



Life Cycle Transitions and Vulnerabilities in Old Age: A Review

Asgar Zaidi

Asgar Zaidi is a Professor of International Social Policy at the University of Southampton. Previously, he was Director of Research at the European Centre for Social Welfare Policy and Research in Vienna; Senior Economist at the Organisation for Economic Co-operation and Development (OECD) in Paris; Economic Adviser at the United Kingdom's Department for Work and Pensions in London; and a research officer at the London School of Economics and the University of Oxford. His recent research interests span active and healthy ageing, measuring the well-being of older people and people with disabilities, and the financial and social sustainability of public welfare systems. Within the framework of the 2012 European Year, he led the Active Ageing Index project, working alongside the United Nations Economic Commission for Europe and the European Commission. During 2013, collaborating with HelpAge International London, he was the main architect of the Global AgeWatch Index, the first worldwide measure of the quality of life and well-being of older persons. The author is grateful for comments and discussion provided by Maria Evandrou and Jane Falkingham (Social Sciences, University of Southampton) during early stages of this study. Discussions with other colleagues, in particular, Elisabeth Schröder-Butterfill, Gloria Langat and Aravinda Guntupalli, provided valuable insights. Comments and insights offered by UNDP's Human Development Report team (especially Pineda and Eva Jespersen) and by the Global AgeWatch team of HelpAge International (in particular, Sylvia Beales, Jane Scobie and Eppu Mikkonen-Jeanneret) are also gratefully acknowledged. Thanks go to Sean Terry, Oxford Brookes University, for his comments on various early drafts.

ABSTRACT

This paper reviews the concepts of vulnerability and resilience, and their applications for ageing and older people through literature in this area. Concurrently, it reviews the life course framework and the capability approach, and their relevance to human development. Current literature offers great insights on novel approaches to conceptualizing the quality of life and well-being of older people, as well as information on distinctive analytical tools (such as the Active Ageing Index and the Global AgeWatch Index) that help measure and monitor varying outcomes across different policy contexts. The paper demonstrates how policy interventions throughout the life course must aim to not just reduce vulnerabilities to *risks* but also boost the personal *coping capacities* (or resilience) of people moving into old age. These interventions are most effective when accompanied by active, health-enhancing behaviour by individuals, by a reduction in the socio-cultural constraints faced by older people, as well as by enabling, age friendly environments. The paper points to the long-term impact of transitions (such as the onset of disability or the death of spouse) and life course experiences (such as work and family history) on three key components of the quality of life and well-being of older persons: financial well-being, health, and social support and connectedness. The discussion extends to how contextual and temporal factors contribute to inequalities and vulnerabilities in old age, with an emphasis on identifying the role of gender disparities and institutional differences across countries. A review of evidence generated by the Global AgeWatch Index helps identify contexts in which older people fare better. It points to policy interventions effective in ameliorating vulnerabilities among current and future generations of older persons.

Introduction

This paper reviews relevant literature on the impact of life cycle transitions on vulnerabilities in old age. It presents current understandings of the notion of vulnerability and resilience, and their applications for ageing and older people. A two-pronged framework—analysing the capability approach and the life course perspective—is argued to be the best way to gather evidence on aspects of human development that empower older people, something critical not just for a full understanding of the future societal challenges of population ageing, but also of the policy and behavioural responses required in different contexts across the world.

The paper provides a summary of empirical literature on how numerous life course experiences and transitions affect the personal welfare of older people. An emphasis is placed on identifying the long-term impact of trigger events (such as the onset of disability or the death of spouse) and life course experiences (such as work and family history) on three key components of the quality of life and well-being of older persons: financial well-being, health, and social support and connectedness.

These three dimensions are closely linked to determinants of multidimensional, multi-level measures of vulnerabilities in old age. The paper highlights how contextual and temporal factors contribute to inequalities and vulnerabilities in old age, with a focus on identifying the roles of gender disparities and institutional differences. It examines how the cumulative effect of experiences of childhood, youth and middle age can be seen in terms of disadvantages in old age. The evidence highlights that individuals are active agents in the construction of their lives, for instance, through health-promoting activities. It presents the importance of income and employment security throughout the life course, including old age, and of education and human capital in predicting unequal experiences of ageing and old age. Social protection schemes as well as universal public health programmes stand out as critical in many countries in enhancing the coping capacities and resilience of people through the life cycle.

In undertaking policy analysis, useful synergies are drawn from concurrent work on the Global AgeWatch Index, which since its launch in October 2013 has provided a first-of-its-kind quantitative measure on the quality of life and well-being of older people across the globe. The evidence generated by the index helps identify contexts in which older people fare better, and points to policy interventions effective in ameliorating vulnerabilities among current and future generations of older persons.

This paper is organized in four sections. Section 1 focuses on identifying key components of the concept of vulnerability as it applies to older persons, and discusses how specific vulnerability components can be characterized using the life course framework and the capability approach. Section 2 reviews literature that provides insights into structural and institutional contexts as well as life course experiences and trigger events as underlying explanatory factors for the welfare outcomes of older persons. Section 3 highlights policy instruments that help promote the human development and well-being of older people in different contexts. These are for measures that enhance not only the well-being of the aged, but also influence earlier stages of life and affect ageing experiences of people throughout their lives. Section 4 gives concluding remarks.

Conceptualizing vulnerabilities through a gerontological lens

This first section focuses on identifying key components of the concept of vulnerability as it applies to older persons, and discusses how specific vulnerability components—risk, coping capacity and outcomes—can be characterized using the life course framework. The blend of insights from the concepts of vulnerability and resilience and the life course, and the human development and capability approaches, draws out a conceptual framework that helps clarify what needs special

emphasis when reviewing vulnerabilities, and their determinants, specific to older persons. In particular, this framework helps to accentuate how vulnerabilities acquired in earlier life combine with temporal and contextual factors to ascertain vulnerabilities in old age, both at individual and household levels, as well as for the communities in which older persons live. The framework also helps us point to policy instruments that are considered most effective in ameliorating vulnerabilities of a multidimensional nature among current and future generations of older persons.

At the outset, it is useful to set out an understanding of how the concept of vulnerability for older people links with their capabilities and the objective of human development.

People are inherently vulnerable when they lack the capabilities to exercise choice and freedom in doing things they value and/or to cope with threats they face without suffering damage. What is often overlooked is the persistent nature of such restrictions in capabilities, and how their adverse impact is accumulated over the lifetime of an individual. Social discrimination—on the basis of socio-economic class, religion, ethnicity, gender, caste, age and other such factors—undercuts economic opportunities and security during earlier life, with impacts accumulating into vulnerabilities in old age.

The personal (internal) capabilities of older persons are determined by their command over financial resources, health, education, employment and social support, and they are affected not just by vulnerabilities experienced over earlier life but also by the intrinsic process of ageing and by the events that trigger changes during old age. Moreover, older people's capabilities and functioning can also be limited because of the restricting social and physical (external) environment in which they live. Older persons who might otherwise be equally endowed with personal/internal capabilities may still face differing levels of vulnerabilities based on their identity, activity or spatial location. A combination of low personal capabilities and a restricting physical and social environment can therefore hold back older persons from taking advantage of opportunities available to them and/or in being resilient to threats that affect them.

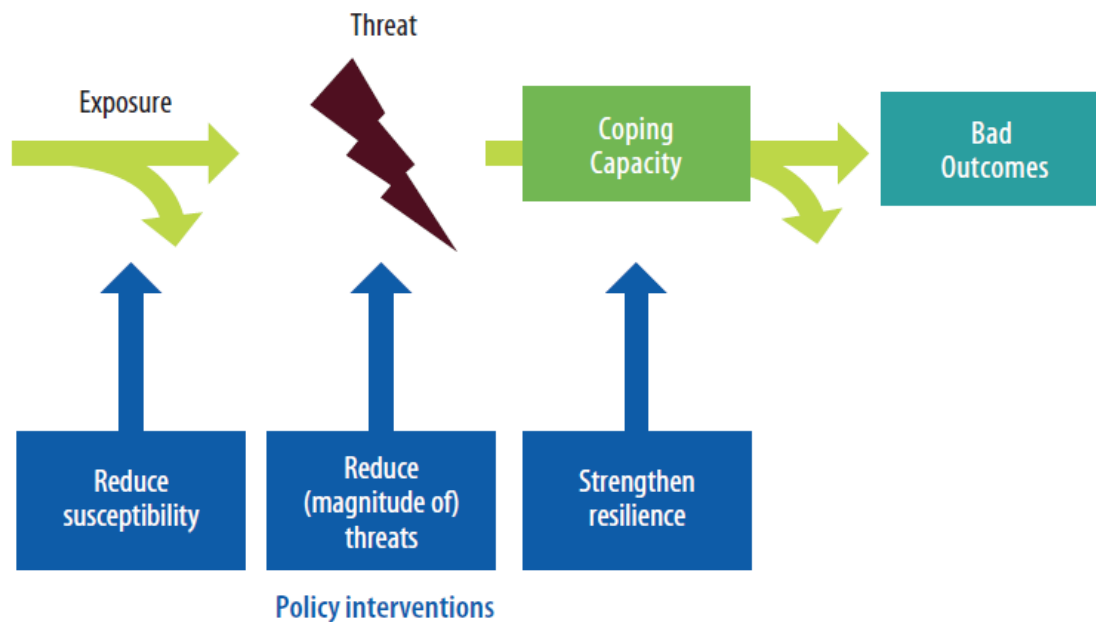
The promotion of human development is synonymous with a process of deepening human progress in which personal capabilities are enhanced in various dimensions and at various levels. The pursuit of human development therefore addresses vulnerabilities by empowering people to overcome threats when and where they may arise. But equally important is the fact that human development enables not just individuals but also their economic, social and physical environment to have higher levels of external capability and resilience in avoiding the effects of shocks, or recovering more quickly from hazards.

SALIENT ASPECTS OF THE CONCEPT OF VULNERABILITY FOR ISSUES OF AGEING AND OLD-AGE POPULATIONS

The studies reviewed in this paper bring together salient aspects of the concept of vulnerability, and related concepts such as risk and risk management, empowerment and resilience, and human capabilities, with a specific focus on ageing and old-age populations. Chambers (1989) is a good starting point in this respect, mainly for the distinction between the two dimensions of the vulnerability concept, external and internal: “Vulnerability here refers to exposure to contingencies and stress, and difficulty in coping with them. Vulnerability has thus two sides: *an external side* of risks, shocks, and stress to which an individual or household is subject to; and *an internal side* which is defencelessness, meaning a lack of means to cope without damaging loss. Loss can take many forms—becoming or being physically weaker, economically impoverished, socially dependent, humiliated or psychologically harmed” (ibid., p. 33). These arguments have been further developed in the subsequent literature on vulnerability, by social gerontologists and other social and environmental scientists alike; in particular, aspects of the so-called ‘internal side’ have been spotlighted and linked to the concepts of empowerment and resilience.

Alwang et al. (2001) followed a similar line of thinking in identifying three components in the concept of vulnerability: the risk of events occurring, the response in managing the risk and the outcomes in terms of welfare loss. These comprise three R’s of the concept of vulnerability: risks, responses and results. The authors pointed critically at the concentration by most studies on risky events (at one extreme) *or* the resulting welfare outcomes (at the other). The ‘response’ aspect was for the most part neglected. Some rectification of this neglected aspect was seen in the renewed emphasis of the World Bank on social risk management, which encompasses not just ex-ante risk mitigation strategies (e.g., malaria pills, self-insurance against perceived risks) but also ex-post coping activities after a risky event has occurred (such as selling assets, removing children from school) (ibid., p. 3). The authors provided a good survey of how other research areas, such as poverty dynamics, food security, etc., treat the three R’s (ibid., p. 24).

Along the same lines, Schröder-Butterfill and Marianti (2006) built on and extended Chambers (1989) and Alwang et al. (2001), and provided three analytical domains to construct a conceptual framework for an empirical examination of ‘who is vulnerable’ and for what reasons, and how different policy interventions can be put forward for an impact in these different domains—see figure 1 (taken from Schröder-Butterfill 2012). The Schröder-Butterfill and Marianti framework is powerful, not just for its methodical breakdown into the components of exposure, threat, coping capacity and bad outcomes. It also illustrates how policy interventions at different levels can counter vulnerability—interventions can be targeted before a threat occurs to reduce people’s susceptibility, by mitigating the likelihood that a threat becomes a hazard, and/or can strengthen people’s coping capacities to help them escape or deal with bad outcomes.

Figure 1: Conceptual framework of vulnerability and policy interventions

Source: Schröder-Butterfill 2012.

Schröder-Butterfill (2012) discussed in further detail four domains of exposure, threat, coping capacity and bad outcomes in the context of old-age vulnerabilities. For the benefit of this paper, they provided a useful further breakdown of the coping capacities component into ‘individual capacities’, ‘social networks’ and ‘formal support’. A further review of the literature on these aspects underscores the point that individual coping capacities rarely suffice when responding to the numerous challenges of old age. Instead, relational resources in the form of social networks or access to formal support are equally, if not more important. Older people’s social networks comprise not just family and friends, but also neighbours or members of social groups—they are often key defences against threats encountered in later life (see, for example, Ngan 2011). Informal networks are not always beneficial for older persons, however; they might be burdened by obligations, such as providing so much support to others that it reduces their capacity to support themselves (Evandrou and Falkingham 2004, Lloyd-Sherlock and Locke 2008). For these reasons, Schröder-Butterfill (2012) also emphasized that the availability and reach of formal support is vital. Access to formal support can be affected by long-term structural and social inequalities between social groups within a given society.

The work of Sabates-Wheeler and Devereux (2008) is distinctive from the studies reviewed above. Apart from raising the most pertinent question about how best to measure the important aspect of ‘ability to manage’ (in other words, the coping capacity), they argued that vulnerability should be re-conceptualized as emerging from and embedded in socio-political contexts—rather than

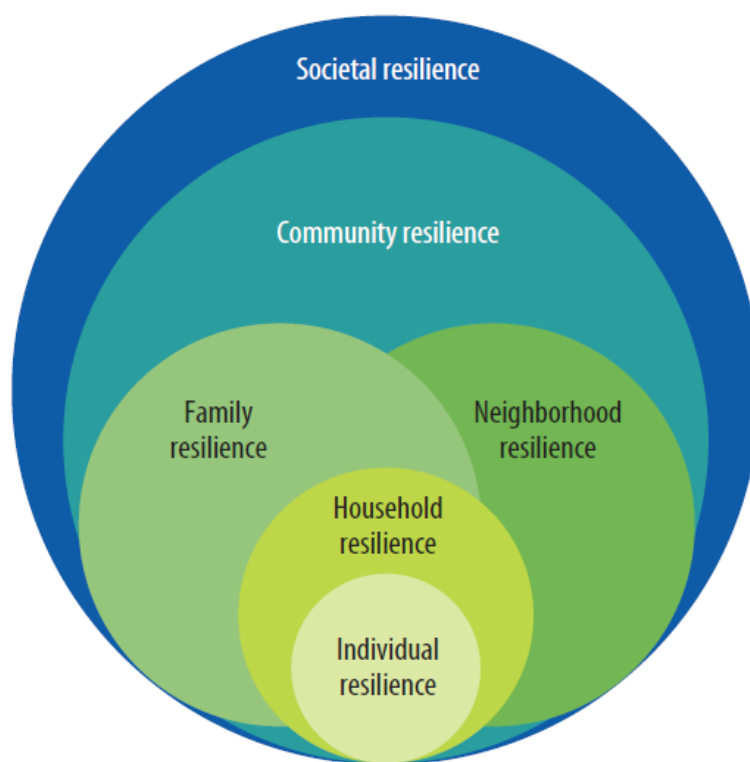
being an exogenously given factor in terms of risks and shocks. The authors deviated somewhat from the World Bank framework mentioned above, which attributes vulnerability to risk management strategies of individuals or groups of individuals. Their emphasis on structural inequalities and disparities in access to rights and opportunities is in line with the overall message of the 2014 Human Development Report.

In measuring coping capacity, the authors referred to the proxy of income or consumption and asset profiles, and also risk management strategies, and this is in line with the social protection policy drive of the World Bank. They make two other subtle points that are important for this paper: “(T)o be a useful concept, vulnerability must be defined in relation to some other phenomenon, such as poverty, malnutrition, exclusion, or neglect” (referred to as the ‘bad outcomes’ in the Schröder-Butterfill and Marianti [2006] framework). Further: “(T)o understand vulnerability fully it is not enough simply to take a one-period view. Vulnerability needs to be forward-looking, as it makes a prediction about future poverty (or other outcomes).” Other studies also make the important point of vulnerability being a dynamic concept, not just that the current vulnerability state is the outcome of life course experiences and critical transitions, but that the current state also reflects potential future vulnerability.

Hufschmidt (2011) emphasized ‘resilience’ and ‘adaptive capacity’ as the key components of the concept of vulnerability. Note here that both these terms link closely to the idea of human agency, which is central to Amartya Sen’s capability approach. Thus, a focus on enhancing the empowerment, adaptation and resilience of older persons provides the link between the objectives of reduction of vulnerabilities and promotion of human development. Clarification of the notion of adaptive capacity links it with the concept of resilience: “(I)t is demonstrated [in the study] that ‘adaptation’ and ‘adaptive capacity’ serve as hinges not only for conceptualising vulnerability but between ‘vulnerability’ and ‘resilience’ alike” (ibid., p. 621).

Wild et al. (2013) provided a timely discussion of resilience and discussed how gerontologists consider the concept of resilience useful in exploring how older persons negotiate the adversities commonly associated with later life. In line with the premises of Schröder-Butterfill (2012), and also Sabates-Wheeler and Devereux (2008), the authors emphasized that the concept of resilience, when taking a critical gerontology perspective, needs to go beyond the individual level, and explored how higher overlapping and interrelated levels of resilience (referred to as social resilience) make sense for the lives of older people (see figure 2, extracted from Wild et al. 2013, which defines resilience at the levels of individuals, households, families, neighbourhoods, communities and societies). It can be argued that this is the most pertinent way to conceptualize resilience and social empowerment in old age, given the importance of communities, households and neighbourhoods in the experiences of older people, and also in avoiding putting onus solely on frail older people.

Figure 2: Contextual and collective scales of resilience in later life



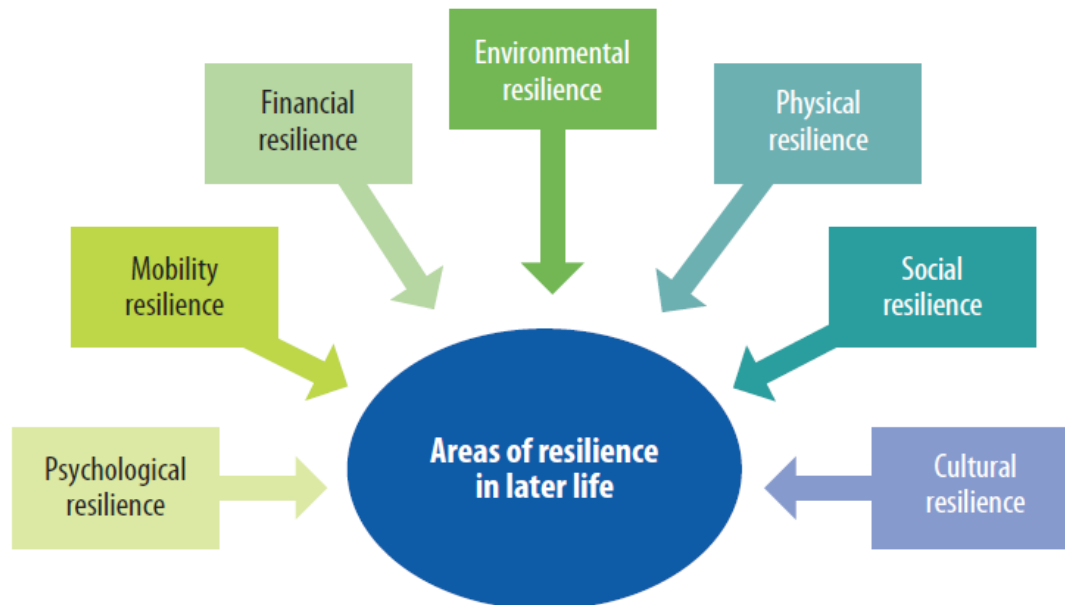
Source: Wild et al. 2013, figure 1, p. 150.

Implicitly, in their identification of different levels of resilience, Wild and her colleagues recognized that vulnerabilities need to be tackled not just at the individual level but also at the level of the family or household (the *micro-level* vulnerabilities, with linked lives within families); at the levels of the neighbourhood and community (the *meso-level* vulnerabilities of the environments in which older people live); and at the national and societal level (*macro-level* vulnerabilities). In identifying these contextual and collective levels of resilience, the authors make an important point: “(I)ncreased resilience for one individual or group does not always detract from that of others, indeed [it] may [even] enhance it” (ibid, p. 152). In other words, resilience is not a ‘zero-sum’ equation! Without this acknowledgement, the onus will be placed heavily on the individual, at the risk of blaming the victim.

Wild and colleagues also suggested that models of resilience in later life need to distinguish between different ‘areas of life’ where resilience may be occurring or weakened (see figure 3, extracted from Wild et al. 2013). These different forms of resilience may or may not overlap or interact. For example, an older person may be less financially resilient, but he/she might still enjoy community support and/or be psychologically resilient to compensate for financial shortcomings. In

addition, different levels (micro-, meso- and macro-) and areas (financial, cultural, etc.) may operate interactively.

Figure 3: Different ‘areas of life’ of resilience for old-age populations



Source: Wild et al. 2013, figure 2, p. 151.

RELEVANCE OF A LIFE COURSE FRAMEWORK AND DIMENSIONS OF WELL-BEING

In the field of gerontology, the life course framework that provides the linkages between different phases of life has been recognized as particularly relevant (for more discussion, see, for example, Mayor 2009). It captures several key aspects of human development, alongside age-related changes, in the form of life experiences (such as work histories, family histories, healthy living behaviour, availability of health and social care, etc.) and combines them with the context of time and space to offer a strong explanatory power for welfare outcomes observed in old age. Another crucial aspect of the life course theory is that individuals are active agents in the construction of their lives. They are affected by the choices they make, within the opportunities and constraints of their family background, and structural and temporal contexts (Bengtson et al. 2005). The importance of the life course framework and how it is linked with the concept of vulnerability for old-age populations is highlighted in this section.

In linking the life course framework with the concept of vulnerability reviewed above, what becomes important is to review studies that investigate the influences of accumulated experiences of

life on—adapting the framework of Alwang et al. (2001)—the ‘three R’s’ of the vulnerability concept: risk, response and result. It is important to note first that ambiguity remains in the concept of vulnerability as to what constitutes a ‘risk’, ‘coping capacity’ or ‘bad outcome’. What can be referred to as the ‘circularity problem’ points to the fact that these three components of vulnerability are entangled, and seem to be mutually endogenous and interlaid.

Health status, for example, can be a risk factor as deterioration will affect other domains of well-being, such as social and economic engagement, in youth as well as old age. Health can also be a coping capacity because health is a human resource. It is particularly important for behavioural responses of older people that enhance their well-being, such as participation in family and community activities. Moreover, healthy ageing is a welfare outcome to be desired in its own right (especially in older ages, when there is a natural loss of functioning due to frailty), and its determinants can be linked to healthy lifestyles adopted during earlier phases of life. Leaving aside this conceptual complexity, it is useful to investigate the influences of accumulated life histories and life course transitions on important financial and social domains of older people’s well-being.

The discussion on ‘*vulnerability to what*’ (the so-called ‘bad outcomes’) is analogous to the question of what determines the well-being of older people, and how it might differ from one context to the other (e.g., in low-resource settings as opposed to rich developed countries). In this respect, the multidimensional nature of the measure of well-being needs to be emphasized, particularly when it concerns older people and their vulnerabilities.

The background work for the Global AgeWatch Index provides useful insights about the dimensions of well-being of older persons, namely: financial security, health status, employment and education, and an enabling environment (for more details, see the section that follows on identifying vulnerabilities among older persons and on policy implications). In addition, the review of Glaser et al. (2009) commissioned by the United Kingdom’s Equality and Human Rights Commission provides strong arguments in favour of using the following three domains: poverty and low income in later life, health and social support. All in all, a good understanding of the impact of life experiences and trigger events on health, as well as on financial well-being and patterns of social support are vital for understanding vulnerabilities in old age. Some other studies have also emphasized the importance of psychological well-being as an essential welfare outcome, and have studied its social and economic determinants (see, for instance, Demey et al. 2013). In this paper, we cover the aspect of psychological well-being within the broader dimension of health.

Table 1 presents the scheme for connecting the life course framework with vulnerabilities among older persons in the abovementioned three dimensions.

The first column mentions the three dimensions, which can also be referred to as the welfare outcomes of interest in old age. As discussed above, each of these dimensions can be viewed as the risk, the coping capacity or the outcome components of the concept of vulnerability.

The second column mentions various trigger events that affect the welfare outcomes of older persons. They are thought to be critical transitions, mainly during old age, for which we have evidence of an impact.

The third column includes lifetime influences (experiences) that are expected to have an impact on the welfare outcomes mentioned under the first column.

Table 1: Framework for the literature review of influences of critical transitions and life cycle experiences on multidimensional vulnerabilities in old age

Welfare outcomes in old age	Trigger events (critical transitions during older ages)	Lifetime influences (life course experiences)	Structural and temporal factors that lead to inequalities
I. Financial well-being (individual/family incomes, poverty)	a. Onset of retirement	i. Work histories	<ul style="list-style-type: none"> • Gender • Social classes • Education • Other factors (ethnicities, religion, disability)
	b. Loss of job	ii. Terms and conditions of work (earnings, sector, occupation, etc.)	
	c. Loss of spouse (widowhood, or divorce)	iii. Marriage and divorce history	
	d. Onset of disability or ill health	iv. Childbearing history (including timing of birth)	
		v. Provision of informal care	
II. Health (mortality/life expectancy, morbidity/health-adjusted life expectancy, health behaviour)	a. Onset of retirement	i. Work histories	<ul style="list-style-type: none"> • Gender • Social classes • Education • Other factors
	b. Loss of job	ii. Terms and conditions of work	
	c. Loss of spouse or bereavement of a family member	iii. Marriage and divorce history	
	d. Migration	iv. Childbearing history	
		v. Provision of informal care	
III. Social connectedness and support	a. Loss of spouse	1. Work histories	<ul style="list-style-type: none"> • Gender • Social classes • Education • Childlessness • Other factors
	b. Mortality of carers	2. Marriage and divorce history	
	c. Migration for residential proximity	3. Childbearing history	
	d. Residential mobility of carers	4. Migration/displacement	
Policy instruments	Direct and immediate	Social investment policies/preventive interventions	Surveillance required to avoid adverse factors arising in varying contexts

The last column points to structural and temporal factors that lead to inequalities in old age with respect to the welfare outcomes mentioned under the first column.

Thus, table 1 offers a framework for the literature review of critical transitions and life cycle experiences as well as structural and temporal factors that affect multidimensional vulnerabilities in old age. For example, following this framework, studies are reviewed that emphasize how social support networks are important elements of the coping capacities in old age, and how they are also the outcomes of life experiences, through work experiences, family formation and friendships built up over a lifetime of reciprocal exchange.

THE CAPABILITY APPROACH, AGEING AND THE LIFE COURSE FRAMEWORK

Sen's many writings critique conventional views about the perception of well-being.¹ He emphasizes that command over resources should not be the sole basis of personal welfare, no matter how comprehensive and inclusive the definition of resources is. He argues that specific outcomes (for example, the standard of living attained) are important, but the opportunity or capability to achieve such outcomes should form a more preferable basis of the concept of well-being.

In Sen's capability approach, an individual's opportunities to achieve outcomes he/she desires are determined by his or her 'capability set'. By capability set, he means the ability and freedom of individuals to perform a certain set of functionings (where functionings refer to the outcomes, say, of being well-nourished, well-sheltered, well-dressed, participating meaningfully in society, etc.). One important emphasis in this approach is the difference between capabilities and functionings: the former is having the freedom to do or be something; the latter whether or not this actually happens (for more discussion and other critical references, see Zaidi 2008). People's capabilities are determined by their position to choose between alternative functionings, and the final choice is influenced by not just their resources, but also their particular tastes and preferences, and the norms and contexts/structures within which they live.

Nussbaum (2000), who also identified a list of 'central human capabilities', provided a useful distinction between different types of capability. *Basic capabilities* are the ones with which a person is born; they can be considered permanent. *Internal capabilities* are the ones that a person develops throughout his life. For example, the ageing process would lead to acquisition of capabilities, such as skills and knowledge, and experience. At the same time, a deterioration of some internal capabilities is also inevitable because of ageing, for example, loss of physical strength. *Combined capabilities* refer to the combination of internal capabilities, and the facilitation and constraints of the external physical and social environment (also referred to as structural constraints). The combined

¹ Sen first outlined the capability approach in his Tanner Lecture at Stanford University in 1979 (Sen 1980), and provided its formal description in several subsequent pieces of his later work (see, inter alia, Sen 1985 and 1999).

capabilities notion links closely with different levels of empowerment and resilience (discussed above in the review of Wild et al. 2013).

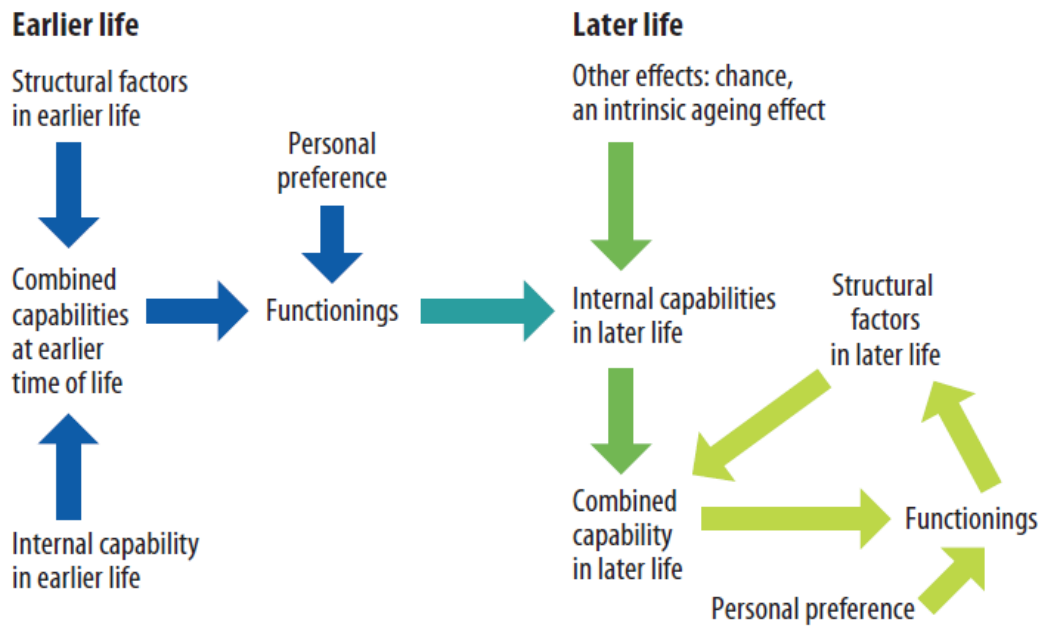
Following the discussion of Lloyd-Sherlock (2002), for policy purposes, it is important to make a clear distinction between *internal capabilities* and *structural constraints*. A clear distinction is deemed difficult, mainly due to unequal experiences of ageing, in which the process of gains and losses of internal capability vary greatly between individuals. Such intrinsic variations are not just a result of trigger events (such as loss of job, marriage breakdown or death of a partner), but they are also affected in a gradual, cumulative way by a wide range of influences occurring during all the previous stages of a person's life, such as healthy living behaviour, and access to timely and appropriate health care. Moreover, the effects of trigger events and life cycle experiences continue right through the life course in interaction with the physical, social and political environment. Thus, the internal capability of an older person depends on his/her lifetime accumulation of social, human and financial capital, as well as the enabling environment in which he/she is currently living.

Figure 4, extracted from Lloyd-Sherlock (ibid.), highlights a number of important processes, starting with how functionings in later life are affected by functionings during earlier life, which are in turn affected by exposure to structural factors (contexts) and the internal capability of earlier life. The ageing effect can work positively, through acquisition of higher internal capabilities with age, or it can have an adverse effect, though loss of internal capabilities, such as due to frailty.

This framework points not only to the importance of life course influences and trigger events on the well-being of older people, but also helps distinguish between personal/internal human development and the role of structural and institutional development in helping people accumulate health and assets for their old age.

A special mention can also be made of the active ageing policy discourse and its relationship with the promotion of human capabilities (for a discussion, see Zaidi 2014b, Zaidi et al. 2013). It is true that different internal capabilities come and go throughout life, and this process is, to an extent, influenced by chronological age. The loss of certain kinds of internal capability (such as physical strength) is more or less inevitable as a person grows old, but this decline is often exaggerated and generalized, feeding into policies that exacerbate reduction in combined capabilities while ageing. Active ageing idea goes strongly against the culture of such 'dependency policies', in which older people are seen to be passive recipients of benefits and services.

Figure 4: Combining capabilities, ageing and life cycle influences



Source: Lloyd-Sherlock 2002, figure 1, p. 1,168.

Active ageing strategies draw on the insight that successful measures enable older people to increasingly participate in the labour market, and social and family activities, and live independent, secure and healthy lives. The rationale is that setting in place the conditions to empower older people to live active lives with degrees of independence and security is the catalyst for sustainable ageing societies. The multifaceted design of a comprehensive active ageing policy discourse allows the setting of policy goals to maintain, and even raise, the well-being of older individuals. It also strengthens social cohesion in the society and solidarity between generations, and improves the financial sustainability of public welfare systems. Under such conditions, care for the elderly is seen as a positive—much less of a burden—and a source to empower older people to free themselves from dependency and social isolation. Thus, active ageing discourse falls in line with the idea of empowering people to contribute to their own development and that of the society around them—the principles underlying the human development agenda, and the enhancement of internal and combined capabilities.

Identifying vulnerabilities among older persons

The discussion above suggests that the Global AgeWatch Index provides a good working framework to review the measures of vulnerability for older people, especially as it uses insights from human

development (see HelpAge International 2013b for more details on its conceptual and empirical framework). The framework identifies four domains of well-being for older persons:

- *Financial security*, using indicators on the pension income beneficiaries ratio, older people's incomes or consumption relative to the rest of the society, and poverty risk among older people;
- *Health status*, using life expectancy at 60, healthy life expectancy at 60, and psychological well-being as indicators of physical health and mental well-being;
- *Employment and education among older people* as a proxy for the coping attributes of older people, given that lacking these attributes makes them more vulnerable; and
- *Enabling environments*, using indicators pertinent to enabling age friendly attributes of the societies in which older people live—they correspond to societal resilience in the discussion above.

A review of Glaser et al. (2009) on life course influences and well-being in later life points to three domains of the well-being of older persons: poverty and low income, health and social support. This choice of domains helps identify literature to be reviewed in our study of vulnerabilities in old age. The review of Glaser et al. (ibid) provides insights into the structural contexts, life course experiences and trigger events acting as underlying explanatory factors for the welfare outcomes of older persons in the three dimensions. In reviewing the studies, particularly those included in Glaser et al. (ibid.), those specific findings are emphasized that provide insights for the identification of policy interventions to promote the resilience and capabilities of older people and communities in which they live. An emphasis is also placed on identifying gender disparities within a single context, differences in the institutional context across countries, and information on experiences of youth and middle age that are cumulative in generating disadvantages across the life course.

FINANCIAL SECURITY

TRIGGER EVENTS

In analyses and research of low income and poverty in old age, the most commonly studied transition—and for good reason, given its perceived impact—has been the exit from the labour market for retirement (see for instance, Holden et al. 1988, Bardasi et al. 2002). Widowhood and the onset of disability are two other trigger events with adverse impacts on the financial well-being of older persons (see Burkhauser et al. 1988, 1991; Emmerson and Muriel 2008; Holden et al. 1986; McLaughlin and Jensen 2000).

The trend of early retirement can point to a mixture of voluntary and involuntary decisions to exit from the labour market; thus, it is important to study the relationship between the timing of retirement and financial well-being in life post retirement. Zaidi and Gustafsson (2006) made use of the extensive Swedish income panel data, SWIP, for the period 1978 to 1999, which provided access to 22 years of information on income, labour market and demographic attributes of the Sweden-born and foreign-born Swedish populations. Their findings suggested that retirement in advance of the statutory pension age had an adverse impact on pension incomes, although only early retirement that exceeds five years is found to adversely affect pension incomes. Other findings of the same paper are also of interest; for instance, unemployment had a perverse effect on retirement incomes only when it was experienced prior to age 58. The experience of being in receipt of social assistance had a strong negative impact on family pension income, and the effect was stronger for men than for women, and for higher educated pensioners than for lower educated pensioners. Surprisingly, the results, when controlling for other relevant factors for the foreign-born Swedish population, were very similar to those for the home-born Swedes. This finding can be attributed to the strong redistributive element inherent in the Swedish social insurance system. The findings support the importance of formal support for the welfare of older people.

The other trigger events shown to have significant effects on old-age poverty and income are spousal death and the onset of disability. Several studies have shown that widowhood has a significant association with changes in income and poverty status at older ages (Burkhauser et al. 1988, 1991; Emmerson and Muriel 2008; Zaidi, Rake and Falkingham 2008; Zaidi and De Vos 2008). McLaughlin and Jensen (2000) showed that widowhood was associated with higher poverty risks for those aged 55 and over, even when work history variables and current socio-economic circumstances were controlled for. Using data from the United States, Burkhauser and Duncan (1991) found that the onset of work-related disability reduced economic well-being at later ages; they also showed that the effect was mitigated when measures were in place to provide social protection to workers against health-related events.

Zaidi and De Vos (2008) described how differential contexts of social security systems, particularly individual pension income rights and entitlements to survivors' benefits, played a role in income dynamics during old age for British and Dutch older persons. The most notable difference was in the consequences of becoming a widow(er). In the Netherlands, this event is associated with both upward and downward income mobility, while in the United Kingdom, becoming a widow(er) is only linked to downward income mobility. Although the basic state pension forms an important part of the system in both countries, there are essential differences that affect the financial security of older persons. First, the growth of a basic state pension is indexed in line with price inflation only in the United Kingdom and in line with (higher) wage growth in the Netherlands. Secondly, the entitlements for basic pensions in the United Kingdom are accumulated mainly by participation in

the labour market, and thus certain subgroups—notably women—are at a disadvantage. In contrast, entitlements to the Dutch basic pension depend on residency status alone.

LIFETIME INFLUENCES: WORK HISTORIES

The employment record during working life is critical in many contexts, because entitlements to pensions in most schemes are accumulated with the help of the social insurance contributions deducted from wages. The occupation and type of job held also matters, because the accumulation of pension entitlements is affected by both levels of earnings, and the likelihood of pension coverage in the employment sector. This reliance on contribution-based pension schemes for the provisioning of incomes in retirement means that disadvantages during the working life are accumulated towards higher risks of financial poverty in later life. Where no formal pension income support is in place, as is the case in many less economically developed countries, private savings in the form of business and personal assets are crucial for people to accumulate financial resources for later life—also, in this case, the link between disadvantages experienced during the working life and in retirement remains strong.

In some pension schemes, a system of national insurance credits helps redistribute income in favour of those who had employment disadvantages during their working lives. For example, absences from the labour market are credited for mothers who provide care for young children, for those who receive unemployment or disability benefits, or for those who care for a disabled person. Therefore, pension income disadvantage is a complex combination of employment disruptions during working lives, gaps in accrued credits for absences from the labour market and a lack of pension income coverage in certain employment sectors.

Research undertaken in European welfare states on the influence of work histories presents interesting examples of how good research can help identify life course factors that lead to financial vulnerability in old age. For example, Bardasi and Jenkins (2002), using British data, showed that women aged 60 and over were more likely than men of the same age to have low incomes. A surprising finding of this study was that more years in paid work during working life (between the ages of 20 and 60) did not lower the risk of low income. Instead, lower pension incomes for women were related to higher occupational instability and more often part-time work. For women, income disparity in old age depended particularly on their age (younger cohorts were doing better), on education (having higher educational attainment reduced the gender gap), and occupation and sector of employment when working.

There is similar evidence suggesting that the proportion of working life spent in paid work may not significantly correlate with low income in later life once other factors, such as gender, occupation and education, are taken into account. Stewart (2003), who also used the British data, found that women's lifetime earnings have far less impact on their financial position in retirement than men's.

Vartanian and McNamara (2002) found that women's poverty in midlife (40 to 59 years) was strongly related to poor economic outcomes in old age, although it was only one predictor. For example, relative affluence in middle age did not necessarily preclude poverty in later life, as labour force involvement, education and marital status were also significantly related to old-age economic outcomes. A study that used United States data provided similar evidence: The proportion of time spent in paid work had little or no effect on the economic well-being in later life of low-earning women, unless there were additional advantages like unionization, core sector status (as differentiated from periphery sector status) and pension plan availability (McNamara 2007).

Sefton et al. (2011) made use of data from several multicountry, large-scale longitudinal surveys to investigate the relationship between work histories and personal incomes, from public and private sources, of older women in the United Kingdom, the United States and western Germany. This comparison of three countries, with differing public welfare systems, shows how the interaction between the life course and pension system affects older women's pension incomes. The authors found that the association between women's pension incomes and work histories was strongest in Germany and weakest in the United Kingdom. In linking work history to pension entitlements, these two countries represent the classic distinction between Bismarckian (from Otto von Bismarck in Germany) and Beveridgean (from William Beveridge in the United Kingdom) systems. The former is based on public social insurance principles, and private pensions are less developed, whereas the latter focuses on a minimum safety net, with additional levels being the responsibility of the individual and the employer. The authors found evidence of a 'pensions poverty trap' in the United Kingdom; only predominantly full-time employment was associated with significantly higher incomes in later life. Work history mattered less for widows (in all three countries) and more for recent birth cohorts and more educated women (United Kingdom only).

Another important aspect is the study of how obligations towards care provisions within the family adversely affect employment and therefore the build-up of pension entitlements. Young et al. (2006) showed that care provision for more than 20 hours a week had a strong negative association with the likelihood of full-time employment in the age group 35 to 59, and this effect was stronger for women than men. Evandrou and Glaser (2003) showed that female carers were significantly more disadvantaged compared to male carers in terms of their level of entitlement to basic state pensions. These and similar studies, however, fail to establish whether care provision obligations of women reduce their availability for work, or structural restrictions in the labour market render them more often available for informal care.

LIFETIME INFLUENCES: FAMILY HISTORIES

Family history explanatory factors include marriage and its duration, divorce and remarriage, and childbearing experiences. These histories link to employment histories, especially in contexts where

the traditional male breadwinner family model is still dominant. In such settings, women are expected to engage in caring responsibilities within the family. Motherhood and other care duties lead to longer absences from the labour market. In other contexts, the greater financial independence of women provides more freedom to break away from unhappy marriages and to choose not to marry again. Investigating the impact of family histories on incomes in old age is therefore important, also for the fact that family formation behaviour is rapidly changing worldwide, perhaps more quickly in developed countries. Other change factors are the increase in childbearing outside marriage, childbearing at a later age and the higher likelihood of a divorce. Fortunately, a good number of studies can be found providing evidence on the life course family factors that affect the well-being of older women.

For women, the number of children appears to have an adverse effect on pension incomes. The same is true for spending time raising young children outside marriage. In contrast, the evidence for the impact of marital history is less clear. Some studies show that unmarried women are more likely to have low incomes in later life. This is also true for those who are never married, widowed, or divorced and separated, for both sexes (Bardasi and Jenkins 2002, McLaughlin and Jensen 2000). Rake et al. (2000) used a micro-simulation study for the United Kingdom to show lower retirement incomes for those women who had children, and for those who divorced and did not remarry. These findings were supported by Ginn (2003), Walker et al. (2000), and Johnson and Favreault (2004), which showed a significant loss of pension entitlements among women who had children and who experienced marital disruptions. In apparent contrast to these studies, Bardasi and Jenkins (2004) and Sefton et al. (2008) found that marital history appeared to make no difference to pension income in old age once other factors were accounted for.

Sefton et al. (2008) used data from the United Kingdom to examine the impact of work and family histories on individual incomes of older women. As in most other such studies, however, they did not look at the effect of work and family histories together on later life outcomes, choosing to study each type of history separately. They showed that the association between family history and income disparity is weak in the United Kingdom: Older women who remarried, divorced or became widowed have similar incomes to those who remained married. Having children was found to be associated with lower individual incomes in later life, but the actual number of children appeared to make little difference. They also found that women who married later had higher incomes at older ages.

HEALTH

TRIGGER EVENTS

This section reviews studies investigating the impacts of bereavement, unemployment and other traumatic events on health status in old age. Considerable literature has explored the effects of bereavement on health, mostly focused on mortality. Comparing the bereaved with the non-bereaved, these studies have shown that mortality and morbidity is higher among the bereaved group even when other correlates, such as baseline health and socio-economic status, are controlled for (Bowling 1987, Helsing and Szklo 1981, Stroebe et al. 2007). Studies have found that the excess mortality risk among the bereaved usually occurs during the first 6 to 12 months following the death of a spouse, and the outcomes are worse for men than for women (Bowling 1994, Helsing and Szklo 1981, Christakis and Allison 2006, Stroebe et al. 2001). These findings could be linked to the fact that older men may have smaller support networks to cushion the loss of a partner. The relative mortality risk for the bereaved was greater at younger than at older ages (see, for example, Koskinen et al. 2007). The evidence on gender differences is less clear: Some studies showed no gender differences in the prevalence of health issues, such as symptoms of depression, following spousal death (Iachina et al. 2006), while in others, widows reported higher levels of depression following bereavement than widowers (Marks and Lambert 1998).

In contrast to the extensive body of evidence examining the impact of bereavement on health, much less research has focused on the health impact of retirement and age at retirement. Brockman et al. (2009) used German health insurance fund data and found higher mortality among those who received a reduced earnings capacity pension (given to those whose work capacities were restricted during working age) and those who retired early, between the ages of 51 and 55. These findings were likely affected by the fact that these individuals already had health issues during their working lives. Bloemen et al. (2013) used administrative micro-panel data to investigate the causal effect of early retirement on mortality, and they corrected for the unobserved heterogeneity as well as used an exogeneity of policy change that allowed older workers to become eligible for retirement earlier than expected. They found that for men, early retirement decreased the probability of dying within five years by 2.5 percentage points—a strong effect shown to be robust to specification changes.

Gallo et al. (2000), using data from the United States, compared older unemployed and employed workers, and found that older workers who experienced involuntary job loss reported poorer health, physical and mental, even when the baseline health and socio-demographic factors were also controlled for. Warr and Jackson (1987) and Warr et al. (1988) found older unemployed workers reported better mental health in comparison to those in the medium age group (aged 25 to 59). Reasons for this difference were said to include middle-aged workers experiencing greater levels

of stress from unemployment as they are more likely to have greater family and financial responsibilities.

Studies identifying other triggers have shown that traumatic events earlier in life are adversely related to health outcomes in middle and older age (Kuh et al. 2002, Shaw and Krause 2002, Krause et al. 2004). These trigger events include parental divorce, death of a child, experience of a traumatic or life-threatening injury, and becoming orphaned during childhood. For example, Krause et al. (2004) found that exposure to a series of traumatic life events across the life course (including unemployment experiences of parents, death of child, etc.) is associated with worse health at older ages. The same study showed that the relationship between traumatic experiences during youth and middle age and current health status is strongest among those aged 65 or more.

Other studies show the adverse experiences of war and conflicts on health in old age. Elder et al. (1994) showed that men engaged in active duty during World War II, after the age of 30, were more likely to experience adverse physical health. Alastalo et al. (2009) found that those who were evacuated as children without their parents during the war reported higher prevalence rates of cardiovascular disease and type 2 diabetes in late adulthood. Only very limited evidence is available to relate the experience of forced migration and health outcomes in old age. Colon-Lopez et al. (2009) found that early age migration compared to later life migration among Mexican immigrants in the United States was associated with higher rates of cardiovascular mortality.

LIFETIME INFLUENCES: WORK HISTORIES

As reported in Glaser et al. (2009), one substantial study examining the impact of various work history factors on health is the 1937 to 1939 Boyd-Orr cohort study, which included a follow-up collection of data in 1997 to 1998, in which surviving participants were interviewed to collect detailed retrospective life course information (for more details, see Blane 2005). The researchers created lifetime exposure scores for a variety of hazards and then investigated how the accumulated work history measures (such as years on benefits and years out of the labour force) were related to indicators of well-being. Researchers investigating this database found that the number of years spent out of the labour force had a negative relationship with quality of life, even when later life health and material circumstances were taken into account (Blane et al. 2004, Holland et al. 2000).

Grundy and Holt (2000), using data from the United Kingdom, found that the proportion of adult life spent being unemployed and the experience of being dismissed from work are associated with poorer health and disability in early old age. Amick et al. (2002) used data for the United States and found that the greater the part of working life spent in being unemployed, the more adverse the impact on mortality. The authors also found that a working life spent in low-control jobs increased the hazard of death. Along the same lines, Benzeval and Judge (2001) found that longer term income

had a greater impact on health than current income, and persistent poverty was worse for health than episodic poverty, when baseline health status was taken into account.

LIFETIME INFLUENCES: FAMILY HISTORIES

Lillard and Waite's (1995) seminal study was based on 20-year data for the United States examining the relationship between the duration of marriage and mortality. Their results showed a mortality advantage for those in marriage over a longer period. Similar research in other contexts has also found married people to have better mental and physical health in comparison to the unmarried (see, for example, Thomas et al. 2005, who used longitudinal data for the United Kingdom, and Brockman and Klein 2004, who used data for Germany). The main reasons underlying this phenomenon are thought to be that marriage acts as a buffering mechanism in stressful situations, and eases access to informal and formal medical and social care services.

Brockman and Klein (2004) also found that widowhood and/or divorce have an adverse impact on the survival rate of men, but no such impact is found for women. Grundy and Holt (2000) found early age at marriage, and more than one marriage, to be associated with poorer health and disability in early old age.

Studies that have investigated childbearing and its relationship to health outcomes in later life generally find higher mortality for women who had more children, and also among women with no children (see, for example, Grundy and Tomassini 2005 for data on the United Kingdom; Grundy and Kravdal 2008, who used Norwegian data; and Hurt et al. 2006, who reviewed evidence on the effect of the number of births on women's mortality). Both Grundy and Tomassini (*ibid.*) and Grundy and Kravdal (*ibid.*) showed that late childbearing (at age 40 or beyond) has an adverse effect on mortality. Read, Grundy and Wolf (2011) showed that early childbearing for women and the death of a child have been associated with poor physical health in later life (42 and beyond) in the United Kingdom. Some ambiguity arises since there are other studies that do not find a consistent pattern in the association between number of children, birth intervals and age of childbearing (Henretta 2007, Spence 2008).

Henretta (2007) found that the birth of a child out of wedlock was associated with higher mortality, and this was linked to the fact that the birth of the first child without being married is more prevalent among those with lower socio-economic status. This may also be the reason underlying the finding that being unmarried at the time of the first birth was associated with poor baseline health, particularly the presence of heart disease and strokes in old age.

Glaser et al. (2005) used data from the United Kingdom to examine how the combination of caregiving with other family responsibilities (such as parenthood) and work roles over the lifetime had an impact on health outcomes in later life. Quite surprisingly, they found that for mid-life men

and women, the joint responsibilities of work and family had negligible negative health consequences.

Read and Grundy (2013) used the latest data from the English Longitudinal Study of Ageing in their analysis of association between parental histories and later life health, and saw how such a relationship is mediated by wealth, health-related behaviours and social support. The family history included the number of natural, adopted or stepchildren, and the timing of first and last birth. Health outcomes included allostatic load (indicating wear and tear on the body), limiting long-term illness and health-related behaviour (smoking and physical activity). Other control factors were education, marital history, childhood health and intergenerational contacts. The authors found that the association between a higher number of children and health was mediated by wealth among both men and women, and by smoking and social strain among women. Mothers had a direct association between early childbirth and allostatic load, whereas for fathers, these effects were mediated through wealth and physical activity.

Demey et al. (2013) analysed how the psychological health of men and women from the United Kingdom living alone in mid-life was associated with partnership and parenthood history. Their findings showed that several aspects of partnership history mattered for psychological health in mid-life, and that the relation between parenthood status and psychological health was different for men and women.

IMPACT OF INFORMAL CARE PROVISION

Care provision by family members has been on the rise, largely a result of rising longevity, but also due to a squeeze on formal public support. Against this background, it is important to appreciate the impact of informal care on the health of caregivers. Such information will be critical for policy interventions to enhance independent and self-reliant living in old age. Vlachantoni et al. (2013) provided a useful summary of the impact of informal care provision on the health status and mortality of older people. A general finding that emerges is that providing care is beneficial not just for care recipients but also for the health of caregivers. For instance, O'Reilly et al. (2008), using census data for Northern Ireland that was linked to death registration data, found that caregivers had lower mortality than non-caregivers, but the mortality risk for caregivers was positively associated with the number of hours spent providing care. Rahrig Jenkins et al. (2009) obtained a similar finding by using data for the United States. They found that care provision for a spouse does not have an independent negative impact on the carer's health. Finally, Fredman et al. (2010) used a prospective cohort study for the United Kingdom to support the finding that caregivers fared better in terms of mortality risk than non-caregivers, although caregivers report generally higher stress levels from the burden of caregiving.

In summary, studies reviewed here provide a complex and nuanced picture of factors that influence health outcomes in old age. There are some areas where findings offer unambiguous results, such as the experience of traumatic life events being associated with poor health in later life, and caregiving as beneficial for recipients and the health of caregivers. There are other areas where associations are unclear, such as the link of health to childbearing.

SOCIAL SUPPORT AND CONNECTEDNESS

TRIGGER EVENTS

Very few studies have analysed the impact of trigger events or lifetime experiences on the availability and dynamics of social support and social connectedness. The most common such study is the analysis of the impact of marital disruptions, either due to death of partner or divorce, on changes in social support. Study of such trigger events is understandably important, since loss of a partner, particularly at older ages, removes the most natural source of help and support. For example, Utz et al. (2002) found evidence of higher informal social interaction with friends after widowhood, but the same was not true for ‘formal’ social engagement such as volunteer activities. Glaser et al. (2006) showed that widowhood had a similar effect to divorce on reducing contact with friends even when baseline health status was controlled for. Peters and Liefbroer (1997) demonstrated how social connectedness among older persons aged 55 or more was associated with marital status and partnership history, based on data from the Netherlands. Their findings are very intuitive: Those without a partner are more likely to report loneliness than those with a partner, and those who have recently experienced partnership dissolution and/or gone through multiple partnership dissolutions have higher levels of loneliness.

Broese van Groenou et al. (2006) examined socio-economic status differences in the receipt of informal support and support from formal sources, using data for Belgium, Italy, the Netherlands and the United Kingdom. They found that in each country, there were socio-economic class gradients in the utilization of both formal and informal care. In all four countries, older people in low socio-economic groups mostly required such help. Yeandle et al. (2012) compared policy changes in Australia, Finland and the United Kingdom, and argued that a trend towards greater privatization, and more individualized and personalized services, can be linked to a greater reliance on informal care provision by family members in these countries.

Another trigger is the change of health status in the receipt of informal care, although its impact on the availability of social support may be obvious, since those in poor health are more likely to get support. For instance, Geerlings et al. (2005) found the incidence of chronic diseases and functional limitations to be associated with the onset of informal care. Stoller and Pugliesi (1991), on the other hand, found diminishing health to increase the scope but not the size of social networks.

Grant et al. (2009) analysed the views of older people of Moldova with regard to the benefits or losses linked with migration. They found that the migration of adult children is accompanied by high costs in terms of social isolation, emotional distress and lack of informal care, as well as an increased burden of care provision to grandchildren. On the basis of discussions in a focus group, and also in-depth interviews with older people, they concluded that the losses outweighed the economic benefits arising from outward migration from Moldova.

LIFE HISTORIES

In general, there has been little research on the impact of life course experiences on social support and connectedness in later life, especially in the context of less economically developed countries. Future areas with strong research potential would be to examine gender differences in assembling different types of social support for old age. For example, it would be useful to see how a higher level of engagement with work, especially at older ages, enhances opportunities for social networks, and how women's greater social skills and tendencies towards engagement with friends and relatives may enhance their ties in older ages.

Demey et al. (2013) used longitudinal data from the United Kingdom to show that those mid-life men who have not had children, have no educational qualifications, are not economically active and who live in rented housing were likely to be most at risk of needing a social and economic safety net in old age. Other studies looked at the adverse impact of marital disruptions over the life course for old-age social support and connectedness. Studies on the impact of parental divorce, however, provide ambiguous findings: Some have reported no relationship between divorce and help given or received in old age (Aquilino 1994, Pezzin and Schone 1999), others have reported a negative relationship with time and money transfers (Furstenberg et al. 1995, Kalmijn 2007), and some have found that older divorced or separated parents (analysis restricted to those aged 70 and over) were more likely to receive help from children compared to those who are still married (Glaser et al. 2008).

Some studies have also investigated the link between social support and widowhood. Unlike divorce, most studies have shown no significant relationship between widowhood and social contact (Bulcroft and Bulcroft 1991), although with regard to measures of instrumental assistance, some research has shown that widowed parents receive more support from children compared with still married parents (Ha et al. 2006). Studies that are able to identify and examine widowers separately have shown lower contact levels compared with fathers who are still married (Kalmijn 2007).

In identifying contexts, studies have established some general evidence. For instance, a parent's gender is clearly important, because partnership dissolution has a greater negative impact on support for older men in comparison to older women (Furstenberg et al. 1995, Kalmijn 2007). Furstenberg et al. (1995) found that divorce timing also matters: The younger the age of the child at

the time of the parental partnership disruption, the lower the level of contact reported by older parents. Pezzin and Schone (1999) showed that older parents were more likely to receive assistance from their biological children than stepchildren.

All in all, it can be surmised that health status in later life reflects exposures to favourable or unfavourable early life environments, and lifestyle and diet behaviour throughout life. Also, studies show that women who are out of the labour force for longer periods and had children, and those who divorce and do not remarry, are often at a greater risk of poverty and low income in old age. In the same vein, research has shown that marital disruptions over the life course may have adverse consequences for social support and connectedness at older ages.

INEQUALITIES

Selected studies are reviewed in this section to highlight specific aspects of vulnerabilities in old age, and their association with gender, education, family and socio-economic status as well as with political and institutional contexts.

HEALTH AND WELL-BEING

The studies reviewed first revealed problems of inequality in health status and well-being among older people. They showed that in general, increasing age, being female, low education, low wealth status and not having a partner present were associated with poorer health and well-being, and in general lower quality of life (Debpuur et al. 2010, Hirve et al. 2010, Van Minh et al. 2010, Gómez-Olivé et al. 2010, Phaswana-Mafuya et al. 2013). Given these findings, it is obvious that in most contexts, specific policy actions need to be designed to improve the health and well-being of disadvantaged older people—particularly women, the oldest people, and those with lower education and economic status.

In general, lack of data on the health and well-being of older people in developing countries makes it difficult to monitor trends in the health status of adults, and the impact of social policies on their health and welfare. This gap has now been filled, at least partly, by the World Health Organization's (WHO) study on global ageing and adult health (SAGE), which was conducted in China, Ghana, India, Mexico, the Russian Federation and South Africa between 2007 and 2010 (see Kowal et al. 2010). For example, Biritwum et al. (2013), by using SAGE Wave 1 data for Ghana, showed the potential of these surveys in studying household characteristics and intra-household dynamics, and their influence on the health and well-being of older Ghanaians.

Debpuur et al. (2010) investigated self-reported health and functional limitations among older people in the Kassena-Nankana district of Ghana using SAGE. Their results were consistent with what has been observed in other studies: Self-reported health declines with age among both men and

women, and such patterns are reflected in increasing functional disability. Household wealth was significantly associated with self-reported health, with wealthier adults more likely to rate their health as good.

Likewise, Hirve et al. (2010) examined social gradients in self-reported health and well-being among adults aged 50 and over in Pune District, India. They used a shortened version of the SAGE questionnaire for self-reported assessments of performance, function, disability, quality of life and well-being. One novelty of this study was that the self-reported responses were calibrated using anchoring vignettes in eight key domains of mobility, self-care, pain, cognition, interpersonal relationships, sleep/energy, affect and vision. The study found that disability in all domains increased with age and lower levels of education. Females and the oldest people without a living spouse reported poorer health status and greater disability across all domains. Self-reports on quality of life were not significantly influenced by socio-demographic variables. For instance, the presence or absence of a spouse did not significantly alter quality of life, suggesting a possible protective effect provided by traditional joint family structures in India.

Along the same lines, Van Minh et al. (2010) studied patterns of health status and quality of life among older people (aged 50 and beyond) in rural Viet Nam. Women more often reported poor health status and poor quality of life compared to men. Rising age was also significantly associated with poor health status and poor quality of life, whereas higher education and higher economic status were significant positive predictors. The respondents whose families included other older people were significantly less likely to report poor quality of life. Interestingly, almost the same results can be seen in Gómez-Olivé et al. (2010) in a study of older adults in rural South Africa. The same can be said for a study of Tanzania (Mwanyangala et al. 2010) that showed that for people aged 50 and over, having good quality of life and health status was significantly associated with being male, married and not among the oldest people.

Phaswana-Mafuya et al. (2013) studied self-reported health and functioning, and its associated factors among older South Africans, using a national population-based cross-sectional survey. As has been the case in previous studies, the majority of the respondents viewed their health positively, attributed to the fact that generally individuals tend to overrate their health. On balance, men reported very good or good health more often than women, and this may partly be due to the fact that women are generally more aware of health issues than men. As in previous studies, this one further revealed that increasing age (see, for example, WHO 2005), being female (see, for instance, Debuur et al. 2010), being black or Native American (see, for example, Williams et al. 2008), low education (see, for example, Ng et al. 2010 and studies reviewed above), low wealth status (see, for instance, Van Minh et al. 2010 and Hirve et al. 2010) and not being married (see, for example, Waite and Gallagher 2000) were associated with poorer self-rated health, greater difficulties in performing

daily tasks and in general lower quality of life. A general understanding has been that elderly people with low socio-economic status depend heavily on public sector health services, and the public health system is often not appropriately equipped to provide good quality services. The implications are clear: The depreciation in health and daily functioning with increasing age is likely to increase demand for health care and other services, as there will be more older people in low-resource settings. There will be a need for regular monitoring of the health status of older people to develop public health agencies, and for data on how best to assess, protect, and promote the health and well-being of older people.

Researchers from the African Population and Health Research Centre studied the survival strategies and adaptation of older men and women in Nairobi slums (Mudege and Ezeh 2009). Their research was based on data from focus group discussions and in-depth individual interviews, starting with an emphasis on how the division between the domestic and public spheres impacts differentially on health and adaptation to old age. The fact that men are more often preoccupied in the public sphere during their earlier, working life appeared to make it more difficult for them to look after themselves in their domestic life, in terms of their inability or reluctance to perform activities essential for their healthy living. Such self-neglect exposed older men to nutritional inadequacies, and to illness and early death compared to older women. For women, the disadvantage of lacking contact in the public sphere was offset by their greater participation in the domestic sphere, giving them a ‘gender advantage’ in terms of survival and health and adaptation to old age—noting as well that the gender disadvantage of lacking public contact erodes with advancing age and frailty.

The paper also discussed the impact of gender roles on the development of social networks, and how these networks in turn impact health and social adjustment. Older women fared better in their social networks, developed mainly during earlier phases of their lives; they therefore suffered less social isolation in comparison to men. The evidence also suggested that social support networks for men helped prevent ill health and general unhappiness among older men in slums. Such support groups equipped men with skills they needed to lead a healthy and active life in old age, provided them with necessary information to alleviate social isolation, and instilled a sense of belonging and usefulness.

The paper further investigated how older people are adjusting and coping with the new challenges they face as a result of high morbidity and mortality among adults in the reproductive age groups. Older people were negatively affected by the burdens of having to look after their orphaned grandchildren. Better treatment and greater support to younger adults affected by HIV and AIDS, through public health and care system, would in turn improve the overall health of older people,

especially older women, as they would not be overly burdened with looking after orphaned grandchildren or increasingly sick adult children.

Falkingham et al. (2011) explored how socio-economic inequality in health persisted among older people living in resource-poor urban slums of Nairobi, using self-reported health assessments of functionality and disability status. The socio-economic position of older persons aged 50 or more was assessed on the basis of their education, occupation, a wealth index and their main source of livelihood. The results showed the expected negative association with health and socio-economic position, in some, but not all, types of disability. Primary level of education was a significant factor for women but not for men. Wealth status was associated with lower disability for both men and women. Older people dependent on their own sources of livelihood were also less likely to experience a disability.

Whitehouse and Zaidi (2008) reviewed findings on socio-economic differences in mortality and life expectancy using more than 50 previous studies on the topic. These studies, which cover various countries, time periods and measures of socio-economic status, provided the following broad findings:

- Socio-economic status as proxied by income, occupation or education strongly affected mortality and life expectancy;
- The effects were generally larger for men than for women; and
- The size of mortality differences by socio-economic status increased over time.

In this review, numerous studies provided clear evidence that higher levels of education reduce mortality and increase life expectancy. For example, Sorlie et al. (1995) showed that working-age men in the United States with 16 or more years of education were around 60 percent less likely to die in a particular period than men with 12 years of education, while men with five to eight years of education were 35 percent more likely to die than the baseline. The effects for women were smaller but still significant (this result was confirmed by Brown 2000; however, Lantz et al. 1998 found the opposite effect: a stronger relationship between education and mortality for women than for men). Deaton and Paxson (1999) showed that education affects life expectancy differently: for men, education and mortality are linked only through income, while for women, education has an independent influence on death rates. Using data for the United Kingdom, Attanasio and Emmerson (2001) found that education significantly affected morbidity (in other words, health status), but not mortality. Deaton and Paxson (2001) showed that education reduced mortality in the United Kingdom, but had a much weaker effect than that observed in the United States.

Occupation is a core socio-economic variable that reflects educational attainment, individual income and economic development. The evidence reported in Whitehouse and Zaidi (2008) affirmed a strong link between mortality and occupations. Sorlie et al. (1995) and Rogers et al. (2000) both showed that higher level occupations have much lower death rates than lower ones in the United States. For the United Kingdom, the Office of National Statistics reported that professional men can expect to live four years longer than men on average, while unskilled men live more than four years less than the average. For women, occupational life expectancy differentials were about half of those for men (Office of National Statistics 2006). Cambois (2004) found similar results for French men. Blane and Drever (1998) showed that mortality differentials measured in years of potential life lost fell more rapidly for men in professional and managerial occupations than they did for manual workers between 1970 and 1993, with only a very small improvement for unskilled manual workers. In terms of correlation with other socio-economic characteristics and health, Rogers et al. (2000) reported an inverse relationship between household income and mortality that holds regardless of sex, age, race or marital status. Moreover, the relation is robust to controls for other variables, including education and occupation.

POVERTY AND LOW INCOME

A study undertaken by Pal and Palacios (2008) analysed poverty rates for the elderly and non-elderly populations across states in India. They found that, with the important exception of Kerala, households with elderly members did not have higher poverty rates than non-elderly households. Although the result held across states, there was variation, suggesting that a survivorship bias driven by higher mortality rates among the lifetime poor was the underlying factor. In their test for this 'survivorship bias' (for instance, by using evidence from other datasets), they supported the long-established phenomenon that the poor die sooner than the rich. These findings have important implications for social pension policy, and suggest that programmes that reduce elderly mortality may actually increase the relative poverty levels of the elderly.

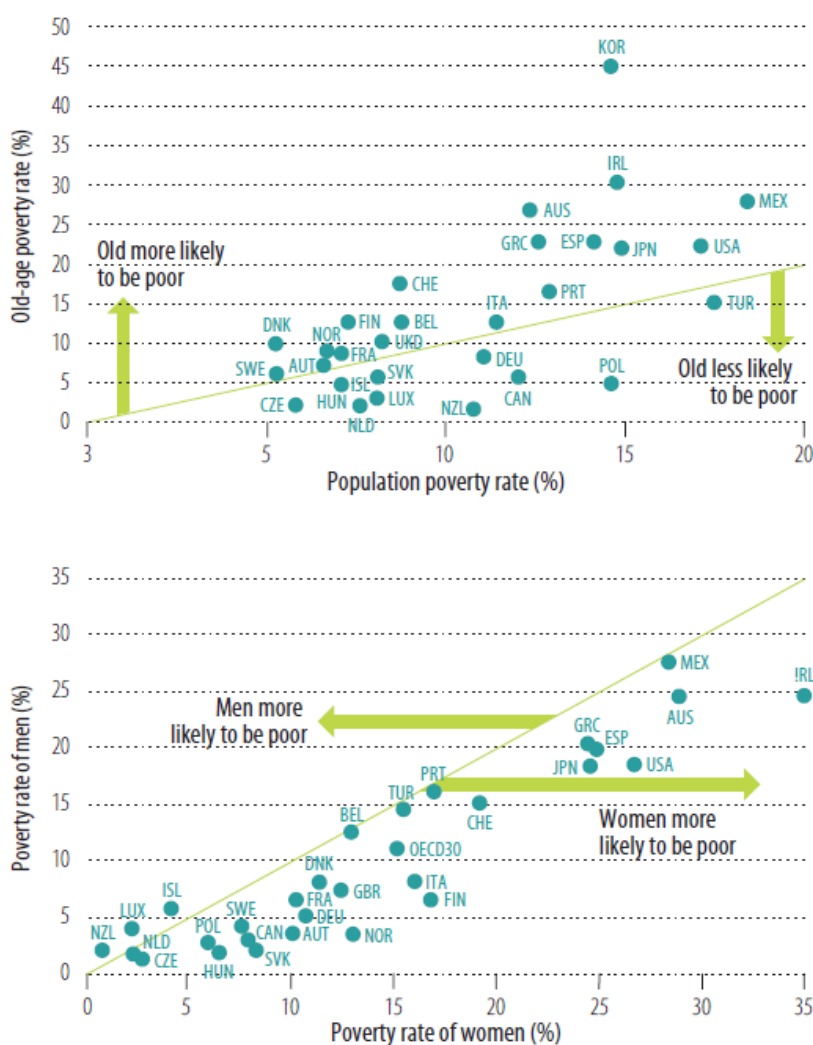
Poverty rates in OECD countries are higher for older people (aged 65 or more) than for the population as whole: 13.5 percent and 10.6 percent, respectively (OECD 2011). A most notable exception is Poland, where the old-age poverty rate is almost 10 percentage points lower than the overall rate. A greater proportion of older women live in poverty than older men, and old-age poverty rates increase with age (see figure 5). Poverty among the 'younger' old (aged 66 to 75) is generally rarer than among the 'older' old (aged 75 and over); the average poverty rates are 11.7 percent and 16.1 percent, respectively.

Older women are at a greater risk of poverty than older men in 27 out of 30 countries. Average poverty rates are 15 percent for women and 11 percent for men. There are exceptions to this pattern, especially in Iceland, Luxembourg and New Zealand, where there are low overall poverty rates for

older people. The largest gender poverty gaps are in Ireland, Finland and Norway, where women’s poverty rates exceed men’s by more than 10 percentage points. But there are also significant differences in Austria, Italy, Japan, Slovakia and the United States.

The biggest differences in poverty risk are observed by household type. Among those households headed by a single person aged over 65, around 25 percent live in poverty on average across OECD countries. This compares with less than 10 percent among people in couples. The great majority of single older people are especially likely to live in poverty in Ireland and the Republic of Korea. Income poverty rates of 40 to 50 percent for single older people are also found in Australia, Japan, Mexico and the United States.

Figure 5: Income poverty rates, by age and sex, of older people in OECD countries



Source: OECD 2011, p. 149.

A more detailed study by the Employee Benefit Research Institute showed similar inequalities for the older population in the United States (Banerjee 2012). The poverty rates were highest for people 85 and older: Nearly 15 percent of Americans aged 85 and above were living in poverty in 2009, which was the highest rate of all age groups. As in other OECD countries, older women have much higher rates of poverty than older men. Poverty rates for women 65 and older were nearly twice those of men in the same age group in almost every year from 2001 to 2009. Older single persons were more likely to be poor than older persons living as couples. In 2009, the poverty rate for couples 65 and older was just 4 percent, compared with almost 16 percent for single men in that age group. Older single women are especially vulnerable: Slightly more than one in five single women aged 65 and over lived in poverty during 2009. There are also sharp racial differences in the poverty rates of older persons living in the United States.

Policy implications

The study by Lloyd-Sherlock et al. (2012) provides a good starting point in reviewing policies seen to be effective in promoting the health and well-being of older people. They used specialized quantitative surveys and qualitative interviews in Brazil and South Africa to examine older people's social exclusion not just in relation to their material resources but also their social relations. They concluded that disadvantages in access to education, health and employment over the life course play a significant role in determining both the quality and quantity of life in old age. Two generic conclusions stand out.

First, social policies and welfare systems in these two middle-income countries have been instrumental in reducing exclusion from material resources in later life. Notable measures include Brazil's rural pension and *Bolsa Família* (Family Allowance) programmes, and its Law for the Rights of Older People. These had major impacts in reducing people's vulnerability to poverty. In South Africa, the old-age social grant now reaches a large majority of those eligible and has been found to make a significant contribution to reducing poverty risks among older people. One of the reasons for its high effectiveness is that it was extended to all people aged 60 or over at the end of the apartheid era; previously, it was limited to the white population and some selected other segments.

Second, social policies in such middle-income countries show awareness that the engagement and contribution of older people can foster social and economic development of the country. The same phenomenon can help counter the social exclusion of older people. Their research highlighted that older people in both Brazil and South Africa feel that they are well integrated within their households and wider communities. They also found that stronger relations of older people with

their family members happened at the expense of people's material resources, by the sharing of pension income.

The results of the Global AgeWatch Index also identified contexts in which older people fare well in different domains of well-being and quality of life (see HelpAge International 2013a, 2013b). For example, results for Western European and Scandinavian welfare states showed that a long record of progressive investments in education and health care, employment and training, in the long term and throughout the life course, has paid social and economic dividends not just for individuals but also for societies as a whole. Sweden put its universal pension in place at a time when the country was what would now be called an emerging economy. Norway introduced its universal rights-based pension in 1937, long before it achieved its high-income status. These examples highlight the fact that good management of ageing is within the reach of governments, but such public policies need to be prioritized, maintained and expanded, something that has proved difficult in the currently austere times in many developed European economies.

Other middle- or low-income countries in which non-contributory social pensions have become part of social welfare programmes also fared rather well in the results of the Global AgeWatch Index. Argentina, Chile and Uruguay all underwent structural reforms of their pension systems in the 1990s. Each now has a basic non-contributory pension, available to older persons aged 60 or more. Both Chile and Uruguay have also recently eased eligibility by reducing contribution periods to access minimum pension guarantees.

Bolivia, a country with one of the lowest Human Development Index rankings in Latin America, has had a universal basic pension scheme since 1996. It therefore has a relatively high ranking on the income security component of the Global AgeWatch Index and ranks in the top 50 countries overall. Brazil's social pension, particularly in rural areas, provides one of the most generous levels of basic income globally, and the impacts on poverty are well documented. In Venezuela, the social pension introduced in late 2011 is expected to help the country improve the income position of its elderly population in the future. Mexico's new social pension, introduced in 2013, is another prime example of the recent emphasis of this policy strategy in many Latin American countries (Wilmore 2014). On the whole, these experience show that it is possible to implement measures to mitigate income inequalities in old age even in middle-income developing countries.

Mauritius is another good policy example. It is one of the best-performing countries in Africa in the income security domain of the Global AgeWatch Index, as it has nearly universal coverage of people over age 60 with a non-contributory pension. Its pioneering experiment with a universal old-age pension dates back to 1958 when Mauritius was a relatively poor country. That year, its gross domestic product (GDP) per capita was US\$4,544. It was a bold policy measure to give each woman

from the age of 60 and each man from the age of 65 a cash benefit equal to 24 per cent of GDP per capita.

The social pension in Lesotho was introduced in 2004 for all over 70 years of age. This pension income support to older persons was considered particularly important since it reduced considerably (from 80 percent to 40 percent) the proportion of beneficiaries reporting they never or rarely had food to satisfy their hunger. Also, since pension benefits are shared within households, there is evidence they have improved education and consumption of dependent orphan children (Monchuk 2014).

South Africa is one of the only other African countries where the pension system includes a non-contributory social pension scheme, which pays out benefits to men over 65 and women over 60. These benefits are in practice providing a universal social pension to older people lacking other forms of pension support (Barrientos and Lloyd-Sherlock 2011). For these reasons, South Africa performs reasonably well in the income security domain of the Global AgeWatch Index.

Other countries in which near-universal health care coverage and services have been available, such as Bolivia, Chile and Costa Rica, also offer the most effective responses to the challenges and opportunities of population ageing. Bolivia has had a progressive social policy environment for older people for quite some time, particularly the National Plan on Ageing, which offers free health care for older people, in addition to a universal pension.

Chile and Costa Rica are testaments to the life course impacts of reforms introduced in both countries when the current older generation was young. In the late 1940s, Costa Rica set up the *Caja*, a social security system that has since provided universal health care coverage and services that are among the best in Latin America (Boddiger 2012).

Chile, which leads Latin America on the Human Development Index, achieved its high position in the Global AgeWatch Index (19th out of 91 countries) mainly through its high ranking of 10 in the health domain. Health conditions in general have improved considerably in recent decades, with high life expectancy at birth and low levels of infant mortality. The Chilean health care system is structurally segmented, with low-income, high-risk populations being served mainly by the public sector, and high-income, low-risk populations generally being treated in the private sector. This segmentation may be the reason morbidity and mortality rates vary greatly across socio-economic groups, and the country is ranked very low in terms of economic equality (Missoni and Solimano 2010).

Results for other low- or middle-income countries show that limited resources do not have to be a barrier to providing for older citizens. Good social policies introduced in middle-income countries, such as Mauritius and Sri Lanka, offer lessons not just to other countries at the same stage of

economic development, but also to developed countries to improve the relative position of their older populations. In Sri Lanka, for instance, there have been long-term investments in education and health that have generated a cumulative lifetime advantage for many of today's older people. Older Sri Lankans rank their social connections, physical safety and civic freedom highly. The findings for Sri Lanka in the Global AgeWatch Index are consistent with its relatively high ranking on the Human Development Index.

Evidence from other emerging economies, such as in India, Nigeria, Poland and the Republic of Korea, suggests that a strong economic performance does not necessarily trickle down to improve the well-being of older people. India's strong economic performance has not yet resulted in widespread income security and access to health care in older age. This is despite the fact that it has an already large and growing population of older people. Older people's health appears particularly problematic: India's low relative position in this respect is largely driven by a lower life expectancy at age 60 of 17 years (three years less than China), and also lower health-adjusted life expectancy at age 60. India's position in terms of the employment and education of older people is also relatively low, reflecting past policies. In terms of policy reforms, there has been only slow improvement through partial pension coverage for the poorest that entails patchy social protection measures at the state and national levels. A campaign to introduce a universal old-age benefit, however, has gained significant momentum. India's Food Security Bill, a new welfare scheme in which food subsidies will be rolled out to the poorest segments of society, could help improve the position of older people. India can potentially benefit from the demographic dividend, as it still has large numbers of people of prime working age.

The Republic of Korea ranks rather low in the Global AgeWatch Index, especially in view of its high economic growth in recent times. It is the lowest-ranked OECD country and has the lowest ranking in Asia for the income security domain. This perverse outcome is to be attributed to the very high levels of poverty among older Koreans: Close to 45 percent of people aged 60 or more live on less than 50 percent of median household income; the corresponding poverty rate incidence for single elderly Korean persons is close to 76 percent. Pension income coverage is also relatively low, around 70 percent, although coverage could increase to almost 100 percent in the near future. The high old-age poverty rate is primarily due to the fact that the public pension scheme was introduced in 1988, so retirees in the mid-2000s had little or no time to accumulate pension entitlements in the new system. Poverty among older Koreans has to be seen by current policy makers as one of their major challenges.

Conclusions

While the social and technological evolutions of the 20th century have seen phenomenal advances in the areas of human longevity, an understanding of ageing and the emancipation of women within a globalizing world, societal responses have been slow to fully incorporate older people as a positive resource for society. In this light, the failure to provide adequate social policy responses in many countries has created a mismatch between wider societal experiences of advances in longevity, and evolution in the opportunities that could foster and reward people in the later stages of their lives. Such a lag has become obvious from differences across countries in terms of the quality of life and well-being of older people, observed in the findings of the Global AgeWatch Index.

For example, data provided by the index show that in 2013, close to half of all countries covered were at least 50 percent below the benchmark set by the best-performing Nordic and Western European countries. Many of the countries at the bottom of the ranking, mainly from sub-Saharan Africa and the Middle East, but also Afghanistan and Pakistan, had achieved less than one-third of the desirable benchmark values. Since the majority of these bottom-ranked countries are also those with fast rises in the proportions of older people, it is obvious that these countries are experiencing a serious structural lag in prioritizing policies and programmes that promote the lives of older people.

A clear conclusion is that greater social policy efforts are required in countries worldwide, with the aim of generating preconditions for a higher quality of life and well-being for older people, and making welfare provision models more sustainable. For policy considerations, an essential distinction is between policies suitable for the current generation of the elderly, and forward-looking policies required for future generations of older people. The current elderly need protection since they are restricted in their opportunities, and the future elderly need additional opportunities for employment, savings and better planning.

In providing income security in retirement, for instance, it will be necessary to not just promote suitable contributory pension schemes as a vehicle for future pension incomes, but also safeguard current older populations with non-contributory social pensions if they have failed to generate adequate contributory pensions. It is argued that greater coverage of both contributory and non-contributory schemes will enhance financial security and resilience in old age. Non-contributory social pensions have been identified particularly to be good practice examples of reducing economic vulnerabilities in those countries where there is a large informal employment sector. Contributory schemes that have inherent redistributive elements and contain little or no disincentives for longer working careers are good policy examples to ensure the future sustainability of modern welfare systems.

For future generations of old-age populations, the aim will have to be not just to reduce exposure to life course experiences that affect human development, but, more crucially, to increase individual capabilities and resilience over the whole life. Thus, the human development people-empowering approach, which is akin to the social investment approach of the European Commission, needs to be adopted, so as to emphasize education and training interventions, not just during younger ages but during all later stages of life. A greater emphasis on active ageing policy discourse falls in line with the idea of empowering people to contribute to their own development and the society around them. These are also principles underlying the agenda of human development and enhancement of internal and structural capabilities pursued in the 2014 Human Development Report.

The discussion in this paper has brought to the fore many factors that reduce vulnerability and enhance resilience among older people.

First, to boost the *personal resilience* of people in old age, social investment interventions must be implemented early in the life cycle, particularly to offset negative impacts of the ageing process. Health and education are strong determinants of human capital, which in turn is a strong predictor of unequal experiences of ageing. Moreover, income and employment security have lifelong impacts, not only during working-age phases of life, but into and during old age.

Second, the provision of age-friendly enabling environments boosts *community resilience*. It reduces the exposure to risks that individuals face in old age and mitigates any adverse impact. The suggested improvements in physical, social and institutional infrastructure are numerous, but lifelong learning, access to information and communications technology, social connectedness, physical safety, civic freedom and access to key public services such as transport are critical (for more discussion, see Zaidi 2014a and HelpAge International 2013b).

Third, the strengthening of formal support in the form of social protection schemes in recent times has produced an emphasis on basic non-contributory social pensions, which have generated highly desirable outcomes in terms of the income security of older persons in many countries. These schemes have become most widespread in the recent past in the major Latin American economies, such as Argentina, Brazil, Chile, Mexico and Uruguay. Brazil's social pension, particularly in rural areas, has provided generous levels of basic pension income. Bolivia's National Plan on Ageing includes not just free health care for older people but also a non-contributory universal pension. In Chile and Costa Rica, there are lifelong impacts of reforms introduced during the last two decades when much of the current older generation was young. Costa Rica's *Caja* has provided universal health care coverage and services that are among the best in Latin America, and generate a positive impact on the health status of the current generation of older people (HelpAge International 2013a, 2013b).

Fourth, one other point emphasized in this paper and in the analysis of the Global AgeWatch Index is how economic development does not automatically lead to improvements in the lives of older citizens. Instead, specific public policy priorities are required for promoting the quality of life and well-being of older people. Examples highlighted include Norway and Sweden, since, long before the countries attained their current high-income status, they introduced progressive investments in education, health care, employment and training, and social security throughout the life course. Likewise, the introduction of good practice social policies in middle-income countries, such as Mauritius and Sri Lanka, offer good lessons, not just to countries at a similar stage of economic development but also to developed countries. In Sri Lanka, long-term investments in education and health have generated a cumulative lifetime advantage for many of today's older people, offering strong lessons to other South Asian countries such as India and Pakistan. Mauritius, on the other hand, offers good lessons for other African nations in terms of the income security of older people, with nearly universal coverage of people over age 60 with a non-contributory pension.

A final argument that emerges from the multiple strands of evidence presented in this paper addresses the costs of implementing new approaches in dealing with the future challenges of population ageing. The concern is often expressed that adopting and implementing such approaches in the post-crisis world of austerity is much too expensive an option, in particular for the poorer countries. The arguments developed in this paper point in the other direction. Using the capability approach to enhance human development and linking it with the life course perspective ultimately illustrates the costs of vulnerability and the benefits of developing resilience among the elderly. Poor countries do not become any poorer by implementing social investment policies that improve the lives of their citizens; rather, the process enhances the development of these countries and strengthens society's human and structural resilience to deal with the economic and social challenges arising from population ageing. Early interventions result in more savings, such as by reaping benefits of longer working careers and reduced expenditures on health and care costs. These benefits outweigh the expenditures made, say, towards better education, health and employment opportunities during the working life.

References

- Alastalo, H., K. Raikonen, A. K. Pesonen, C. Osmond, D.J.P. Barker, E. Kajantie, K. Heinonen, T. J. Forsen and J. G. Eriksson. 2009. "Cardiovascular health of Finnish war evacuees 60 years later." *Annals of Medicine* 41: 66–72.
- Alwang, J., P. Siegel and S. Jorgensen. 2001. "Vulnerability: A View from Different Disciplines." Social Protection Discussion Paper 0115. Washington, DC: World Bank.
- Amick, B. C., 3rd, P. McDonough, H. Chang, W. H. Rogers, C. F. Pieper G. Duncan. 2002. "Relationship between all-cause mortality and cumulative working life course psychosocial and physical exposures in the United States labor market from 1968 to 1992." *Psychosomatic Medicine* 64: 37–81.
- Aquilino, W. S. 1994. "Impact of childhood family disruption on young adults' relationships with parents." *Journal of Marriage and the Family* 56: 295–313.
- Attanasio, O. P., and C. Emmerson. 2001. "Differential Mortality in the UK." Working Paper no. 8,241. Cambridge, Massachusetts: National Bureau of Economic Research.
- Banerjee, S. 2012. "Time Trends in Poverty for Older Americans Between 2001–2009." Employee Benefit Research Institute. ebri.org Notes, vol. 33, no. 4, April.
- Bardasi, E., and S. P. Jenkins. 2002. *Income in later life: Work history matters*. Bristol: The Policy Press.
- _____. 2004. "The Gender Gap in Private Pensions." ISER Working Paper 2004-29. Colchester: Institute for Social and Economic Research, University of Essex.
- Bardasi, E., S. P. Jenkins and J. A. Rigg. 2002. "Retirement and the income of older people: A British perspective." *Ageing and Society* 22: 131–159.
- Barrientos, A., and P. Lloyd-Sherlock. 2011. "Pensions, Poverty and Wellbeing: The Impact of Pensions in South Africa and Brazil, a comparative study." Pension Watch briefing no. 7. London: HelpAge International.
- Bengtson, V., G. H. Elder and N.M. Putney. 2005. "The Lifecourse Perspective on Ageing: Linked Lives, Timing and History." In Johnson, M. V. Bengtson, P. Coleman and T. Kirkwood. eds., *The Cambridge Handbook of Age and Ageing*: 493–501. Cambridge: Cambridge University Press.
- Benzeval, M., and K. Judge. 2001. "Income and health: The time dimension." *Social Science and Medicine* 52: 1,371-1,390.
- Biritwum, R. B., G. Mensah, N. Minicuci, A. E. Yawson, N. Naidoo, S. Chatterji and P. Kowal. 2013. "Household characteristics for older adults and study background from SAGE Ghana Wave 1." *Global Health Action* 2013 6: 20096.
- Blane, D. 2005. "Cohort profile: The Boyd Orr lifegrid sub-sample—medical sociology study of life course influences on early old age." *International Journal of Epidemiology* 34: 750–754.
- Blane, D., and F. Drever. 1998. "Inequality among men in standardised years of potential life lost, 1970-93." *British Medical Journal* 317: 255–256.
- Blane, D., P. Higgs, M. Hyde and R. D. Wiggins. 2004. "Life course influences on quality of life in early old age." *Social Science and Medicine* 58: 2,171–2,179.
- Bloemen, H., S. Hochguertel and J. Zweerink. 2013. "The Causal Effect of Retirement on Mortality: Evidence from Targeted Incentives to Retire Early." IZA Discussion Paper no. 7,570.
- Boddiger, D. 2012. "Costa Rica restructures health system to curb financial crisis." *The Lancet* 379(9,819): 883.
- Bowling, A. 1987. "Mortality after bereavement: a review of the literature on survival periods and factors affecting survival." *Social Science and Medicine* 24: 117–124.
- _____. 1994. "Mortality after bereavement: an analysis of mortality-rates and associations with mortality 13 years after bereavement." *International Journal of Geriatric Psychiatry* 9: 445–459.

- Brockmann, H., and T. Klein. 2004.** "Love and death in Germany: The marital biography and its effect on mortality." *Journal of Marriage and Family* 66: 567–581.
- Brockmann, H., R. Muller and U. Helmert. 2009.** "Time to retire—Time to die? A prospective cohort study of the effects of early retirement on long-term survival." *Social Science and Medicine* 69: 160–164.
- Broese van Groenou, M. I., K. Glaser, C. Tomassini and T. Jacobs. 2006.** "Socioeconomic status differences in the use of informal and formal help: A comparison of four European countries." *Ageing and Society* 26: 745–766.
- Brown, J. R. 2000.** "Differential Mortality and the Value of Individual Account Retirement Annuities." Working Paper no. 7,560. Cambridge, Massachusetts: National Bureau of Economic Research..
- Bulcroft, K. A., and R. A. Bulcroft. 1991.** "The timing of divorce, effects on parent-child relationships in later life." *Research on Aging* 13: 226–243.
- Burkhauser, R. V., J. S. Butler and K. C. Holden. 1991.** "How the death of a spouse affects economic well-being after retirement: A hazard model approach." *Social Science Quarterly* 72: 504–519.
- Burkhauser, R. V., and G. J. Duncan. 1991.** "United States public policy and the elderly: the disproportionate risk to the well-being of women." *Journal of Population Economics* 4: 217–231.
- Burkhauser, R. V., K. C. Holden and J. C. Feaster. 1988.** "Incidence, timing and events associated with poverty: A dynamic view of poverty in retirement." *Journal of Gerontology* 43: S46–S52.
- Cambois, E. 2004.** "Occupational and educational differentials in mortality in French elderly people: magnitude and trends over recent decades." *Demographic Research*, Special Collection no. 2, article 11.
- Chambers, R. 1989.** "Vulnerability, Coping and Policy." *IDS Bulletin* 20(2): 1–7.
- Christakis, N., and P. Allison. 2006.** "Mortality after the hospitalization of a spouse." *New England Journal of Medicine* 354: 719–730.
- Colon-Lopez, V., M. N. Haan, A. E. Aiello and D. Ghosh. 2009.** "The Effect of Age at Migration on Cardiovascular Mortality Among Elderly Mexican Immigrants." *Annals of Epidemiology* 19: 8–14.
- Deaton, A. and C. Paxson. 1999.** "Mortality, Education, Income, and Inequality among American Cohorts." Working Paper no. 7,140. Cambridge, Massachusetts: National Bureau of Economic Research.
- _____. 2001.** "Mortality, Income, and Income Inequality Over Time in Britain and the United States." Working Paper no. 8,534. Cambridge, Massachusetts: National Bureau of Economic Research.
- Debpuur, C., P. Welaga, G. Wak and A. Hodgson. 2010.** "Self-reported health and functional limitations among older people in the Kassena-Nankana District, Ghana." INDEPTH WHO-SAGE Supplement. *Global Health Action* 3(supplement 2).
- Demey, D., A. Berrington, M. Evandrou and J. Falkingham. 2013.** "Living alone and psychological health in mid-life: the role of partnership history and parenthood status." Paper presented at the XXVII IUSSP, International Population Conference, Busan, Republic of Korea.
- Elder, G. H., Jr., M. J. Shanahan and E. C. Clipp. 1994.** "When war comes to men's lives: life-course patterns in family, work, and health." *Psychological Aging* 9: 5–16.
- Emmerson, C., and A. Muriel. 2008.** "Financial resources and well-being." In J. Banks, E. Breeze, C. Lessof and J. Nazroo, eds., *Living in the 21st Century: Older People in England. The 2006 English Longitudinal Study of Ageing, Wave 3*: 118–149. London: Institute for Fiscal Studies.
- Evandrou, M., and J. Falkingham. 2004.** "Demographic Change in Europe: Implications for Future Family Support for Older People." In P. Kreager and E. Schröder-Butterfill, eds., *Ageing Without Children: European and Asian Perspectives*: 176–197. Oxford: Berghahn.

- Evandrou, M., and K. Glaser. 2003.** "Combining work and family life: The pension penalty of caring." *Ageing and Society* 23: 5,583-5,602.
- Falkingham, J., G. Chepngeno-Langat, C. Kyobutungi, A. Ezeh and M. Evandrou. 2011.** "Does Socioeconomic Inequality in Health Persist among Older People Living in Resource-Poor Urban Slums?" *Journal of Urban Health* 88(2): 381-400
- Fredman, L., J. A. Cauley, M. Hochberg, K. E. Ensrud and G. Doros. 2010.** "Mortality associated with caregiving, general stress, and caregiving-related stress in elderly women: results of caregiver-study of osteoporotic fractures." *Journal of the American Geriatric Society* 58(5): 937-943.
- Furstenberg, F. F., S. D. Hoffman and L. Shrestha. 1995.** "The effect of divorce on intergenerational transfers: New evidence." *Demography* 32: 319-333.
- Gallo, W. T., E. H. Bradley, M. Siegel and S. V. Kasl. 2000.** "Health effects of involuntary job loss among older workers: Findings from the health and retirement survey." *Journals of Gerontology Series B—Psychological Sciences and Social Sciences* 55: S131-S140.
- Geerlings, S. W., A. M. Pot, J.W.R Twisk and D.J.H. Deeg. 2005.** "Predicting transitions in the use of informal and professional care by older adults." *Ageing and Society* 25: 111-130.
- Ginn, J. 2003.** "Parenthood, partnership status and pensions: Cohort differences among women." *Sociology* 37: 493-510.
- Glaser, K., M. Evandrou and C. Tomassini. 2005.** "The health consequences of multiple roles at older ages in the UK." *Health and Social Care in the Community* 13: 470-477.
- Glaser, K., D. Price, R. Willis, R. Stuchbury and M. Nicholls. 2009.** "Life course influences and well-being in later life: a review." London: Institute of Gerontology, King's College London; Department for Work and Pensions; Equality and Human Rights Commission; Age Concerns and Help the Aged.
- Glaser, K., R. Stuchbury, C. Tomassini and J. Askham. 2008.** "The long-term consequences of partnership dissolution for support in later life in the United Kingdom." *Ageing and Society* 28: 329-351.
- Glaser, K., C. Tomassini, F. Racioppi and R. Stuchbury. 2006.** "Marital disruptions and loss of support in later life: A longitudinal study of the United Kingdom." *European Journal of Ageing* 3: 207-216.
- Gómez-Olivé, F. X., M. Thorogood, B. D. Clark, K. Kahn and S. M. Tollman. 2010.** "Assessing health and well-being among older people in rural South Africa." INDEPTH WHO-SAGE Supplement. *Global Health Action* 3(supplement 2).
- Grant, G., J. Falkingham and M. Evandrou. 2009.** "The impact of adult children's migration on wellbeing in later life: Voices from Moldova." Centre for Research on Ageing, Discussion Paper 0902. University of Southampton.
- Grundy, E., and G. Holt. 2000.** "Adult life experiences and health in early old age in Great Britain." *Social Science and Medicine* 51: 1,061-1,074.
- Grundy, E., and O. Kravdal. 2008.** "Reproductive history and mortality in late middle age among Norwegian men and women." *American Journal of Epidemiology* 167: 271-279.
- Grundy, E., and C. Tomassini. 2005.** "Fertility history and health in later life: A record linkage study in England and Wales." *Social Science and Medicine* 61: 217-228.
- Ha, J., D. Carr, R. L. Utz and R. Nesse. 2006.** "Older adults' perceptions of intergenerational support after widowhood: How do men and women differ?" *Journal of Family Issues* 27: 3-30.
- HelpAge International. 2013a.** "Global AgeWatch Index 2013: Insight Report." Report written by M. Gorman and A. Zaidi with contributions from B. Azad, S. Beales, A. Kulcsar, C. Knox-Vydmanov, A. Mihnovits, E. Mikkonen-Jeanneret, P. Ong, J. Scobie and M. Skinner. London.

- _____. 2013b. "Global AgeWatch Index 2013: Purpose, Methodology and Results." Paper prepared by A. Zaidi, Centre for Research on Ageing, School of Social Sciences, University of Southampton.
- Helsing, K., and M. Szkló. 1981. "Mortality after bereavement." *American Journal of Epidemiology* 114: 41–52.
- Henretta, J. C. 2007. "Early childbearing, marital status, and women's health and mortality after age 50." *Journal of Health and Social Behavior* 48: 254–266.
- Hirve, S., S. Juvekar, P. Lele and D. Agarwal. 2010. "Social gradients in self-reported health and well-being among adults aged 50 and over in Pune District, India." INDEPTH WHO-SAGE Supplement. *Global Health Action* 3(supplement 2).
- Holden, K. C., R. V. Burkhauser and D. J. Feaster. 1988. "The timing of falls into poverty after retirement and widowhood." *Demography* 25: 405–414.
- Holden, K. C., R. V. Burkhauser and D. A. Myers. 1986. "Income transitions at older stages of life: The dynamics of poverty." *The Gerontologist* 26: 292–297.
- Holland, P., L. Berney, D. Blane, D. Gunnell and S. Montgomery. 2000. "Lifecourse accumulation of disadvantage." *International Journal of Epidemiology* 50: 1,285–1,295.
- Hufschmidt, G. 2011. "A comparative analysis of several vulnerability concepts." *Natural Hazards* 58(2): 621–643.
- Hurt, L. S., C. Ronsmans and S. L. Thomas. 2006. "The effect of number of births on women's mortality: Systematic review of the evidence for women who have completed their childbearing." *Population Studies—a Journal of Demography* 60: 55–71.
- Iachina, M., B. Jorgensen, M. McGue and K. Christensen. 2006. *A Longitudinal Study of Depression Symptomatology and Widowhood in Elderly Danish Twins*. University of Southern Denmark.
- Johnson, R. W., and M. M. Favreault. 2004. "Economic status in later life among women who raised children outside of marriage." *Journals of Gerontology Series B—Psychological Sciences and Social Sciences* 59: S315–S323.
- Kalmijn, M. 2007. "Gender differences in the effects of divorce, widowhood, and remarriage on intergenerational support: Does marriage protect fathers?" *Social Forces* 85(3): 1,079–1,104
- Koskinen, S., K. Joutsenniemi, T. Martelin and P. Martikainen. 2007. "Mortality differences according to living arrangements." *International Journal of Epidemiology* 36: 1,255–1,264.
- Kowal, P., K. Kahn, N. Ng, N. Naidoo, S. Adbullah, A. Bawah, F. Binka, N.T.K. Chuc, C. Debpuur, A. Ezeh, F. X. Gomez-Olive, M. Hakimi, S. Hirve, A. Hodgson, S. Juvekar, C. Kyobutungi, J. Menken, H. V. Minh, M. A. Mwanyangala, A. Razzaque, O. Sankoh, P. K. Streatfield, S. Wall, S. Wilopo, P. Byass, S. Chatterji and S. M. Tollman. 2010. "Ageing and adult health status in eight lower-income countries: the INDEPTH WHO-SAGE collaboration." *Global Health Action* 3, including supplements.
- Krause, N., B. A. Shaw and J. Cairney. 2004. "A descriptive epidemiology of lifetime trauma and the physical health status of older adults." *Psychology of Aging* 19: 637–648.
- Kuh, D., R. Hardy, C. Langenberg, M. Richards and M.E.J. Wadsworth. 2002. "Mortality in adults aged 26–54 years related to socioeconomic conditions in childhood and adulthood: Post war birth cohort study." *British Medical Journal* 325: 1,076–1,080.
- Lantz, P. M., J. S. House, J. M. Lepkowski, D. R. Williams, R. P. Mero and J. Chen. 1998. "Socio-economic Factors, Health Behaviours and Mortality." *Journal of the American Medical Association* 279: 1,703–1,708.
- Lillard, L. A., and L. J. Waite. 1995. "Til death do us part: Marital disruption and mortality." *American Journal of Sociology* 100: 1,131–1,156.

- Lloyd-Sherlock, P. 2000. "Old age and poverty in developing countries: new policy challenges." *World Development* 18(12): 2,157–2,169.
- _____. 2002. "Nussbaum, capabilities and older people." *Journal of International Development* 14(3): 1,163–1,173.
- Lloyd-Sherlock, P., and C. Locke. 2008. "Vulnerable relations: lifecourse, wellbeing and social exclusion in Buenos Aires, Argentina." *Ageing and Society* 28(6): 779–803.
- Lloyd-Sherlock P., M. McKee, S. Ebrahim, M. Gorman, S. Greengross, M. Prince, R. Pruchno, G. Gutman, T. Kirkwood, D. O'Neill, L. Ferrucci, S. B. Kritchevsky and B. Vellas. 2012. "Population ageing and health." *The Lancet* 379(9,823): 1,295-1,296.
- Marks, N. F., and J. D. Lambert. 1998. "Marital Status Continuity and Change Among Young and Midlife Adults: Longitudinal Effects on Psychological Well-Being." *Journal of Family Issues* 19: 652–686.
- Mayor, K. U. 2009. "New Directions in Life Course Research." Arbeitspapiere—Working Papers No. 122. Mannheimer Zentrum für Europäische Sozialforschung.
- McLaughlin, D. K., and L. Jensen. 2000. "Work history and US elders' transitions into poverty." *The Gerontologist* 40: 469–479.
- McNamara, J. 2007. "Long-term disadvantage among elderly women: The effects of work history." *Social Service Review* September: 423–452.
- Missoni, E., and G. Solimano. 2010. "Towards Universal Health Coverage: the Chilean experience." Background paper no. 4 for the *World Health Report*. World Health Organization.
- Monchuk, V. 2014. "Reducing Poverty and Investing in Children—The New Role of Safety Nets in Africa." Washington, DC: World Bank.
- Mudege, N. N., and A. C. Ezeh. 2009. "Gender, aging, poverty and health: Survival strategies of older men and women in Nairobi slums." *Journal of Aging Studies* 23(4): 245–257. DOI: 10.1016/j.jaging.2007.12.021.
- Mwanyangala, M. A., C. Mayombana, H. Urassa, J. Charles, C. Mahutanga, S. Abdullah and R. Nathan. 2010. "Health status and quality of life among older adults in rural Tanzania." INDEPTH WHO-SAGE Supplement. *Global Health Action* 3(supplement 2).
- Ng, N., M. Hakimi, P. Byass, S. Wilopo and S. Wall. 2010. "Health and quality of life among older rural people in Purworejo District, Indonesia." *Global Health Action* 3: 78–87.
- Ngan, R. 2011. "Social care and older people." In I. Stuart-Hamilton, ed., *An Introduction to Gerontology*: 126–158. Cambridge: Cambridge University Press.
- Nussbaum M. 2000. *Women and Human Development: The Capabilities Approach*. Cambridge: Cambridge University Press.
- OECD (Organisation for Economic Co-operation and Development). 2011. "Old-Age Income Poverty." In *Pensions at a Glance 2011: Retirement-income Systems in OECD and G20 Countries*.
- Office of National Statistics. 2006. "Trends in ONS Longitudinal Study estimates of life expectancy by social class." London.
- O'Reilly, D., S. Connolly, M. Rosato and C. Patterson. 2008. "Is caring associated with an increased risk of mortality? A longitudinal study." *Social Science & Medicine* 67(8): 1,282–1,290.
- Pal, S., and R. Palacios. 2008. "Understanding poverty among the elderly in India: implications for social pension policy." IZA Discussion Paper no. 3,431.
- Peters, A., and A. C. Liefbroer. 1997. "Beyond Marital Status: Partner History and Well-Being in Old Age." *Journal of Marriage and Family* 59(3): 687–699.
- Pezzin, L. E., and B. S. Schone. 1999. "Parental marital disruption and intergenerational transfers: An analysis of lone elderly parents and their children." *Demography* 36: 287–297.

- Phaswana-Mafuya, N., K. Peltzer, W. Chirinda, Z. Kose, E. Hoosain, S. Ramlagan, C. Tabane and A. Davids. 2013.** "Self-rated health and associated factors among older South Africans: evidence from the study on global ageing and adult health." *Global Health Action*.
- Rahrig Jenkins, K., M. U. Kabeto and K. M. Langa. 2009.** "Does caring for your spouse harm one's health? Evidence from a United States nationally-representative sample of older adults." *Ageing & Society* 29(2): 277–293
- Rake, K., H. Davies, H. Joshi and R. Alami. 2000.** "Women's income over the lifetime." London: Women's Unit, Cabinet Office.
- Read, S., and E. Grundy. 2013.** "Pathways from parenthood to later life health: Results from analyses of the English Longitudinal Study of Ageing." Paper presented at the XXVII IUSSP, International Population Conference, Busan, Republic of Korea.
- Read, S., E. Grundy and D. A. Wolf. 2011.** "Fertility history, health and health changes in later life: A Panel study of British women and men born 1923-49." *Population Studies: A Journal of Demography* 65(2): 687–699.
- Rogers, R. G., R. A. Hummer and C. B. Nam. 2000.** "The Effects of Basic Socio-economic Factors on Mortality." In *Living and Dying in the USA: Behavioral, Health and Social Differences of Adult Mortality*: 115–140. New York: Academic Press.
- Sabates-Wheeler, R., and S. Devereux. 2008.** "Transformative Social Protection: The Currency of Social Justice." In A. Barrientos, and D. Hulme, eds., *Social Protection for the Poor and Poorest*: 68–84. Basingstoke: Palgrave Macmillan.
- Schröder-Butterfill, E. 2012.** "The Concept of Vulnerability and Its Relationship to Frailty." Unpublished chapter.
- Schröder-Butterfill, E., and R. Marianti. 2006.** "A framework for understanding old-age vulnerabilities." *Ageing and Society* 26(1): 9–35.
- Sefton, T., M. Evandrou and J. Falkingham. 2008.** "Family ties: Women's work and family histories and their association with incomes in later life in the UK." Case Paper 135. London: Centre for the Analysis of Social Exclusion, London School of Economics.
- Sefton, T., M. Evandrou, J. Falkingham and A. Vlachantoni. 2011.** "The relationship between women's work histories and incomes in later life in the UK, US and West Germany." *Journal of European Social Policy* 21: 20.
- Sen, A. K. 1980.** "Equality of what?" In S. McMurrin, ed., *Tanner Lectures on Human Values*. Cambridge: Cambridge University Press.
- _____. **1985.** *Commodities and Capabilities*. Amsterdam: North-Holland.
- _____. **1999.** *Development as Freedom*. New York: Knopf.
- Shaw, B. A., and N. Krause. 2002.** "Exposure to physical violence during childhood, aging, and health." *Journal of Aging and Health* 14: 467–494.
- Sorlie, P. D., E. Backlund and J. B. Keller. 1995.** "US Mortality by Economic, Demographic, and Social Characteristics: The National Longitudinal Mortality Study." *American Journal of Public Health* 85(7): 949–956.
- Spence, N. J. 2008.** "The long-term consequences of childbearing: Physical and psychological well-being of mothers in later life." *Research on Aging* 30: 722–751.
- Stewart, M. B. 2003.** "The relationship between the financial position of pensioners and their working-life earnings levels." Warwick: Economics Department, University of Warwick.
- Stoller, E. P., and K. L. Pugliesi. 1991.** "Size and effectiveness of informal helping networks: a panel study of older people in the community." *Journal of Health and Social Behavior* 32: 180–191.
- Stroebe, M., H. Schut and W. Stroebe. 2007.** "Health outcomes of bereavement." *The Lancet* 370: 1,960-1,973.

- Stroebe, M., W. Stroebe and H. Schut. 2001.** "Gender differences in adjustment to bereavement: an empirical and theoretical review." *Review of General Psychology* 5: 62–83.
- Thomas, C., M. Benzeval and S. A. Stansfeld. 2005.** "Employment transitions and mental health: an analysis from the British household panel survey." *Journal of Epidemiology and Community Health* 59: 243–249.
- United Nations Population Division. 2002.** *World population ageing 1950–2050*. New York.
- Utz, R. L., D. Carr, R. Nesse and C. B. Wortman. 2002.** "The effect of widowhood on older adults' social participation: An evaluation of activity, disengagement, and continuity theories." *The Gerontologist* 42: 522–533.
- Van Minh, H., P. Byass, N.T.K. Chuc and S. Wall. 2010.** "Patterns of health status and quality of life among older people in rural Viet Nam." INDEPTH WHO-SAGE Supplement. *Global Health Action* 3(supplement 2).
- Vartanian, T., and J. McNamara. 2002.** "Older women in poverty: The impact of midlife factors." *Journal of Marriage and Family* 64: 532–548
- Vlachantoni, A., M. Evandrou, J. Falkingham and J. Robards. 2013.** "Informal care, health and mortality." *Maturitas* 74: 114–118.
- Waite, L., and M. Gallagher. 2000.** *The case for marriage: why married people are happier, healthier, and better off financially*. New York: Doubleday.
- Walker, R., C. Heaven and S. McKay. 2000.** "Building up pension rights." DWP Research Report No. 114. London: Department for Work and Pensions.
- Warr, P. B., and P. R. Jackson. 1987.** "Adapting to the unemployment role: A longitudinal investigation." *Social Science and Medicine* 25: 1,219–1,224.
- Warr, P. B., P. R. Jackson and M. Banks. 1988.** "Unemployment and mental health: Some British studies." *Journal of Social Issues* 44: 47–68.
- WHO (World Health Organization). 2005.** "Cardiovascular diseases in the Africa region: current situation and perspectives." Report of the Regional Director, AFR/RC55/12. Brazzaville: WHO Regional Office for Africa.
- Whitehouse, E. R., and A. Zaidi. 2008.** "Socio-Economic Differences in Mortality: Implications for Pensions Policy." OECD Social, Employment and Migration Working Papers, No. 71. OECD Publishing. <http://dx.doi.org/10.1787/231747416062>.
- Wild, K., J. L. Wiles and R.E.S. Allen. 2013.** "Resilience: thoughts on the value of the concept for critical gerontology." *Ageing and Society* 33(special issue 1): 137–158.
- Williams, D.R., H. M. Gonzalez, S. Williams, S. A. Mohammed, H. Moomal and D. J. Stein. 2008.** "Perceived discrimination, race and health in South Africa." *Social Science and Medicine* 67: 441–452.
- Wilmore, L. 2014.** "Towards universal pension coverage in Mexico." London: HelpAge International.
- Yeandle, S., T. Kröger and B. Cass. 2012.** "Voice and choice for users and carers? Developments in patterns of care for older people in Australia, England and Finland." *Journal of European Social Policy* 22(4): 432–445.
- Young, H., E. Grundy and M. Jitlal. 2006.** *Care providers, care receivers. A longitudinal perspective*. York: Joseph Rowntree Foundation.
- Zaidi, A. 2008.** *Well-being of Older People in Ageing Societies*. Aldershot: Ashgate Publishing Limited.
- _____. **2014a.** "Enabling environments for active and healthy ageing in EU countries." *Gerontechnology* 13(1): 201–208.
- _____. **2014b.** "Surveying the Aging Landscape." *The Journal*. Washington, DC: AARP International.
- Zaidi, A., and K. De Vos. 2008.** "Income Mobility of the Elderly in Great Britain and the Netherlands: A Comparative Investigation." In A. Zaidi, ed., *Well-being of Older People in Ageing Societies*: 237–287. Aldershot: Ashgate Publishing Limited.

Zaidi, A., K. Gasior, M. M. Hofmarcher, O. Lelkes, B. Marin, R. Rodrigues, A. Schmidt, P. Vanhuyse and E. Zolyomi. 2013. *Active Ageing Index 2012: Concept, Methodology and Final Results*. Methodology report submitted to the European Commission's DG Employment, Social Affairs and Inclusion, and to the Population Unit, United Nations Economic Commission for Europe, for the project "Active Ageing Index (AAI)," UNECE Grant No: ECE/GC/2012/003. Vienna: European Centre for Social Welfare Policy and Research

Zaidi, A., and B. Gustafsson. 2006. "Work history, retirement choices and incomes in old age: A case study of Sweden." Submitted Papers Session 2D, "Aging, Intergenerational Transfers, and the Well-being of the Elderly," International Association for Research in Income and Wealth conference, Joensuu, Finland, 20-26 August.

Zaidi, A., K. Rake and J. Falkingham. 2008. "Income mobility in old age." In A. Zaidi, ed., *Well-being of Older People in Ageing Societies*: 151–194. Aldershot: Ashgate Publishing Limited.

UNDP Human Development Report Office
304 E. 45th Street, 12th Floor
New York, NY 10017, USA
Tel: +1 212-906-3661
Fax: +1 212-906-5161
<http://hdr.undp.org/>

Copyright © 2014
by the United Nations Development Programme
1 UN Plaza, New York, NY 10017, USA

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior permission. This paper does not represent the official views of the United Nations Development Programme, and any errors or omissions are the authors' own.

