

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... DEEP GENDER GAPS IN EMPLOYMENT (ESPECIALLY FOR PART-TIME WORK) PERSIST IN ALL EUROPEAN COUNTRIES

... HIGHER-INCOME OLDER INDIVIDUALS ARE MORE INVOLVED IN NON-INTENSIVE SOCIAL ACTIVITIES

... WHILE WOMEN REMAIN THE MAIN PROVIDERS OF CARE EVEN IN OLD-AGE

... WOMEN FEEL LESS SAFE AND ARE EXPOSED TO DIFFERENT HEALTH RISKS THAN MEN chief causes for part-time employment in older age groups among women. To a large extent, this situation can be attributed to the career breaks many women face over the life course due to their reproductive roles and caring responsibilities. In countries where employment rates among older women are high, these seem to coexist with highly gender-segregated labor markets, for example in the Nordic countries, where a significant share of women are employed in a limited number of sectors (e.g. related to the formal care service or public sector) and occupations. High female employment rates among older workers also often coexist with significant glass ceilings both in terms of top occupations and wages.

Apart from participation in paid work, older people may also remain active by engaging in unpaid activities such as care and support to frail family members or grandchildren, or voluntary or charity work. In line with previous studies, our analysis shows that unpaid activities tend to be carried out more often by people of higher socio-economic status, as long as activities are not highly time-intensive in nature. We also find that higher inequalities in volunteering rates and political participation across income groups are more often observed in countries with overall low levels of participation in these activities. In the latter cases, differences in political participation between socio-economic groups can be strikingly large. When comparing different kinds of unpaid activities, gender differences are, not surprisingly, largest in the provision of informal care, as women continue to be the main caregivers in all countries. This suggests that the gender roles that predominate in working age may be transmitted to later stages of life. The gender differences in provision of informal care are smallest in countries where a larger share of the older population is involved in (sporadic) unpaid care to frail older people or grandchildren such as in Northern European countries. Interestingly, gender differences tend to disappear almost completely when considering frequent care provision, highlighting the increasing importance of older men as caregivers. As for life course influences on gender and socioeconomic differences in participation in unpaid activities, the length of maternity leaves over the life course shows no clear cross-country association with income.

In the Independent and Healthy Living domain, socio-economic and gender inequalities are apparent in health status indicators, be they objective (e.g. systematically higher life expectancy for women) or subjective (i.e. poorer individuals consistently report lower self-assessed health). Perceived safety among older adults is generally very high and comparable across income quintiles for older men. In contrast, a significantly lower proportion of older women, in virtually all European countries, feels safe to walk alone in their local areas after dark. At the second-analysis level, we consider a series of behavioral risks associated with chronic conditions and adverse health outcomes in later life and observe deep divides in each case. More specifically, for the current cohort of older people, smoking tends to be more common among men and in lower income groups, while inequalities in physical activity and alcohol consumption generally favor richer individuals and men. Even more pronounced inequalities

... LOW-INCOME INDIVIDUALS FACE MORE PRONOUNCED HEALTH CHALLENGES

... HIGHER-INCOME OLDER PEOPLE HAVE BETTER CAPACITY TO ACTIVELY AGE

... COUNTRIES WITH LOWER GENDER AND SOCIO-ECONOMIC INEQUALITIES AMONG OLDER COHORTS ARE LIKELY TO PERFORM BETTER IN ACTIVE AGEING ACHIEVEMENT

are registered with respect to access to care: the proportion of individuals reporting unmet care needs in the lowest income quintile is not uncommonly 4 to 10 times higher with respect to the upper income quintile. Finally, we find evidence of accumulating inequalities along the life course as reflected in the association of early childhood poverty with low income in later life (i.e. low social mobility).

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Among the indicators in the Capacity and Enabling Environment domain, the one for tertiary education achievement displays the largest gender differences, with systematic inequalities favoring men across all European countries. An incomebased gradient is also apparent for education achievement and particularly noteworthy in Southern and Eastern European countries. Higher socio-economic status is also associated with a higher chance of reporting higher life satisfaction and lower depression rates, in comparison with low-income individuals. Further, depression is significantly more common among women, while no or small gender differences are observed in life satisfaction and in maintaining social contacts in old-age, despite the fact that older women are more likely to be widowed and live alone at later stages of life.

One central argument of our study has been that countries which perform well on aggregate measures of active ageing may not necessarily perform best in enabling different socio-economic groups of older people, as well as women and men, to participate in society and the labor market, and to grow old in good health. Bringing together results from the different domains that characterize the experiences of older people in Europe, we find limited evidence for this hypothesis. Rather, our analysis indicates that countries which perform well in integrating women and people of lower socio-economic status in the labor market are likely to display higher employment levels in the older population. In other words, gender and socio-economic inequalities may act as barriers for countries to increase employment levels among older workers. Also, in countries where men are strongly involved in the provision of unpaid care to family members, participation levels tend to be high overall. Similarly, the highest participation rates in volunteering among lower income groups are found in those countries where a large share of the older population is involved in voluntary work. These findings suggest that general attitudes towards paid employment and/or unpaid activities may play an important role in convincing all groups of older people of the benefits to remain active in later life. Our findings also confirm that in countries where general levels of life satisfaction are high, and where inequalities in self-assessed health are low, inequalities in employment and volunteering also tend to be limited.

OUR FOUR CASE STUDIES REVEAL THAT ...

The quantitative analysis is complemented by four case studies: Estonia, Denmark, Sweden and the Netherlands. The cases, selected among the European active ageing front-runners, are meant to complement the indicator-based analysis by delving into the finer details of active ageing achievements and gender and social class inequalities. Estonia has been praised for its large degree

... HIGH EMPLOYMENT RATES CAN INDICATE LOW FINANCIAL SECURITY FOR OLDER PEOPLE

... LOW-INCOME CAN COMPOUND HEALTH CHALLENGES THROUGH THE LIFE COURSE

... HIGH ACHIEVEMENT IN ACTIVE AGEING MIGHT IMPLY TRADE-OFFS BETWEEN DIFFERENT DOMAINS

IN A NUTSHELL ...

SINCE NOT ALL OLDER EUROPEANS ENJOY EQUAL OPPORTUNITIES TO ACTIVELY AGE, FUTURE POLICIES ARE CALLED UPON TO ADDRESS THE DISTRIBUTION OF KEY RESOURCES AMONG OLDER COHORTS

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of gender equality in paid employment, and generally high employment levels of older workers, while performing less well in other areas of active ageing. The analysis shows, however, that financial needs are likely to drive high employment rates past retirement age for both men and women in Estonia, and current pension reforms raise concerns about rising future inequalities in the Estonian older population. Denmark is recognized as a front-runner in education achievement and equality in access to health. However, our analysis reveals that while gender inequality in education has virtually been eliminated, students from disadvantaged backgrounds still face high barriers to enrolling in and completing higher education programs. Similarly, as health outcomes in the Danish population have been improving in no small part due to reduction in exposure to health risks, the gains have not equally accrued to higher- and lower-income groups Finally, Sweden, a country that routinely fares better than the European average in most comparative analyses of social and economic outcomes, is a case study in the persistence of sectoral and, to a less extent, occupational labor market segregation which seem to steam partially from its model of employing women in the public care and education sectors. As for the observed inequalities in health in old-age in Sweden, one explanatory factor may be the relatively higher chances of survival till old-age of less affluent individuals in comparison with other countries. Finally, the case of the Netherlands, one of the European countries with the highest participation levels in employment, volunteering and care activities among older individuals emphasize the risk of trade-offs between achievement in different active ageing domains. As increasing numbers of older persons, especially women, remain in active employment until later in life the availability of volunteers and carers will likely suffer, with consequences for the numerous organizations that depend on volunteers' efforts.

All in all, our analysis has uncovered significant and widespread socio-economic and gender inequalities in active ageing and in the several forms of capital needed to actively age (e.g. health, education). As a consequence, not all population groups will enjoy equal opportunities for active and healthy ageing nor will they have equally satisfying ageing experiences. In fact, there are some indications that disadvantages are likely to accrue for some vulnerable groups with potentially severe consequences in their old age. A key finding arising from the case studies is that the policies aimed at improving general population outcomes and promoting general active ageing achievement may not in and of themselves help reduce inequalities. In fact, a policy can be successful in achieving the desired population effect while contributing to increasing inequalities (e.g. some anti-smoking campaigns). Therefore, if Western societies are to allow all groups of older people, regardless of gender, ethnicity and socioeconomic status, to 'actively age' in line with their own preferences, and to grow old in dignity, 'active ageing' policies will have to address the distribution of key social resources within older cohorts.

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LIST OF COUNTRY ABBREVIATIONS

BE	Belgium			
BG	Bulgaria			
CZ	Czech Republic			
DK	Denmark			
DE	Germany			
EE	Estonia			
IE	Ireland			
EL	Greece			
ES	Spain			
FR	France			
HR	Croatia			
IT	Italy			
CY	Cyprus			
LV	Latvia			
LT	Lithuania			
LU	Luxembourg			
HU	Hungary			
MT	Malta			
NL	Netherlands			
AT	Austria			
PL	Poland			
PT	Portugal			
RO	Romania			
SI	Slovenia			
SK	Slovakia			
FI	Finland			
SE	Sweden			
UK	United Kingdom			
NO	Norway			
СН	Switzerland			
IS	Iceland			

INTRODUCTION

1. INTRODUCTION

The study of inequalities in the distribution of income, health, education, opportunities and social exclusion has long been of interest to researchers and policy-makers alike, and – with widening gaps between social groups - inequalities are likely to form part of policy and research agendas also in the foreseeable future. Analyses referring to the distribution of resources across socio-economic groups are often limited in their scope to early or adulthood years, or compare younger and older age groups rather than focusing on inequalities in later life alone. We argue this gap is becoming increasingly more relevant and must be closed with urgency. Three key reasons base our claim. To begin with, the relative size of the older population is growing, making the study of inequalities in old-age relevant for an ever growing share of the overall population in European countries. Secondly, individuals spend increasingly longer time spans of their lives in post-retirement. Thirdly, the post-retirement period is increasingly still seen as an active stage of life (Council of the European Union 2012), with older people being both encouraged and eager to remain engaged in society. These three points raise the salience of the question of how the financial, health-related and social resources necessary to enable older people to participate in society are distributed among older people. All in all, if Western societies are to allow all groups of older people, regardless of gender, ethnicity and socio-economic status, to 'actively age' in line with their own preferences, and to grow old in dignity, 'active ageing' policies will have to address the distribution of resources within older cohorts as well as across generations, dedicating special attention to inequalities in later life. Unlike other studies (Deaton & Paxton, 1998; Mayer et al., 1999), which have defined and analyzed inequalities in old-age in comparison with the working-age population, the focus of this study is therefore on inequalities within older age groups.

Throughout the study we adhere to the World Health Organization's (WHO, 2002:12) definition of active ageing as:

"...the process of optimising opportunities for health, participation and security in order to enhance the quality of life as people age. Active ageing applies to both individuals and groups. It allows people to realise their potential for physical, social, and mental well-being throughout their lives and to participate in society according to their needs, desires and capacities, while providing them with adequate protection, security and care when they require assistance."

While no definition of active ageing can be regarded as universal, the one above reflects three aspects, which are crucial to the present study but often overlooked by other theorists: the multidimensionality of the experience of ageing, a life course perspective, as well as a rejection of a focus of active ageing policies only on (paid) employment (Walker & Maltby, 2012).

HEALTH IMPROVEMENTS AND SOCIAL INCLUSION CANNOT BE ACHIEVED THROUGH INDIVIDUAL ACTIONS ALONE

Currently, ageing policies within the European Union continue to be strongly focused on individual contributions made by older people in the context of the (formal) labor market (Mendes, 2013; Walker & Maltby, 2012). However, this paradigm tends to pay little attention to the resources available to older people for implementing choices with regard to social participation and paid employment. Neither improved health standards in old-age nor social inclusion can be achieved by individual actions alone, especially in light of existing health inequalities which are strongly

determined by socio-economic circumstances and employment trajectories over the life course (WHO, 2002). Also, women's experiences of ageing are often considerably different than men's, as women are more likely than men to live alone in old-age, suffer from chronic disease, and face material difficulties. In addition, intersecting inequalities of gender, ethnicity and low socio-economic status compound disadvantages for women in old-age (Arber & Ginn, 1991). As for other aspects of active ageing, such as social participation through volunteering activities, these require not only the willingness but also the financial resources (e.g. for public transportation to reach non-governmental organizations) and institutional know-how, both of which are more likely to be available for older people of higher socio-economic status than for those of lower status. We therefore acknowledge the importance of providing a critical analysis of the processes underlying achievements in active ageing taking into account aspects of SES and gender inequalities.

2. Theoretical foundations: Inequalities in old age and changes throughout the life-course

The realities of different social classes in old age, and what distinguishes them from each other, may differ from earlier stages of life, for example given the decreasing importance of differences related to occupational status. The literature acknowledges three main theories describing how socio-economic differences can develop in later stages of life. Firstly, previous works on inequalities in old-age have often focused on *intergenerational inequalities*, for example highlighting the structures and factors influencing distribution across different age groups (see, for instance, Vanhuysse, 2013). These closely correspond to the 'theory of age-relatedness' which claims that old-age itself causes disadvantages with respect to other age groups, e.g. due to a reduction of income from paid employment (Mayer et al., 1999). Intragenerational inequalities, referring to inequalities among older people, have received comparatively much less attention in this line of thought. Yet, although public pension systems partly contribute to a reduction of income inequalities in older age groups, evidence clearly shows that inequalities between older people persist when using other wealth or housing ownership as indicators of socio-economic status (Lopes, 2015). Developing on this insight, the theory of socio-economic continuity assumes that older people's status is determined primarily by the social class they belonged to earlier in life (Mayer et al., 1999). However, with post-retirement periods increasing due to rising longevity, previous attachment to the labor market is turning into a less relevant measure for social class in old-age (Lopes, 2015). Finally, the cumulation theory argues that social class and age, and possibly other factors such as gender and ethnicity, interact with each other, which leads to an amplification of SES differences in old-age. In our study, we subscribe to the 'cumulation hypothesis', as our main interest lies in the interactions between socio-economic status and gender with different aspects of active ageing, taking into account life course indicators which may help to explain how previously existing inequalities associate with inequalities in current cohorts of older people (Mayer et al., 1999).

Selection effects due to the mortality divide can bias results on current inequalities between groups

One constraint in the analysis of socio-economic inequalities in old-age is that these might not be easily observable, given a strong mortality divide by social status in developed countries. In other words, studies of older people are likely to over-represent those surviving into later life, with better health and higher life expectancy. Due to inequalities accumulated during the life course, people of

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higher socio-economic status have a substantially higher life expectancy. In the European Union, for example, the estimated gap in life expectancy at age 30 for men between the least and the most educated varied from around three years up to 17 years in different Member States in 2010. For women the gap was slightly smaller, varying from 1 to 9 years (European Commission, 2013). This means that in our study we are potentially underestimating (intragenerational) socio-economic inequalities in the opportunities for active ageing, even though some of the differences in the experiences of growing old across income groups are likely to be captured by including also the age group 50-64 in our analysis.

Gender relations and health status have a considerable impact on inequalities in active ageing

Experiences of active ageing are not only determined by the socio-economic conditions in which people grow old, but also by other factors, such as ethnicity and by gender relations which contribute to persistent inequality over the life course and in old-age. For instance, the choices promoted by the active ageing discourse are therefore rarely equally possible for men and women (Lewis & Giullari, 2005; Calasanti, 2004). Inequalities in access and availability of different sets of resources, including material, caring and health resources (Arber & Ginn, 1991), contribute to disadvantages for women in maintaining independence in old-age. A prime reflection of gender differences in old-age is the Gender Gap in the AROPE (At-risk-of-poverty and social exclusion) indicator across EU countries (Figure 1). While gender differences in poverty are small for the population below age 65, i.e. the working-age population and their children, women above age 65 have a substantially higher risk of poverty or social exclusion than men do across EU countries. In the age group 75 and older the largest gender differences are reported in Lithuania, Sweden and Slovenia, while Bulgaria, Estonia and Austria report the largest differences in the age group 65-74 (Figure y1). The main reason for this situation is that – due to their higher LE – women are more likely to live alone (Bettio et al., 2013).



FIGURE 1 GENDER GAPS IN AROPE RATES BY AGE GROUP (DATA FOR 2013)

Note: AROPE – At-risk-of poverty and social exclusion. Graph from the European Commission's Gender pension gap report (Bettio et al., 2013).

In addition, it is not only the availability of resources within the general population but also their distribution that plays a role in the existence of inequalities in old-age. In richer countries, where a smaller share of the older population is at risk of poverty and social exclusion, the concentration of

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resources can nonetheless be higher. As a result, one might find socio-economic inequalities (e.g. in access to care or in volunteering) to be larger there than in a country where a larger share of the older population faces poverty risks but where resources are more equally distributed. Across EU countries, at-risk-of poverty rates in the older population are highest in Bulgaria, Latvia and Estonia and lowest in Norway (in the age group 65 to 74), the Netherlands, Iceland and Luxembourg. Even though Sweden and Finland are front-runners on most dimensions of active ageing, in the age group 75 and older both report a relatively high risk of poverty in comparison with other EU-27 countries (see Figure A1.1 in Annex).

As people grow older, they are also faced with a higher risk of multimorbidity and functional decline. Several gerontological theories specifically focus on engaging in activities in the face of declining health status, with the idea that a high level of participation is needed to preserve well-being in old-age, in line with activity theory (Havighurst, 1961). This theory poses that there is a positive association between frequency of activity and life satisfaction. If certain (social) roles are lost (e.g. due to retirement or health decline), these should be replaced by new roles or activities. This approach may be complemented by the views from continuity theory (Atchley, 1989) which holds that older people attempt to maintain patterns of thoughts, activities and habits by using strategies tied to their patterns may occur as older people with worse health decide to reduce the intensity of socializing activities, for example (Baltes & Baltes, 1990).

ACHIEVEMENTS IN OLDER AGE NEED TO BE JUDGED AGAINST AVAILABLE CHOICES AND ACTUAL LIVING CONDITIONS

Active ageing policies can be understood both as a means as well as an end in that they aim at optimizing opportunities for health, participation and security and, as a result, they contribute to enhancing people's quality of life as they grow older (WHO, 2002). They attempt to strengthen (older) people's capacities to deal with negative life events, such as the onset of disability, financial difficulties or widowhood, by increasing resilience, and simultaneously reducing vulnerability (Schröder-Butterfill, 2012, cited in Zaidi, 2014). Because older people's resilience may be increased at levels that go beyond the individual, it is crucial to include also the household, family and neighborhood levels, the community and societal levels in the analysis of inequalities in older age. Walker (2002) also argues that multilevel efforts are needed to maximize participation and well-being in old-age, for instance at individual, organizational and societal level.

The idea that people's actual living conditions and resources, as well as their personal preferences (e.g. about what constitutes a good life in old-age) should matter for active ageing policies is closely related to the works of the economic philosopher Amartya Sen and the philosopher Martha Nussbaum. Sen's central argument is that social evaluations and policy design should be mainly concerned with who people are and what they are able to do, with their quality of life, and with removing barriers for living the life they deem valuable for themselves (Sen, 1993; Robeyns, 2003:6). What is crucial for being able to make choices as suggested by the active ageing paradigm is then the freedom to perform certain activities, such as taking care of a frail spouse or pursuing a paid job in later life. That is, what matters are people's real freedoms (or 'capability set'), and not what (older) people actually do or have ('functionings'), and this should also be reflected in political strategies: "Capability, not functioning, is the appropriate political goal" (Nussbaum, 2001:56). As an example,

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consider that an older person who is forced to continue in paid employment merely out of financial need does not have an equal capability set as an older person who continues in paid work mainly due to deriving personal fulfillment from her job.

However, as the 'true' range of available choices is hardly observable, a second best option is to focus on older people's actual 'functionings' or 'achievements' (e.g. whether or not an older person continues in paid employment), albeit taking into account the personal, social and environmental factors leading to these 'achievements'. Nussbaum even goes as far as to suggest a set of capabilities to which each human citizen should have a "moral claim" to (such as life, self-respect, bodily health and integrity, material and political control over one's environment), while also stressing the importance of a conducive environment that allows for these capabilities to be used (Nussbaum, 2001:56).

"To secure a capability to a person it is not sufficient to produce good internal states of readiness to act. It is necessary, as well, to prepare the material and institutional environment so that people are actually able to function." (Nussbaum, 2001:56)

For instance, even though an older person might be physically able to do voluntary work, he or she might not be informed on how charitable organizations recruit their volunteers and thus refrain from voluntary participation. Personal characteristics and preferences as much as "lifetime accumulation of social, human and financial capital", and the "enabling environment" (Zaidi, 2014) thus determine the degree to which certain achievements, understood as actions or (physical) states, become possible or not.

Zaidi (2014) suggests three main "welfare outcomes" in old-age, which might be considered when designing active ageing policies: financial well-being, health and social connectedness and support. Yet, some outcomes may not realistically be altered by interventions (e.g. in the case of chronic diseases), making mechanisms that reduce older people's exposure to negative life events already in earlier ages very important. Generally, the achievement of welfare outcomes is influenced both by so-called 'trigger events' or 'critical transitions' during older ages (e.g. loss of spouse, onset of retirement), as well as by 'lifetime influences' or experiences over the life course. Again, the ways in which critical transitions and lifetime experiences impact on welfare outcomes are stratified by gender, social class, education and other factors (such as ethnicities, religion, or disability). Examples of lifetime influences include work histories, marriage and divorce history, childbearing history, migration experience, and the provision of informal care (Zaidi, 2014:12).

3. AN ENRICHED FRAMEWORK FOR ANALYSIS: INEQUALITIES AND LIFE-COURSE DETERMINANTS IN ACTIVE AGEING

The first question that arises in the study of inequalities in older age is "*Inequality of what?*" We propose to focus on inequalities both in the experience of ageing and in the capabilities to actively age that each individual is endowed with, as shortly described in previous sections. This stands in recognition of the fact that active ageing is a complex, multidimensional concept spanning the physiological, engagement, well-being, extrinsic factors and personal resources domains (Cosco, 2013).

Our approach builds on the Active Ageing Index or AAI (Zaidi et al., 2012), a tool developed to support the implementation of social policies that address the challenges of population ageing and attempt to mobilize the potential of older people to actively participate in a wide range of social and economic domains¹. The AAI recognizes four different aspects of active ageing, each reflected into an analytical domain. 'Employment', 'Social Participation' and 'Healthy and Independent Living' are the three domains reflecting the actual experience of ageing for older people, while the fourth domain 'Capacity and Enabling Environment' focuses on the individual characteristics and environmental factors that determine one's capacity for active ageing. The AAI is a composite index, built as the weighted average of 22 indicators distributed between the four domains, with higher index values representing more positive outcomes.

INEQUALITIES SHOULD BE MEASURED WITHIN A MULTIDIMENSIONAL FRAMEWORK SPANNING THE SOCIAL AND THE ECONOMIC DOMAINS

The second relevant question is "*Inequalities among whom?*" Here we adopt the main dimensions of inequalities that prove relevant for society as a whole (i.e. irrespective of age) and consider potential gaps both along the lines of gender and social class or socio-economic condition. The analysis of gender inequalities in old-age aims to mainstream gender analysis in social research throughout the life cycle and is further justified by the persistence of gender-specific disadvantages faced by women or by men. For example, due to their reproductive roles and persistent discrimination in the labor market, women are likely to see their earnings potential reduced throughout the life cycle, with implications for the (reduced) availability of financial resources when being retired. Intersecting inequalities of gender relations, socio-economic status and other factors (e.g. ethnicity or religion) make older women particularly vulnerable in old-age, especially when becoming frail. Men still have a lower life expectancy than women, which means that, by the time they turn 70, women represent a growing majority of the population in this age group (approx. 55%), to reach as much as 70% for the 85 and older population². A large majority of these women lives in single households, which face a substantially higher risk of falling into poverty in all EU countries (Rodrigues et al., 2012).

The importance of material well-being in later life is also paramount. This is especially true for older individuals who are faced with changes in the relations of distribution and production and might see their ability to access material resources affected at a point in their life-cycle when such resources can be crucial for compensating for losses in other domains (e.g. functioning, health, mobility). While

http://www1.unece.org/stat/platform/display/AAI/Active+Ageing+Index+Home

¹ For more information on the AAI and country rankings, please refer to:

² Data extracted from the Eurostat database and relative to the year 2013

gender differences and income inequalities are fundamental and intersecting determinants of active ageing (Corsi & Samek, 2010) and the only inequality dimensions we address in detail in the present study, we acknowledge several other relevant dimensions: education achievement, race and ethnic background, migrant status, etc. In addition, intersections between gender and socio-economic inequalities can be accounted for only to a limited extent due to the nature of the study.

Given the complex nature of ageing experiences, we propose a comprehensive approach to the analysis of inequalities in active ageing. As depicted in Figure 2 below, gender and social class inequalities permeate the experience of ageing in all its domains with effects that are likely to spill-over or be subject to trade-offs. For example, a likely consequence of continued employment in older age is the reduced availability of individuals for other forms of social participation (e.g. volunteering and leisure activities). Longer employment can also affect the independence of older individuals (via access to financial resources) and health transitions in later life.





Source: Developed on the basis of the Active Ageing Index (Zaidi et al., 2012)

Standard indicators for Active Ageing, such as the ones used in the AAI (Zaidi et al., 2012) are highly synthetic in their nature but often mask trade-offs and core differences between gender and socioeconomic groups. Therefore, caution must be exercised when interpreting the results and analysts should avoid inferring well-being from high AAI achievement. A peer review of the active ageing index points out that the index is a descriptive tool intended to provide a snap-shot of the conditions for and achievement in successful ageing, and the results therefore cannot be informative with respect to the underlying causes: "Necessity – rather than autonomy – might be driving high levels of paid and unpaid activity" (Karpinska & Dykstra, 2015). Others highlight that the focus on individual responses implied in the active ageing discourse is inadequate to address the 'ageing problem' (Mendes, 2013; Rottier & Jackson, 2003; Lopes, 2015).

> THERE IS A NEED TO MOVE BEYOND COUNTRY RANKINGS AND FOCUS ON THE PROCESSES UNDERLYING THE DEVELOPMENT OF INEQUALITIES

In order to address this shortcoming, the current study not only analyses inequalities in key outcomes of active ageing (e.g. being employed or in good health), but goes on to propose and analyze a series of inequality-sensitive indicators intended to emphasize existing gaps and differences in the ageing experiences of women and lower income groups. For example, low-income individuals who continue working in old-age are likely to do so in order to ensure financial sustainability for their household, often despite negative effects of continued employment on health and well-being. High-income individuals, on the other hand, are more likely to continue working in older age because the experience is fulfilling and rewarding and adds to their general well-being.

Finally, following continuity theory, we subscribe to the understanding that the analysis of inequalities in later life essentially depends on the accumulation of disadvantages throughout the life course. The life experiences and opportunities that have been available to each individual throughout his/her life will determine to a considerable extent the experience of ageing and the social and economic status in old-age. For example, lower income in older age groups may reflect the accumulated impact of poorer health during the working life and this in turn may also shape the health condition and psychological well-being in old-age. In addition, we argue a gender approach to active ageing cannot be meaningfully separated from a life-course perspective as women encounter barriers of opportunity throughout their life, with significant consequences for later years (Arber & Ginn, 1991).

THE STUDY OF ACTIVE AGEING SHOULD BE ENRICHED WITH INEQUALITY-SENSITIVE AND LIFE-COURSE INDICATORS

Our operational framework distinguishes three separate, but interdependent levels of analysis (see Figure 3): the Active Ageing level – building on established AAI indicators; the Inequalities in AAI level – comprising of indicators that reflect underlying process and different group dynamics; and the Life-course determinants level – tracking inequalities throughout the lifespan of individuals. Each of them is shortly discussed in the following sections.

Level 1	E Standard	Active Ageing	outcome
Active Ageing Level 2 Inequalities & Processes in Active Ageing	indicators Indicators focused on processes and group-specific characteristics		
Level 3 Life-course determinants of AA	Indicators describing the experiences of the individual over the life-time		

FIGURE 3 LEVELS OF ANALYSIS OF INEQUALITIES IN ACTIVE AGEING

LEVEL 1: GENDER AND SOCIAL CLASS DIFFERENCES IN AAI INDICATORS

At the first level of our analysis, we focus on established indicators of active ageing and provide a breakdown by gender and income quintiles. This helps us to provide a snapshot of the general situation of the current generation of older people in its key dimensions: employment rate (as a proxy for involvement in remunerated productive activities), participation in volunteering, caregiving and

political activities (reflecting both involvement in non-remunerated but productive activities and continued participation in social networks), healthy life expectancy and physical safety (representing the ability to live independently and free of debilitating disease) and education and well-being (as proxies for individual resources for achieving successful ageing). As clearly stated in the AAI framework, the focus of such indicators has been solely on outcome evaluation and no attempt to reflect inputs or processes is made. Therefore, indicators at level 1 of our analysis are descriptive and current (i.e. focused exclusively on the present cohort of older individuals). In sum, they provide an aggregated overview of active ageing achievements in selected countries.

LEVEL 2: INDICATORS SENSITIVE TO PROCESSES AND GROUP-SPECIFICITIES

The second level of indicators, focused both on active ageing outcomes and the processes that underlie them, attempts to better reflect gender and social class inequalities by analyzing those dimensions of employment, social participation and health and independence that are most likely to be sensitive to differences between groups. In other words, a simple tabulation of broad indicators for different population groups might hide large disparities at lower aggregation levels (i.e. more specific indicators that are better suited to reflect particularities in group experiences). In the employment domain, the shift from the general to the specific can be exemplified by considering instead of the total employment rate indicator, the dynamics observed for atypical employment forms. For example, individuals employed part-time (most often women) contribute positively to the statistic on the general employment rate but often their limited attachment to the labor market is involuntary and the reasons for their limited labor market participation (e.g. work-family conflicts) can reveal hidden inequalities. Such inequalities would be completely concealed by a general indicator like the employment rate (Level 1) but could prove essential in determining the experience of ageing for individuals and the resources at their disposal (material or otherwise) for successful and active ageing. By the same token, we include among our second level indicators the gender pay/pension gap and sectoral segregation to explore inequalities in the employment domain, more intense care responsibilities and precarious financial situation for gender and social gaps in social participation and high-risk health behaviors (e.g. smoking, drinking and sedentary life styles) and access to care to assess inequalities in health and independence.

LEVEL 3: LIFE-COURSE

The third level moves away from an outcome-centered approach and is intended to capture dynamics over the life-course that determine inequalities in later life. It follows an ever-growing consensus in the specialized literature that life experiences and opportunities (or lack thereof) define social and economic status in old-age and therefore also the experience of ageing (Deaton & Paxton, 1998; Smith, 2003; O'Rand & Henretta, 1999). For example, inequalities in access to financial resources in older ages can be thought of as the combined effect of disadvantages accumulated throughout one's life and, most likely, disproportionately so for women, whose trajectories for paid employment tend to be atypical. Similarly, early childhood deprivation or engaging in unhealthy behavior at earlier stages in life, both of which disproportionally affect individuals or households of lower income more than those in higher income groups may affect inequalities in income or health during the life cycle and in older ages.

Unfortunately, life-course analyses are rendered extremely difficult by a generalized lack of systematic and comparable data that cover the entire lifespan of (current) older population cohorts. As a result, we are often limited in our ability to measure key developments during the life-course and must rely on proxies that can be tracked with reasonable accuracy through the lifespan. In the employment

domain, we include indicators of the duration of working lives (which reflect systematic disadvantages for women and low-income individuals e.g. when they are subject to precarious employment) and of early childhood cognitive abilities, a strong predictor of future labor market attachment and life-long earnings. In the social participation domain, we approximate the measurement of the work-care balance during the productive years in an individual's life by the number and total length of maternity leaves. This is admittedly an imperfect indicator, capturing only one possible cause of spells of labor inactivity but the only one we could reliably measure with available data. Similarly, the number of children, used as a proxy for (unpaid) care demand during the lifespan, covers only one group of potential care recipients, but comparable international data is extremely scarce in this domain. Finally, in the independent and healthy living domain, we restricted the analysis to well-established determinants of health in adulthood and later life, namely early childhood deprivation and risk behaviors during the life course. Many other life-course determinants have been identified in the literature, but systematic measurement is rendered impossible by the lack of comparable data.

In the next section of the report, the empirical analysis follows the structure of the proposed framework and relies on a series of core indicators for each of the three domains related to the experience of ageing and for the capacities domain. Figure 4 offers a synthetic view of the indicators by domain and level of analysis (data sources in parentheses).

Level 1 Active Ageing	Employment rate 55– 64 & 65+ (SILC)	% of 55+ providing informal care (SHARE) % of 50+ engaged in volunteering activities (ESS)	Healthy Life Expectancy at age 50 (Eurostat) % of 55+ reporting good self-assessed health (SILC) % of 50+ feeling safe in their neighborhood (ESS)	% of 55 + with upper secondary education or higher (SILC) % of 55 + feeling depressed (SILC) % feeling free to decide for themselves (ESS)	
Level 2 Inequalities & Processes in AA	% of 55 + employees in involuntary part-time (SILC) Reported reasons for working part-time (SILC) Gender pay gap (Eurostat) Sectoral gender segregation (LFS)	% providing daily personal care to another person (SHARE)	% of 55+ currently smoking (SHARE) % of 55+ drinking alcohol almost every day (SHARE) % of 55+ engaging in moderate physical activity weekly (SHARE) % of 55+ with unmet care needs (SILC) % reporting difficulty in making ends meet(SHARE)	% feeling very satisfied with life (SILC) % meeting socially with friends, relatives, colleagues at least once a month (ESS)	
Level 3 Life-course	Average no. of years in paid employment (SILC) % above average cognitive skills in childhood (SHARELIFE)	No. of / length of maternity leaves (SHARELIFE) No. of children (SHARE)	% of 55+ who ever smoked (SHARE) % of 55+ reporting early childhood deprivation (SHARELIFE)		

FIGURE 4 INDICATORS OF GENDER AND SOCIAL CLASS INEQUALITIES IN ACTIVE AGEING

Note: The acronyms in the table stand for: SILC – EU Statistics on Income and Living Conditions survey; SHARE – Survey of Health, Ageing and Retirement in Europe; ESS – European Social Survey; LFS – Labor Force Survey. Please refer to the Data Sources section for further details.

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3.1 Some considerations on methodology

In order to measure inequalities in active ageing we present, whenever possible, a disaggregation by gender and by income group. The average share of positive or negative outcomes for men and women are documented in graphs presenting confidence intervals by gender. Whenever the two confidence intervals do not overlap, we can talk of a statistically significant difference between the two groups. Conversely, when the confidence intervals overlap (even for a limited range) we cannot exclude the possibility that the observed difference is an artifact linked to the data collection process.

In order to capture income-related inequalities we present a breakdown of each indicator by income quintile. Quintiles are calculated by ordering all individuals in the sample by their reported income, from lowest to highest, and forming 5 equally sized groups³. By plotting outcomes separately for each income quintile we can easily visualize how the distribution of an outcome varies along the distribution of income in a society. A positive or ascending gradient from the first to the fifth quintile depicts a situation where the outcome is disproportionately concentrated among the rich (e.g. education achievement) while a descending gradient indicates that the outcome is more frequently observed among the poor (e.g. poor health). The lack of a discernible pattern across quintiles, with ups and downs or very similar values, is indicative of no association between income and the outcome being observed. A hypothetical and simplified situation constructed for exemplification purposes is presented in Figure 5.



FIGURE 5 GRADIENTS OVER THE INCOME DISTRIBUTION

As the visual analysis of the gradient over the income distribution does not lend itself easily to crosscountry comparisons, we complement it with more synthetic indicators of the dispersion in the distribution of social participation, health and employment outcomes by income. The Q5/Q1 ratio (or rate ratio) measures *relative* inequality between the two extremes of the income distribution. A ratio equal to 1 would indicate that the outcome is just as prevalent among the very poor as among the very rich; therefore, there is no inequality in its distribution. Ratios above one indicate the presence of

³ We note that, due to data limitations, income quintiles are not always referred exclusively to the older population, but relate to the relative position of the older individual in the general income distribution for the respective country. This is the case of data extracted from the European Social Survey (ESS).

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inequality with higher values associated to more marked income-based differences. As an example, consider a situation where the proportion of individuals reporting good health is twice as large among the rich in country X, as it is among the poor. The Q5/Q1 indicator would take a value of 2 and would be indicative of more pronounced income-related health inequality with respect to country Y, where the same ratio is equal to 1.5. Figure 6 exemplifies.

While it provides an easily comparable measure of income-related inequalities across settings, the $Q5/Q1^4$ indicator is sensitive to the average prevalence of a given outcome in each analyzed country. Due to their mathematical construction, relative inequality measures will over-represent the size of income-related inequality in countries where the prevalence of the outcome is very low. Continuing with the example above (see Figure 6) we can imagine that in country X only 10% of the low-income individuals and only 20% of the rich report good health (i.e. Q5/Q1 = 2). At the same time, in country Y 50% of the poor and 75% of the rich report good health (i.e. Q5/Q1 = 1.5). Looking at prevalence values, it hardly seems that country Y is performing better than country X. In fact, the prevalence of good health among the rich in country Y is 25 percentage points higher than among the poor. To avoid such misinterpretations we also calculate and report, whenever relevant, a measure of *absolute* inequality between the poorest and the richest individuals, namely Q5-Q1 (i.e. the rate difference).



FIGURE 6 INTERPRETING RELATIVE AND ABSOLUTE MEASURES OF INEQUALITY

Please note that in the graph above and in the following sections, absolute inequalities (Q5-Q1) are plotted on the left hand axis, while relative inequalities (Q5/Q1) are plotted on the right hand axis. The choice is driven by the nature of the two measures: the indicators we consider represent prevalence rates and are expressed in percent while the relative inequality measure is expressed as the absolute value of the Q5/Q1 ratio.

⁴ For select indicators we present the Q1/Q5 ratio, rather than the Q5/Q1. The decision is driven by a desire to conserve the mathematical properties of the indicator and to facilitate the interpretation of results.

We also caution here that, due to data availability restrictions, some indicators are broken down by education achievement (as a proxy for social class) rather than by income. This is the case for the employment rate indicator and for the share of older individuals working part-time. Other indicators, by their very nature, do not apply themselves to such disaggregation. Cases in point are the gender pay gap and the sectoral gender segregation indicators. For some, no disaggregation by income or education is possible due to data limitation (e.g. healthy life expectancy).

DATA SOURCES

The data presented in this report is extracted from a variety of well-established, secondary sources covering a range of social and economic dimensions. Our four overarching goals in the selection of indicators were: i) micro-level data collection (i.e. the unit of observation is the individual rather than the country or the region); ii) international coverage (i.e. as many European countries as possible should be represented in the dataset); iii) comparability (i.e. harmonized data collection in all included countries) and iv) replicability (i.e. systematic data collection should be repeated at defined intervals). We found three datasets⁵ corresponding to these requirements that included indicators deemed relevant for the present analysis:

- EU Statistics on Income and Living Conditions (EU SILC) is a cross-sectional and longitudinal sample survey, coordinated by Eurostat since 2004. It collects data from all EU member states, Norway, Iceland and Switzerland. Different SILC modules provide data on income, poverty, social exclusion and living conditions in the European Union. Data collection is repeated on a yearly basis. Our analysis relies on SILC data from the 2014 module (below EU-SILC 2014), the most recent available at the time the report was drafted. More information is available at: http://ec.europa.eu/eurostat/web/income-and-living-conditions/overview
- The European Social Survey (ESS) is a biennial cross-sectional survey collecting data on attitudes, beliefs and behavior in 30 countries. ESS is coordinated by the Centre for Comparative Social Surveys (City University (London) in partnership with institutions in Belgium, the Netherlands, Germany, Norway, Spain and Slovenia. Data collection started in 2002. The present analysis relies on data from the 6th ESS round (below ESS 6), collected in 2012 and the 7th round (below ESS 7), collected in 2014. More information is available at: http://www.europeansocialsurvey.org/
- The Survey of Health, Ageing and Retirement in Europe (SHARE) is a multidisciplinary and crossnational panel database of individual level data on health, socio-economic status and social and family networks of individuals from 20 European countries, aged 50 and above. The survey is coordinated by the Munich Centre for the Economics of Ageing, in partnership with country-coordinating groups. Data collection started in 2004 and has been repeated in 2007, 2011 and 2014. In 2009, the third wave of data collection focused on retrospective life histories (SHARELIFE). It includes all important areas of respondents' lives, ranging from partners and children over housing and work history to detailed questions on health and health care. The present analysis relies on data from the most recent panel wave (below SHARE Wave5).More information can be accessed at: http://www.share-project.org/

⁵ Numerous other datasets exist and could be consulted for similar analyses. We note especially the Labor Force Survey (not included here due to difficulties in accessing the data), the European Quality of Life Survey (not included due to limited sample sizes for older population groups) and the harmonized European Time Use Surveys (not included here due to limitations in country coverage).

Finally, a few macro-level indicators (e.g. gender pay / pension gap, horizontal segregation), selected for their ability to capture crucial characteristics of inequalities in employment are extracted from international databases. For a detailed list of indicators containing information on data source, country coverage and sampling, please refer to Annex 2.

$CASE \ \text{STUDIES}$

While Section 4 covers exclusively the empirical analysis of the proposed indicators across European countries, Section 5 focuses on 4 country case studies: Estonia, Denmark, Sweden and the Netherlands. The case studies are meant to complement the indicator-based analysis by delving into the finer details of active ageing achievement and gender and social class inequalities. Furthermore, country level analyses allow for the interpretation of results within the specific political context and following the developments in national and local policy. Whenever possible, we try to emphasize this perspective in our case studies.

We started by selecting, from the 10 front-runners in the AAI ranking (2014) those countries that fared well also in our inequalities focused comparisons. As the rankings are not so well-behaved as to allow for the selection of countries that out-perform others across all four domains, the selected front-runners invariably emphasize high performance in one or two areas. Estonia, while not generally perceived as a top performing country in Europe, is a case in point for high gender equality across the employment domain. Denmark, a front-runner in education achievement and equality in access to health, is an example of sustained progress in increasing social equality in the aggregate but also of hidden inequalities. Sweden, a country that routinely fares better than the European average in most comparative analyses of social and economic outcomes, is a case study in the persistence of sectoral labor market segregation and inequality in the distribution of health risks. The Netherlands is remarkable, above all, for its performance in the employment and social participation domains, both in terms of general achievement and in terms of gender and social class inequalities. At the same time, this final case study emphasizes that high achievements in different domains might be subject to trade-offs.

Each case study is based on an extensive review of academic and grey literature, as well as international and national statistical data sources. Our review was entirely conducted in English and sources available exclusively in the countries' national languages were excluded from the analysis. The desk research was complemented by a series of expert interviews. For each case study, two to four experts were contacted and un-structured telephone interviews were carried out between May and June 2016. For a detailed list of interviews by country and analysis domain please consult Annex 3.

4. Empirical analysis: how do European countries fare?

In order to understand how European countries compare in terms of active ageing achievement, with a specific focus on social class and gender inequalities, we start by individually analyzing all the indicators proposed in the above. We follow the organization of the analytical framework. That is, the indicators are grouped under four active ageing domains, each shortly introduced and linked with the extant literature on the topic. Our aim is to offer the reader a short overview of existing scholarship – we focus mainly on established results but more innovative proposals that remain to be confirmed by future research are also presented when relevant – and to collocate and interpret our findings into this wider context.

Within each domain we follow the hierarchy of the three proposed levels (i.e. Active Ageing outcomes, Inequalities and processes in Active Ageing and Life course determinants), each analyzed as a separate block. Nonetheless, the exposition aims to be fluid, emphasizing the links between the three levels and shedding light on the processes through which the dynamics of the indicators carry forward to impact on results in higher domains. As the analysis in each domain progresses, we aim to encourage the reader to think first in terms of general outcomes and overall population-level achievement, and then to consider the finer processes and specificities that characterize the ageing experience of selected groups, both currently and retrospectively. Exceptionally, the Capacity domain follows a linear structure due to its intrinsic focus on indicators whose influence is pervasive in all domains of ageing and in all life phases.

Our focus throughout this section is on country level comparisons but whenever clear regional patterns emerge they are emphasized in the exposition. However, we often find that such generalizations (e.g. Western vs. Eastern Europe) brush over countless country specificities in terms of overall prevalence, income distribution and gradients. Similarly, a too narrow focus on prevalence, or absolute or relative inequalities alone can distort the results and render interpretation difficult, therefore we caution readers that all three measures (and the implicit trade-offs) should be considered and balanced whenever country comparisons are made.

To streamline the exposition we generally limit the number of in-text graphical representations to one for each analyzed indicator. The reader is encouraged to refer to the extensive Annex (Annex 1) for detailed graphical representations of breakdowns by gender and social class.





4.1 Employment

The employment of older workers has long been a key subject in the policy debate in the EU. This is evidenced by the fact that employment rates for the 55-64 as well the average age at which people leave the labor market were both targets set under the denominated Lisbon Strategy (European Parliament Committee on Employment and Social Affairs, 2010). This emphasis on the active contribution of older people to market-based activities and in particular employment has been driven to a great extent by concerns about the fiscal sustainability of welfare systems in general and publicly-funded old-age pensions in particular. There are, however, other arguments in favor of maintaining people in employment as they age, which are related to their contribution to productivity gains at the firm level (Charness, 2008), to the reduction of social exclusion and poverty (Marin and Zólyomi, 2010) and to maintaining social connectivity and cognitive ability while ageing (Hertzog et al., 2008). For example, a much-quoted study has found a causal effect between (early) retirement rates and cognitive decline of people aged 60 and older in several European countries and the US (Rohwedder & Willis 2010). While it is clear that other activities also produce the same positive effect on cognitive skills (Hertzog et al., 2008), employment is nonetheless one way to maintain cognitive ability.

Consistent with the interest that the issue of employment among older workers has merited, there is a wide body of literature on the factors that affect employment of older workers. Importantly, these include institutional factors, i.e. the embedded incentives in the social protection system for early versus deferred exit from the labor market, in which more generous welfare systems (e.g. amounts or eligibility rules) may reduce the incentive to remain employed (OECD, 2011). The underlying notion is that employment among older workers is a voluntary decision. This literature also points out that it is not only old-age pensions that matter, but also other benefits as there might be different pathways out of the labor market (OECD, 2011; Blau & Shvydko, 2011; Smeaton et al., 2009). The existing differences between countries on pension system generosity and employment rates of older people seem to indicate that the former are important factors in explaining the latter (OECD, 2006).

More recently, however, there has been a more nuanced picture of the factors affecting employment at later stages of one's working life, which have tended to include the so-called pull, push and stay/stuck factors (Maltby, 2011; Barnes-Farrell, 2003; Schultz, 1998). The pull factors include not only welfare state generosity, but also social norms and representations about what is to be old and about retirement (Gruber & Wise, 1999; Sonnet et al., 2014; Ilkka, 2004). Push factors are mostly deemed involuntary factors that result in lower employment of older workers such as bad health, adverse external economic shocks that render some jobs redundant, stressful or unhealthy workplace characteristics, ageism in hiring or human resource management, or care needs in the household (Knuth & Kalina, 2002; Ilkka, 2004). Stay/stuck factors have usually the effect of maintaining employment and may be voluntary or involuntary in nature. Among these are financial constraints (e.g. short or interrupted contributory careers may result in the need to continue working to increase future pension income), or preferences for maintaining social contents and the identity that often comes from holding a job (Jensen, 2005; Smeaton et al., 2009). These factors may not only vary between countries (e.g. ageism, cultural beliefs), but also between different groups within a country. For example, older women may be particularly affected by the effect of broken employment careers and lower educated older workers more likely to perform physically demanding jobs, have lower health or face greater difficulties in finding a new job if made redundant.



Employment rates however, are but one indicator of the contribution of older people to society through market activities. Particularly for the assessment of inequalities in labor market outcomes they may offer an incomplete picture. For example, employment rates do not capture differences in the number of hours worked, or possible differences in terms of occupation or sectors of activity (Tomlinson, 2011). This latter information in turn may have an impact on the wage differences observed (Mandel & Shalev, 2009; Korpi et al., 2013).

LEVEL 1: THE SHARE OF OLDER WORKERS IN PAID EMPLOYMENT

There are significant differences in the employment rates of men and women in the 55-64 age group in Europe, with the employment rate of women systematically below that of men (see Figure 7). The exceptions to this are Finland and Latvia, where female employment rates for this age group are higher or equal to those of men. The difference between male and female employment rates is also low for Iceland, Sweden, Norway, Estonia and France. With the exception of France, these countries have overall employment rates in this age group that are close to 60% (and their female employment rates are higher than the male employment rates of many other countries), suggesting a labor market that is able to maintain significant shares of both male and female workers employed beyond the age of 55, albeit gender differences continue to exist.

The country differences in female employment in this age group reflect also the legacy of the single wage-earner model that was still prevalent in most European countries when this cohort of older workers was in their prime (Lewis, 1992; Orloff, 2002). In the age group above (65-74) the gender differences are, as a rule, very small, but this is mostly explained by the fact that very few men or women remain employed above the statutory retirement age (see Figure A4.1.1 in the Annex). Finally, it is worth bearing in mind that the different employment rates between countries and sexes in these age groups may be also explained by the different statutory retirement ages. While a sizeable share of countries has now raised the retirement age to above the age of 65 (Portugal, Spain, Italy, Greece and Norway, while a number of countries have flexible statutory retirement ages that in effect penalize those who retire before 65 or even older), in many EU countries this is still below that age and quite a number of countries regulations on statutory retirement ages for men and women (e.g. Austria, Croatia, Bulgaria, Bulgaria, Lithuania, Poland, Slovakia, United Kingdom) (OECD, 2015; European Commission, 2015).

While there are significant differences in the employment rates of the age group 55-64 by education levels in nearly all countries considered, these differences are relatively less pronounced in those countries that also have higher overall employment rates for this age group (see Figure A4.1.2. in the Annex). Relative educational differences are also low for Portugal and Greece, although the latter has the lowest overall employment rate for this age group among all countries considered.

The lower educated are less likely to remain employed as they age and exceptions may be motivated by financial constraints



FIGURE 7 EMPLOYMENT RATE FOR THE 55-64 AGE GROUP, BY GENDER (IN %)

Source: EU-LFS, 2014

In the 65-74 age group, relative inequalities by education are much more pronounced as overall employment rates are low. Romania, Slovenia and Portugal stand out as countries where the employment rate for the lower educated is actually higher than among the higher educated, suggesting that many low-skilled workers may remain employed due to financial constraints. A European study analyzing retirement decisions confirms this trend (Hofäcker et al., 2015). Previously mainly those with lower qualifications opted for early retirement, which used to represent a financially attractive option for these workers. With the abolishment of early exit options in many European countries, however, and an increase in statutory retirement ages there, financial pressure to 'earn' one's old-age pension is rising for those with lower incomes. People with higher qualifications also tend to work longer, yet with significantly higher work satisfaction and a larger degree of identification with their jobs (see Hofäcker & Naumann, 2014, for examples from Germany).

LEVEL 2: INEQUALITIES BEYOND THE EMPLOYMENT RATE: PART-TIME, GENDER SEGREGATION AND WAGE GAPS

A significant share of those employed in older age groups is working part-time as evident from Figure 8, yet this is mainly driven by women working part-time more often (regardless of the age group), and by high part-time employment rates in the oldest age groups (65-74). In fact, in the 55-64 age group part-time work is either relatively marginal for both sexes – for half the countries considered, part-time accounts for less than 20% of employment – or clearly predominant among women (e.g. Austria, Netherlands, Belgium, Switzerland to name just a few). By contrast, after the age of 65 part-time not only increases as a share of employment, but the gender differences become much less pronounced, with men catching up with women on the share of part-time employment.

Such results mirror trends previously established in the literature, whereby flexible working arrangements (i.e. part-time work) are particularly useful in facilitating transitions in and out of the labor market. Therefore, in Europe, part-time employment rates are highest for young workers (entering the labor market) and older workers (exiting the labor market) and lowest among middle age workers (Buddelmayer et al., 2005). We also note that the higher part-time employment rates for



women are in line with a historic trend in Europe: since the 1990s part-time rates have grown more rapidly among women in all European countries (Buddelmeyer et al., 2005).







Source: EU-LFS 2014

Taking a look at the reasons for taking part-time work reveals that the differences in the prevalence of part-time between men and women and in different age groups may have quite different underlying motivations (see Figure 9). For women, a significant share of part-time is motivated by health reasons or is perceived as involuntary, suggesting that there is unmet demand for full-time jobs. In older age groups, health reasons become less important among women – as many of those with less than good health may opt for retirement once they fulfill the criteria – and family or personal responsibilities gain relevance. Still, a significant share of part-time remains involuntary among women aged 65 or older, and is indicative of the failure of labor policies to efficiently address some of the persistent constraints faced by women in their labor careers (Christiansen, 2016). For men, part-time is mostly due to family or personal responsibilities, apart from Portugal and Slovenia, where health is the main reason for part-time work. In the case of men, the reasons for taking up part-time jobs do not significantly change with age.





PART-TIME EMPLOYMENT IS CONCENTRATED AMONG WOMEN AND BESIDES HEALTH AND CARE OBLIGATIONS, A SIGNIFICANT SHARE OF IT IS INVOLUNTARY AMONG WOMEN

Apart from the involuntary nature of part-time work for many women, it seems that for older age groups part-time work may be a strategy to cope with care obligations or diminished health, albeit poor health while working may have further negative health consequences also in later stages of life. Concerning differences in part-time employment by educational level, in all countries for which data are available, part-time represents a much higher share of the employment among the lower educated, although for most countries the relative and absolute differences are small. This pattern holds regardless of the age group considered.



FIGURE 9 MAIN REASONS FOR PART-TIME EMPLOYMENT, BY GENDER (IN %)



Source: EU-LFS, 2014

The next indicators pertain to inequalities in the gender position of older women in the labor market. The first of these indicators refers to the degree of horizontal segregation, i.e. the extent to which



male and female employment is concentrated in gender-homogeneous sectors. In most countries, both female and male employment in the 55-64 age group are concentrated in sectors where at least 60% of those employed are of the same sex (Figure 10). Female employment is particularly concentrated in the Nordic and Baltic countries, where also female employment rates are comparatively higher, as mentioned before.





HIGH EMPLOYMENT RATES AMONG WOMEN SEEM TO BE ASSOCIATED WITH HIGHLY SEGREGATED LABOR MARKETS

The association of high horizontal segregation with high female employment observed in some countries, particularly the Nordic countries, has been linked to de-familialization policies (Mandel &

Source: EU-LFS, 2014



Shalev, 2009). These policies have been based on the availability of care services (e.g. childcare and long-term care) which not only facilitate the conciliation of care and paid work, but have also in turn created jobs, usually in the public sector, that are overwhelmingly being taken up by women (Hegewisch & Gornick, 2011). This is confirmed by data showing that employment in the public sector makes up for a much higher share of employment among women across Europe, but particularly in the Nordic countries where over 60% of employed women in the 55-64 age group are employed publicly (see Figure A4.1.3. in the Annex). Also, the working conditions of public sector jobs may be less stressful or physically demanding, facilitating the employment of older workers.

Another indicator of gender inequality in the labor market is the share of men and women that are employed as managers – a measure of vertical segregation. In line with previous results in the literature (Christiansen, 2016), Figure 11 shows that for all countries considered, employed men in the age group 55-64 are much more likely to be employed as managers than their female counterparts. Vertical segregation is the lowest in Poland, Slovenia, Hungary, Latvia and Iceland. For those countries with high vertical segregation (e.g. the Netherlands, Belgium, Austria, Denmark), the literature offers several possible causal pathways (Korpi et al., 2013; Bettio et al., 2013; Dieckhoff et al., 2015; Hegewisch & Gornick, 2011; Sparreboom, 2014).

OLDER FEMALE WORKERS FACE A GLASS CEILING IN OCCUPATIONS AND WAGES, EVEN WHERE FEMALE EMPLOYMENT RATES ARE HIGH

High levels of part-time employment may contribute to creating a glass ceiling as managerial positions typically demand a full-time commitment and part-time work may be perceived as signaling lower career commitment or be associated with less possibilities of career advancement (Sparreboom, 2014; Magnusson, 2010). The case of the Netherlands can be seen as an example of this (Albrecht et al., 2009).



FIGURE 11 PROPORTION OF INDIVIDUALS AGED 55 TO 64 EMPLOYED AS MANAGERS, BY GENDER (IN %)

Large gender differences in educational attainment or in the subjects chosen in tertiary education have also been put forward as a possible explanation for vertical segregation and this might be

Source: EU-LFS, 2014



particularly relevant for this cohort of older workers (see section on capacities). Another possible factor are career interruptions for childbearing or care for dependent relatives (see below on level 3 indicators and section 4.2), as these may also hamper the possibilities for career advancement (Bihagen et al., 2014; Hook & Pettit, 2015). Countries in which unpaid caring obligations continue to be taken up disproportionately by women may therefore have particularly pronounced glass ceilings (Korpi et al., 2013).

Vertical and horizontal segregation, as well as gender differences in the prevalence of part-time jobs among those employed are, apart from gender differences in education, some of the main drivers of the gender pay gap. Figure 12 shows the unadjusted gender pay gap, i.e. differences in wages without taking into consideration possible differences in education, part-time work or economic sector between sexes. The wage gap in the 55-64 age group and older is as a rule higher than for the general working age population, which probably reflects the higher education of the present younger cohorts of women and the findings from the literature that differences in career advancement between men and women tend to widen after the childbearing age (Bihagen et al., 2014). The countries with the lowest, or even negative, gender pay gaps in the older age groups tend to coincide with the countries characterized by low female employment rates (see Figure 7 above), which suggests that the small wage differences found could be a product of self-selection: where just few women are employed, these tend to be the ones with greater ability and more career-oriented.



FIGURE 12 GENDER PAY GAP IN UNADJUSTED FORM, DATA FOR 2014 (IN %)

LEVEL 3: INTERRUPTED WORKING CAREERS AND COGNITIVE SKILLS IN INFANCY

As mentioned before, the labor market position of individuals in old age may be very much determined by decisions and events that took place in earlier stages of their life. The *stay/stuck* literature quoted above, for example, highlights financial constraints as one important motivation for some groups of older workers to remain employed, given that short or broken contributory careers may render their old-age pensions insufficient to make ends meet when retiring (OECD, 2011; Määttänen et al., 2014). Insofar as women are more likely to interrupt their labor market attachment to care for children or other dependent people, this impacts not only on their retirement decision, but also on their ability to reach top positions.

Source: Eurostat database



The first indicator we analyze here is the average number of years spent in paid work for those aged 55 and older. The figures confirm that women in this age cohort have spent on average less time in paid work than men, except for Estonia where the difference is not statistically significant. For countries such as Malta (time spent in paid work for women is less than half of men), the Netherlands, Luxembourg and Cyprus, women have spent on average at least 15 years less in paid work than men throughout their working careers (see Figure A4.1.4. in the Annex). For many women in this cohort this could translate into the need to continue working beyond retirement, which is a consequence of the low recognition for unpaid activities and reproductive roles over the life course in European societies. As a result, many older women are faced with a higher risk of poverty, and the need for financial support from their husbands or from the state, as their old-age pension levels tend to be substantially lower than those of men (Bettio et al., 2013). When comparing the richest and the poorest income quintile have spent less time in paid work than those in the uppermost quintile. The exceptions to this are Portugal, Iceland, Norway, Cyprus and Greece, where lower income individuals have spent more time in paid employment than those in the uppermost quintile.

The shorter working careers of lower income individuals may be linked to a higher probability to be affected by unemployment or sickness during their working lives; which would offset the fact that higher income individuals typically enter the labor market later, after completing tertiary education. Despite shorter working careers, lower income individuals may therefore find themselves less able to continue working due to health problems (Currie & Madrian, 1999; French, 2005; Diderichsen et al., 2012). At the same time, some countries might take the strenuous character of the tasks performed by blue-collar workers into account in their pension schemes, thus allowing them to leave the labor market before reaching statutory retirement age. While this would represent a positive outcome in acknowledging more harmful influences over the life course and lower life expectancy of people of lower socio-economic status, in countries where such schemes exist these have had limited success (see Nurmela et al., 2014, for data on Estonia).

A growing body of research has linked outcomes in later stages in life with developments that occur in the early life period. Labor market outcomes in particular have been shown to be sensitive to early childhood poverty - significant negative effect on adult earnings and number of work hours (Duncan et al., 2010), childhood health - significant effect on family income, individual earnings and labor supply (Smith, 2009; Haas et al., 2011), language skills in childhood (Bleakley & Chin, 2004) and social and personal skills - significantly associated with the risk of unemployment (Caspi et al., 1998). A similar association is becoming increasingly more established between cognitive (i.e. literacy, numeracy, memory) and non-cognitive skills in early childhood and labor market achievement in adulthood (Heckman et al., 2006; Ritchie & Bates, 2013). What is more, recent research results suggest that the differential in employment opportunities between medium- and low-skilled workers is better explained by the cognitive skill difference between the two groups rather than the characteristics and regulation of the national labor market (Abrassart, 2013). From this vantage point, the acquisition of solid cognitive skills in early childhood becomes a key predictor of labor market outcomes and of an individual's career development throughout her life span, making the case for early intervention and policies that target early development as part of a life-course approach to active ageing policies.

Based on data from SHARE and SHARELIFE surveys, it is possible to estimate the percentage of people aged 50 and older that had reported having above average mathematical skills in their childhood (at



the age of 10). Although the number of countries covered is relatively small, they are varied enough to cover several regions in Europe. Regarding differences by gender, the percentage of women who had above average mathematical skills in childhood is (statistically) significantly lower than that of men in all countries, except for the Central and Eastern European countries represented in the sample: Estonia, Poland, the Czech Republic and Slovenia. To some extent, the gender gap in mathematical testing can be attributed to differing (i.e. higher) expectations of parents towards boys' performance in mathematics, the socio-economic environment in which girls and boys are being taught and brought up, their learning environment, teachers' practices, and general attitudes about gender roles (reflected e.g. in higher/lower female labor market participation rates) (OECD, 2015b).



FIGURE **13** PROPORTION OF INDIVIDUALS REPORTING ABOVE AVERAGE MATHEMATICAL SKILLS AT AGE **10**, BY INCOME QUINTILE (IN %)

Source: SHARELIFE & SHARE W5

The gender gap in mathematical skills represents an important possible limitation for the employment of women of this cohort at later stages of their life and may have also influenced subsequent choices in terms of education (e.g. which subject to study). Former Communist countries may have placed a greater emphasis in the teaching of natural sciences to both male and female pupils, thus explaining the exception of Central and Eastern European countries. Regarding the reporting of above average mathematical skills by income (see Figure 13), there is a significant income gradient, with those in the upper quintiles more likely to have proven these skills in childhood, confirming earlier results in the literature (Ritchie & Bates, 2013). Spain and Greece stand out as countries with the highest relative inequalities in this respect – in the case of Spain the percentage of those with above average mathematical cognitive skills is overall low (with 22% for men and 16% for women). However, what is perhaps more striking is the similarity between the percentages of people in the lowest and highest income quintiles with above average mathematical skills across countries, ranging from 14 to 27% in the lowest quintile, and from 22 to 47% in the highest quintile, with the aforementioned exceptions of Spain and Greece.


4.2 Participation in society

Active and inclusive participation in society in old-age has the potential to enhance older people's well-being and health, for example by giving individuals a feeling of personal fulfillment, being useful for others or self-respect (Bukov et al., 2002; Hank & Stuck, 2008). The relationships between different types of activities of social participation in old-age are interdependent and most likely also strongly driven by prior social engagement, for example during young adulthood (Mayer et al., 1999). Except for some forms of social participation like co-residential or intensive caregiving to family members, social engagement positively associates with more (socio-economic) resources, like higher income, higher education and more social capital (Bukov et al., 2002). As regards gender differences, even after retirement older men are more likely to perform paid activities outside the home, or be active in political organizations or clubs, while (older) women more often take care of children (or grandchildren), and do more volunteer work and caregiving outside the home (Bukov et al., 2002). At the macro level, previous evidence shows that the differences in participation rates of older people in so-called productive⁶ activities are partly rooted in country variations regarding the older population's characteristics, for example with regard to age composition and educational levels (Hank, 2011). Previous studies find that there is a clear regional clustering in social participation in old-age across Europe. High participation rates across all activities are found in Northern Europe (Belgium, Sweden, Denmark, and the Netherlands) and much lower rates in Mediterranean countries (Greece, Italy, Spain), while Continental European countries fare in the mid-range.

From a policy perspective, higher participation rates associate with higher social spending, higher employment rates (albeit not significantly) and higher values on the civil liberty index (Hank, 2011). Generally, this leads to the conclusion that social participation of older individuals will not happen by itself but rather also requires public investments (Hank & Stuck, 2008). However, an increase in social participation may not occur in all socio-economic groups alike, and gender differences in participation patterns are likely to persist. For example, older people in lower income groups and smaller social networks might be more vulnerable to ageism, which was found to be a barrier for social participation of older people in civil society organizations (Principi et al., 2011).

Among older people, 'younger' age groups and healthier older people are more likely to be engaged in productive ageing activities even though there are inconsistent results as to whether or not volunteering activities decline among the very old (Principi et al., 2011; Mayer et al., 1999). Findings about gender differences also vary, and for voluntary work these are most likely also correlated with differences in income and employment experiences of men and women. In cross-country studies in Europe, a negative association of being employed is found with participation in informal help, volunteering or caregiving activities, even though retired older people were more likely to provide help than those who were unemployed (Hank, 2011). As for interdependencies between different forms of social participation, a major study among very old people (Berlin Aging Study) found evidence for a cumulative effect of different activities, which could mean that those already active in some

⁶ Depending on the degree of resources invested during social activities, a differentiation can be made between consumptive (e.g. playing cards) and productive activities (e.g. volunteering) (Klumb & Maier, 2007), even though sometimes political participation is considered a separate form of participation (Bukov et al., 2002).



forms of activities are also more likely to become engaged in other forms (Bukov et al., 2002; Hank & Stuck, 2008).

LEVEL 1: VOLUNTEERING AND CARING

In line with our findings that those with higher income volunteer more often than their less affluent counterparts (see Figure 14), volunteering has previously been identified as an activity which is mainly reserved for people with access to human, social and cultural resources over the life course (Wilson and Musick, 1997) and in old-age (Principi et al., 2011; Hank, 2011; Hank & Stuck, 2008). Higher education, higher socio-economic status and better health therefore strongly correlate with volunteering activities in old-age (Principi et al., 2011; Principi et al., 2016).

For volunteering we find a divide in inequality patterns between Northern European countries - where relative inequality in participation across income groups tends to be lower (except for Germany), and Southern and Eastern European countries (except for Poland), where larger differences in participation rates between top and bottom income quintiles are present (Figure 14). Exceptions to this pattern are Germany, with high inequality and high overall participation, Great Britain which also displays comparatively large differences between the top and the bottom income quintiles, and Poland where little relative inequality is observed. Poland and Finland are the countries with the smallest absolute and relative difference between the highest and the lowest income group, albeit Poland displays very low participation levels overall among people aged 50 years and older. From an inequalities perspective, Finland therefore fares best, with a moderate participation rate in volunteering activities overall (14.4%), but very low inequality levels across income groups. In addition, in the majority of countries those in the middle income ranges display the highest participation rates. For example, more than four out of 10 people in the second-poorest income quintile in the Netherlands are volunteers (44.4%), and in Ireland a similar proportion is found in the second-richest income quintile (38.5%).



FIGURE 14 VOLUNTEERING PARTICIPATION RATES FOR ADULTS AGED 50 AND ABOVE BY INCOME QUINTILES (IN %)

Source: ESS -6.



THERE IS A GAP IN INEQUALITY PATTERNS FOR VOLUNTEERING BETWEEN NORTHERN EUROPE (HIGHER PARTICIPATION, LOWER INEQUALITY) AND SOUTHERN AND EASTERN EUROPE (LOWER PARTICIPATION, HIGHER INEQUALITY)

No marked gender differences are observed in volunteering patterns, with significant differences between men and women found only for three of the analyzed countries in the age group 50 and older in participation in volunteering activities. In Denmark and Germany men are more likely to volunteer than women (27.9% for men vs. 19.4% for women; and 34.3% vs. 22.9% respectively). By contrast, in Spain women are significantly more likely to become volunteers in the age group analysed (16% for men vs. 25.4% for women).

As for caregiving activities, a differentiation needs to be made between activities that are sporadic in nature and those activities that tend to be more time-intensive and burdensome (Colombo et al., 2011; Schmidt et al., 2016). At the first level of analysis, we consider the former type of caregiving activities, including care to grandchildren, as well as help and support to family members, neighbours or friends inside or outside the home (see Section 3).

Higher income is associated with more frequent provision of help and care in all countries, yet no country pattern emerges with regard to differences in caregiving across income groups. Older people in the bottom income quintile differ the most from those in the top quintile in Slovenia (24.0% versus 45.3%), even though overall rates of informal support provision are low in Slovenia. In Luxembourg and France, too, older people in the poorest income quintile are much less likely to participate in providing social support than those in the richest income quintile (36.3% vs. 50.2% in Luxembourg, and 32.5% vs. 46.0% in France). Informal care provision is, as expected, still predominantly taken on by women. Only in Denmark, Sweden, Belgium and Luxembourg no significant gender differences are found. Interestingly, these are also the countries with very high overall participation in caregiving activities in the older population. Conversely, in Italy, Estonia and the Czech Republic women display the largest differences from men among the 55+ (see Annex A4.2.2).

GENDER DIFFERENCES IN CAREGIVING ARE SMALLEST (AND NOT SIGNIFICANT) IN COUNTRIES WITH HIGHEST PARTICIPATION RATES

As for overall participation in caregiving activities, we observe a North-South divide in care and help provision across countries (Figure 15). The highest share of the population aged 55 years and older providing help and support is found in Denmark and Sweden, while in Spain, Italy and Slovenia only a comparatively small share of the total older population participates in these activities.





FIGURE 15 SHARE OF PEOPLE AGED 55 AND ABOVE PROVIDING HELP AND CARE BY GENDER (IN %)

Source: SHARE Wave 5.

Notes: The indicator does not include informal care provided within the same household. It measures the share of people in the age group 55 and older providing personal care or household help to a family member, friend or neighbor outside the household, or providing care to grandchildren in the year prior to the interview (see Annex 2).

As a third indicator, political participation is considered in the analysis of social participation activities and inequalities. Generally, expressive activities like political engagement tend to dominate in countries with a social democratic welfare tradition like Sweden, where state provision of health, education and social services may have crowded out volunteering in these areas and freed up resources for political participation (Hank, 2011; Lundström and Svedberg, 2003). Conversely, in liberal countries where formal social services are lacking, church-related organizations (which typically rely strongly on the involvement of volunteers) tend to make up for the gaps in state involvement instead, and people therefore become more involved in 'service roles' like informal care provision, and less involved in political participation (Hank, 2011).



FIGURE 16 POLITICAL PARTICIPATION RATES FOR INDIVIDUALS AGED 50 AND ABOVE BY GENDER (IN %)

Source: ESS - 6 and ESS - 7 for Austria



Reflecting this pattern in welfare state traditions, large variation is found in the countries analysed (see Figure 16). The share of people (in the age group 50 years and older) who are politically active ranges from less than 14 per cent in Bulgaria to more than 80 per cent in Sweden. The strongest political engagement is found in the Scandinavian countries and Germany, while low political activity is observed in Central and Eastern European countries, in Baltic countries and in Portugal. In all countries analysed, political participation correlates strongly positively with higher income (see Annex 4.2.3). This corresponds to theories about political engagement, which define political participation as the social activity for which the largest degree of social resources and knowledge are required (Bukov et al., 2002). For example, in the Netherlands in the richest income quintile almost seven out of 10 people in the age group 50 years and older report to be politically active, while the same is true only for three out of 10 in the poorest income quintile. Income differentials in political participation between top and bottom income quintiles are also large in Bulgaria (29.4% vs. 9.1%) and Hungary (21.3% vs. 9.3%) and in Great Britain (70.4% vs. 38.2%). It is well-known that men are more likely to participate in political activities than women (Figure 16). Our results show that, as a rule, in Eastern and Southern European countries (Bulgaria, Portugal, Slovenia, Poland, Cyprus, Czech Republic, Italy) and in Germany this pattern is most pronounced, with men being politically active more than women.

LEVEL 2: FREQUENT CARE PROVISION

A number of previous studies show that co-residential and/or intensive care to frail older people may lead to burden and strain among caregivers, as well as negative psychological consequences or mental health problems (Colombo et al., 2011; Schulz & Sherwood, 2008; Coe & van Houtven, 2009). These negative health consequences may accumulate for people of lower socio-economic status (Colombo et al., 2011). A differentiation between different forms of social participation activities is therefore important to be able to reflect the different implications these activities have for the well-being of the older population as a whole, both in positive and negative terms.

When it comes to heavy caregiving (measured as daily care provision) income patterns are reversed, compared to lighter forms of caregiving (see above). As shown in Figure 17, lower income groups are consistently more likely to provide care on a daily basis than those who are financially better off in all countries analysed (except for Luxembourg). Partly due to methodological constraints (see Section 3.1), Sweden displays the highest (relative) inequality among all countries analysed even though overall levels of intensive care provision are small in Sweden (10.4% in the bottom quintile vs. 4.6% in the top quintile). Switzerland and Slovenia also display high inequalities between income groups in the provision of intensive care, both in absolute and relative terms (26.8% vs. 12.6% in Switzerland, and 69.8% vs. 40.4% in Slovenia). Conversely, more balanced care provision rates across income quintiles are found in Luxembourg, Spain and Austria. Further, our results not only confirm a reverse income pattern, but also a reverse country pattern when comparing light and heavy forms of care provision. While in Northern European countries a larger share of (older) people is involved in providing lighter tasks of help, heavy forms of care tend to be more common in Southern and Eastern Europe, partly due to the lack of available formal long-term care services (Rodrigues et al., 2012).

INCOME PATTERNS ARE REVERSED WHEN IT COMES TO HEAVY CAREGIVING ACTIVITIES COMPARED TO LIGHTER FORMS OF CAREGIVING



Somewhat surprisingly, only in four countries we find significant differences between men and women in daily care provision rates (see Annex 4.2.4). This finding is slightly unexpected as we only measure care provision outside the household, where we women tend to be more involved. Other studies show, however, that men catch up in providing informal care to their frail spouses inside the household, mostly due to gender differences in living arrangements (Rodrigues et al., 2012). Differences between the sexes are confirmed in Luxembourg, Italy, Spain and Belgium, with the largest absolute differences found in Italy (43.7% for women vs. 32.1% for men) and the largest relative differences in Belgium (23.6% for women vs. 12.9% for men). In all the countries where significant differences between men and women are observed, women are involved in providing intensive care to others more often than men.





Source: SHARE, wave 5.

Notes: The indicator does not include informal care provided within the same household. It measures the share of people in the age group 55 and older providing personal care or household help to a family member, friend or neighbor outside the household (at least) on a daily basis in the year prior to the interview (see Annex 2).

Level 3: Children and maternity

Reproductive roles impact on women's participation patterns in paid and unpaid activities not only during their working lives but also in older ages (Arber & Ginn, 1991). Family policies may play a crucial role in increasing fertility rates (regardless of socio-economic status) and increasing female participation in the labor market, for example by improving work-life balance through the introduction of cash benefits, well-paid parental leaves and state childcare facilities (Blum, 2012). The indicators presented here should therefore be interpreted in view of each country's welfare tradition, although the nature of this report does not allow us to delve into much detail on family policy regulations in the countries analyzed (see Section 4.5).

One reflection of gender imbalances in unpaid activities, especially care provision, is the number of children a woman has, as maternity or paternity leaves increase absences from paid employment and



lead to more time spent on unpaid care activities. Depending on the specific design of leave policies (e.g. length or financial benefits), socio-economic differences in fertility between high-income and low-income parents might increase (or decrease), and consequently lead to more (or less) pronounced differences between socio-economic groups in labor market participation over the life course. From the analysis, no clear country pattern emerges, although there is a tendency that in more familialistic countries (like Austria or Italy) a pro-poor gradient exists, while in liberal and de-familialized countries people in the top income quintile have more children than those in the bottom quintile. In fact, in half of the countries analyzed older people in the poorest income group have on average *more* children than the richest income quintile, while in the other half the opposite is true (see Figure 18).

A PRO-POOR GRADIENT IS APPARENT IN MORE FAMILIALISTIC COUNTRIES, WHEREAS IN LIBERAL AND DE-FAMILIALIZED COUNTRIES PEOPLE IN THE TOP INCOME QUINTILE TEND TO HAVE MORE CHILDREN

As for the first group of countries, in Italy, Austria and Germany, the average number of children in the poorest income quintile is 2.13, 2.12 and 2.06 respectively, while in the richest income quintile this number amounts to 1.85, 1.93 and 1.89 respectively. At the same time, in Austria as in some other countries (Denmark, France, Netherlands, Spain, Czech Republic), people in the middle income range are in fact the ones with the highest number of children on average. In the second group of countries, in Estonia, Switzerland and Sweden people in the poorest quintile have respectively 1.67, 1.89 and 2.14 children on average, while in the richest quintile older people on average have 2.21, 2.15 and 2.56 children respectively. Differences in the average number of children across income quintiles are most balanced in Luxembourg and the Netherlands. Not surprisingly, little gender differences are found in the average number of children across countries.



FIGURE 18 AVERAGE NUMBER OF CHILDREN FOR INDIVIDUALS AGED 55 AND ABOVE BY INCOME QUINTILES

Source: SHARE, wave 5



The second indicator in this section (level 3) refers to the average length of maternity leaves over the life course (see Figure 19). In most countries, the longest absences from paid work are recorded in middle income groups, and there is no clear gradient with regard to socio-economic differences. When comparing the richest and the poorest income quintile, the countries with the most balanced spells of maternity leaves across income groups throughout the life course are Belgium, France, the Czech Republic and the Netherlands. Larger differences exist in Denmark and Spain, and in these countries the poorest report longer absences due to maternity leaves than the richest.

The length of maternity leaves is a proxy for the time spent by women caring for new-born children but it is also important because it gives an indication of time spent away from the labor market by women who raise families. It is documented that women who take longer leaves are less likely to return to the labor market and when they do they are more likely to continue with their pre-birth employer (Baker & Milligan, 2008). This raises concerns about the more limited opportunities that mothers returning to work after a prolonged maternity leave might be facing. Furthermore, research has associated longer leaves with lower probabilities of a promotion or upward occupational move once women are back in the work-place (Evertsson & Duvader, 2010), with effects that can carry through their labor career and impact on earning potential and entitlements.





Source: SHARE, wave 5



Ensuring that older people can remain healthy and independent for as long as possible is a crucial dimension of active ageing, acting both as a direct determinant of the experience of ageing and a necessary resource for achievement in other AAI domains, as continued employment and social participation, crucially hinge on an individual's physical and psychological abilities. What is more, health and independence are perceived by older individuals themselves as the core dimensions of successful ageing. Research shows that physical health and functioning are most readily associated with active ageing by older people themselves, with mental functioning and activity also frequently cited (Bowling, 2008). It is therefore particularly worrisome that marked inequalities persist in this domain.

HEALTH AND INDEPENDENCE ARE PERCEIVED BY OLDER INDIVIDUALS THEMSELVES AS THE CORE DIMENSIONS OF SUCCESSFUL AGEING

Health inequalities between different European countries and regions have long been identified and have remained significant although slow convergence has been reported in recent years for some indicators – e.g. life expectancy at birth (Mackenbach, 2006; Marmot, 2013). In all European countries, inequalities in health achievement persist also between different social groups, most often following the distribution of material and financial resources. Indicators like life expectancy and self-assessed health record consistently lower values for individuals who suffer social disadvantages (whether they are measured by education achievement, material deprivation or income) and women tend to report worse health status than men, partly due to their lower socio-economic conditions (Marmot, 2013). The situation is further complicated by old-age, as existing health inequalities become more pronounced in older age groups, both between countries and between social groups (Prus, 2007; Islam, 2010). The literature on the topic remains fairly scarce, but results suggest that deeper inequalities in health among older individuals are correlated with GDP and potential for social participation and life-long learning (Jagger at al., 2008; Mackenbach et al., 2010).

HEALTH INEQUALITIES BECOME MORE PRONOUNCED IN OLDER AGE GROUPS, BOTH BETWEEN COUNTRIES AND BETWEEN SOCIAL GROUPS

Financial independence in older age is also intimately connected with well-being and the ability of older individuals to live the lives they desire. Unfortunately, financial strain and difficulties are more likely to increase in older ages (Bierman, 2014), especially for females and lower educated individuals, although some European countries who enjoy well-developed welfare systems, are better equipped to protect their citizens from facing financial difficulties as they grow older (Niedzwiedz et al., 2015). A parallel but equally worrisome trend reveals that current older population groups are more exposed to the risk of financial strain than previous cohorts and that, as they enter old-age with less accumulated wealth and financial stability they become more prone to be exposed to periods of financial distress (Bierman, 2014). Low income adequacy in old-age severely limits opportunities for independence and active lifestyles and associates with a range of negative health and well-being outcomes. Therefore, health and independence cannot be meaningfully separated from economic security throughout the life course, but more critically so, as individuals enter old-age.



LEVEL 1: HEALTH AND SAFETY AMONG THE OLD

Our results confirm these variations between countries and groups. At the first analysis level, using Healthy Life Expectancy at age 50 as a general indicator of the physical health and capacity for independence in the older population, we uncover wide country variations, ranging from 11.5 healthy life years (HLY) for women and 10.6 HLY for men in Latvia, to 24.9 HLY for women and 26.7 HLY for men in Iceland. While, as a rule, HLY is higher for women than for men, some European countries register an opposing trend; Greece, Spain, Italy, the Netherlands, Portugal, Iceland, Norway and Switzerland are cases in point.





Source: Eurostat

However, researchers have confirmed that while women might enjoy longer life-spans, they are also more prone to experiencing poor health in their older years (Case & Paxson., 2005; Freedman et al., 2016). This is also apparent in our data, if instead of focusing on absolute HLY values, we represent them as percentages of total life expectancy (i.e. what proportion of an individual's expected life-span is spent free of disability). Now males have a decisive advantage in all European countries, irrespective of the general health achievement at the national level (see Annex A4.3.1). In Latvia and Slovakia, where, on average, only 40% of the life expectancy is spent in good health, women lag behind men by almost 10 percentage points. At the other end of the spectrum, in countries like Sweden, Iceland, Norway and Malta, where an individual can expect to live more than 70% of her life-span in good health, the gender gap ranges between 5 and 10 percentage points.

While women enjoy longer life-spans, they are also more prone to experiencing poor health in their older years

At age 55, we already see a clear pattern of gender inequalities in indicators of current self-assessed health. The percentage of males reporting good self-assessed health is systematically higher in virtually all European countries and the differences are statistically significant for all but four of the EU-28 countries (Finland, Germany, Denmark and Ireland) and Norway. Exceptionally, in the UK, a higher proportion of women report good health with respect to men, but this difference (0.6 percentage points) is not statistically significant. Particularly marked are gender differences in



Romania, Cyprus and Spain where the proportion of men reporting good self-assessed health outstrips by 10 percentage points, or more, that of women (see Annex A4.3.2).

A very clear gradient is also apparent when focusing on the income distribution. The specialized literature has long documented this gradient and its persistency in European countries as well as a worrisome trend of increasing inequalities over time (Alvarez-Galvez et al., 2013). In our data, considerably lower proportions of individuals belonging to the poorer population groups report good health as compared to richer individuals (see Figure 21). In Lithuania, the proportion of individuals in good health is almost four times higher among the richest than it is among the poorest individuals aged 55 and older, while in Portugal, Estonia, Latvia and Croatia the same proportion reaches three. Comparatively, countries with overall higher health achievement of their older population (e.g. Denmark, Ireland, Norway, Sweden) register much smaller values for the ratio between top and lowest income individuals. This result supports previous research findings of lower associations between socio-economic factors and perceived health status in Anglo-Saxon and Scandinavian countries, to the detriment of Southern and Eastern European countries. We caution however, that the very marked relative differences we observe are partly a mathematical artifact that can hide fairly large levels of absolute inequality. In the case of Sweden, for example, the absolute difference in the percentage of individuals reporting good health at opposite ends of the income distribution is 31.7 percentage points (favoring the rich), a value only slightly higher than that registered in the Czech Republic (30.6 percentage points). In other words, while in relative terms Sweden is considerably more equal than the Czech Republic in terms of the prevalence of good health across social classes, the absolute differences between rich and poor are comparable between the two countries, with significant inequality remaining to be addressed.



FIGURE 21 PROPORTION OF 55 AND OLDER WITH GOOD SELF-ASSESSED HEALTH BY INCOME QUINTILE (IN % ON LEFT-HAND AXIS)

Another important facet of the independent, healthy and secure living domain is the perceived level of safety of older individuals in their homes and local environments. Feelings of safety and security are associated with higher subjective well-being, better physical (Chastin et al., 2015) and mental health

Source: EU-SILC, 2012



(Beard et al., 2009), increased physical activity (Shenassa et al., 2006) and walking in older adults (de Leon et al., 2009), helping them remain active and mobile. The sense of neighborhood and of safety is also paramount for social connectedness in older adults, especially those who live alone and who rely on their community for social support. We find that, in most European countries the majority of older male adults feel safe walking in their neighborhoods alone: from virtually 100% in Finland, Iceland and Denmark to over 70% in Bulgaria, while Lithuania stands out as the country with the lowest levels of perceived safety among older individuals in our sample – under 60% (see Annex A4.3.3). This is, however, a privilege that women share in only in part, with extremely marked (statistically significant) gender differences in all countries except Hungary and Slovenia. Even in front-runner countries, where almost all men feel safe in their neighborhoods, the gender gap spreads 15 to 20 percentage points, highlighting the disadvantaged position of older women, who, in addition, are more likely to live alone and thus more prone to isolation. Not surprisingly, richer individuals who are likely to live in more affluent and more secure neighborhoods, report more often that they feel safe in their surroundings with respect to lower income older people (see Annex A4.3.2).

The majority of older male Europeans feel safe in their neighborhoods but gender differences in perceived safety are extremely marked

Higher perceived safety is associated also with more sparsely populated areas, with individuals from rural or small town communities reporting more often feelings of safety with respect to urban dwellers (Eurostat, 2015). Nonetheless, inequalities between social classes are smaller than those by gender, with only the Netherlands and Belgium registering proportions of individuals feeling safe more than 1.5 times higher in the upper income quintile with respect to the lowest one.





It is also worth noting that perceived physical safety, while comparable for young and older adults, becomes strongly associated with age in older population cohorts. In fact, perceived safety is considerably lower for individuals aged 65 to 74 as compared to the 55 to 64 age bracket and lowest among the oldest age groups - more than 40% of Europeans aged 75 and older perceive insecurity in

Source: ESS – 6



their daily lives (Eurostat, 2015). Due to the fact that perceived safety in one's neighborhood has been linked to rates of physical activity (Tucker-Seeley et al., 2009), functional decline (Sun et al., 2012), mobility disability (Clark et al., 2009), depressive symptoms (Wilson-Genderson & Pruchno, 2013) and other key well-being outcomes among older adults, active ageing policies should explicitly address the development of age-friendly communities and attempt to reduce feelings of perceived insecurity, especially among older women.

Level 2: Behavioral risks and access to care

A growing body of literature attests that one of the main mechanisms through which health inequalities are clustered around gender and social class is via the unequal distribution of risk factors and risky health behaviors among these groups (Adler & Ostrove, 1999). Lower income individuals tend to engage more often in behaviors that are associated with poorer health outcomes and lead lifestyles that expose them to greater health risks (Lynch et al., 1997). Similarly, women and men, via different social trajectories and differences in health behaviors can expose themselves to dissimilar health risks. Due to the increased prevalence of chronic conditions in the older European population groups and their significant contribution to morbidity and mortality (WHO 2010; Busse et al. 2010), we focus on the main risk behaviors associated with non-communicable diseases: physical activity, smoking and alcohol consumption (Lanz et al., 2001; Lynch et al., 1997).



FIGURE 23 PERCENTAGE OF INDIVIDUALS 55AND OLDER WHO ARE CURRENTLY SMOKING, BY INCOME QUINTILE (IN %)

Source: SHARE Wave 5

The prevalence of smoking among the 55 and older Europeans is generally higher among individuals in lower social groups than among high-income individuals, although Slovenia, Spain and France are exceptions to this rule. Interestingly, they are also among the European countries with the lowest prevalence of smoking in the older population groups. The most pronounced differences are apparent in Sweden, Luxembourg and the Netherlands, where the prevalence of smoking is almost twice as large among the poorest with respect to the richest individuals, while in Austria, Belgium, Italy and



Switzerland there is no income gradient. Gender based differences are also non-systematic across European countries (see Annex A4.3.4). While on average prevalence rates for smoking are higher among older men, women smoke significantly more than men in Sweden and Luxembourg, while the opposite is true only in Austria, Italy, France, Belgium and Estonia.

CURRENT SMOKING IS MORE COMMON AMONG HIGH INCOME INDIVIDUALS IN THE EUROPEAN COUNTRIES WITH THE LOWEST SMOKING PREVALENCE FOR THE 55 AND OLDER GROUP

Unlike smoking behavior, participation in vigorous physical activities shows a pronounced gender gap. Men are more likely to engage in physical activity in all analyzed countries, with statistically significant and pronounced differences (see Annex A4.3.5). Exceptionally, in the Netherlands, Denmark and Luxembourg we find the observed gender differences are not statistically significant. Our finding is in line with previous research results attesting to lower activity levels, especially leisure-time physical activity, among older women both in the general population (Sun et al., 2013) and among those suffering from chronic conditions (Lin et al., 2010). This systematic gender gap has implications for numerous physical and mental health outcomes - noteworthy among them the subsequent incidence of depression (Strawbridge et al., 2002) and should be taken into account when designing intervention and programs promoting active lifestyles among older people.



FIGURE 24 PROPORTION OF INDIVIDUALS DOING VIGOROUS PHYSICAL ACTIVITY AT LEAST ONCE A WEEK BY INCOME QUINTILE (IN %)

Figure 24 reveals an equally marked gap between physical activity levels at opposite ends of the income distribution, with a positive gradient strongly favoring richer individuals in all analyzed European countries. The most marked relative inequalities are registered in France, where the proportion of high income older people doing vigorous physical activity is more than twice as large as

Source: SHARE Wave 5



that among the poorest groups. However, one could argue that cross-country differences in relative inequalities (ranging between 1.3 and 2.1) pale in comparison to the more evident and worrisome gaps in overall participation levels: only one in four older Spaniards does vigorous physical activity, compared to almost 2 in 3 older Dutch. Our finding is supported by a review of the specialized literature, where Gidlow and colleagues (2006) found the strong association of high income and education with increased levels of moderate and intense leisure physical activity to be well established in the specialized literature. In turn, physical activity, especially among the younger old has multiple beneficial health effects and can delay functional and cognitive decline in older ages. One could maybe argue that lower income individuals tend to have more physically demanding jobs and therefore less energy and willingness to engage in leisure physical activity but could still rip the effects of leading an active life. Interestingly, the few studies that have addressed this topic find that while physical activity during leisure time reduces risks for several diseases, physical activity at work increases health risks (Holtermann et al., 2009; Diderichsen et al., 2015).

LEISURE-TIME PHYSICAL ACTIVITY, KNOWN TO DELAY THE ONSET OF FUNCTIONAL AND COGNITIVE DECLINE, IS DISPROPORTIONATELY CONCENTRATED AMONG THE RICH THROUGHOUT EUROPE

Finally, the frequent consumption of alcohol among older individuals (55 and older), a known risk factor for a host of health issues (Lopez et al., 2006), also shows pronounced inequalities by social class and especially by gender. In line with previous research results, we find men consume more alcohol than women in all European countries, by very large margins (Simpura & Karlsson, 2001).



FIGURE 25 PERCENTAGE OF INDIVIDUALS CONSUMING ALCOHOL ALMOST EVERY DAY BY GENDER (IN %)

Source: SHARE Wave5

In Northern European countries, where the average consumption of alcohol almost every day is much more common in the older population as a whole (reaching as much as a third of the older population in Denmark), the proportion of men who frequently drink is generally double that of the women who engage in frequent alcohol consumption. At the opposite extreme, in Southern European countries (where alcohol consumption levels tend to be significantly lower) the gender gap widens considerably:



the prevalence of frequent drinking behavior among men in Spain and Italy is four times larger than for women.

While alcohol abuse is generally associated with poverty and deprivation (Rao et al., 2015), we find alcohol consumption to be more common among higher income older individuals. We specify that, our indicator measures consumption frequency (i.e. almost every day) although not necessary high consumption in volume, as no mention is made on the quantity consumed. Therefore, our indicator can unfortunately not capture drinking behavior (i.e. binge-drinking) that most strongly correlates with severe negative health and social outcomes. We generally find the largest differences in prevalence of drinking behavior between poorer and richer individuals in those countries where average consumption is high; in Denmark, the Netherlands and Sweden, the proportion of high income individuals engaging in frequent alcohol consumption is twice that registered among the lowest earners (see Annex A4.3.6). Exceptionally, in France, a country with average alcohol consumption levels, social class inequality reaches similar levels. Conversely, in countries with overall lower rates of frequent alcohol consumption among older individuals (e.g. Italy, Slovenia, Austria) the social class gradient is significantly flattened or completely absent. Such country differences are certainly driven to some extent by socially and culturally determined alcohol consumption habits (Heath, 1995).

THE LARGEST DIFFERENCES IN PREVALENCE OF DRINKING BEHAVIOR BETWEEN POORER AND RICHER OLDER INDIVIDUALS ARE APPARENT IN COUNTRIES WHERE AVERAGE CONSUMPTION IS HIGH

Another important aspect of socio-economic inequalities in health relates to the existence of barriers to accessing health care services, which in turn limits the ability of older individual to address and remediate health problems in a timely manner or benefit from screening and preventive initiatives. Large differences between European countries with respect to the proportion of their population that reports having care needs that were not addressed with proper access to care services are well documented (OECD, 2012). Our analysis confirms these gaps (see Figure 26), with Latvia, Romania, Poland and Greece standing out for high proportions of individual with unmet care needs, while the Netherlands, Slovenia, Belgium and Malta position themselves at the opposite pole. We caution here than country-based comparisons on self-reported indicators of unmet care needs are problematic, as reporting is affected by culturally determined individual expectations on what the appropriate level of care should be. As there is little reason to assume that within-country cultural differences would be strong enough to induce such biases, group comparisons within countries are not affected by the same limitation.

Large gaps in access to care are apparent between different income groups, with the poorer individuals more likely to report unmet care needs in all European countries (incomplete data for Austria does not allow the calculation of inequality indicators). This systematic trend, supported by previous research results (Cylus & Papanicolas, 2015), is related to a myriad of system characteristics and shows little correlation with the average proportion of the 55 and older population that reports unmet care needs. In fact, the highest relative gap between the richest and the poorest income groups is registered in Belgium (Q5/Q1 value equals 16 - not shown in graph), where the richest individuals are enjoying virtually full access to care (only 0.3% of older people in the highest income quintile report unmet care needs). In absolute terms however (a gap of 5.5 percentage points), Belgium performs better than the EU28 average. Hungary and Greece display high income inequality



in access to care, both in absolute and relative terms, while Denmark and Slovenia stand out for high equality according to both measures. Finally, for Romania and Latvia, due to generally high percentages of individuals facing barriers in access to care, relative inequality remains fairly contained, while absolute differences between the rich and the poor are extremely wide (approximately 20 percentage points).



FIGURE **26** PERCENTAGE OF INDIVIDUALS AGED **55** AND OLDER WITH UNMET HEALTHCARE NEEDS BY INCOME QUINTILE (IN %)

Gender differences in access to care in European countries tend to favor men, but are generally marginal (see Annex A4.3.7). Exceptions are Romania, Estonia and Finland, where women are statistically more likely than men to report unmet care needs, with gender gaps of 10, 5 and respectively 3 percentage points.

IN SOME EUROPEAN COUNTRIES (EL, HU & BE) THE PROPORTION OF INDIVIDUALS REPORTING UNMET CARE NEEDS IS MORE THAN 9 TIMES HIGHER IN THE POOREST INCOME QUINTILE THAN IN THE RICHEST

The final aspect we consider among our Level 2 indicators is perceived financial distress or perceived income adequacy, derived from individual reports of difficulties in making ends meet (see Figure 27). Previous research established income adequacy as a valid reflection of more objective economic security measures for older individuals and associations with poor health status, employment status, financial expectations and low education (Litwin & Sapir, 2009). In fact, individuals who experience financial distress in old-age show lower levels of well-being, but this relationship can be mitigated in countries where welfare systems are well developed (Niedzwiedz et al., 2015). Previous studies have identified higher levels of perceived financial distress in Eastern European and Southern European countries and found that the impact of such financial difficulties is particularly large when manifest in early old-age (Niedzwiedz et al., 2015).

LARGE CROSS-COUNTRY DISPARITIES PERSIST WITH RESPECT TO PERCEIVED INCOME ADEQUACY IN OLD-AGE

Source: EU-SILC, 2014



Our data confirms this geographical pattern, with considerably lower rates of individuals reporting financial distress in Denmark, Switzerland, Sweden and the Netherlands (less than 10% of the older population) than in Spain, Italy, Estonia or Slovenia (more than 40% of the older population). A strong inverse income gradient is apparent in all analyzed countries, with considerably higher proportions of older people reporting financial distress in lower income quintiles. One in four older Swiss citizens in the lowest income quintile has faced difficulties in making ends meet but virtually none (less than 2%) of the high income older individuals was confronted with financial distress, but only 1 in 3 in the top income quintile. While relative inequality indices suggest higher polarization in more affluent societies (e.g. Switzerland, Sweden) absolute inequalities are considerably wider in lower average income countries (e.g. Italy). It is therefore difficult to conclude which countries perform better in terms of inequality, but it is evident that all European countries face a disproportionately high concentration of financial distress events among their lower income citizens.





Source: SHARE Wave 5

We also note a clear gender imbalance in the proportion of individuals reporting financial distress (see A4.3.8), in line with previous research results (McCarthy, 2011). In all analyzed countries older women are more prone to facing financial difficulties, although the measured differences are statistically significant only in half of the countries in our sample: Austria, Sweden, France, Belgium, the Czech Republic, Estonia and Slovenia. This is not surprising in view of the gender pay and pensions gaps documented for all European countries (see Section 4.1.2)(Bettio et al., 2013). Previous cross-country studies in Europe have also shown that older women are less likely to overcome periods of financial distress, especially when they do not have a partner, are lower educated or suffer from poor health (Bonfatti et al., 2015).



LEVEL 3: RISK FACTORS DURING THE LIFE COURSE

Health achievement and inequalities in older ages are strongly linked with events over the entire lifecourse of the individual, from early childhood conditions (Brandt et al., 2012) to poverty and prolonged material deprivation (McDonough, 2005) and risky health behaviors (Lynch et al., 1997) during adulthood. Such findings reinforce the importance of prevention and interventions throughout the life-span in order to improve the experience of ageing in an equitable way for all social and gender groups.

If we reconsider smoking as a health risk factor, but this time take a life course perspective and analyze smoking behavior at any point during the individual's life, inequality patterns shift both along gender and social class lines. This is a direct effect of the shift in smoking behavior in later life, likely connected with sustained anti-smoking public health policies throughout Europe. In fact, the proportion of smokers in the population significantly decreases after age 55 (Eurostat, 2015). Whereas current smoking at age 55 or above shows a clear association with lower income, this effect disappears or is reversed when considering the proportion of the older population that has ever smoked (see Annex A4.3.9). This is a strong indication of the fact that anti-smoking campaigns in Europe have mostly been successful in curtailing smoking behavior among higher income groups, while the effectiveness in disadvantaged and low income populations has been much more limited (Diderichsen et al., 2015).

WHEREAS CURRENT SMOKING HAS A CLEAR ASSOCIATION WITH LOWER INCOME, THE EFFECT DISAPPEARS OR IS REVERSED WHEN CONSIDERING THE PROPORTION OF THE 55 AND OLDER WHO HAS EVER SMOKED

While the differences tend to be small, in most European countries, the percentage of current and former smokers is higher in the top income groups. Exceptions are Denmark, Luxembourg and Sweden, where no gradient is discernible. Gender differences, in contrast, are both systematic and very pronounced. More than one in every two men in Europe and as many as two in three in the Netherlands and Estonia have ever smoked, while among females prevalence rates are considerably lower with statistically significant differences in all countries in our sample. Particularly large gender gaps are apparent in Spain and Estonia, while Denmark and Sweden stand out for more comparable smoking prevalence rates between genders.



FIGURE 28 PERCENTAGE OF INDIVIDUALS AGE 55 AND OLDER WHO REPORT EVER HAVING SMOKED BY GENDER (IN %)

Source: SHARE Wave 5



Another important determinant of health and independence in older age can be traced back to the beginning of the life course. Early childhood conditions and the exposure to poverty and deprivation during these crucial formative years can have long-lasting effects on a whole spectrum of health outcomes (Brandt et al., 2012) as well as on education and labor market potential. Children from disadvantaged backgrounds can be expected to accrue health disadvantages throughout the life course, putting them in a vulnerable position in later life.

While we find virtually no gender differences in the likelihood of provenance from a poor family across European countries (see Annex A4.3.10), there is ample evidence of low social mobility in some of the analyzed countries (see Figure 29). This is most apparent in Italy and Luxembourg, countries where the proportion of individuals from disadvantaged backgrounds is more than two times higher amongst the poorest than among the richest. Spain, Slovenia and Estonia, where the general level of poverty in childhood is considerably higher show significantly lower relative inequalities along the income distribution.



FIGURE 29 PERCENTAGE OF INDIVIDUALS FROM POOR FAMILIES DURING CHILDHOOD BY INCOME QUINTILE (IN %)

Source: SHARE Wave 5

Low social mobility in some European countries reinforces a negative cycle of poverty and negative health outcomes

Denmark, a recognized front-runner in social mobility in the world (OECD, 2010), outperforms all countries in our sample in terms of equality between different income groups, closely followed by Switzerland. In these two countries it is virtually just as probable for a child from a poor family to reach the top of the income distribution at the end of her adult years as it is for a child from a rich family, for the current cohort of older people. While social mobility and equality of opportunity are key social goals in themselves, we emphasize their potential to act as breakers of vicious circles, whereby unfavorable childhood circumstances can be turned around and their impact on old-age health and social outcomes can be curtailed⁷.

⁷ The mortality bias (i.e. higher early mortality among lower income groups) can skew results



4.4 CAPACITY AND ENABLING ENVIRONMENT

A diverse body of research has proposed a number of determinants of life satisfaction and unhappiness at the individual level. These include suffering from poor health and activity limitations (Dolan et al 2008, Angelini et al 2012), being divorced or separated (Diener et al., 1999; Dolan et al., 2008), having limited social contacts or experiencing loneliness (Dolan et al., 2008) and having mental health problems (Lelkes, 2013). When transposed to a comparative setting at the country level, research has highlighted the impact of institutional factors – liable to be directly impacted by public policies – such as economic prosperity, limited inequality in society and existence of a safety net (i.e. social protection), as well as the political environment of the country (e.g. individual freedom or perceived political stability or absence of conflict) in explaining inter-country differences (Böhnke, 2008). Furthermore, the importance of these factors in explaining differences in life satisfaction and unhappiness seems to vary according to the income level of countries: in richer countries, personal income has a lower impact on life satisfaction; while institutional factors have a greater impact when governance quality is low (Böhnke, 2008).

Regarding life satisfaction among older people, our findings suggest small or non-existent gender differences within countries as in almost every single country gender differences are not statistically different from zero. The exceptions to the lack of gender differences are Denmark and Finland, both with high levels of life satisfaction reported among the 55 and older (see Annex A4.4.1). Concerning income, the picture is quite different since there is a substantial income gradient in life satisfaction, with more affluent individuals reporting on average higher life satisfaction. For the majority of countries, the probability of reporting high life satisfaction is at least twice as high among the uppermost income quintile as in the lowest income quintile. For Hungary, this difference is sevenfold in favor of the more affluent.



FIGURE **30** PROPORTION OF INDIVIDUALS AGED **55** AND ABOVE REPORTING OVERALL HIGH LIFE SATISFACTION, BY INCOME QUINTILE (IN %)

It is not only relative differences between income quintiles that are substantial, but absolute differences too. In nearly every country, the absolute difference between the two extreme quintiles is

Source: EU-SILC 2014



in the two digits, even for countries like Denmark and Sweden, which have a low relative difference in the probability to report high life satisfaction between the richest and the poorest income quintiles. The existence and direction of the income inequalities in life satisfaction are arguably not surprising, given the existing differences between quintiles in many of the individual factors that determine life satisfaction (e.g. health problems); and the fact that income is itself an explanatory factor for life satisfaction (Lelkes 2008). The lack of gender differences is perhaps surprising, given the higher prevalence of poor health and widowhood – both determinants of (low) life satisfaction – among older women; although the effect of widowhood could be partially minimised by maintaining social contacts.

Concerning older people that expressed feeling depressed – a measure of unhappiness or 'misery' – there are significant gender differences within most European countries, with women more prone to report feelings of depression. The gender differences are particularly high (in absolute terms) for France, Spain, Italy, Lithuania, Belgium and Portugal (see Annex A4.4.2). As for income differences, a much greater share of those in the poorer income quintile report feeling depressed, i.e. the relative differences between the richest and poorest income quintiles are high. However, there is a remarkable consistency in the share of more affluent older people (i.e. in the uppermost quintile) that report feeling depressed across most countries, if one excludes Portugal, Cyprus and Greece; the share of people in the more affluent quintiles who report being depressed ranges between 1.5 and 8.9 percent (see Figure 31). The observed variation between countries is much higher for those in the lower income quintiles; as the share of those who report being depressed ranges from 5.7 to 25.9 percent.





This means that richer individuals across European countries are relatively similar in their reporting of feeling depressed; while there is a greater inter-country variance for the lowest income quintile. Despite the fact that relative differences are high, it should be noted that for most countries the absolute differences between the poorest and the richest quintiles are below ten percentage points.

Source: EU-SILC 2014



The literature has identified several determinants of loneliness among older people at an individual level. Less affluent older people may lack the necessary financial means to socialize and tend to have more limited social networks (Litwin, 2009; Pinquart & Sörensen, 2001); living arrangements, such as co-residing with the partner/spouse or being part of an extended household (e.g. with children) may contribute to limit the feelings of social isolation (Dykstra, 2009; Fokkema et al,. 2012) and differences in living arrangements may partially explain the fact that in some studies women have more often reported loneliness in old-age than men (Pinguart & Sörensen, 2001). However, individuals in older couples may still feel isolated if, for example, their caring duties towards a dependent partner prevent them from socializing with other relatives or friends. Older people who are more socially integrated in their communities (e.g. through volunteering or church attendance) may also feel less lonely, even if they live alone (Pinquart & Sörensen, 2001). Concerning country differences, the literature has long identified a paradox in which more individualistic societies in Northern Europe tend to have lower prevalence rates of loneliness in old-age than more collectivist societies in Southern Europe; while Central and Eastern Europe usually show higher social isolation than Western Europe (Dykstra, 2009; Fokkema et al., 2012). Some have pointed out to the possible mediating influence of lower inequality in society overall and more generous safety nets (e.g. access to health and care, higher pensions) in accounting for lower levels of loneliness among older adults in some countries (Ellwardt et al., 2014), but evidence remains mixed.

Despite women being more likely to be widowed in old-age, there are hardly any gender differences in social contacts

With the exception of Bulgaria and Lithuania, there are no statistically significant differences between women and men regarding maintaining regular social contacts; and even for these two countries, the magnitude of the differences is very small (see Annex A4.4.3). The difference in the probability of maintaining regular contacts between the poorest and richest income quintiles is the highest for Hungary and Lithuania, both in relative and absolute terms. Both countries have relatively low levels of social connectedness in general, which partially accounts for the relative differences found. Other countries mostly have low relative differences between the two extreme income quintiles (see Figure 32). However, Poland, Estonia, Ireland, Germany, Bulgaria, Slovenia, Spain and the Czech Republic all have absolute differences between the extreme quintiles in the two digits and could thus be considered to be relatively unequal in older people's ability to maintain regular social contacts. The United Kingdom and Belgium show none or almost no differences between the lowest and highest income quintiles; with social connectedness exhibiting a U-shaped pattern in terms of income for these countries. Apart from Hungary, clearly an outlier in terms of (low) social contacts among older people, richer older individuals across Europe are similar in their ability to maintain social contacts; with inter-country differences in income inequality being determined mostly by the variance of the poorest income quintile.

The absence of gender differences may be the result of several contradictory factors. Women's status as housewives and carers and their living arrangements (higher share living alone, partially reflecting differences in life expectancy) may make them more prone to social isolation, although women are also seen as more active in maintaining interpersonal relationships (Pinquart % Sörensen, 2001; Gierveld & Havens, 2004).





FIGURE 32 PROPORTION OF INDIVIDUALS AGED 50 AND ABOVE WHO MEET SOCIALLY WITH FRIENDS, RELATIVES OR WORK COLLEAGUES AT LEAST ONCE A MONTH, BY INCOME QUINTILE (IN %)

Source: ESS - 6

The lack of country differences may reflect the fact that intergenerational households in Southern Europe may insulate older widowed women from loneliness in a similar way that more generous social protection systems in Northern Europe provide older people with sufficient resources (financial and care) to maintain social contacts. The socio-economic differences found are in line with the literature on the subject. The fact that they are particularly relevant in mostly Eastern countries and Spain could reflect greater financial difficulties faced by older people in these countries – a factor associated with loneliness – higher prevalence of health problems in old-age, or effects from the lingering legacy of communism (Fokkema et al., 2012).

While some factors such as socio-economic resources and health status, or institutionalization seem to be correlated with feelings of control and autonomy (Wardle et al., 2004; Callaghan & Towers, 2014), there is scarce literature on the determinants of control among older people in Europe. Existing literature on the United States has found a mostly positive impact of employment for older workers; while highlighting that women may feel less in control over their life in old-age due to a series of cumulative disadvantages, such as lower education, a history of part-time employment or periods of inactivity and physical limitations (Ross & Mirowsky, 2002). At later stages in life, loss of spouse or partner for men and physical limitations or chronic conditions for women is also associated with limited sense of control (Danigelis & McIntosh, 2001). As regards country differences the little evidence that exists seems to highlight that people that lived under communist rule in Eastern Europe may have a perception of limited control over their lives (Wardle et al., 2004) – a point confirmed by our data. There are significant gender differences in the share of people that report feeling in control over their lives observed for Lithuania, Czech Republic, Cyprus, Bulgaria, Spain, Portugal, Sweden and Iceland. In all these countries, except Iceland, women are less likely to feel free to make decisions concerning their lives (see Annex A4.4.4).

As for differences based on financial resources, Bulgaria and Lithuania stand out as countries with relatively high income inequality in this indicator (in both cases favoring higher income older



individuals) both in relative and absolute terms. For other countries, such as Hungary, Poland, Czech Republic, Slovenia, but also Sweden and Denmark, older individuals from lower income quintiles are also relatively more disadvantaged in terms of feeling in control. Conversely, in the United Kingdom, Norway, Estonia and Belgium, a higher share of older people among the poorest quintile perceive to have control over their lives than their richest counterparts; a finding that is somewhat counterintuitive with the available literature, although the absolute and relative differences between the quintiles are in these cases relatively small.





The country differences found show that gender and socio-economic differences in feelings of control among older people cut across quite dissimilar countries, making it difficult to identify which factors are behind these differences. For example, greater economic deprivation among older people in Eastern and Southern Europe could translate into lower feelings of control, but it is not clear how this would apply to Denmark and Sweden (although the latter has also a very pronounced socio-economic gradient concerning making ends meet – see health and independent living domain).

EDUCATION IS BY FAR THE INDICATOR IN THIS DOMAIN WITH THE LARGEST GENDER DIFFERENCES

Education (i.e. having secondary or higher education) is by far the indicator in this domain that shows larger significant gender inequalities. In fact, only Ireland, Finland, Bulgaria and Latvia show no statistically significant gender differences in education in this cohort of older people. In all other countries, except Estonia, women are much less likely to have secondary or upper education than men. There is no clear pattern in terms of gender differences, with countries apparently as diverse as Iceland, Romania, Luxembourg, Austria or the Netherlands showing very marked gender differences.

Source: ESS - 6





FIGURE 34 PROPORTION OF INDIVIDUALS AGED 55 AND ABOVE WITH UPPER SECONDARY OR TERTIARY EDUCATION, BY GENDER (IN %)

Source: EU-SILC 2014

There is a clear relationship between education and income for this age group in all countries, with a far greater share of those in the highest income quintile having secondary or upper education. The socio-economic gradient is particularly extreme in Portugal, where for each older person with secondary or higher education in the lowest income quintile there are sixteen with similar education attainment in the uppermost quintile.





Source: EU-SILC 2014



The greatest income inequalities in education in older age groups are found in the Mediterranean countries and Romania. In these countries, the most affluent older individuals are at least three times as likely to have secondary or higher education than their least affluent counterparts (or five or even eight times as likely, as in the case of Romania or Malta, respectively). The share of those in the highest income quintile with secondary or upper education is fairly similar across European countries (usually around 80%); however, for Portugal, Malta, Spain, Italy and Greece, even the highest income quintile has a sizeable share of older people without secondary or upper education – for Malta and Portugal even among the richest, the majority of older people has less than secondary education. In fact, the relative socio-economic gradient of secondary and higher education is particularly high for countries where less than half of the older population has secondary or higher education (except for Ireland and UK).

Possessing higher education in old-age exhibits very significant gender and socio-economic gradients. The income gradient is hardly surprising as education is a strong determinant of income during the working life, which carries on to retirement income (even if pensions may somewhat dilute income differences in old-age). In countries which previously had lagged behind in education investment – the Mediterranean countries, for example – the link between income in this cohort and higher education is even greater, as the latter was probably confined to socio-economic and political elites. Gender differences in higher education reflect the fact that when this cohort of older people was of working age, the male breadwinner model was dominant in many countries. Confined to traditional caring or housewife roles, or to gender-profiled professions or positions, this cohort of women had less access to higher education across Europe than their male counterparts. There seems to be a clear legacy aspect in inequalities in education in old-age and as younger cohorts of women have significantly improved their educational attainment, this picture is likely to change in the future as these cohorts reach old-age.



4.5 The bigger picture: AAI scores and inequalities in active ageing

The previous sections have uncovered the existence of different capacities and experiences of active ageing by gender and socio-economic condition across European countries. The aims of this section are twofold. First, it sets out to explore how inequalities may be linked to the overall average performance of countries in different dimensions of active ageing with a group of selected inequality indicators. In other words, do countries that perform better in terms of active ageing also show lower inequalities by gender or socio-economic condition? To this end, we first compare the overall average performance in terms of active ageing assessed by the country score for each domain of the AAI. Secondly, it aims to assess how inequalities in different domains may be linked to each other. To this end, we investigate interdependencies between inequalities in different areas of active ageing.

We begin by comparing the score of the employment domain of the AAI with the relative inequality by socio-economic condition and gender for the employment rate of the 55-64 (Figure 36). There is a noticeable relationship between performing well in the employment domain of the AAI and having much less inequalities in the employment rate of the 55-64. In other words, countries which perform well on integrating older women and people of lower socio-economic status in the labor market are also likely to display higher overall employment levels in the older population. The gradient is particularly pronounced for gender, which exhibits a strong association between higher AAI scores for this domain and lower inequalities in the employment rate (this association is even stronger if the outlier Malta is removed – R^2 of 0.3602).

Regarding relative socio-economic inequalities (left graph on Figure 36), we can observe two broad clusters of countries. The first cluster, which can be found on the upper left of Figure 36, includes most of the front-runners in the AAI employment domain and is characterized by relatively low relative socio-economic inequalities. Of the AAI front-runners only Latvia and Lithuania are not part of this cluster as both achieve high scores in the employment domain of the AAI while having high socio-economic inequalities. The second cluster, which can be found in the lower right of the graph on Figure 36, includes most of the countries that score low on this AAI domain and which at the same time have high socio-economic inequalities in employment. Among the AAI low performers, Greece and France are in turn the exception as they also display low socio-economic inequality in employment levels. This suggests that gender and socio-economic inequalities in employment. In other words, increasing the employment rate of the less educated – socio-economic inequalities were defined around education for this indicator in our analysis (see Section 4.1) – and women may be key to improve employment levels among older workers in many of the least performing countries.

It is worth bearing in mind that in some countries the higher levels of inequality in the employment of older workers with lower qualifications may reflect policies that account for the fact that blue-collar workers tend to work in more harmful environments and perform more strenuous tasks than others, contributing to reduced life expectancy. In these cases, higher levels of inequality in the employment domain may in fact represent an adequate response to inequalities in other fields such as health and mortality from the countries in question (see section 5.1).



FIGURE 36 INEQUALITIES IN THE EMPLOYMENT RATE OF THE 55-64 YEAR OLD GROUP AND AAI EMPLOYMENT



Concerning the participation domain, we compared the overall performance with relative inequality observed for two indicators of social participation: providing any (informal) care and volunteering. There is no relationship between the country score in the participation domain of the AAI and relative socio-economic inequality in the provision of care. For gender inequality, on the other hand, countries with a higher score in the AAI domain of participation are also those where inequalities are the lowest. In other words, in countries in which older men are also actively involved in the provision of care to family members, overall levels of involvement of the older population tend to be high.

FIGURE 37 INEQUALITIES IN INFORMAL CARE PROVISION AND VOLUNTEERING RATES AND AAI SOCIAL PARTICIPATION DOMAIN ACHIEVEMENT



30 domain 25 ŧ. Participation AAI $R^2 = 0.1747$ 20 15 • line 10 for the F quality 5 Sore 0 0.00 0.25 0.50 0.75 1.00 1.25 1.50 1.75 2.00 Relative inequality

Informal care: gender inequalities and AAI score

Volunteering: socio-economic inequalities and AAI score







Note: The two graphs for volunteering have different scales on the horizontal axis.



For volunteering, we observe an opposite trend: lower socio-economic inequalities are associated with higher scores for the AAI domain of participation, while there is no apparent relationship with gender inequality in volunteering. This underscores the different nature of these two types of social participation in old age (Principi et al., 2016; Schmidt et al., 2016), but also the marked gendered differences in the provision of volunteering and informal care alluded to in the previous sections. Among older people, women are more likely to provide informal care in all countries considered; while in volunteering, inequalities are not systematically on women across countries - in Figure 37 for volunteering, there are almost as many countries to the left of the inequality line as there are on the right of it. In order to increase volunteering activities in the older population, policy-makers may aim to identify the barriers for volunteering that people in lower income groups face, or reduce costs (e.g. for public transportation) often associated with voluntary involvement (see Principi et al., 2011).

The correlations between inequalities in self-assessed health among older people and performance in the AAI domain of independent, healthy and secure living are the highest among the pair-wise comparisons presented here. The R^2 between gender inequalities in self-assessed health and performance in the respective AAI domain is notoriously high, suggesting that gender health inequalities may hamper the ability of some countries to perform better in the independent, healthy and secure living domain of the AAI⁸. Concerning relative socio-economic health inequalities, these vary markedly across Europe – the values of relative inequality on the left graph of Figure 38 range from just above 1.2 to above 3.5. Despite the moderate association with performance in this AAI domain, there are countries which perform well, or even very well, overall in this domain while enduring high levels of health inequality (Finland, or to a lesser extent Slovenia). From a policy point of view this could hint at the challenges of spreading improvements in health evenly among an ageing population (see sections 5.2 and 5.3). Similarly, while none of the countries with the highest levels of relative socio-economic health inequalities is a front-runner in this domain, there are countries, like Romania and Greece, which have relatively low levels of health inequalities by income and still stand at the bottom of this AAI domain.

FIGURE 38 INEQUALITIES IN SELF-ASSESSED HEALTH STATUS AND AAI INDEPENDENT AND HEALTHY LIVING DOMAIN ACHIEVEMENT



Self-assessed health: Socio-economic inequalities and AAI Self-assessed health: Gender inequalities and AAI score

⁸ The case could be made that inequalities in self-assessed health could also be paired with the AAI domain of Capacity and Enabling Environment for Active Ageing, as the latter includes life expectancy and healthy life expectancy among its indicators. We have tested the association of inequalities in self-assessed health with that AAI domain and found similar results to those reported here.



We find that there is little or no association between overall achievements in the AAI domain of capacity and enabling environment for active ageing and relative inequality in tertiary education, one indicator of the capacity for active ageing. This is true regardless of whether gender or socio-economic inequalities are considered (see Figure 39). In other words, the degree to which inequalities in tertiary education exist in the older population is not related to the overall level of active ageing capacity⁹. This is surprising as one would expect that more equal educational achievement in the older population would also reflect in higher levels of overall well-being and health (as part of the capacity to actively age). However, the result could partly be related to the fact that some indicators used in the AAI capacity domain are more closely related to the current life situation of older people (e.g. use of ICT, social connectedness), while tertiary education usually refers back to one's late youth. Furthermore, for older women, levels of (tertiary) education tend to capture socio-economic differences less well than for men (Arber & Ginn, 1991).





Note: The two graphs have different scales on the horizontal axis. Portugal and Romania excluded as outliers from the graph on socio-economic inequalities.

In the final part of this chapter, we analyse whether different areas of active ageing (and respective inequalities) relate to each other. On the one hand, one may assume that countries where different groups of older people participate in society in homogeneous ways are also those where for example health inequalities are small, thus enabling all groups of older people to remain active. Besides, by definition one would expect that inequalities are lowest in countries with high levels in the capability to actively age. On the other hand, it could be argued that there are trade-offs between different areas of active ageing. A case in point would be the time devoted to paid versus unpaid activities in later life. For instance, countries which fare well in integrating lower-qualified older people into the labor market might face constraints when trying to encourage these groups of older people to also dedicate time to unpaid care or volunteering activities, especially in countries where older people's health condition is less good.

Our findings show that there are some areas where inequalities reinforce each other, while compensation effects are limited (for a full matrix of selected indicators see Annex A 4.5.1 and A 4.5.2). We detect some patterns that highlight the importance of training and prevention policies among older workers, especially among women and older workers with lower qualifications. To be more precise, gender inequalities in tertiary education levels are positively associated with gender

⁹ In the AAI this domain includes (healthy) life expectancy, mental well-being, use of ICT, social connectedness, and educational attainment.



inequalities in labor market outcomes (with older women usually displaying lower participation rates than men) (R^2 =0.221). Further, unequal labor market outcomes among the younger old (55-64 years) to a large extent also correlate with inequalities in labor market outcomes among the older age groups (65-74), regardless of whether differences by gender (R^2 =0.534) or by socio-economic status (R^2 =0.400) are considered. Also, socio-economic differences in employment rates are found to be linked to inequalities in self-assessed health outcomes (R^2 =0.314), even though no inference can be made about the direction of causality based on this for the other results presented here.

Going back to our original hypothesis that there might be trade-offs between paid and unpaid activities, we expected to find an association between inequalities in care provision or volunteering and inequalities in paid employment. For example, it might be expected that in countries where older women participate in the labor market much less often than men, more gender-unequal outcomes in informal care provision might be found, with women providing (much) more care than men. Yet, the data analyzed do not confirm this. In fact, no association between inequalities in paid and unpaid activities is found, except for an association between gender differences in employment participation in the age group 55-64 and gender inequalities in political participation (R^2 =0.275), and a fairly low relationship between gender inequalities in employment in the older age group (65-74) and inequalities in care provision (R^2 =0.133). Overall, this supports the hypothesis of a small group of 'super-doers' in older age groups, able and willing to participate in different types of activities in later life (Hank & Stuck, 2008). A moderate positive association is, however, found between socio-economic inequalities in political participation and volunteering (R^2 =0,308), which suggests that there are some countries where general barriers exist for people of lower socio-economic status in participating in unpaid activities of different kinds rather than trade-offs between different types of unpaid activities.

The capacity to actively age –measured here as the average degree of life satisfaction in a given country – is assumed to represent a precondition for participation in society in later life. Our analysis confirms this: the higher the level of life satisfaction is in the older population, the more likely older people of all social classes are to participate both in paid and unpaid activities. The largest positive relationship was found for political participation (R^2 =0.449) and for volunteering (R^2 =0.402), followed at some distance by employment in the age group 55-64 (R^2 =0.132) (Figure 40). No association was found between life satisfaction and (inequalities in) informal care provision.

FIGURE 40 INEQUALITIES IN EMPLOYMENT AND VOLUNTEERING RATES AND LIFE SATISFACTION



Socio-economic inequality in employment (55-64) and life satisfaction score



Socio-economic inequality in volunteering and life satisfaction score



5. LEARNING FROM THE BEST: 4 EUROPEAN FRONT-RUNNERS

5.1 Estonia

Key facts on Estonia	
Population size (2015)	1.3 mil
Share of 65+ (2015)	19.0%
Ranking in AAI (2014)	10 th
Employment	2 nd
Independent and healthy	20 th
living	
Social participation	25 th
Capacity for AA	23 rd
Gender Equality Index (2012)	14 th
Gender Gap in Pensions (2010)	1 st
Severage Statistics Establish ELCE 2015, Battie at al. 2012.	

Sources: Statistics Estonia; EIGE, 2015; <u>Bettio</u> et al., 2013; UNECE & European Commission, 2015 The most distinguishing characteristic of Estonia's ageing policy has been its good performance in the employment situation of older people, despite comparatively poor rankings in other areas of later life. The main objective of this case study is to highlight both current and, in particular, future challenges that are concealed by broad assessments like the European Commission's Active Ageing Index (AAI). One of the main challenges for Estonia's active ageing policies is that substantial inequalities in life expectancy exist between men and women, as well as between the lower educated and the higher educated

in Estonia. Between the 1990s and the 2000s, the mortality rate for low-educated men increased from being 1.61 times that of high-educated men to 2.61 (Mackenbach et al., 2015). In addition, not only is the gap in mortality increasing across socio-economic groups, but average life expectancy is in fact decreasing among the lower-educated, which is exceptional across industrialized countries albeit the same pattern is observed also in other post-communist countries (ibd.).

Despite already high employment rates among older workers, Estonia has implemented a number of pension reforms in the past decades, which aimed especially at increasing statutory retirement age in the country, and weakening the (highly redistributive) flat-rate component of old-age pensions towards taking into account individual contributions over the life course more strongly. These measures raise concerns that both socio-economic inequalities and gender inequality might increase substantially for future cohorts during retirement periods. In addition, the strong focus on increasing participation in paid employment showcases the potential difficulties in developing a comprehensive active ageing strategy, given that there might be certain trade-offs involved in participating in paid work versus unpaid activities in later life.

Estonia ranks right after Sweden in the AAI in the employment domain, and is one of only three EU countries (Estonia, Latvia, Finland) where the score of older women exceeds that of older men in the overall Active Ageing Index (UNECE & European Commission, 2015). Estonia, despite comparatively low GDP within the European context, displays above average labor market participation rates of older workers (aged 55-64), in 2013 amounting to 66.6 %, significantly higher than the EU-28 average of 54.4 % (European Commission, 2015). Also, the share of older people with tertiary education in Estonia dwarfs that of other EU countries (Nurmela et al., 2014). In the other standard domains of the AAI, however, the country fares rather poorly for example as regards the share of healthy life years at age 50, as well as care to older adults or grandchildren.

4 EUROPEAN FRONT-RUNNERS: ESTONIA

CURRENT SITUATION OF OLD-AGE PENSIONERS

As for the current situation of older workers, it has been acknowledged that one of the main reasons underlying the high employment rate of older workers in Estonia are 'need factors', especially related to the low financial amount of old-age pensions (ranging between 30 and 40 % of previous earnings) and the associated higher poverty risk faced by many older people (Unt & Saar, 2016). As pointed out by the authors of the latest AAI report, "high employment past retirement age may reflect low pension entitlements, because Estonia has one of the lowest indicators for relative median income of the elderly" (UNECE & European Commission, 2015:23). Secondly, high employment rates among older women may be explained by the fact that labor market participation traditionally tends to be substantial among Estonian females (UNECE & European Commission, 2015), even if traditional gender roles may represent a barrier for the employment of older women (Unt & Saar, 2016). Overall gender inequality among current cohorts of pensioners is low. To be more precise, in 2013 Estonia displayed the smallest gender employment gap among older workers in the European Union and in 2010 it was also the leading country with regard to the EU's gender pension gap (Bettio et al., 2013).



FIGURE 41 EMPLOYMENT RATE IN THE AGE GROUP 55-74 IN BALTIC COUNTRIES AND THE EU-27

Source: Nurmela et al., 2014:7 (based on Eurostat data).

FUTURE CHALLENGES FOR INEQUALITIES AMONG OLD-AGE PENSIONERS

Future cohorts of old-age pensioners might however be faced with higher levels of inequality in Estonia for three main reasons. Firstly, large and increasing mortality differences exist between people of lower versus higher socio-economic status. Secondly, recent pension reforms put a greater emphasis on individual contributions and the ability to participate in private pension schemes. Thirdly, spells of parental leave or child-rearing times will be less strongly acknowledged in the future, which could potentially increase gender inequalities among future cohorts. By the same token, statutory retirement age was equalized for women and men to the age of 63 years in 2016, and as from 2017 will gradually increase to 65 by 2026 (European Commission, 2015; communication from expert).

With respect to mortality trends, unlike in almost all other European countries, the mortality rate in Estonia has risen among the lower educated while it has decreased among the higher educated in the past decades (Mackenbach et al., 2015) (see Figure 4.3.1). This means that educational differences in mortality have increased substantially ever since Estonia regained its political autonomy in 1991 (Leinsalu et al., 2003). Poor health of older workers has been identified as a concern previously,

4 EUROPEAN FRONT-RUNNERS: ESTONIA

although some studies show that motivation and work satisfaction are higher than among younger workers (Leetmaa et al., 2004 cited in Leetma & Nurmela, 2012). Yet, with early retirement still being a frequent option for (unemployed) older workers, the Estonian labor market is characterized by an 'insider-outsider' logic (Nurmela et al., 2014; Unt & Saar, 2016). People with poor health, low-educated people or non-Estonians not only face a higher risk of unemployment, but are also confronted with a higher risk of poverty in old-age as old-age pension levels are very low. Also, inactivity levels among older men due to illness or disability are already among the highest in Europe (Nurmela et al., 2014). Even though some efforts have been made to (re-)train older workers, and/or improve their employability in recent years, these seem to have shown little effect, with the low-educated continuing to face barriers in maintaining a paid job in later life (Unt & Saar, 2016; Leetma & Nurmela, 2012; Kupper & Tambaum, 2016; Eurostat data displayed in Nurmela et al., 2014).

Partly, this situation is addressed by a special (early) retirement scheme (pensions under favorable conditions or superannuated pensions) for those who worked in difficult conditions or in conditions harmful to their health. In addition, the scheme also applies for certain professions (e.g. ballet dancers), where employability decreases substantially in older ages. Yet, while the scheme was developed to give (older) people in poor health the possibility to retire earlier than others, targeting has been relatively unsuccessful. In the period 2010-2012 people entering these schemes did not have poorer health compared to the average in the same age group (National Audit Office of Estonia, 2014, cited in Nurmela et al., 2014).

Secondly, a compulsory funded defined-contribution (DC) scheme was introduced in Estonia in 2002, which is quickly gaining in importance compared to the current pension system, strongly taking into account actual life time earnings. Similarly, a supplementary voluntary DC private pension scheme was launched in 1998. The work incapacity scheme, which currently represents a source of support especially for poorer households, is also being replaced by a 'work capacity scheme' aimed at increasing employment rates among workers with reduced ability to work (communication from expert). These reforms are likely to cause a substantially larger drop in replacement rates¹⁰ of old-age pensions for low-wage earners, while male high-wage earners might even see a small increase (European Commission, 2015:85). In sum, these developments are likely to rise (European Commission, 2015).

Finally, the most important component for current pensioners is the so-called 'pensionable length of service component', which is not only highly redistributive as a flat rate base amount, but also acknowledges periods of career breaks for child-rearing¹¹. Future pensions will depend more on life-time earnings (for pension entitlements after 1999), which is likely to impact on gender equality as regards pension adequacy in the future (European Commission, 2015). Also, in 2013 the gender pay gap in the working age population was substantially higher in Estonia than in the EU on average (29.9 % vs. 16.4 %), which is likely to result in an increase in the gender pension gap for future cohorts

¹⁰ Replacement rates here refer to net theoretical replacement rates (TRR). It is defined as the "individual net pension entitlement divided by net pre-retirement earnings, taking into account personal income taxes and social security contributions paid by workers and pensioners." See: https://data.oecd.org/pension/net-pension-replacement-rates.htm

¹¹ The flat rate benefit can be received in parallel to income from paid work without any 'penalty' in the amount of the old-age pension, incentivising older people to continue in paid employment (Nurmela et al., 2014; Unt & Saar, 2016).
(European Commission, 2015). On the positive side, some recent provisions have been made to take into account child care leaves from the labor market for pension contributions, paid from the general state budget for children born after 2012 (OECD, 2015).

It has been criticized that late career workers in Estonia are delivered an ambiguous message: on the one hand, there is little institutional support to remain in the labor market, while on the other older people are encouraged to postpone retirement as much as possible (Unt & Saar, 2016). The low pension replacement ratio translates into a high poverty risk when becoming an old-age pensioner, creating an immense need to work beyond retirement age. Paradoxically, given the rather redistributive character and low replacement rates of old-age pensions (European Commission, 2015), financially speaking workers with a higher income stand the risk to lose more than low-income workers. This means also that those with higher education might be more likely to continue working beyond retirement age, and they might also be the ones more willing to stay in paid employment and/or better protected from becoming unemployed. Those with lower education levels might, however, be more willing to accept less well-paid jobs (Unt & Saar, 2016; expert interview).

TRADE-OFFS BETWEEN DIFFERENT FIELDS OF ACTIVE AGEING

Unlike with paid employment, our previous analysis shows Estonians' participation in unpaid activities is low among older adults. For instance, only 7 in 100 adults aged 50 years and older participate in volunteering or charitable work, compared to 38 out of 100 in the Netherlands. Given the strong focus on increasing participation in *paid* employment, the Estonian case highlights the potential difficulties in developing a comprehensive active ageing strategy, given that there might be certain trade-offs involved in participating in paid work versus unpaid activities in later life. This is particularly true for countries where the health situation of older people is comparatively poor, which may lead to a reduction in their ability to participate in multiple (paid and unpaid) activities. Even though a Development Plan for active ageing was developed in 2012 for the period 2013-2020 in Estonia, a comprehensive (implementation) strategy is still found wanting (Kupper & Tambaum, 2016; Nurmela et al., 2014). The main objectives of the 2012 plan referred to increased social activities of older people, life-long learning, employment of older people (and life satisfaction), and healthy ageing. However, while the latter two (employment and health) were included in the country's Welfare Development Plan, older people's increased social activities and life-long learning were not followed up in subsequent policy proposals. Exceptionally, family care has been defined as a key policy area for the next few years too (Kupper & Tambaum, 2016).

In light of the reform plans and developments described, Estonia faces two risks with regard to future inequalities among old-age pensioners. On the one hand, the insider-outsider logic of the Estonian labor market might intensify a stratification of the labor market into high-qualified older people who are willing and able to remain in the labor market beyond retirement age, and lower-qualified older people in poor health, who are unable to find a job in later life and need to make ends meet with a low-level old-age benefit. Attempts to further increase employment in Estonia seem particularly worrisome especially for (older) male low-earning individuals, whose life expectancy is among the lowest in Europe. It would be desirable that working trajectories of blue collar workers be taken into account in a more targeted way when allocating early retirement pensions. For women, too, the recent raise in retirement age needs to be accompanied by efforts for a better integration of older women in the labor market. In addition, the recent reforms in the ways old-age pensions are

calculated put women at a higher risk of facing much lower pension levels than men in old-age in the future.

On the other hand, Estonia's one-sided focus on employment policies comes at the cost of little involvement of older people in unpaid activities like volunteering or informal care to family members. In particular, with older people's health being poor compared to other European countries, their resources to commit to multiple activities are likely to be limited. As the share of the ageing population increases further and younger generations continue to emigrate to other EU countries, Estonia might be faced with a shortage of potential (informal) carers for frail older people in the future, especially as availability of formal care services also tends to be limited (Rodrigues et al., 2012). The Estonian case thus highlights the challenges for inequalities in later life which remain hidden when using aggregate indicators for active ageing and disregarding the impact of current reforms on future differences among old-age pensioners.

5.2 DENMARK

Key facts on Denmark	
Population size (2012)	5.6 mil
Share of 65+ (2014)	18.2%
Ranking in AAI (2014)	2 nd
Employment	3 rd
Independent and healthy	1 st
living	
Social participation	10 th
Capacity for AA	2 nd
Gender Equality Index (2012)	3 rd
Gender Gap in Pensions (2010)	7 th

Sources: Eurostat: EIGE, 2015; Bettio et al., 2013; UNECE & European Commission, 2015 Like all Scandinavian countries, Denmark has a long tradition of pursuing social equality and well-developed welfare policies, encompassing, among others, health, education, housing, employment and social security. The Danish welfare system is based on the principles of universalism and equal opportunity, and highly decentralized, with important roles in service administration and provision devolved at the regional and local level (Nordic Social Statistical Committee, 2015).

Our case study on Denmark is meant to illustrate that high achievement in general

health outcomes can mask socioeconomic inequalities in health and that key causal processes span the life cycle of the individual. Differences in health behaviors throughout adulthood lead to differential prevalence of illnesses that are most likely to occur and have negative consequences in later life. Failure to address such inequalities along the life-cycle leads to inequalities in illness and consequences of illness in older ages. In the same vein, inequalities in education achievement propagate throughout the life cycle and influence a host of health and social outcomes in old-age. While Denmark can be praised for its achievement in improving gender equality in education over the last decades, socio-economic inequalities persist despite recent reform, with important consequences for health, labor market achievement and financial security in older ages. All in all, the case of Denmark emphasizes, firstly, that policies pursuing population-efficacy (i.e. improving average outcomes in the general population) often imply a trade-off with equity-efficacy (i.e. reduce inequalities within the population) and, secondly, that effectiveness in pursuing both goals can likely be achieved only through cross-sectoral policies.

INEQUALITIES IN HEALTH: THE GRADIENT IN THE DISTRIBUTION OF BEHAVIORAL RISKS AND TARGETED POLICIES

As emerges from our analysis (see section 4.3), Denmark is one of the highest achievers in Europe in terms of self-reported health: it ranks 5th in the EU-28 for the proportion of individuals aged 55 and above who report good health, with virtually no gender differences and one of the lowest levels of income-related relative inequality. However, the trend is not paralleled when more objective health measures are considered. Despite its comparatively high quality of life, income equality and impressive equity achievements in access to care and unmet care needs, life expectancy and mortality among older Danes are comparable to the European average. In fact, while sizeable gains in life expectancy have been achieved over the last four decades (see Fig. 5.3.1), Denmark lags behind the European and the Nordic average (WHO HFA-Database, 2015). What is more, as general health outcomes have improved throughout Europe, inequalities in health have increased. Denmark is no exception to this trend. Between 1987 and 2011, inequality in life expectancy at age 30 between low and high-educated adults has increased from 2.0 to 4.1 years among men and from 1.2 to 2.6 years among women (Diderichsen et al., 2012). Health expectancy has also registered remarkable increases in Denmark (Jeune et al., 2015) but invariably they have been paralleled by an increase in social inequality in health (Brønnum-Hansen & Baadsgaard, 2008; Brønnum-Hansen et al., 2015).

A first insight into the processes that lead to inequality in health expectancy and mortality can be gained by focusing on the leading causes of death and disability. In Denmark, years of life lost due to premature death are most often associated with ischemic heart disease, lung and tracheal cancers and cardiovascular disease (IHME, 2016). These diseases can all be associated with lifestyle factors and social behavior. In fact, approximately half of the burden of disease in Denmark is accounted for by the six main risk factors, in order of their impact: smoking, dietary risks, high blood pressure, BMI, physical inactivity and alcohol consumption (IHME, 2016). Furthermore, the diseases with the highest contribution to inequality in burden of disease between low and high-educated adults are associated with tobacco smoking and alcohol consumption (Diderichsen et al., 2012). It becomes apparent that behavioral risks and inequalities in their distribution among population groups determine to a considerable extent subsequent inequalities in morbidity and mortality (Eikemo et al., 2014; communication from expert). In Denmark, a recent study found that the increase in inequality in mortality between lower and higher educated Danes between 1985 and 2009 can be largely explained by differential patterns in smoking and alcohol consumption: 75% of the increase among men and 97% of the increase in inequality among women can be ascribed to these two risk factors (Koch et al., 2015).

As also evident in our analysis (see section 4.3), it is well established that smoking is strongly and negatively associated with lower income and education and tends to be more prevalent among men. In 2013, 17% of adult Danes were daily smokers (Nomesco, 2015), following a marked decrease in smoking prevalence since the 1970s (see Fig. 5.3.2 in Annex). While current smoking rates are comparable among men and women, historically, the decrease in prevalence has been more significant among men (Clemmensen et al., 2012). The aggregate decrease in prevalence masks a worrisome underlying trend: smoking rates have decreased considerably less among lower educated and lower income Danes than among richer and higher educated groups (Koch et al., 2015). In our data (see section 4.3), this trend is apparent in the marked difference in socio-economic inequality

between the indicators for current smoking and ever having smoked. While the former shows a clear income gradient, with significantly higher prevalence among poorer individuals, the latter shows no association with income. It is then easy to conclude that differential smoking cessation rates among the Danish population in different social classes have lead to increases in relative social inequality in smoking (communication from expert). This raises questions with respect to the effectiveness of public health policy for prevention of tobacco consumption.

Tobacco control policies in Denmark¹², viewed today as lagging far behind those in other Nordic countries and many Western European ones (Joosens & Raw, 2014), started already in the early 1900s with the introduction and significant subsequent increase (late 1920s) in excise duty for tobacco products. Despite the fact that tobacco prices today are still higher in Denmark than in most other EU countries, the parallel increase in income renders them less prohibitive than in the 1970s (Albaek, 2004). Restrictions on advertising were introduced in 1972 and extended through the 1980s, while restrictions on smoking in public places, while fiercely debated in the political arena since the late 80s, have come into effect only since 2000 and can be considered very lax in comparison to Nordic and Western European standards (Albaek, 2004; Eek et al., 2010). The limited extent of tobacco control regulation in Denmark has historically been limited by the very strong tobacco industry lobby and a generally more liberal approach of Danish policy-makers to regulating matters seen as private decisions (Vallgarda, 2008). In parallel, tobacco control and public health policies in general have suffered from an exclusive focus on population outcomes, with little or no recognition of equity goals (communication from expert). Social inequalities in health first broke into the Danish political discourse in the late 1990s and were discussed in Parliament for the first time as late as the year 2000. In comparison, in neighboring Sweden - a country that shares many features of the health care system and regulation with Denmark, political awareness of social inequalities in health was evident already in 1984 (and explicitly identified as a policy goal in a white paper) and consistently reinforced in every subsequent white paper (Vallgarda, 2007; Eek et al., 2010). Furthermore, in Denmark, the conceptualization of social inequalities in health has been traditionally muddled with the discourse on marginalization, with an overarching focus on equality gaps rather than a gradient (Vallgarda, 2008). Consequently efforts have targeted almost exclusively health behaviors among marginalized groups rather than addressing more generally the gradient in health outcomes (Diderichsen et al., 2015).

All in all, over the last decades Denmark has shown reduced political interest in addressing health inequalities and a general focus on policies promoting improvements in average population health. Clearly, this approach has been to the detriment of measures focused on addressing inequalities in health. While not always intuitive, there is a clear difference and often an associated trade-off between the two. To understand this dichotomy, it is essential to distinguish between two different types of determinants of health inequality: differential exposure versus differential vulnerability of individuals in different social groups. Socially disadvantaged individuals are more exposed to health risks throughout their life and the probability that they will engage in one or more risk behaviors (i.e. unequal exposure) is higher. Secondly, as behavioral and environmental risks (e.g. living and work conditions, access to care) for the same diseases interact, the effects compound to create increased vulnerability to severe consequences of illness in socially disadvantaged groups (e.g. unequal vulnerability). In fact, research has shown that survival rates for a number of conditions can be

¹² According to Tobacco Control Scale (2013), Denmark ranks only 15th in Europe in terms of implementation of tobacco control policies in the six main policy domains identified by the World Bank: price; public place bans; public information campaigns, advertising bans, health warning and treatment.

significantly different between lower and higher educated groups and that permanent reductions in functional abilities after illness are disproportionately concentrated among socially disadvantaged individuals (Diderichsen et al., 2012). It follows that, even when successful, policies addressing reductions in exposure to health risks will disproportionately favor individuals with *lower* vulnerability. By contrast, among the socially disadvantaged the improvements in health outcomes will be significantly lower. The result of such a policy approach is likely to be an overall improvement in average health at the cost of an increase in social inequalities in health (Osler, 1993). A case in point is the above mentioned effect of tobacco control policies in Denmark between 1985 and 2010. In order for inequalities to be reduced, public health policies in Denmark (and all European countries) need to increasingly focus on disadvantaged groups (Huijts et al., 2010; Eikemo et al., 2014).

A further limitation of Danish public health policies for the reduction of health inequality is related to their narrow scope. To date the main focus of Danish policy makers has been in addressing health behaviors, with a disproportionate emphasis on tobacco and alcohol consumption, and on reducing the social gradient in access to health care and quality of care (Diderichsen et al., 2015). While reducing smoking and harmful alcohol consumption in adolescents and adults are policies with great preventive potential, they are comparatively less relevant for current cohorts of older people. Arguably, promotion of physical activity and healthy dietary habits would benefit older generations more, as these are associated with significant reduction in the risk for cardiovascular disease, several types of cancers, musculoskeletal conditions and mental health. In this respect, however, Denmark currently has no national policy, although awareness of the related health benefits is generally high (communication from expert).

A growing body of research reveals systematic inequalities in the patterns of physical activity between individuals with different social positions (Beenackers et al., 2012). Leisure time physical activity, linked to numerous health benefits, is significantly more common among high-income individuals and among men. Contrarily, occupational physical activity is much more common among lower income groups, but it is linked to increased health risks rather than with health benefits (Holtermann et al., 2009). In our own analysis (see section 4.3), we revealed significant gender differences in physical activity although other less researched factors like ethnic and cultural differences are also likely to play a role for inequalities in this domain. Similarly, healthy dietary habits are much more common among adults with longer education and higher socioeconomic status, while men are more likely to have unhealthy diets (Groth et al, 2014; Osler, 1993). Recognizing and addressing these inequalities can contribute significantly to improve equity and population health among adults and older people and it remains a challenge for public health policy in Denmark. Finally, it must be recognized that sustained efforts to ensure equality in access and quality of care have lead to high achievement in the Danish health system and have likely had a mitigating effect in containing the impact of inequalities in behavioral risks on health outcomes in the population. Nonetheless, some challenges still remain. As emphasized by recent research results, social status and education are associated with higher dropout rates in intervention for self-management of chronic diseases in Denmark (Kure-Biegel et al., 2016) and immigrants and their descendents still experience inequalities in access to care (Niellsen et al., 2012).

Explicit recognition of reducing health inequalities as a relevant policy goal is therefore just a necessary first step for effective public health policies. Population-based interventions prioritizing well-established universalism principles are ill-suited to address such goals and may in fact lead to

increased inequalities. To date, the only Nordic country that has prioritized the reduction of the social gradient in health is Norway, currently promoting policies based on the principle of proportional universalism – i.e. universal intervention, scaled in intensity to be proportional to needs (Diderichsen et al., 2015) although Sweden also has a long tradition of policy focus on health inequalities. In Denmark, efforts to address equity in health have not, so far, reached priority level on the policy agenda. However, as increasingly more statistics and research result on the topic are being widely publicized, renewed public interest and an open public debate are causes for optimism.

INEQUALITIES IN THE CAPACITY TO ACTIVELY AGE: THE INCOME GRADIENT IN EDUCATION ACHIEVEMENT

As emphasized repeatedly throughout the previous section, education achievement is a key determinant of social inequalities in health and explains the income gradient in health to a considerable extent (Huijts et al., 2010). In addition, education is a crucial determinant of labor market outcomes and a key factor for the capacity to actively age for older individuals. As education achievement contributes to so many determining processes throughout an individual's life-cycle, it is not surprising that social inequalities in education lead to inequalities in other domains of active ageing and in all aspects of socio-economic position in general. Throughout this section we analyze the characteristics of Danish education and consider how developments in education policies have shaped and continue to shape social inequalities for current and future older cohorts. Education, largely public¹³ and for the most part provided free of charge to all, is an important pillar of Danish welfare policies¹⁴. After post-compulsory schooling, Danish students enter the upper secondary education system, to be divided into two separate tracks: the general upper secondary programs (gymnasiums and specialized technical and commercial schools) preparing pupils for tertiary education and vocational education and training (VET) preparing pupils for employment as skilled workers. Following the structure of the German education system, Danish VET has a dual structure combining schoolbased with work-based training (Jørgensen, 2014). The system functions under a complex governance structure with four central ministries and municipal authorities involved in its management and is very generously funded (Denmark is the country with the highest public expenditure on education in the OECD).

Through its well-developed social security and redistributive policies, Denmark has traditionally pursued equality of opportunity for its citizens, not the least in access to education and educational attainment (Antikainen, 2006). In fact, the state has long financed all forms of secondary education and no tuition fees or other direct costs are imposed to students. In addition, starting in the 1970s the reduction of inequalities in access to education became a policy priority. Not surprisingly, such policies within the context of a wider movement to reduce gender discrimination in all aspects of public life, have lead to significant increases in the educational opportunities available to women over the past decades. This trend is immediately evident by comparing gender differences in education achievement between the cohorts aged 55 and above (likely educated during the 1960s and 1970s) and the current young cohort. For the former, significant gender differences favoring males can be observed, while currently, Denmark is ranked first in the world with respect to gender equity achievement in education attainment (no observable gender gap in education at any of its levels - World Economic Forum, 2014). In fact, for cohorts aged 65 and above the highest education

¹³ Approximately 85% of students attend schools managed by their local municipality (Jørgensen, 2014).

¹⁴ More detailed information on the structure and organization of the Danish education system is available at:

https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Countries

completed was primary education for many more females than males while more men completed all other categories of higher education. In the 30 to 40 years old population groups women outnumber men in completion of all higher education programs (Statistics Denmark). Exceptionally, vocational education is still dominated by males, in no small part due to its orientation towards specializations and skills relevant for traditionally male professions (communication from expert).

The persistent gender gap in VET is indicative of deep gender segregation in Denmark that has persisted, largely unchanged, over the last decades. Despite the strong orientation towards gender equality and the impressive achievements in the reduction of vertical segregation, the Danish education system remains segregated along the horizontal dimension (Jørgensen, 2014). Horizontal segregation in the education system is paralleled in the labor market (Bloksgaard, 2011), if not determined to a large extent by it (expert communication). In our data (see section 4.1), Denmark is among the countries with the highest levels of sectoral horizontal segregation and it performs much worse than the European average for the same indicator set according to the Gender Equality Index. In the vocational education system, half of the offered programs are severely gendered skewed -i.e.more than 90% of students are of the same sex (Jørgensen, 2014). The persistence of horizontal gender segregation is well understood in Denmark and recognized in recent policies, albeit not problematized (communication from expert). Gendered professional roles are a reality of the Danish labor market but there is, to date, no strong impetus for policy intervention. In fact, in some highlyspecialized professions (e.g. doctors, lawyers and academics) the gender balance is continuously and significantly improving. Such changes and the generalized reduction of vertical gender inequality are causes for optimism. As the current cohorts will be entering older age, women will see their capacities for remaining active in old-age increased with respect to the present situation.

It is important to emphasize though that the recent positive trends in the reduction of horizontal gender segregation in the education system are not driven by targeted education policies but rather reflect societal changes. In fact, since the 1970s, when equality in access to and achievement in education was an explicit policy goal (Rasmussen, 2002), equity and the reduction of inequalities are not explicitly mentioned in any policy documents, despite numerous reforms having been implemented in the last decades¹⁵. Nonetheless, by its very structure, the Danish education system implicitly emphasizes equality of opportunity for all students, by granting free access to all levels of education. Formally then, as no financial barriers to access exist, socio-economic status should not play a role in education achievement. In practice, students from lower socio-economic backgrounds are significantly more likely not to enroll and not to complete higher education degrees (Jaeger & Holm, 2007). Formal opportunity of access does not equate real opportunities because lower socioeconomic status is associated not only with lower economic resources but also with lower cultural and social capital (Jaeger & Holm, 2007). This explains why Denmark has failed to contain social class inequalities in education achievement. If we employ the same device as before, i.e. a comparison between different age cohorts, we observe that the socio-economic inequalities that affected older cohorts still persist to affect the current young cohort in education and training. The early tracking system contributes significantly to the persistency of social inequalities in education in Denmark, as in other national settings where it has been applied (van der Werfhorst & Mijs, 2010). To begin with, adolescents from disadvantaged backgrounds are much more likely to not enroll in upper secondary

¹⁵ Exceptionally, the 2012 reform on primary and secondary schooling targets reduction of inequalities, but the goal was not echoed either by the 2011 National priorities for Education or by the 2014 Better and more attractive VET policy.

education and even when they do they more often opt for the vocational education track. Secondly, the two tracks are poorly coordinated and the opportunities of pursuing a higher education degree after enrollment in the vocational track are severely limited (Rasmussen & Jensen, 2014 ; Jørgensen, 2014). Despite continued debate and ambition among policy makers over the last 4 decades to further integrate vocational and higher education, the goal remains illusory as fewer students obtained double qualification in the last two decades (Frederiksen et al., 2012).

Finally, the system offers no alternative for students who have either not enrolled or dropped out of upper secondary education. They will find it difficult to re-enter the education system and will face an unfavorable position, with higher likelihood of more frequent and longer unemployment, in the labor market as unskilled workers. Not surprisingly, their earning potential and prospects for health and well-being are reduced, as their risk of marginalization increases (Jørgensen, 2014; communication from expert). Drop-out rates from VET in Denmark remain high, despite continued efforts to reform the system and address the situation. Part of the problem rests with the dual structure of VET. Hailed for their effectiveness in ensuring smooth transitions from education to the labor market via the training placement component, VET programs have been plagued by increasing difficulties to secure internship positions for lower performing students. Partly because students from low socio-economic backgrounds (e.g. low-income families, facing social or psychological problems, or migrants) are significantly less likely to secure an internship position, they are at increased risk of drop-out (Rasmussen & Jensen, 2014; Jørgensen, 2014). As failure to address inequalities in education will doubtlessly lead to more profound social inequalities in the Danish society, policy makers are called upon to sustain their efforts of reforming the education system while emphasizing equity goals alongside improvements in general education achievement.

5.3 Sweden

Key facts on Sweden	
Population size (2015)	9.8 mil
Share of 65+ (2015)	19.6%
Ranking in AAI (2014)	1 st
Employment	1 st
Independent and healthy	3 rd
living	
Social participation	4 th
Capacity for AA	1st
Gender Equality Index (2012)	1st
Gender Gap in Pensions (2010)	17 th
	0040

Sources: Eurostat: EIGE, 2015; Bettio et al., 2013; UNECE & European Commission, 2015 Sweden has long placed the reduction of inequalities (gender and socio-economic) as a central goal of its welfare system. The Swedish welfare system emphasizes social rights based on citizenship rather than market participation (decommodification) and state responsibility for tasks usually carried out within the realm of the family (de-familialization) – a differentiating characteristic concerning other European welfare states that it shares with other Nordic countries. It is also characterized by a high degree of decentralization, with municipalities and other intermediate levels of government responsible for significant areas of welfare

provision (e.g. health and social care).

The case study on Sweden highlights the salience of inequalities based on gender and socio-economic condition in two areas where the performance of Sweden is judged to be very high when considering the average older population: health and the labor market. In the first section, we analyze the

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existence and possible causes of socio-economic inequalities in health outcomes among the older population, against the backdrop of a relatively egalitarian society with high life expectancy and low mortality. In the second section we focus on how the labor market for older workers in Sweden seems to conciliate high levels of participation for both men and women – a positive aspect in terms of active ageing policies – with enduring gender differences in terms of occupation, sectors of activity, working times and earnings. These two analyses highlight how good performance in terms of active ageing indicators for the society as a whole may conceal significant inequalities in the capacities and outcomes for active ageing for particular groups in the population.

INEQUALITIES IN HEALTH: THE GRADIENT IN THE DISTRIBUTION OF SELF-ASSESSED HEALTH AND BEHAVIORAL RISKS

According to Eurostat data¹⁶, Sweden is one of the countries with the highest life expectancy at 55 for the average population not only within the EU but also in comparison to other Nordic countries. It also consistently ranks as one of the countries with the highest share of people aged 55 and older who report good to very good self-assessed health, as stated previously in this report. However, despite the general good health outcomes on average experienced by older people in Sweden, there has been a pervasive concern that this positive overall picture coexists with marked gender and income inequalities. These inequalities seem to persist despite a generous welfare state, relatively low levels of income inequality – which has been referred to as the *Nordic Welfare Paradox* (Bambra, 2011; Popham et al., 2013) – and a specific focus of Swedish health policy on reducing health inequalities – a feature of health policy that not all Nordic countries share (see case study on Denmark) (Anell et al., 2012). In our indictors there are noteworthy inequalities not only in self-reported health (both by income and gender), but also in other health measures such as prevalence of smoking (income), alcohol consumption (gender and income, albeit the latter penalizing the more affluent individuals) and physical activity (income and gender).

Inequalities in self-reported health among the older population have been observed in a number of studies using a variety of data sources (Mackenbach et al., 2008; Huijts et al., 2010), with longitudinal data showing a remarkable persistence of these inequalities across cohorts and time (Fors et al., 2007; Fors & Thorslund, 2014). Several possible factors have been suggested as possible explanations for these inequalities in old-age.

One line of argument has linked health inequalities to lifestyle risk factors and hypothesized that despite the generous provision of public services and egalitarian societies found in the Nordic countries, unhealthy behaviors (e.g. smoking, unhealthy diets and lack of physical exercise) contribute to the health inequalities observed not only in Sweden, but in the Nordic countries in general (Dahl et al 2006). As our data shows (see section 4.3), there are marked inequalities in behavioral risk factors among the current older Swedes and like other Nordic countries such as Denmark (see section 5.2), risk factors associated to lifestyle and behavior account for more than half of the burden of disease among the total Swedish population (IHME, 2016). However, the impact of behavioral risks on health is likely to be a progressive process and, although current smoking prevalence is highly stratified in younger cohorts it seemed to have been less among older age cohorts who lived at a different stage of the smoking epidemic (Eek et al., 2010; Fors et al., 2012; personal communication from expert).

¹⁶ Eurostat database on life expectancy and mortality, accessed on 20.07.2016.Data available at: http://ec.europa.eu/eurostat/product?code=demo_mlexpec&language=en&mode=view

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Immigration has also been put forward as a possible explanation for health inequalities, as immigrants may have a lower socio-economic position and face particular barriers in accessing healthcare (e.g. poor command of the host country's language) or have lower levels of health literacy that translate into unhealthy behaviors (Huijts & Eikemo, 2009). While migration may be a factor in explaining health inequalities among the general population, it seems less likely that this would be the case among older people. Firstly, older people who were born outside of Sweden are likely to have lived in Sweden for some time and thus have higher levels of health literacy than newcomers. Secondly, among the current migrant population aged 65 and older, 42.6% were born in the other Nordic countries and may therefore be less differentiated from the native Swedish population of the same age group.

Another possible explanation is that more affluent older people are better able to use the healthcare system and thus remain healthier (Huijts & Eikemo, 2009). Our data confirm that there is a social gradient in unmet needs among those 55 and older and other studies have found a socio-economic gradient in the use of different forms of healthcare among Swedish older adults, favoring the rich, even after accounting for differences in needs (Agerholm et al. 2013; Wastesson, Fastborn, et al. 2014; Wastesson, Fors, et al. 2014). Differences in healthcare use can be attributed to different mechanisms, from health literacy to financial barriers in access resulting from high co-payments or limited coverage. Co-payments are relatively low in the context of the Swedish healthcare system and there is some evidence that education rather than income may have a greater explanatory power in accounting for differences in healthcare use among older people in Sweden, thus suggesting that health literacy or differences in health behavior could be an importance determinant of differences in healthcare use. In another study on medicine prescription among older Swedes, Wastesson, Fastbom and colleagues (2014) found that socio-economic differences were to a great extent driven by place of residency as more affluent older individuals tended to live in urban areas. Some differences in healthcare use among older people may therefore reflect differences in availability of healthcare resources at a local level. Furthermore, geography may impact health through denominated neighborhood effects, whereby living in a deprived area may adversely impact self-perceived health, and there seems to be some evidence of this for Sweden as well (Malmström et al., 1999). In a study comparing trends in educational inequalities in hospital admission and mortality for older Swedes, there seems to be some evidence supporting the case that better educated individuals are more able to benefit from available healthcare (Torssander et al., 2016).

Health inequalities among older people in Sweden may also be a reflection of what we have earlier referred to as mortality selection (Huijts & Eikemo, 2009). Differences in life expectancy traditionally disfavor the less affluent and sicker individuals, which in turn means that socio-economic inequalities in old-age may be underestimated as only the healthier individuals will survive till older ages. Although there is also a clear socio-economic gradient in life expectancy in Sweden (Burström et al. 2005), Sweden is one of the countries with the highest life expectancy in Europe (Christensen et al. 2009). This entails that a significant share of individuals that would otherwise have died in other European countries is able to survive till a later age in Sweden, albeit probably in lower health. According to this argument, higher inequalities in health in old-age may be the price to pay for relative success in reducing early mortality among some disfavored groups of the population. However, it is important to bear in mind that existing studies on inequalities in life expectancy and mortality in Sweden seem to point to an increased inequality in this indicator, i.e., affluent older people are able to survive till later stages (Burström et al., 2005; Torssander et al., 2016). The mortality selection argument may be

stronger for women as inequalities in life expectancy and mortality seem not to have increased as much among this group.

Finally, it is worth mentioning that despite the evidence of health inequalities in old-age, Sweden is a high achiever in terms of overall health and mortality in old-age. The data analyzed here also confirm that for several considered indicators Sweden performs very well among European countries with respect to the general health achievement of the most disadvantaged socio-economic groups (e.g. self-assessed health), which in some cases may explain the high relative albeit not absolute income inequalities found in the literature.

All in all, a range of factors could be contributing to the observed health inequalities in older people in Sweden. The potential policy implications arising from this are several. Recent policy developments in healthcare in Sweden have placed a greater emphasis on user choice, with users able to choose their primary care providers since 2010 (Anell et al., 2012). As more educated older individuals seemed to be better able to access and benefit from healthcare to remain healthy in old-age, user choice may contribute to widen inequalities. The decentralized nature of the Swedish healthcare system, where councils and municipalities have a great deal of responsibility for care, particularly for older people, could play a role in the apparent geographical inequalities that seem to underline some of the socioeconomic inequalities in health of older Swedes. The above-mentioned health reforms enacted in 2010, also enabled accredited private care providers to freely establish themselves in Swedish councils. It is not yet entirely clear whether this would allow providers to move into areas with less service density or if it will exacerbate concentration of providers in more affluent and densely populated areas.

As the population ages, health inequalities among older individuals are likely to gain increasing prominence. Looking into the future, it is important however to acknowledge that demographic ageing is a dynamic process and that health inequalities in the current cohort of older people and their underlying causes may change. Taking a life-course perspective of health inequalities in old-age is of great importance in this context. Some of the health inequalities in old-age may be attributed to working conditions during active - working life phases (Molarius et al., 2006; Fors et al., 2007; Parker et al., 2013). As the job profile and working conditions of several occupations have changed in the past decades, particularly among blue-collar workers, this picture may evolve in future cohorts of older people (personal communication from expert). The high stratification of some lifestyle risks in the current younger cohorts alluded to before, may increase the impact of lifestyle risks on later-age health inequalities. Another significant development is the increase in educational attainment in current working age cohorts, particularly among women, which could, for example, translate into overall higher health literacy and the ability to remain healthy in old-age. The expansion in educational attainment may thus result in lower future gender and overall health inequalities among older people as higher education is no longer confined to a minority of self-selected individuals (i.e. those who had been born into privileged strata of society) (Fors & Thorslund, 2014). The impact of educational expansion on future health inequalities is not however, straightforward, as the lower educated may in turn become much more socially selective (i.e. confined to a group in society that is likely to accumulate several disadvantages besides lower education, such as ethnic background, low income, cognitive impairment, etc), thus crystallizing health inequalities. It is also worth bearing in mind that health inequalities in old-age have proven to be remarkably persistent in Sweden, despite a number of policy, social and demographic developments (Fors et al., 2007, Fors & Thorslund, 2014).

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INEQUALITIES IN EMPLOYMENT: GENDER INEQUALITIES AMONG OLDER WORKERS

Sweden ranks very high in terms of the overall employment rate of older workers (i.e. aged 50 and older in the context of this case study, unless stated otherwise), with both men and women displaying high employment rates and both retiring at relatively later stages in their life: at 65.2 year-old for men and 64.2 year-old for women (OECD 2015)¹⁷. However, our data shows that despite its strong and relatively egalitarian performance in terms of overall employment rate, there are several gender inequalities affecting the labor market situation of older workers. This is particularly the case in terms of part-time employment, occupational and particularly sectoral segregation and gender pay gap. The part-time employment of Swedish women aged 55-64 is almost three times as high as that of men and although the relative and absolute difference is reduced when analyzing part-time for the 65-74 age group, it is nonetheless still much higher for women. When breaking down the reasons for part-time, there are little differences by gender, apart from the fact that health seems to play a bigger role for men aged 55-64 than for women, as our data seem to confirm.

Concerning occupations, or vertical segregation, and limiting the analysis to the 55-64 age group, our data showed that employed men are 1.6 more likely to be managers than employed women of the same age group – a figure that nonetheless still places Sweden among the best performing countries in Europe. Looking at the whole range of occupations, there is nonetheless some evidence of occupational segregation in Sweden (see Table A5.4.1 in the Annex and section 4.5). A very high degree of horizontal gender segregation is also observed in Sweden, i.e., the majority of female and male employment in the 55-64 age group is concentrated in just a few non-overlapping sectors of the economy. The most male dominated sectors are mining and quarrying, construction, transportation and manufacturing; while women are overwhelmingly predominant in health and social work, education, public administration and other services (see Table A5.4.2 in the Annex).

The outcome in terms of wages from this gendered labor market is one where women in the 55-64 age group earn 17% less than their male counterparts (excluding public administration). A closer look at the wage dispersion of men and women by occupation and sector further shows that for low-skilled jobs there is hardly any difference between men and women and between the public and private sectors (Figure 42). Among occupations that require higher education, the median wage of men is consistently higher than that of women both in the private and public sector. This suggests that the main wage differences between men and women carrying out similar tasks is found among the higher educated (and highly paid). Figure 42 refers to the total working population, but the latest available age-disaggregated data from Eurostat shows that the unadjusted wage difference between men and women aged 50 and over is the highest among managers¹⁸.

¹⁷ Figures refer to the average (last 5 years) age of retirement as estimated by the OECD (2015).

¹⁸ Data from the Eurostat *Structure of Earnings Survey* 2010 excluding public administration.

FIGURE 42 WAGE DISPERSION ACROSS OCCUPATIONS, GENDER, PUBLIC AND PRIVATE SECTORS IN SWEDEN 2014



Occupations requiring higher education

Occupations not requiring higher education

Source: Reproduced with permission from Statistics Sweden, Women and men in Sweden 2014 (pp. 69-70).

Furthermore, given the concentration of female employment in some economic sectors (e.g. accommodation and food) and particularly in some occupations (e.g. personal carers, cleaners) this could also translate into women being disproportionally represented among low income individuals. Mandel and Shalev (2009) indeed find that the probably of women being in lower wage quintile rather than in the uppermost quintile is 2.5 for Sweden and the highest among the Western countries analyzed.

The high gender segregation of the Nordic labor markets and its possible causes have long-been object of debate in the literature (Bettio & Verashchagina, 2009). Comparative studies have apparently uncovered a welfare state paradox, as countries that offer better possibilities of conciliating gainful employment for women and care seem also to perform least well in terms of representation of women in the top income quintiles (Hegewisch & Gornick, 2011). Studies frame this paradox rather in terms of different public policies having dissimilar impacts on women from different socio-economic backgrounds (Mandel & Shalev 2009; Korpi et al., 2013), although the proposed channels through which these impacts occur are varied. The Nordic model of affordable child and oldage care and parental leave policies undoubtedly contributes to increased female employment through de-familialization, while at the same time creating jobs in the public health and care sector that are mostly taken-up by women. This greatly favors women from low socio-economic groups, not only through job creation, but also because trade unions in the public sector may successfully lobby to decrease wage inequalities there (Dieckhoff et al., 2015). The downside of this is the concentration of

women in occupations and sectors that are on the lower portion of the earnings ladder and in occupations that offer fewer possibilities to reach supervision or managerial positions (Mandel & Shalev 2009). Women may also self-select into the public sector and certain occupations that are perceived as being more family-friendly (e.g. in terms of working hours or schedules). There is some evidence that occupational segregation may beget further segregation as hiring procedures and workplace practices in male-dominated contexts may act as a barrier to the progress of women (Hultin & Szulkin, 1999). Another possible factor contributing to gendered labor markets are the choices made by women in terms of training or higher education, with women again self-selecting into topics such as social services and teaching rather than more 'prestigious fields' such as law or economics, although evidence for Sweden seems mixed (Bygren & Kumlin, 2005; Grönlund & Magnusson 2016). Generous parental leave policies, insofar as they continue to be mostly taken up by women (in 2014, fathers took up only 25% of total parental leave per Statistics Sweden data), may also contribute to limit women's ability to reach top positions or occupations due to employers statistical discrimination of employees (Mandel & Shalev, 2009). Despite this, the existing evidence on Sweden does not seem to support the idea of sexism in hiring practices of firms; although the hiring process may reflect some 'endogamy', i.e., firms searching for prospective employees that are similar to their current employees (Carlsson, 2011; Ellingsaeter, 2013; personal communication from expert).

Most of the above-reviewed literature focuses on the total population, but as the data presented earlier shows, gender segregation is very much a feature of the labor market for older workers as well. However, a number of studies in Sweden seem to indicate that gender segregation in older age groups may have its roots at earlier stages in life, particularly around childbearing ages (Korpi et al., 2013; Magnusson, 2010; Bihagen et al., 2014; Hook & Pettit, 2015). Gender differences among top wage earners seem more pronounced when women are between the ages of 30 and 40 years independent of the fields of study or universities attended (Bihagen et al., 2014). These findings would suggest that the gender segregation found among older workers may actually be lower than at earlier stages of the working life. Magnusson (2010) also finds that the gender wage gap among denominated prestige occupations is sensitive to childbearing with women that have children in a disadvantage compared to men with children. The same study, however, indicates that these differences may be partially explained by working conditions associated to these occupations, namely availability for business travel. It is also likely that working mothers' disadvantaged position in terms of household tasks further impacts their ability to progress in occupations that require a large time commitment or availability (Statistics Sweden 2016). Korpi and colleagues (2013) make a convincing case that rather than hampering women of higher social classes, de-familialization and de-commodification have actually made women's employment much less socially selected, i.e. not only the most careeroriented women or those with higher unobserved ability – which would tend to have relatively higher paid jobs anyway - are now able to be employed, and this might account for the apparent welfare state paradox.

Part of the current gender differences observed among older workers in Sweden may be attributed to a cohort effect, for example, regarding the prevalent cultural expectations as to the role of women in the 1960s or their relative educational attainment (Bihagen et al 2014). The present cohort of graduate and undergraduate students has an overwhelming majority of female students (Statistics Sweden 2016), although some gender differences remain: the number of female students has caught up with its male counterpart in subjects such as law and social sciences, even if it still lags behind in natural sciences and technology. Regarding cultural differences, however, it is important to bear in mind that changing prevailing views on gendered occupations (jobs as possessing 'male' or 'female' characteristics) and the roles attributed to men and women in different spheres of society – gender essentialism – is a long-term task even within an egalitarian policy framework such as the Swedish one (Bihagen et al., 2014).

The gendered stratification of the Swedish labor market carries with it also potential consequences in terms of old-age pensions, most notably, by affecting retirement patterns and older people's financial security in old-age. There is evidence of a gender pension gap in Sweden with non-widowed female old-age pensioners receiving about 36% less than their male counterparts and women substantially over-represented in the lower third of the pension income distribution (Bettio et al., 2013). In the context of the Swedish pension system, it seems that it is mostly the occupational and private insurance pillars that contribute to this gender pension gap (Bettio et al., 2013). The prospect of a lower old-age pension may increase the incentives to continue working (Johansson et al. 2014; Nilsson et al. 2016) and the gender pension gap may have less of an impact on the financial security of married or co-habiting female pensioners. Despite this, the gender pension gap may carry with it implications in terms of power and sense of control for women and increase the importance of survivors pension for gender equality in old-age.

5.4 Netherlands

Key facts on the Netherlands		
Population size (2015)	16.9mil	
Share of 65+ (2015)	17.8%	
Ranking in AAI (2014)	3 rd	
Employment	6 th	
Independent and healthy	3 rd	
living		
Social participation	5 th	
Capacity for AA	4 th	
Gender Equality Index (2012)	4 th	
Gender Gap in Pensions (2010)	27 th	
Sources: Eurostat; EIGE, 2015; Bettio et al., 2013;		
UNECE & European Commission, 2015		

Although there is still considerable untapped employment potential in the more senior age groups in the Netherlands, there has been a marked increase in their employment rate. The higher participation among older people has mostly been driven by the growing number of women entering the labor market over the last decades. The strongest increase occurred among women in the 55-59 and 60-64 age groups: female employment in the first age group almost doubled in the last ten years while in the 60 to 64 age group the increase

was close to three-fold. The upward trend in the employment rate of older workers, aged 55-64, continued after the crisis from 54% in 2010 to 62% in 2015. The latest results from Statistics Netherlands also show a tendency for older individuals to remain in employment longer. The average age at which Dutch workers retired in 2001 was 61 and remained at that level up until 2007 when measures to restrict early retirement, introduced in the previous years, pushed up the average age of retirement to 62. In 2011, it has already increased to 63 and continued to rise to 64 in 2014. There is also some indication that a growing share of employees plans to continue working until the official retirement age of 65. Results from the 2009 National Working Conditions Survey, the latest available for research, show that 26% of all employees surveyed reported that they would be both willing and able to work until the retirement age compared to 13% five years earlier (Houtman, 2012). Among those aged between 45 and 64, 36% said that they would be willing to work until 65 and around 50% that they would be able to do so. While the largest group within this age bracket is still made up of

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those who are neither willing, nor able to stay in employment until the statutory retirement age, their share has decreased from 53% to 39% since 2005. Policies aimed at increasing the labor supply of older workers, such as the abolishment of the early old age retirement scheme, the raising of the retirement age and the extensive reform of the disability benefit system - which restricted access to disability pension as an alternative pathway to early exit - were key measures contributing to the above trends (OECD, 2014; De Jong; 2008).

Despite these positive developments in participation in paid work, there have been concerns that social inequalities in old age could grow as a consequence of these reforms, with more disadvantaged older workers, the less-educated and low-skilled in particular, facing greater difficulties in extending their work career (Visser et al, 2016; Blossfeld et al, 2011; Gesthuizen and Wolbers, 2009; Van Solinge and Henkens, 2007). The employment rate of older workers varies significantly by education. In 2015, 77% of those aged 55-64 with a tertiary education was employed with corresponding figures for workers with medium and low education at 64% and 48% respectively. The employment gap between the education groups was substantially greater among women than men. Regarding trends in employment by education, the largest increase is observed for women with a higher education level.



FIGURE 43 EMPLOYMENT RATES OF WOMEN WITH TERTIARY EDUCATION BY AGE (%), 1996-2015

Source: EU-LFS

According to projections, female participation is expected to further increase as new generations of working women replace the current cohort of older women (Euwals & Folmer, 2009). This has important implications for elderly labor market participation, but also for unpaid work, such as volunteering and informal care, in the future. A decrease in intensive volunteering and in informal care provision among older population groups, has, for instance, been predicted (Dekker et al, 2007; de Boer, 2007).

INEQUALITIES IN LATE CAREER AND IN THE TIMING OF RETIREMENT

Socio-economic and gender differences in late career and retirement patterns in the Netherlands point to the intersection between gender and social class and to group-specific work and retirement trajectories (Visser et al., 2016; Radl, 2013; Duncan & Loretto, 2004). The gender gap, for instance, turns out to be very small and almost disappears when family and class position is taken into account

(Radl, 2014); a finding that may seem conspicuous given the extent of gender-based occupational segregation and persistent wage discrimination.

Educational inequalities in the late career mobility and work-to-retirement transition of Dutch older men and women appear to be particularly pronounced. Compared to the higher educated, older men and women with an elementary, basic vocational, or intermediate vocational education are more prone to the risk of late career instability and unfavorable retirement circumstances and are less likely to experience upward income mobility (i.e. increase in their individual wage level) (Gesthuizen & Wolbers, 2009). As a result, they have significantly less pension income after retirement than the higher educated. Labor market disadvantages also accumulate over the life-course and more so for those with lower education. For less-educated older people, and for men in particular, employment careers are more often interrupted by ill health, disability and unemployment that severely hinder the prolongation of their working lives (Visser et al., 2016; Wolbers, 2000). In contrast, higher-educated older people tend to have work histories with higher degrees of mobility both within and between jobs, and work schedules that offer greater flexibility. Besides educational attainment, lower occupational status (i.e. lower routine non-manual and skilled and unskilled manual working classes) is strongly associated with the experience of downward income mobility and with lower retirement income both for older men and women in the Netherlands (Gesthuizen & Wolbers, 2009). As for retirement timing, occupational class position seems to be particularly relevant for women. In comparison to women of upper service class, those in the lower occupational group are more likely to enter retirement relatively late which is not the case for men. Episodes of unemployment and disability are, however, more frequent among male unskilled manual workers. The latter could be explained by the fact that they spend a long period of their lives working in the industrial sector and are thus more exposed to health risks (Visser et al., 2016). All in all, the most stable late careers in terms of preventing employment exit are found within the social services, even though it comes with the trade-off of lower upward income mobility. Part-time employment is also associated with a lower chance of wage increase during the late career. Considering the Dutch part-time culture, especially the high share of female part-time employment describe before (see section 4.1), and that women are overrepresented in the low-paying social services sector, these findings have relevance to understanding the large gender pension gap that exists in the Netherlands. Finally, family and marital status are found to have contradictory effects on men and women. While the presence of children at home lowers the risk of non-employment during the late career for men, for women it increases the risk (Gesthuizen & Wolbers, 2009). In addition, the risk of downward income mobility is greater for women who have children. As regards retirement, both men and women with children in their household have a tendency to retire significantly later than those where no children are present. Divorced or widowed women are more likely to retire significantly earlier than married and unmarried women.

In view of the latest pension reforms and the current policy discourse to extend working lives in the Netherlands, the question is whether specific parts of the older population will be able to meet this expectation or will fail to do so. If the latter scenario holds, then social inequalities may rise. The challenge for policy-makers is therefore to ensure that disadvantaged older workers remain employable and are protected against forced or involuntary retirement. In the Netherlands, there have been increased efforts in recent years to mobilize employers and employees alike to invest in maintaining and improving employability in order to reduce the risk of long-term absence from work

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and premature exit from the labor market. Sustainable employability, in particular, has been used as a key approach to achieve this. The concept was officially taken up in 2007, when the Commission on Employment Participation suggested encouraging employees to stay in the labor market until the statutory retirement age (Houtman, 2012). Sustainable employability became even more important when the government decided to gradually increase the statutory retirement age from 65 to 67. Discussions of the reforms were accompanied by a discourse on sustainable employability that emphasized the importance of the ability to work until the statutory retirement age taking into account the current employability status of employees, their individual resources and capabilities such as health and functional capacity, and knowledge and skill formation.

An additional dimension concerned the work environment and management, which also includes the content and demands of the work and the work community. In 2009, the Dutch cabinet submitted a memorandum to the Parliament, in which it committed itself to investing in the productivity, employability and mobility of workers (Skugor & Bekker, 2012). Within this, three key areas for policy development were identified: education and training, age-aware human resource management strategies for companies, and development of instruments for preventive interventions. In 2011, Dutch social partners agreed upon and signed a manifesto to call for a new form of industrial relations in which "sustainable employability" was the main focus encompassing all workers. The aim was to conclude collective agreements that take into account the individual capacities and capabilities, investment in employees' skills bringing their knowledge more up-to-date and better working conditions.¹⁹ At the same time, a number of employability-enhancing practices were implemented to counter the disadvantages that lower-educated people and members of the working class accumulate over their life course (Gasior & Zolyomi, 2013; Skugor & Bekker, 2012).

One specific government-funded measure aimed at facilitating late career mobility is the experience certificate (*Ervaringscertificaat*) that has been included in a growing number of collective labor agreements in several sectors (Duvekot, 2014). It provides an overview of prior learning acquired through formal education and on the job, but also of skills and competences gained for instance through volunteering. Subject to an official certification process, it represents an independent document to achieve a range of life-long learning outcomes. Life-long learning policies in the Netherlands are included in a large set of sector-specific agreements between social partners and the government (Krüger et al, 2014). These agreements set out regulations on the tax-deductibility of costs for training and development. Employers pay social contributions into these training funds and get partly reimbursed through their sector specific fund if they provide training to their employees. While there are special sector funds available for more disadvantaged groups, such as older workers, low-skilled employees or migrants, so far few sectors actually make use of them (Berger & Moraal, 2012). Moreover, the unemployed are by definition excluded from benefiting from such funds. Instead, Iller and Moraal (2013) emphasize the role of the Dutch Education and Development funds (*Onderwijs en Ontwikkeling*, O&O Funds) in the process of institutionalization of life-long learning in

¹⁹ A recent study shows that the number of Collective Labour Agreements that include provisions for age-aware human resource management has increased between 2006 and 2009 (Beeksma and De la Croix, 2009).

the Netherlands. These provide sector-exceeding public funding that support marginal groups and groups that are not well represented within the trade unions.²⁰

As the case of the Netherlands shows, reforms in the pension system, in particular, policy measures to restrict access to various forms of early retirement pathways have been an important factor behind the increasing labor market participation of older workers and they undoubtedly play a crucial role when it comes to extending working life. These policies, however, also pose a threat of a growing cleavage between those older workers who are capable of prolonging their employment and those who lack the individual resources to do so. Thus, policy initiatives dealing with an ageing workforce also need to address the challenges faced by different groups of older people. Increased focus on employability and life-long learning in the Netherlands indicate that Dutch policies are moving in this direction. Nevertheless, more initiatives and services should be targeted to the identified risk-groups that most need them, such as the less educated and the low skilled. In addition, policies aimed at reconciliation of working life with unpaid activities e.g. care responsibilities should become even more relevant in the future in view of the rising employment rates of women.

INEQUALITIES IN SOCIAL PARTICIPATION

As far as social participation is concerned the Netherlands is one of the top-performers in Europe. Compared to other Europeans, older Dutch do considerably more volunteer work (see section 4.2). The comparative analysis shows that they are also very active in other forms of civic engagement, such as political participation and family care including care for grandchildren. Volunteering and active citizenship in the Netherlands is widely recognized as a valuable way to engage with and within the community and has been intensively promoted and supported both at the national and local level (CEV, 2007). The main public body responsible for volunteering at the national level is the Directorate for Social Policy under the Ministry of Health, Welfare and Sports. There are two national institutions which were established to coordinate volunteering activities and provide support for voluntary organizations and volunteers: NOV (Association of Dutch Voluntary Organizations), an umbrella organization representing the interests of member organizations in the voluntary sector, and MOVISIE, the new knowledge centre and consultancy agency for volunteer work since 2007, that is tasked with implementing governmental policy in this field (CEV, 2007, 2012). Local-level support and services (e.g. mediation, information, advice, fostering expertise, providing facilities) are offered at the local volunteer centers that are financed by the municipalities. The role of these centers became particularly important when the Social Support Act came into force in 2007. With this Act, it has become mandatory for Dutch municipalities to support volunteer work. Financial support for voluntary activities by the local governments is provided either on a project basis or through the use of structural funds, although the amounts available have been diminishing due to the budget cuts in recent years. Additional funding is ensured by large national foundations, such as the Oranje Fonds, and by national funding institutions that offer money for sector-based activities (e.g. Fund for Cultural Participation) or for special target groups, such as the special fund for elderly (Ouderenfonds) or for people with disabilities (CEV, 2012).

A similar infrastructure to that of volunteering exists in the Netherlands for informal care. The national body representing all informal carers, support organizations and informal care organizations is Mezzo,

²⁰ In 2007, there were 140 different O&O funds in 116 sectors and 5.9 out of 6.9 employees belonged to a fund, which amounts to 86% of all employees (Donker van Heelet al., 2008)

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the national association for informal care and voluntary care. Local support institutions are similar to the volunteer centers. They provide information, support and activities for people who provide assistance and help for family members, and for volunteers who are active in informal care. The new Social Support Act, introduced in 2015 as part of the long-term care reforms, is of special importance here, as it assigns further responsibility for municipalities for supporting the independent living and social participation of people who experience a restriction because of a long-term illness, old age or disability (Galenkamp et al., 2015).

During the last decade, a variety of ways to stimulate the social participation of Dutch citizens has appeared. 'Third party' partners, such as local governments, schools and businesses, have implemented several local projects to promote volunteering and active citizenship (CEV, 2012; Hurenkamp & Rooduijn, 2009). In 2006, the first of the largest national one-day campaign in the Netherlands called NLDdoet (The Netherlands acts), was launched, that has since been organized every year. Within secondary schools, the concept of 'service learning' has been introduced in 2007 and implemented since 2011 (CEV, 2012). It is now obligatory for secondary school students to do 30 hours of voluntary work as part of their curriculum. Meanwhile, new forms of volunteering, such as corporate or employee volunteering, have become more widespread as an increasing number of businesses encourage their employees to spend some hours on volunteering (Meijs & van der Vort, 2009).



FIGURE 44 PARTICIPATION IN VOLUNTARY WORK IN OLDER AGE GROUPS (%), 1997-2008)

So far, the trends in elderly social participation have been encouraging. Participation in voluntary activities among older age groups remained more or less stable and has slightly increased during recent years (Galenkamp et al., 2015). Yet, the average amount of time that people of 65 and over are spending on voluntary work is decreasing due to more and more competition from other forms of spending one's time, including continuing to do paid work, caring for grandchildren and giving family care (Dekker et al., 2007, 2009; de Boer, 2007). In younger age groups, voluntary work is becoming less frequent and more episodic (van Ingen, 2009). Trends in informal care giving are less clear as studies are often based on different surveys and use different definitions. Some show that in the last

Source: Statistics Netherlands, CBS, Den Hague

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ten or so years the share of older informal carers (aged 65 and older) increased (Hofstede et al., 2013) while others point to a decreasing trend (Broese van Groenou & Tolkacheva, 2014). Grandparent-provided childcare among older people aged between 54 and 89 years increased between 1992 and 2006 (Geurts et al, 2014).

Gender inequalities appear to be very small. Older women engage in volunteer work to the same extent as men do and are equally satisfied with their voluntary work (Statistics Netherlands, 2015). No significant gender difference can be observed with respect to political participation, but women are more likely to provide help and care, and more frequently, than their male counterparts. The strongest predictors for involvement in volunteering among Dutch senior citizens are education, income and health (Knipscheer, 1998; Lamme, 1998; Wiggers, 2003; Broese van Groenou and Deeg, 2010). Older people with poor health, those with low income and those with low education are less likely to do voluntary work. Senior citizens with small networks (Timmermans, 2003; Toepoel, 2013) and those who are less religiously involved (Suanet et al., 2009) tend to engage in volunteering less frequently in the Netherlands. While more recent cohorts of 55-64 year olds are not as religiously active than previous ones, they appear to be more supportive of social engagement at older age, and more often have parents who volunteered and were higher educated (Suanet et al., 2009). The relationship between employment and social participation is not straightforward; paid work in itself does not necessarily result in less volunteering, family care and grandparenting (Ruiters & Bekkers, 2009). Working full-time, however, does have a significant negative impact: taking into account differences in health and gender, older people employed on a full-time basis are not only less often participate in voluntary work, but also provide fewer informal help. They are also five times less likely to be involved in caring for grandchildren than someone who is not in employment (Ruiters & Bekkers, 2009). The effect is found to be even stronger for women. In the case of political participation, education seems to be a decisive factor which considering a growing education gap in this form of social engagement should deserve more policy attention (Bovens & Wille, 2010).

Those groups of the older population who currently participate less socially have also an interest in civic engagement, and aspects like education, health, income or people's social network, will need to be emphatically taken into consideration in the longer term. As the Dutch baby boomers are entering the group of 75 and over they can look forward to having longer lives with more healthy years than their predecessors. However, the health of the young olds (60-69) is shown to be worsening which will result in reduced capacities for social productivity and participation in voluntary work and family care (Broese van Groenou and Deeg, 2010). Moreover, the continuing increase in paid work until later in life, particularly the growing employment rate among women, will likely put pressure on the availability of volunteers, a considerably share of whom are active in the care and welfare institutions in the public sector (CEV, 2012). Organizations that depend on volunteer effort will need special strategies and capacities to recruit and retain their older volunteers. Policies that keep volunteering open for all generations can also remedy existing inequalities and address the mentioned societal trends; thus staying true to the Dutch approach that sets participation of *all* citizens as the major goal of its policy on volunteering.

6. THE WAY FORWARD: CONCLUDING REMARKS ON INEQUALITIES IN ACTIVE AGEING

The active ageing policy discourse has carried with it a strong normative message in terms of maintaining older people actively engaged in society. Insofar as it encompasses not only employment but other forms of non-paid participation, the active ageing concept is already implicitly recognizing the differentiated contributions that different groups of people may make to society. However, much less or hardly any attention has been paid to the possible inequalities associated with active ageing. The present study contends that inequalities in active ageing may take (at least) two forms. The first is inequalities in active ageing per se, i.e. differences according to gender or socio-economic status in the contribution that older people make to society, captured, for example, by differences in employment rates or informal care. The second refers to what we have called inequalities in the capacity to actively age, i.e. differences in the varied forms of capital on which older people can draw to actively age, which includes but is not limited to differences in health, ability to make ends meet, education and social contacts.

Concerning the first of these forms of inequalities, this study has shown that the experiences of ageing differ substantially between older women and men, between those with more financial resources and those with less, when one analyses the different forms of participation of older people in society. This refers not only to group differences for specific indicators but also to the interdependencies between different forms of participation and how they can reinforce inequalities. As an illustration, while women are less likely to be employed than men, they are more likely to be caring for dependent relatives, a pattern which is rooted in traditional gender identities that are coined long before people retire. Inequalities in old-age can thus reflect the unequal gender distribution of paid/unpaid work present over the life course, and these complex relations need to be understood for active ageing policies to reflect older people's realities. Some differences in social participation between groups remain concealed if one does not take into consideration inequality-sensitive indicators, such as the ones this study employed. For example, a significant share of the employment of older women is accounted for part-time employment, while most men work full-time. Similarly, more affluent older individuals are involved in providing care to dependent relatives, but it is primarily lower-income older people who provide more intense or frequent care.

The second form of inequalities in active ageing – the one pertaining to capacities – is at least equally important. This study has highlighted that not all older people have the same possibilities to actively age as they may lack good health, sufficient financial resources, education or physical safety. Again, it is mostly lower-income and to a lesser extent women, that fall behind in this respect, and intersecting inequalities may compound the effect even further. This means that women in low-income groups are a particularly vulnerable group, as are older people facing deprivation in both social and financial resources. What is more, the two dimensions of inequalities are naturally also intertwined with each other. Employment is hampered if older workers are in poor health, which in turn tends to correlated with education; isolation or perceived physical insecurity may hamper volunteering; social capital enhances political participation and even volunteering after retirement requires at least a modicum of

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financial resources. These results highlight the need for a broader understanding of public policy, one in which labor market outcomes may actually be best addressed through, for example, health policies.

The main message arising from this report is therefore that active ageing policies may only be successfully implemented if the processes underlying older people's participation are given due consideration. For instance, some groups of older people, especially women and men of lower qualification, might continue to work in paid employment merely out of financial pressure, while others, mainly in higher income groups, might afford to continue working out of pleasure and selffulfillment derived from their jobs. Similarly, many low qualified workers or women might not be healthy enough to prolong their working lives. Policies focusing on raising overall levels of participation in old-age that do not give due consideration to the health situation and living conditions of women and men, and of disadvantaged groups of older people, are unlikely to succeed in "optimizing opportunities for health, participation and security", as the WHO definition of active ageing suggests. In another example, the different realities in which older women live – many in single households and with lower income than men - should be reflected in gender-sensitive policy approaches towards participation that go beyond their role as caregivers. One question that emerges is how and if traditional gender roles in European societies might become weaker in older age, a period in which (gender) identities related to previous occupational status become less salient. The findings of our study show, for instance, that participation in informal care is highest in countries where older men too are strongly involved in this type of unpaid activity.

Another important aspect of inequalities in old-age that this study also aimed to highlight is the life course perspective. The different forms of participation in old-age and the varied forms of capacities for active ageing are often the result of a cumulative process spanning the life course of older people. This has two important implications for addressing inequalities in old-age. Firstly, from a policy perspective this means that actions taken today concerning younger cohorts of people in Europe are likely to have a substantial impact on the future inequalities in active ageing. This applies to a number of dimensions, from behavioral risks and health, to education and employment, to care policies and gendered labor markets. The positive message arising from this is that policy-makers have a greater time-span on which to intervene to shape inequalities in active ageing in the future.

Secondly, this means that inequalities in active ageing are dynamic in their underlying causes and to some extent cohort specific. This means that some of the present findings of this study may not entirely carry forward to future cohorts of older people. For example, future generations might be less divided along gender identities, with female employment rates rising across Europe. Yet, traditional gender roles continue to persist in all European countries. In the absence of decisive policy intervention, it is likely that the double burden of paid work and unpaid care responsibilities will take its toll (also) on the health of future cohorts of older women. Present health inequalities in the cohort of older people have been shaped by relatively high smoking rates - observed in the past and concentrated among men, inequalities in education, physically demanding blue collar jobs in which a sizeable majority were employed and different mortality patterns. Current patterns of health inequalities might not hold in the future as countries progress into different stages of the smoking epidemic, access to higher education is broader and economies transition towards higher employment in the service sector. Future inequalities in active ageing may also be shaped by other dimensions not

covered in the present study such as nationality, ethnicity or migrant status and this is one of the possible new avenues of research unearthed by the present study.

As for the link between the existing inequalities in active ageing and the relative performance of each country in terms of achieving active ageing (as proxied by their standing in the AAI) this study offers a supplementary messages. On the one hand, there is some indication that front-runners in terms of active ageing have also, in general, lower inequalities in active ageing. This suggests that the possible path for many countries to improve their standing and be able to turn ageing into an asset is by addressing inequalities in older age groups. On the other hand, even for front-runners there were palpable inequalities in a number of indicators. This highlights the importance of inequalities in active ageing even in societies that foster the participation of older people and the gulf that still exists between the experience of certain population groups and the policy discourse of active ageing.

In view of these results we conclude with a strong recommendation for future policies on active ageing to take a life course approach towards explicitly addressing gender, social class and other inequalities among older cohorts.

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ANNEX 1. GRAPHS & FIGURES FOR SECTION 4



1. INTRODUCTION

FIGURE A1.1: POVERTY RATES ACROSS EU 27 COUNTRIES (IN % - EUROSTAT, 2014)

Source: Eurostat, 2014

4.1 Employment

FIGURE A4.1.1 EMPLOYMENT RATE FOR THE 65-74 AGE GROUP, BY GENDER (IN %)



Source: EU-LFS, 2014







Source: EU-LFS, 2014

Note: T/P denotes relative inequality between individuals with tertiary education achievement and those with primary and lower secondary education achievement and is calculated as the ratio of employment rates for the two groups



FIGURE A4.1.3. PROPORTION OF MEN AND WOMEN AGED 55-64 EMPLOYED IN PUBLIC SERVICES (IN %)

Note: Public services include: Public administration and defence; Compulsory social security; Education; Human health and social work activities



FIGURE A4.1.4. AVERAGE NUMBER OF YEARS SPENT IN PAID WORK FOR THE 55 AND OLDER, BY GENDER (IN %)

Source: EU-SILC 2014

Source: EU-LFS, 2014

4.2 PARTICIPATION IN SOCIETY



FIGURE A4.2.1: VOLUNTEERING PARTICIPATION RATES FOR PEOPLE AGED 50 AND ABOVE BY GENDER (IN %)

Source: ESS – 6



FIGURE A4.2.2: CAREGIVING RATES FOR INDIVIDUALS AGED 55 AND ABOVE BY INCOME QUINTILES (IN %)

Source: SHARE Wave 5



FIGURE A4.2.3: POLITICAL PARTICIPATION RATES FOR INDIVIDUALS AGED 50 AND ABOVE BY INCOME QUINTILES (IN %)

Source: ESS - 6





Source: SHARE Wave 5



A4.3.1 Healthy life years at age 50 in percentage of total life expectancy (%)

4.3 INDEPENDENT, HEALTHY AND SECURE LIVING

Source: Eurostat

A4.3.2 Proportion of individuals aged 55 and above who report good self assessed health by gender (%)



Source: EU-SILC 2014





A4.3.4 PROPORTION OF INDIVIDUALS AGED 55 AND ABOVE WHO ARE CURRENTLY



Source: SHARE Wave 5



A4.3.5 PROPORTION OF INDIVIDUALS AGED 55 AND ABOVE DOING VIGOROUS PHYSICAL ACTIVITY AT LEAST ONCE A WEEK, BY GENDER (IN %)

A4.3.6 Proportion of individuals aged 55 and above who consume more than two glasses of alcohol almost every day, by income quintile (in %)



Source: SHARE Wave 5

Source: SHARE Wave 5



A4.3.7 Proportion of individuals aged 55 and above who report having unmet care needs, by gender (in %)

Source: EU-SILC 2014

A4.3.8 Proportion of individuals aged 55 and above reporting difficulty in making ends meet by gender (in %)



Source: SHARE Wave 5



A4.3.9 PROPORTION OF INDIVIDUALS AGED 55 AND ABOVE WHO REPORT EVER HAVING SMOKED BY INCOME QUINTILE (IN %)

Source: SHARE Wave5

A4.3.10 Proportion of individuals aged 55 and above who reporting coming from a poor household during childhood by gender (in %)



Source: SHARE Wave 5 & SHARELIFE

4.4 CAPACITY AND ENABLING ENVIRONMENT



A4.4.1 PROPORTION OF INDIVIDUALS AGED 55 AND ABOVE REPORTING HIGH LIFE SATISFACTION BY GENDER (IN %)

Source: EU-SILC 2013

A4.4.2 Proportion of individuals aged 55 and above reporting feeling depressed by gender (in %)



Source: EU-SILC 2013





Source: ESS- 6



A4.4.4 PROPORTION OF INDIVIDUALS AGED 50 AND ABOVE WHO FEEL FREE TO DECIDE FOR THEMSELVES HOW TO LIVE THEIR LIFE, BY INCOME QUINTILE (IN %)

Source: ESS- 6

4.5 THE BIGGER PICTURE

A 4.5.1 Correlation matrix of socio-economic inequalities

	Employment rate (55-64)	Employment rate (65-74)	Volunteerin g	Any informal care	Political participatio	Self-assessed health	Tertiary educatio
	0.(22				<u> </u>		n
Employment rate	0.633						
(65-74 years)							
Volunteering	0.092	0.244					
Any informal care	0.049	-0.200	0.013				
Political participation	0.264	0.323	0.556	-0.283			
Self-assessed health	0.566	0.339	0.302	0.082	0.324		
Tertiary education	-0.239	-0.351	0.040	0.095	0.200	-0.353	
Life satisfaction	0.370	0.347	0.229	0.027	0.302	-0.490	0.058

A 4.5.2 Correlation matrix of gender inequalities

	Employment rate (55-64)	Employment rate (65-74)	Volunteerin g	Any informal care	Political participatio n	Self-assessed health	Tertiary educatio n
Employment rate							
(65-74 years)	0.731						
Volunteering	0.009	0.171					
Any informal care	0.247	-0.365	-0.031				
Political participation	0.524	0.293	0.109	0.388			
Self-assessed health	0.045	-0.182	-0.237	0.618			
Tertiary education	0.470	0.127	-0.119	-0.059	0.192	0.237	
Life satisfaction	0.217	0.187	0.001	0.057	0.265	0.221	0.130

Notes: The values in the above tables represent Pearson's correlation coefficients (r), which measure the strength and direction of the relationship between two measures of inequality (e.g. there is a positive relationship between socio-economic inequalities in the employment of older people and inequalities in self-assessed health, r=0.566). In order to calculate the coefficient of determination (r^2) this value needs to be squared (for the example given r^2 =0.320). It gives the proportion of the variance (fluctuation) of one variable that is predictable from the other variable.

ANNEX 2. INDICATORS AND DATA SOURCES

	Indicator (measured in)	Dataset	Year	Country coverage	Notes
	Employment rate of individuals aged 55 to 64 years, by gender	EU-LFS	2014	EU-28, NO, CH &	
	(%)			IS	
	Proportion of employed individuals aged 55 to 64 years who	EU-LFS	2014	EU-28, NO, CH &	
	report working part-time, by gender (%)			IS	
	Proportion of individuals aged 55 and above reporting that the	EU-LFS	2014	EU-28, NO, CH &	Persons working on an
	reason for their part-time employment is one of the following:			IS	involuntary part-time basis are
	own disability, looking after children or incapacitated adults,				those who declare that they work
	other personal or family responsibilities or could not find a full-				part-time because they are
ent	time job (%)				unable to find full-time work
m	Share of male and female aged 55 to 64 years who are	EU-LFS	2014	EU-28, NO, CH &	In a male(female)dominated
loy	employed in female-dominated, male-dominated and mixed			IS	sector more than 60% of
du	economic sectors (%)				employees are male (female)
Ē	Proportion of individuals aged 55 to 64 years employed as	EU-LFS	2014	EU-28, NO, CH &	Data refer to 2012 for CY. No
	managers, by gender (%)			IS	data for LU
	Gender Pay Gap in unadjusted form (%)	EU-LFS	2014	EU-28, NO, CH &	Data refer to 2010 for DE, EL,
				IS	LV, LU and AT; 2012 for IE;
					and 2013 for IS and CH; and to
					2010 for 65+ in IT
	Proportion of individuals aged 55 and above who report having	SHARELIFE	2009/	14 EU countries	Data from the two datasets is
	had above average mathematical skills at age 10, by income	SHARE W5	2014		pooled in order to extend country
	quintile (%)				coverage
	Proportion of individuals providing voluntary or charitable	ESS - 6	2012	23 EU countries,	Data for CY, PT, IT, IE, SK, SL
ety	work for at least once a month in the year prior to the interview			NO, CH & IS	incomplete due to small sample
oci			2014		size
JS	Proportion of individuals aged 55 and above who provided	SHARE W5	2014	14 EU countries	
Participation ir	practical household help or personal care to a family member,				
	friend or neighbour outside the household, and/or care to				
	grandchildren in the year prior to the interview (%)	Egg (2012		
	Proportion of individuals aged 50 and above who contacted a	ESS - 6	2012	23 EU countries,	Data for CY, PT, IT, IE, SK, SL
	politician/local government/government and/or worked in a	ESS - 7	2014	NO, CH & IS	incomplete due to small sample
	political party or action group and/or worked in another				size
	organisation/association and/or wore/displayed a campaign				Data for AT based on ESS - 7

ANNEX 2: INDICATORS AND DATA SOURCES

	badge/sticker and/or signed a petition and/or took part in a lawful demonstration and/or boycotted certain products in the year before the interview (%)				
	Proportion of individuals aged 55 and above providing, on a daily basis, practical household help or personal care to a family member, friend or neighbour outside the household in the year prior to the interview (%)	SHARE W5	2014	14 EU countries	
	Average number of children for individuals aged 55 and above	SHARE W5	2014	14 EU countries	
	Average number of months of maternity leave over the life course for women aged 55 and above	SHARELIFE	2009	13 EU countries	
	Healthy life years in absolute value, at age 50 (years)	Eurostat	2013	EU-28, NO, CH & IS	
	Healthy life years at age 50 in percentage of total life expectancy (%)	Eurostat	2013	EU-28, NO, CH & IS	
living	Proportion of people aged 50 and above who feel very safe or safe walking alone after dark in their local area/neighborhood (%)	ESS - 6	2012	23 EU countries, NO, CH & IS	Data for CY, PT, IT, IE, SK, SL incomplete due to small sample size
	Proportion of people aged 55 and above who report good or very good self-assessed health (%)	EU-SILC	2014	EU-28, NO, CH & IS	
althy	Proportion of individuals aged 55 and above who report smoking at the time of the interview (%)	SHARE W5	2014	14 EU countries	
nd he	Proportion of individuals aged 55 and above consuming more than 2 glasses of alcohol almost every day (%)	SHARE W5	2014	14 EU countries	Data is drawn from the imputation dataset
lent a	Proportion of individuals aged 55 and above doing vigorous physical activity at least once a week (%)	SHARE W5	2014	14 EU countries	
Independ	Proportion of individuals aged 55 and above reporting that over the previous 12 months, they felt they needed healthcare but did not receive it (%)	EU-SILC	2014	EU-28, NO, CH & IS	Refers to general health care, excluding dental care
	Proportion of individuals aged 55 and above reporting that their household is making ends meet with some or with great difficulty (%)	SHARE W5	2014	14 EU countries	
	Proportion of individuals aged 55 and above reporting ever having smoked (%)	SHARE W5	2014	14 EU countries	Data is drawn from the imputation dataset
	Proportion of individuals aged 55 and above reporting that, during their childhood (0-15 years) their family was poor (%)	SHARELIFE SHARE W5	2009/ 2014	14 EU countries	Data from the two datasets is pooled in order to extend country

					coverage
	Proportion of individuals aged 55 or above reporting high life	EU-SILC	2014	EU-28, NO, CH &	
	satisfaction (values of 9 or 10 on a scale ranging from 1 to 10)			IS	
ы	(%)				
lilo	Proportion of individuals aged 55 and above reporting feeling	EU-SILC	2014	EU-28, NO, CH &	
nal	depressed most of the time or some of the time (%)			IS	
and er onme	Proportion of individuals aged 50 and above who agree or	ESS - 6	2012	23 EU countries,	Data for CY, PT, IT, IE, SK
	strongly agree that they are free to decide for themselves how to			NO, CH & IS	incomplete due to small sample
ty : vir	live their life (%)				size
aci	Proportion of individuals aged 50 and above who meet socially	ESS - 6	2012	23 EU countries,	Data for CY, PT, IT incomplete
ap	with friends, relatives or work colleagues at least once a month			NO, CH & IS	due to small sample size
C	(%)				
	Proportion of individuals aged 55 and above who completed	EU-SILC	2014	EU-28, NO, CH &	
	upper secondary or higher education (%)			IS	

ANNEX 3. LIST OF EXPERT INTERVIEWS

Country	Domain	Expert name (main affiliation)
Estonia	Employment	
Estonia	Employment	
Denmark	Healthy & Independent living	
Denmark	Healthy & Independent living	
Denmark	Capacity & Enabling environment	
Denmark	Capacity & Enabling environment	
Sweden	Employment	
Sweden	Healthy & Independent living	
Netherlands	Employment	
Netherlands	Social Participation	

Notes: * Face-to-face interview

Annex 4. Graphs and figures for case studies



FIGURE 5.2.1 All-CAUSE MORTALITY AMONG THE LOW AND HIGH EDUCATED BY COUNTRY AND SEX, 1990S AND 2000S

Source: Mackenbach et al., 2015:209. Notes: Mortality-standardised to the European Standard Population. Low = no, primary or lower secondary education (ISCED 0, 1, 2). High = tertiary education (ISCED 5, 6).



FIGURE 5.3.1. LIFE EXPECTANCY AT BIRTH AND AT AGE 65 (TIME TREND)

Source: WHO/Europe, European HFA Database, December 2015

FIGURE 5.3.2. SMOKING PREVALENCE AMONG ADULTS IN DENMARK (TIME TREND)



The proportion of smokers among Danish men in nine smoking habit surveys. Heavy smokers in three smoking habit surveys (1953-2010).

The proportion of smokers among Danish women in nine smoking habit surveys. Heavy smokers in three smoking habit surveys (1953-2010).



Source: Clemmensen et al., 2012

	25-49 years old	50-64 years old
Managers	39.6	40.4
Professionals	57.8	59.9
Technicians and associate professionals	44.7	42.7
Clerical support workers	67.1	68.5
Service and sales workers	66.3	71.9
Skilled agricultural, forestry and fishery workers	25.8	24.2
Craft and related trades workers	6.1	4.5
Plant and machine operators and assemblers	14.5	12.8
Elementary occupations	48.9	62.9

TABLE 5.4.1 SHARE OF WOMEN EMPLOYED IN SELECTED OCCUPATIONS BY AGE GROUPS, 2015 (IN %)

Source: Eurostat, Labour Force Survey 2015

Notes: Includes only employees in firms with 10 or more employees.

TABLE 5.4.2: Sectors with the lowest/highest proportion of women EMPLOYED IN THE TOTAL WORKFORCE AGED 50-64, 2015 (IN %)

Lowest proportion of women		Highest proportion of women	
Mining and quarrying	5.3	Human health and social work activities	83.0
Construction	8.1	Education	75.6
Water supply; sewerage, waste management	12.7	Other service activities	59.3
Transportation and storage	18.6	Public administration and defence; social security	58.7
Electricity, gas, steam	19.2	Financial and insurance activities	50.0
Manufacturing	19.7	Accommodation and food service activities	49.5

Source: Eurostat, Labour Force Survey 2015

Notes: Includes only employees in firms with 10 or more employees.