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Growing older in Malta: experiences of British retirees

By ANTHEA INNES*

Abstract

International retirement migration (IRM) is attracting increasing research interest. This article reports findings from an exploratory case study of 16 older people who have moved from the UK to grow older in Malta. Data was collected using in-depth interviews drawing on a life history approach. This article builds on previous research in the IRM field by providing detailed examples of the push and pull factors influencing the decision to move to Malta and the reported positive experiences of living in Malta. The article also discusses negative impressions of life in Malta, an issue that has not been previously documented in relation to Malta. Future difficulties that the immigrants may encounter are also considered. This article contributes to the growing body of knowledge concerning the experience of IRM.

Keywords: retirement migration, older people, Malta, retirees.

Introduction

Retiring out of place is an increasingly popular choice for those approaching or having reached retirement age. Three forms of retirement

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migration have been highlighted within the literature: intra-national retirement migration, where individuals move to another county or state upon retirement; seasonal migration, those who spend some months in warmer climates; and the most recently explored, international retirement migration (IRM). The central concern in the 1980s was the impact migrants had on the areas they moved to, particularly the demands they might place on local economies and services. By the 1990s the focus was on why individuals elected to migrate rather than age in place. More recent work is concerned with the experiences of retirement migrants as they age, an issue which has been often identified as requiring further investigation by larger-scale survey research.

This article begins with an overview of retirement migration, while its central concern is IRM, intra-national retirement migration; and seasonal migration/visits provides the contextual background to understanding the growth of IRM and the experiences of British people who decide to migrate to Southern European countries, in this case, to Malta.

Drawing on a recent small exploratory case study of the realities of British retirees living in Malta, this article contributes to the growing interest in IRM and places a firm emphasis on the reported experiences of growing older following IRM. It provides detailed examples of the reasons for moving to Malta and the associated positive experiences of life following the move, and thus builds on the existing body of work in this field, most notably the study of King et al. (2000) where Malta was one of the countries included in their research. It also draws attention to negative impressions of life in Malta; an area not included in accounts of previous research on Malta (Warnes & Patterson 1998) but which is part of a wider theme of migrants' experiences in other countries, for example, Spain (O'Reilly 2000, 2004).

This article addresses three research questions:

i. Why was Malta chosen as a retirement destination?
ii. What are the perceived positive and negative aspects of growing older in Malta?
iii. To what extent do UK citizens growing older in Malta perceive themselves to have integrated into local expatriate and host communities and what are the implications of this for the future?

Retirement Migration

Intra-National Retirement Migration

Intra-national retirement migration is a phenomenon most explored in the USA, and first attracted attention in the 1960s (Bultena & Wood 1967). The impact of the influx of retirement migrants to local communities was one of the first concerns of researchers in the USA (Walters 2002a), particularly economic impacts (Deller 1995; Malecki 2004) and impact on destination area services (Bennett 1996; Glasgow 1995). However, as Walters (2002b) review of retirement migration demonstrates, the topic gained its ongoing popularity throughout the 1980s. For example, purpose-built retirement communities have attracted considerable interest in the USA (McHugh 2000; Waldron et al. 2005), as have naturally occurring retirement communities in either sunbelt states (Stoller 1998; Stoller & Perzynski 2003) or rural areas (Glasgow 1995; Stockdale 2006). Reasons for intra-national retirement migration are complex and attempts to construct explanations have been aptly described as opening ''pana-dora's briefcase'' (Longino et al. 2002) with a myriad of personal and environmental factors influencing the decision to undertake retirement migration. Walters' (2002b) US research review identifies the most common reasons for intra-national retirement migration as: a desire to move to amenity-rich areas (including favorable climates, service availability, scenic areas, and the availability of recreational pursuits); economic factors such as cost of living, taxes, and availability and costs of preferred housing; and finally the general perceived characteristics of a chosen destination. Retirement migrants' preferred place characteristics (Duncombe et al. 2003; Walters 2002a) highlight a selective process with climate, taxes and local services all influencing choice of destination, and thus perceived place characteristics are interlinked with availability of amenities.

What can be seen from such research is that the majority of retirees choosing to move from their place of origin upon retirement are what has been termed ''amenity migrants'' (Walters 2002a), who report choosing particular areas for the improved climate, services or lifestyle they can offer (Longino et al. 2002; Walters 2002a). Walters' (2002b) review demonstrates

two common approaches to explaining the retirement migration phenomenon; push–pull factors and life course perspectives. Push–pull factor perspectives demonstrate the complexities of perceptions of place of origin and place of destination. For example, Schiamberg and McKinney (2003) explore reasons why older people choose to age in place as well as reasons why individuals choose to migrate to warmer areas, highlighting the importance of both push and pull factors such as community ties and kinship and friendship networks in the decision to age in place or to migrate. Meanwhile, Stoller (1998) demonstrates the pull factor of a destination with a strong ethnic community where not only age defines the community but also the maintenance of valued Finnish customs and culture, which may outweigh other long established community ties.

Similarly, French retirement migration research demonstrates the importance of family reunion and return to place of origin in decision making about where to live upon retirement (Cribier 1980). Thus those who have moved out of, for example, rural areas for employment reasons may choose to return to their village of origin upon retirement. Looking specifically at retired Parisians, Cribier (1982) found that 43% of respondents returned to their native region, and these people were characterized as unskilled workers originating from rural areas. Cribier (1980: 265) also talks of retirement migration decisions relating to leisure-style retirement. Focusing on retirement moves to seaside resorts around France, Cribier (1987) found that respondents reported being accommodated in better housing as well as in areas that are perceived as desirable as a result of their move. Thus pull factors of a destination were clearly a consideration.

Studies adopting a life course perspective provide further insights into retirement migration. The growth in availability and popularity of purpose-built retirement communities highlight the attraction of communities with high levels of available activities, promoting positive images of successful ageing (McHugh 2003; McHugh & Larson-Keagy 2004). Conversely, it is not just the option of active lives that attract people to such communities; disability also impacts on decisions to move to such environments (Robison & Moen 2000; Silverstein & Zablotsky 1996). A gender dimension to retirement migration of this kind has been observed; in one longitudinal study men reported greater satisfaction with life

in purpose-built retirement communities, with women reporting less satisfactory relationships with others following this type of retirement move over time (Waldron et al. 2005). This may reflect the preference some older women to be closer to an adult child (Glaser & Tomassini 2000) rather than a preference to live in an age segregated environment.

Three common reasons for choosing to age out of place have been offered, regardless of approach to the study of retirement migration: place characteristics, taxes/living costs and climate/amenities available in both previous place of residence and the choice of retirement destination (Walters 2002b). As the first decade of the so-called ''baby boomers'' reaches retirement age there has been growing attention to the trends and implications of the choices of this age group (Longino & Bradley 2003; Rogerson & Kim 2005) and in particular whether the existing trend of intra-national retirement migration is set to continue with the baby boomer generation (Haas & Serow 2002).

Intra-national retirement migration has attracted attention in the UK, but to a lesser extent than in the USA, with findings also demonstrating amenity-based decisions for those choosing to migrate upon retirement (Halfacree et al. 1992; Warnes 1983), with housing preferences of those approaching retirement age providing a useful example of amenity-based decisions in France (Cribier 1987) and the UK (Warnes & Ford 1995). In addition, the impact of visual imagery and heritage on decisions to move to seaside resorts in the UK has been discussed (Blaikie 1997), highlighting, as with US research, the ties between knowledge of particular areas, vacation experiences and choice of intra-national migration retirement destination decisions.

Seasonal Retirement Migration

Those who choose to move to warmer climates to replace the colder winter months of their place of origin have been described as ''snowbirds'' (Myklebost 1989), and include people who may own a second property in a warmer country, who rent abroad for periods of the year (Walters 2002b), or in the case of the US migrate to warmer states rather than different countries.

Seasonal migration is a complex term. For example, the term ''returning residents'' (O'Reilly 2000: 52–53) has been used to categorize those,

predominantly retired, who are permanently resident overseas (Spain in O'Reilly's work) but who return to their country of origin during the summer months, and are thus similar to snowbirds in that they escape the cold winter months of ''home'' and the warm summer months of migration country by spending time in each location. While ''seasonal visitors'' is used to describe those whose main orientation is to country of origin but who spend time in the winter months in Spain to escape the cold of the UK (ibid: 53–54). However, seasonal migrants have chosen to maintain a base in their place of origin and are thus visiting, albeit for long and repeated periods of time, rather than migrating on a permanent basis.

International Retirement Migration (IRM)

As a European Science Foundation Network has demonstrated, European studies of retirement migration have increasingly focused on retirees from Northern European countries migrating to Southern European countries (Warnes 2004). This moving from country to country has been coined IRM and is a relatively new phenomenon that first received attention from UK researchers in the 1990s (Williams et al. 1997). Although it has been noted that ''with fewer than 30 peer-reviewed papers [from 2000 to 2006] from disparate disciplines IRM can hardly be described as an established research field it is nonetheless recognized as a distinct social form'' (Bozic 2006: 1424), it is clear that IRM is attracting the interest of researchers from a range of disciplinary backgrounds.

Warnes (1991) first projected that it was likely that there could be an influx of retirees to Costa del Sol in Spain. Since this projection the Costa's in Spain have provided a particularly rich literature providing evidence of this trend of British retirees (and other Northern European citizens) selecting the Spanish Costa's as a destination to spend the winter months (seasonal migrants) as well as for permanent residence (e.g. Betty 2006; Casado-Diaz 2006; Gustafson 2001; O'Reilly 2000).

A wider, and influential, study of British retirement migration includes four areas in Southern Europe: Tuscany, Algarve, Costa Del Sol and Malta (King et al. 2000). This study provides an overview of the reasons why Northern Europeans choose to retirees to Southern European countries. Key insights into the reasons for IRM include warmer climates, lower cost

of living and a preference for the new countries' pace of life (ibid; Williams et al. 1997), as well as reasons relating to housing availability and preferences (Hoggart & Buller 1995). These factors are all ''pull'' factors that a destination offers to migrants, although O'Reilly (2004) has also demonstrated that reasons for moving also include ''push'' factors such as increases in taxes and a disillusionment with British life, leading individuals to want to leave the UK. Thus the initial research into European retirement migration mirrors the findings of US research where push and pull factors were found to be reasons for intra-national retirement migration to sun belt states.

A range of reasons have been advanced to help explain why a greater proportion of retired people are now in a position to migrate overseas, including increased affluence, greater knowledge of other countries in part due to vacation and/or spending time working out in the UK (King et al. 2000); factors also advanced for intra-national retirement migration in the USA (Longino, Perzynski, & Stoller 2002), and more recently for American IRM (Sunil et al. 2007).

Benefits of retirement migration vary, with the experiences of individuals far from homogenous (Warnes et al. 2004); gender and previous status as a worker have a marked impact on experiences (Ackers & Dwyer 2004; Cribier 1982), as does the class background of migrants (Cribier 1980). The exchange of a cold for a warmer climate (considered favorable by migrants) is typically accompanied by a change in the health and social care benefits available, which may be less favorable to migrants (Betty & Cahill 1999). Even when mutual exchange schemes are in operation the standards and availability of services may be lower than those previously experienced in Northern European countries with advanced welfare systems (Dwyer 2001). However, the reported benefits of IRM for individuals generally outweigh the challenges that may be faced when illness or death of a spouse occurs (King et al. 2000).

Several European studies have highlighted problems that those migrating have experienced as they grow older. For example, difficulties faced by retirees in Spain when they experience widowhood or need help at home following periods of hospital care, often compounded by retirees not speaking the local language have been highlighted (Betty 2006). Thus, problems mainly occur when those who migrate do not integrate into the

local community and speak the local language (O'Reilly 2000), and often occur at times of illness (Dwyer 2001) or other personal crisis such as the death of a spouse (Hardill et al. 2005). This is best evidenced by research conducted in Spain of the UK and other Northern European retirees' experiences. Of particular interest is a comparison of six studies of Northern European retirement migrants to countries such as Spain and Italy (Casado-Diaz et al. 2004). It is interesting to note that those who migrate tend to be in possession of higher educational qualifications and more likely to have traveled extensively prior to retirement. Integration within local communities has occurred in Italy, in part due to choice of remote and rural areas, where retirees are more likely to speak the local language and also where they are less likely to meet other migrants. O'Reilly's (2000) ethnographic study of the Fuengirola area in Spain found that those moving to Spain (including older people) were often divided between two countries' cultures; they professed to liking and admiring the Spanish people, country and way of life while simultaneously retaining British ideas and ideals of community and lifestyle.

O'Reilly (2000: 153) highlights a series of paradoxes/contradictions of life for British people living in Spain: wanting to integrate but doing nothing about it; loving Spain but being frustrated by it; living in Spain and being like the Spanish but not knowing what they mean by this. She describes this as living in an ''imagined Spain and a historical Britain''. In later research she explores the integration of European migrants into Spanish society (O'Reilly 2004) and in so doing demonstrates the difficulties and challenges faced by migrants should they attempt to integrate into Spanish life, which may account for reports of generally low levels of integration.

Spain has had a long history as a tourist destination, and was known as the number one holiday destination for British people throughout the 1970s and 1980s (Warnes 1991), and thus it is not entirely surprising that there has been a large influx of migrants of all ages to this country through the 1990s. It may be that seasonal migration in some form, either as winter visitor or summer worker as O'Reilly (2000: 52–56) describes for Spain, sets a precedent for retirement migration patterns to other countries. However, I would argue that those attracted to the Costa's in Spain are not necessarily the same as those attracted to other countries. For example,

differences in retirees backgrounds have been demonstrated to relate to the choice of migration country (King et al. 2000). Thus the applicability of O'Reilly's (2000) work to other countries is still open to examination. Further complexity has been highlighted by Casado-Diaz (2006) who reports differences in the socio-economic backgrounds, residential choices and patterns of mobility from retirees to Spain from different European countries; a complexity that has yet to be fully explored in other retirement destinations.

IRM could be seen to reflect a general trend of increased movement of British people overseas (Sriskandarajah & Drew 2006). Popular retirement destinations may also be popular work destinations. For example, an increase in migration of all age groups of Britons to the Fuengirola region of Spain has been highlighted (O'Reilly 2000). Indeed this issue is one that is of contemporary interest with recent exploration of the Institute for Public Policy Research (IPPR) of the migration of Britons across the globe a good example of this. Their work, however, demonstrates that there has been a significant growth of retired migrants moving overseas who contribute to the number of Britons living abroad (Sriskandarajah & Drew 2006). Thus the increase in older people choosing to migrate as they approach retirement age is arguably a phenomenon worthy of exploration in its own right, and has indeed received specialist attention in the last few years, with journal issues devoted to the topic (for a recent example, see 2006 *Journal of Ethnic and Migration Studies* 32(8)). However, Cribier cautions that participants tend to focus on the personal impact of retirement migration rather than on the broader social forces at play which will lead to individual actions, as such positive reports of retirement migration are perhaps to be expected as those who are able to migrate upon retirement will tend to be ''healthier and better-off than average'' (Cribier 1987: 44). Informed by the other research describing reasons for retirement migration this article first explores why participants chose to move to Malta. I then go onto to discuss participants' accounts of the positive and negative sides of growing older in Malta and their perceived integration into expatriate and host communities. It will be argued that the social integration reported is a key factor in the positive accounts retirees offer of their lives in Malta.

Study

Most research about IRM begins with large-scale surveys providing interesting baseline data about the backgrounds of those choosing to retire to warmer climates. Such research has also included interviews whose in-depth findings help us understand more about the experiences and lived realities of those choosing to retire and grow older in other countries. It has also been recommended that further investigation into the day-to-day lives of older retirement migrants is required. Indeed, Warnes and Williams (2006: 1275) suggest that the difficulties of moving beyond a ''partial glimpse'' should not dissuade research into the processes and outcomes of the intersection between ageing and migration.

This small study was funded by the Carnegie Trust for the Universities of Scotland, and the findings presented below contribute a ''partial glimpse'' to the growing knowledge about IRM. Unstructured interviews drawing on a life history approach enabled an exploration of the experiences of 16 older people from Britain living in Malta. As such this is a conventional approach typified by a long established trend (e.g. Cribier 1987: 43) in other research concerned with migrants' experiences.

Selection of Malta as Country for this Case Study

Mediterranean Islands have attracted less research attention than mainland Southern European countries. There are two exceptions, Damer's (1997) study of Paphos, Cyprus and the inclusion of Malta in a research study including self-completed surveys and research interviews in 1995–1996, of British retirees migrating from Northern Europe to Southern Europe (King et al. 2000; Warnes et al. 1999; Williams et al. 1997). Damer's (1997) pilot ethnographic community study reported on the lives of predominantly older British people living in Paphos, Cyprus. Damer (1997: 5) places expatriates into three categories: experts (who have lived in Cyprus for over 15 years and who are wealthy); adaptors (those who enjoy their lifestyle with other British expatriates); and whingers, those who hate being in Cyprus and complain about the currency exchange rate as well as the host community. He suggests that further research is required about the lives of British migrants on Mediterranean Islands to gain insights into the lives of such individuals and how they construct the host society and

their relationships with both the host community and other expatriates. The King et al. (2000) study included a sample of Northern European migrants in Malta and a related paper documents the history of British retirees in Malta (Warnes & Patterson 1998). Comparing six European studies, Casado-Diaz et al. (2004) found that Malta poses an exception to the lack of integration of retirees within host communities. This is due in part to many marriages between British and Maltese citizens (Warnes & Patterson 1998) and the similarities to British life also observed by Damer (1997) in Cyprus due to remnants of both Malta and Cyprus' colonial history.

Malta is a popular destination for older British migrants. It may become a more popular destination as more crisis stories are reported about Britons retiring to previously popular countries, such as Spain, and as Malta becomes more fully integrated within the European Union following its joining of this body in 2004 although equally the cost of living may increase through this integration, and how favorable the exchange rate is between the pound and the Euro, which may negate its previous appeal. The absence of the language barrier in Malta may also enhance its appeal. There are 3597 British people in receipt of a state pension registered as living in Malta (BBC News citing IPPR 2006). Given the small geographical area of Malta this is a proportionately large number of retired migrants.

Access

Access to participants was facilitated by the British Residents Association (BRA) of Malta. The chair of the BRA forwarded an information sheet about the project to the chairperson of each of the five branches of the BRA on Malta who in turn passed the sheet on to interested parties. This approach led to the inclusion of nine of the British retirees in the study who contacted me prior to my arrival in Malta via email to arrange a date, venue and time for the interview. The other seven participants volunteered to be interviewed following my attendance at two BRA branches monthly meetings. The self-selection of participants in the research is of course a limitation of the study, as is the recruitment of participants via the BRA. However, given the small-scale nature of this study adopting this conventional approach to recruitment was an efficient use of resources. In all research potential participants have the choice to participate or to

decline; therefore, although self-selection limits the findings to those who wanted to talk about their lives in Malta, this is typical of social research.

Finding participants was not a difficult process, indeed if time and resources had allowed, the sample size could have been much larger. However, my aim was to recruit between ten and 20 participants. I wished to include couples and singles, men and women and to include people who had been living in Malta for extended and shorter periods of time. It is important to note that length of time living in Malta may influence reported views and attitudes; however, with the exception of their discussion of social networks those who had lived there for shorter or longer periods of time reported similar positive experiences and similar concerns about life in Malta. The study excluded British citizens who are integrated through a marriage tie to a Maltese family, and as such is a limitation of the study; however, as Warnes and Patterson (1998) have highlighted, the intermarriage between British and Maltese citizens is likely to facilitate integration into Maltese society. British citizens who had not lived in the UK for over 30 years prior to their retirement to Malta were also excluded.

Participants

Sixteen participants were included in the study, eight men and eight women. Five of the interviews were with married couples, two participants were widowed, one never married, the remaining three participants were married but interviewed on their own (their partner was not included in the research). Table 1 summarizes the age, gender and time living in Malta for each participant. It can be seen that participants' ages ranged from 55 to 80 and that their length of stay ranged from one to 21 years (Table 1).

Consent

Each participant received a hard copy of the information sheet and consent form and we ran through this verbally before they signed the consent form and the interview commenced. Interviews lasted between 61 and 105 minutes, and were conducted in a place of the interviewee's choice, either in their own home, or in the public outdoor and indoor areas of my hotel. In addition to the taped interviews, participants walked (two), or drove (six),

Table 1. Participants

	Age	Gender	Time living in Malta (years)
1	75	Male	2
2	74	Female	2
3	80	Male	16
4	76	Female	16
5	65	Female	2
6	61	Female	2
7	65	Female	10
8	75	Male	16
9	66	Male	1
10	63	Male	2
11	78	Male	21
12	63	Female	21
13	70	Male	15
14	69	Female	15
15	55	Male	4
16	58	Female	4

me around their local area to show me what they meant by, for example, their local shop, the supermarket they used, their church, the place they liked to go for coffee. During such tours I verbally told each participant that I would try and remember and write down all that they were telling/showing me and I duly made detailed fieldnotes. I also visited the location of all but one participant, following the advice of nine participants to do so to get a better idea of what they were trying to describe within their interview. All participants consented to the tape recording of their interviews. Each interview was subsequently transcribed before a thematic coding process was undertaken using NVIVO for data management purposes. All participants were allocated a unique identifier number.

Experiences of British Retirees in Malta

I now go on to discuss this study's findings. First, I explore participants' reasons for choosing Malta as their retirement destination and closely linked to this their reported positive experiences of life in Malta; these

issues build and develop the theme of social integration highlighted by King et al. (2000), as well as highlighting the negative impressions of participants about living in Malta, an area hitherto unexplored in relation to Malta, but highlighted in research focusing on migrants experiences of living in Spain (Betty 2006; O'Reilly 2000, 2004). Such a discussion provides the backdrop for the lived realities of British retirees' lives amongst expatriate and host communities as well as the links they maintain with their place of origin. The interplay of push and pull factors, including the amenities available in Malta, provide a framework for participants' overwhelmingly positive reports of their experiences of living in Malta. This also reflects Cribier's (1987) point that those who migrate upon retirement will tend to be healthier and better-off than their contemporaries, thus allowing them to pursue their preferred retirement lifestyle.

The presence of an established expatriate community as well as a welcoming host community where communication is not a barrier due to the widespread use of English, enables participants to quickly adapt to a new way of living that meets the perceived shortfalls of the UK while enabling some of the positives of life in the UK to be replicated.

Why Malta was Chosen as a Retirement Destination?

The decision to move to Malta was often made quickly and, in some cases, from a fleeting acquaintance with the Island gained through a holiday visit. In one case the decision to move to Malta was made via online research prior to a week's, visit to Malta for the express purpose of purchasing a property. Other participants had a sustained familiarity with the Island achieved through spending some of their working life in Malta, and repeat holiday visits (often two or three times a year). Thus familiarity through work or holiday visits influenced the decision of some participants in a similar way to retirees choosing, for example, Spain as their destination (O'Reilly 2000; Warnes 1991), or for French intra-national migrants to choose coastal resorts in France (Cribier 1987). However, all participants were clear that Malta offered them a preferred change in lifestyle. This desired change in lifestyle typifies the leisure-style retirement discussed by Cribier (1980): 265) where retirees can have a more autonomous social life and regain their independence from their children.

''Push factors'' fuelled this desire for change for six participants who disliked particular aspects of British policies, namely taxation and immigration, and this directly influenced their decisions to move from the UK:

> '' ... got fed up with the rat race in the UK, the change from the old rate to the poll tax, to the council tax, and the thing what capped it off, we went to pay one year [council tax] and it had leapt up. And I said, you know, 'what's this all about?' 'oh well you've got to pay for the people who are not paying' ... We put the house on the market when we got back ... I'd had enough, it just got a bit of a joke''. (P9)

The high taxation of the UK was offset by the low taxation in Malta. It is also ironic that a dislike of immigration in the UK led to some participants becoming migrants themselves.

However, equally important to the retirement migration decision were ''pull factors'' offered by Malta:

> ''and the people were so friendly [when they were on holiday] but we went back to the UK to think about it because sometimes your heart can rule your head when you see the sun''. (P2)

> ''we'd been here before, lived here, we were used to it ... but Malta's not like a foreign country, you drive on the same side of the road, everything is in English, there's supermarkets. It's just like an extension of part of Birmingham or wherever, another village ... and it's a better climate, don't have any gas bills! And medically everything is, comes from the UK, the doctors and nurses spend time training there ... they look after you very well''. (P3)

> ''the cost of living, the people, the safety''. (P5)

However, untangling push or pull factors is not straightforward as decisions to move from the UK to Malta are interlinked in the accounts of participants: the climate; proximity to the UK and because of this, the ease of travel back to the UK; similarities to the UK (in particular English spoken and drive on the same side of road); no council tax and low taxation; cost of living low; social aspects of lifestyle (outdoor living, meeting people) and positive prior experiences of Maltese people who were repeatedly described as friendly, helpful, and genuine. The interplay

between reasons for moving can be demonstrated in the way participants reported their rationale for moving:

> ''obviously the weather was a massive if not the biggest single influence ... and you get taxed to death in England''. (P11)

Thus those who had chosen Malta reported similar reasons for their migration as have been reported in the US for intra-national retirement migration (Walters 2002a,b) and by European researchers on the IRM of Northern Europeans (King et al. 2000; O'Reilly 2000, 2004) and the intra-national retirement migration in France (Cribier 1980, 1982). However, the similarities to Britain were influencing factors, with some participants stating that they had only seriously considered countries where English was an official language:

> ''they speak English, they drive on the same side of the road, and use the same appliances''. (P5)

> ''the fact that 95% of the Maltese speak fluent English, probably slightly higher, but the majority speak English so you don't have a language problem''. (P8)

In addition, participants reported feeling that the Maltese were particularly welcoming of British people:

> ''the people who live next to us, the Maltese, they are so pro-British ... even the liberal who want to move away from the George Cross idea, they are not antagonistic about it''. (P10)

> ''the Brits get, I feel, get preferential treatment ... over other nationalities, we do very nicely out of it''. (P7)

It is apparent then that reasons to move to Malta to retire were complex reflecting what is commonly known about migration decisions (Sriskandarajah & Drew 2006). ''Push'' factors of high cost of living in the UK, particularly through council tax bills, and heating bills due to the cold climate in the winter months, combined with feeling unsafe after dark in their previous communities and for some participants, a disillusionment with British politics led to a desire to leave the UK.

However, the ''pull'' factors of Malta, particularly the warmer climate enabling a desired outdoor lifestyle to be adopted, combined with perceived lower living costs and a friendly host community were key reasons for choosing IRM to Malta. Similarities to Britain acted as pull factors to Malta, for example, driving on the same side of the road, the same electric sockets, and most importantly for many that English was widely spoken. As such the amenities offered by the host country were attractive to participants.

Thus participants in this study employed a selective process in their decision to migrate, a process intra-national retirement migrants have employed (Duncombe et al. 2003; Walters 2002a); further, as with previous studies of IRM (e.g. King et al. 2000; Warnes et al. 1999) climate, cost of living and pace of life influence the decision to grow older out of place. As such, the examples above can be seen as developed examples of the established themes relating to reasons for retirement migration.

Positive Experiences of Life in Malta

Reported positive experiences link closely to the reasons participants reported moving to Malta and can be seen to relate back to the ''pull factors'' mentioned by participants in their decisions to move to Malta due to the lifestyle it offered. For example, participants described particular aspects of their lives in Malta as part of the ''Maltese lifestyle'' they observed in Maltese people and emulated in their day-to-day lives:

> ''it's important if you live here to do the Maltese thing, it's eat where the Maltese eat because its half price, and you go where the Maltese go''. (P10)

A common observation valued by participants related to Maltese family life:

> ''and they've got this family orientated thing, you know they love their kids and they go out as a family, in the evenings they go out late too, they eat late, they go out late and they've got their kids with them''. (P9)

When talking about their Maltese lifestyle participants spoke of how their feelings of safety enabled them to live in a way that they had not felt able to in the UK.

> ''. . . when you're in England, or in the UK let's say, at our age and you're retired and you don't want to walk the street a five o'clock at night in the dark because you're frightened, there's the council tax, and all you're doing is sitting watching television, it doesn't do much to beat that''. (P10)

Five participants recognized that some of the positives of the Maltese lifestyle were nostalgic, and described how current life in Malta was reminiscent of their memories of Britain in years gone by:

> ''they're still living in the past, a little like we were in the UK, forty, fifty years ago. Neighbours know neighbours, we chat, you talk, you go in for coffee''. (P14)

> ''it's, living in Malta, it's very like what the UK was in the 1950's, you've got their own vegetable shops, so the food's good, we can live quite easy on one pension''. (P3)

Thus there was some evidence of participants in Malta living in what O'Reilly's (2000: 153) Spanish research described as ''a historical Britain''. However, participants did not appear to have an ''imagined'' view of Maltese life, as documented by O'Reilly. Indeed participants' integration with Maltese people (discussed further below) enabled the development of insights gained through holiday and work periods on the Island prior to the retirement move.

Participants also valued attributes of the Maltese people, in particular hospitality they had received from neighbors and friends, and the general help offered by Maltese people they encountered in passing, summed up as:

> ''they live what I'd say is Christian values, it's not about religion either, it's just about a way of life, . . . this is it you see, they look after you''. (P1)

Thus an observable family-orientated society, coupled with observations about Maltese community values contributed to feelings of safety.

Generally, participants felt that they had a much more sociable life than they had previously enjoyed while living in the UK, for example:

> ''it's being able to live again, being able to walk along the streets, go out, people talk to you''. (P10)

The availability of previously enjoyed cultural pursuits, for example the theatre and opera, contributed to feelings of satisfaction with life in Malta. Social lives were attained for the majority of participants through their links and friendships with members of the expatriate community, but six participants reported around half their activities to involve their many Maltese friends. Those who had lived in Malta for longer periods of time tended to report having more Maltese friends. As such the desire for a leisure-style retirement reported by Cribier (1980) in her assessment of retirement migration in Europe was a clear benefit found by participants in this study.

This leisure-style retirement was supported by what respondents perceived to be a favorable infrastructure in place that enabled an expected standard of living to be maintained. For example high quality local produce, favorable taxation, the availability of bus passes for older people, good local shops and local delivery services as well as the availability of good and relatively inexpensive private health care all provided the framework for living a fulfilling life. Thus the findings of this research replicate findings of previous retirement migration research where migrants expected and looked for an appropriate infrastructure in their choice of retirement destination country (King et al. 2000), while providing detailed examples of participants' positive impressions of Maltese life.

Negative Impressions of Life in Malta

Participants generally had less to say about drawbacks of life in Malta, but were aware that the picture they were painting of their lives was particularly positive,

> ''I'm probably sounding gushy and over the top''. (P10)

and then tried to find something that they didn't like about living in Malta. Given the informed approach participants had adopted to their migration decision and because of the lifestyle it offered, similar enough to the UK but with pull factors rectifying the perceived shortfalls of UK living, it is

unsurprising that there were few reported drawbacks. Reported drawbacks reflected some participants concern and negative impression of sociopolitical and environmental issues in Malta. Other reported drawbacks were somewhat idiosyncratic and individual in nature reflecting differences in expectations and what some described as the ''Maltese'' way, yet created a reported negative impression of their chosen lifestyle.

Ironically for some, after leaving the UK because of the immigration issues in the UK, they were then observing increases in migrants from North Africa to Malta which they did not particularly like. Although some participants obviously felt compassionate for the plight of some of these migrants:

> ''There are more Black faces around the Island ... and Black as in African ... and its terrible some of the stories ... but this little Island can't provide any help''. (P7)

Around half the participants mentioned that there appeared to be a growing drugs problem in particular areas of the island and this concerned them should it evolve to what they perceived as a current ''big'' issue in the UK. Thus the socio-political climate that represented push factors from the UK was beginning to be observed in Malta. This may have a bearing on migrants choice of Malta as a retirement destination in the future, and may also influence decisions to stay in Malta as the influx of migrants from North Africa to Malta is continuing with the media doing much to keep this issue at the forefront of local news. The impressions about race and migration is one that has not been documented in the literature to date.

Dumping and litter was perceived as a problem despite a six day a week refuse collection and was mentioned by seven participants. The loss of many older style properties through the trend in demolishing old and building new apartments was commented on by five participants and the dirt and dust accompanying this building work by an additional three participants. One participant listed various types of pollution he was aware of on the Island:

> ''keep the shutters closed all the time because of the dirt and dust [when building work going on]. But other pollution is a problem, from the cars ... emission from the power stations ... the hospital incinerator ... untreated sewage goes into the sea ... but they

> are getting funds from the EU now to assist them [Maltese government] in doing something about it [sewage]''. (P8)

However, such issues did not appear to detract from the overall positive experiences of life on the island. As one participant said:

> ''even with that [drilling noise in background] we can still enjoy sitting out here, the view, the sun''. (P13)

Although a range of further drawbacks was mentioned by individual participants these tended to reflect differences in expectations based on experience of living in Britain and what was accepted in Malta; for example, lack of planning regulations, bird shooting, absence of quality road maps, poor quality hospital food, and absence of crematoriums. Such issues were not perceived to detract from the overwhelmingly positive reports of their lives in Malta, but demonstrates that participants did have negative impressions about life in Malta.

Such drawbacks and negative impressions contrast sharply with reports from other countries (Betty 2006; Hardill et al. 2005) where in particular the difficulty in communicating with host communities due to the lack of a common language has led to a range of difficulties at times of crisis or ill-health. The reason for these differences may be in part due to the migrants in this study discussing drawbacks in the abstract. In addition, this research included only 16 migrants and as such is a small sample size. Planning regulations had only impacted directly on one participant who could now not sell his house unless he reduced the price to below what he initially paid. Only two participants had actually had major surgery in the local hospital and as such had direct experience of hospital and after care. The other participants who talked about medical treatment had yet to experience first hand the absence of after care they would commonly receive in the UK, nor even visited the care facilities they ''had heard'' were very good. Thus time and changes in personal circumstances will be the test of the positive lifestyle experienced up to the time of interview for the majority of participants and may yet have similarities to experiences of migrants in countries where migrants have settled in greater numbers and thus received greater research attention. The sample included recently arrived migrants as well as more established migrants; however, the more

established migrants were still predominantly in good health and due to early retirement were still relatively young and not yet experiencing the ill-health that can accompany old age.

Interactions with Expatriate Community, Host Community and Place of Origin

All participants were members of the BRA and therefore had the opportunity to meet other British people at coffee mornings, outings and other events. Six members reported a very selective attendance at meetings (for example, if there was an interesting speaker) and valued the association more for the monthly bulletins providing information that expatriates may require, for example, about pensions. The knowledge that the BRA could provide ''back-up'' to members in time of need, for example, through the advice and information that the welfare officer of their branch could offer was also valued.

> ''I joined because I like to read the newsletters and see what's up on the welfare side, and you know we really have no need for the BRA ... I've a great deal of respect for the people that work in it and what they do, it's just that I don't really need their help. I do go sometimes, visits ... walks ... but I'm not really involved in it''. (P8)

The information and advice that could be obtained through other BRA members was highly valued by both those who were less active and also by those who were more active in its activities:

> ''not everybody knows everything but someone always knows what you need to know''. (P9)

The provision of information is not however the same as receiving a service, so although the volunteer welfare officers may be able to offer information they are not able to provide an actual service should a person be in need of, for example, a home help after a period of illness. Yet, this distinction was not acknowledged by participants in this study.

For the majority of participants the BRA provided a source for forming friendships with other British people, especially in the months immediately after arriving in Malta through participation in social activities:

> ''We do things, with the BRA we have outings ... bowls too ... meals ... we go to the feasts (in Maltese villages) too''. (P9)

The BRA felt like a family for five participants, for example:

> '' ... if you look on the BRA as a family, and get involved in it, everybody's part of it''. (P3)

> ''we have all different people ... we have our little niggles ... but we're still great friends, just like a family, it's just like a family''. (P10)

Although as one participant reflected:

> ''I talk to people here that I wouldn't have before ... we have nothing in common ... but we are all British ... but from very different backgrounds''. (P15)

BRA membership is wider than British nationals; it also includes Maltese people who are married to a ''Brit'' and other nationalities living in Malta and as such offers a diverse membership group.

The BRA served two main roles for its members; for some their social life revolves around BRA events and relationships with other BRA members through outings, coffee mornings and spin of clubs like yoga, reading or walking groups. Thus the socializing afforded through its membership was key for many participants. Other participants valued their membership of the BRA for the information it provides via its monthly bulletins, interesting speakers, and the updates on pensions and the welfare advice that is readily available.

Nine participants mentioned and valued the link they had to the British Embassy through the BRA and liked that their details were held by the embassy who would know who to contact on behalf of a British person if required. The informality and ease of contact with Embassy staff was mentioned too, for example:

> ''I mean you can just pick up the phone and speak to an official, you can't do that as easy in the UK''. (P10)

The established expatriate community in Malta offers a range of interest groups and regular events open to British people, and thus opportunities

for social integration. Such opportunities are similar to the social networks of retirement migrants moving to new states (Stoller 1998) or countries (O'Reilly 2000) where a social enclave is available for newcomers to join.

A range of other groups and organizations were open to British retirees as well as other nationalities offering opportunities to socialize with other British people or to extend their social networks to include other nationalities. For example, the church offered participants the opportunity to meet with people from a range of backgrounds and nationalities with over half the participants reporting involvement with the church, from attendance at events to chairing committees. Participants were also members of a range of other interest groups including the American Wives Club, forces-related clubs and events, yoga and reading groups.

Social integration with Maltese host communities was widely reported. Participants had joined other groups run by Maltese people, for example, the golf club, boating club, walking clubs, the Masons, the Maltese equivalent of the National Trust in the UK, village band clubs and the local bocci (Maltese bowls) club. These groups tended to have a diverse membership of Maltese people as well as expatriates from around the world. Language barriers did not exist and thus membership of such groups was not restricted by communication difficulties. Joining such groups provided participants with their desired retirement lifestyle while they were fit and healthy.

Participants expressed that they had many Maltese friends, or conversely that they had Maltese acquaintances. The first view tended to be expressed by those who have lived in Malta for longer periods of time, thus demonstrating a potential difference in reported experiences relating to time on the island:

> ''My network was with the Maltese friends and growing numbers of British friends, we have no need to regroup ourselves amongst new British who are here...We have, I'd say, over 50 friends of all nationalities ... but a lot of Maltese''. (P8)

> ''We have lots of friends, British and Maltese but I think I prefer the Maltese ... they're more reliable''. (P12)

Others, however, felt that their relationships with Maltese people had not progressed to friendships, for example:

> ''I can't say that I've got any close Maltese friends. I've Maltese acquaintances''. (P5)

While others felt they had achieved a little more than this but that their friendships were with British people:

> ''We mix with the Maltese, we can do this at the bocci club and other things, socialize with them if you like ... our friends are really the other Brits though''. (P9)

Such relationships and interactions with host community members had been achieved in a variety of ways, through friendships with Maltese people prior to moving to Malta, often made during periods of work on the Island, or from repeated holidays over the years. New friendships were made with members of groups they joined, neighbors, and in some cases, with individuals initially providing a service to a participant such as estate agents. Apart from one exception, all participants felt that they had achieved a good level of integration with the host and expatriate communities, which met their individual needs:

> ''We don't feel like 'Oh they're that English couple', no-one has ever said that ... we feel that we are home ... that we belong''. (P1)

Integration into the host community was achievable if individuals wished to develop interactions with Maltese people beyond that of casual acquaintances. Maltese people were reported to be friendly and welcoming. Shared interests, for example, in the arts or sports, coupled with a common language seemed to facilitate the development of friendships and social integration over time and as such the above examples build on the theme of social integration identified by King et al. (2000). The difference in the account of social integration given by participants in this study is related to the role of the BRA in helping to facilitate social networks. This reflects in part the role of the BRA in helping to recruit participants, and also to the increased presence the BRA has in Malta (through the establishment of more local groups) at the time of my research in comparison to the time of King et al. (2000) study. However, social friendships may not become a substitute for family and lifelong friendships where help and support may be offered in times of need, and reliance on social networks may contribute to the social isolation that is

reported when a crisis or time of need is experienced (Betty 2006; Cribier 1987).

Links with Family and Friends Living in the UK and Other Countries

In addition to the relationships and interactions with expatriate and host community members, participants reported retaining satisfactory links with friends and family who did not live in Malta. Phone and email enabled virtual contact between visits from family and friends to Malta and visits back to the UK.

Generally, visits back to the UK were for the purpose of seeing family and some friends. Some participants made an annual visit back to the UK, others more frequently to see grandchildren. Those who had lived in Malta for longer than ten years mainly reported a decline in their return visits to the UK over time and an decrease in their wish to go back. Although participants reported enjoying seeing family members they did not generally enjoy being in the UK, particularly the weather, restrictions on getting out and about, high prices for eating out and the lack of personal service in shops.

> ''We were back and shopping in Morrisons and everyone was like zombies walking about with their trolliesf . . . not talking, taking the time to stop and chat''. (P3)

All participants reported being glad to return to Malta, even those who did enjoy their visits, mostly women. The gender divide that was apparent did not stop at having enjoyed visits but also relate to the number of visits back to the UK with women reporting having returned to the UK more often than their male partners and men in particular reporting no wish to return to the UK but only doing so out of a sense of duress. Women tended to return more frequently to the UK than men, mainly to see family members and to shop in the larger department stores not available in Malta. However, there were exceptions to this with two male participants enjoying regular annual visits back to the UK.

Eight participants felt that they now had an improved relationship with family members who remained in the UK. They felt that they had ''quality time'' with their family when they came to visit and saw more of them

than they did when they lived in the UK and that they spend time with their family doing pleasurable things and that they were not rushed.

Ambivalence about visits by family and friends to Malta was expressed by some participants. On the one hand they enjoyed catching up with friends and family, but at the same time they did not enjoying being a ''taxi service'', having to cook for larger numbers and the general disruption to their daily routine. Conversely, others welcomed visitors, particularly grandchildren, some of whom came for extended stays over the school holidays, and reported being sad to see them go and looking forward to return visits. Their visits to and from British family members were in all cases fitted around the new retired lifestyle that was being enjoyed at the time of interviewing participants.

All participants reported that they did not intend to return to the UK:

> ''I have no wish to return to the UK, I do not regret my decision to move to Malta at all. This is home now''. (P2)

Overall participants reported satisfaction with their degree of integration with expatriate and host communities with more established participants (having lived in Malta ten years or more) in particular reporting a very good balance in their interactions with their host and expatriate communities and maintenance of contact with their family and friends living outside Malta.

Generally, participants in this study were similar to Damer's (1997) '''adaptors'' who liked their life in Cyprus within the expatriate community; however, participants in this study had adapted to a lifestyle in Malta that goes beyond the expatriate community to social integration with their Maltese communities, a social integration facilitated by the use of the English language. Positive perceptions of living in Malta appear, then, to relate closely to the reasons for choosing to grow older in Malta and the lifestyle individuals wished to adopt.

Policy Implications of Retirement Migration to Malta

An early concern expressed in the US literature on intra-national retirement migration has been the impact of the migrants on the local area (Bennett 1996; Glasgow 1995). Similarly European IRM studies have

demonstrated lack of amenities and services when, for example, health problems arise (e.g. Dwyer 2001; O'Reilly 2000). The service structure is in fact quite different in Malta than in the UK, and can lead to frustration. For example, there is not the same system of appointments to see a local GP which meant several participants reported lengthy waits (up to four hours) to get simple blood tests or to obtain a repeat prescription. After care in Malta is also different with families bearing the main role of supporting relatives after a hospital stay (Troisi & Formosa 2006), whereas in the UK a person discharged from hospital will have a range of community-based services available. If the retiree has a partner able to help with after care this may of course not be a problem; however, if the person is a widow or their partner is in poor health it may be that a lack of support services will have a real impact on their rehabilitation and satisfaction with their retired lifestyle.

Costs of living have been reported as low or ''about the same'' for participants in this study; however, the introduction of the Euro as the Maltese currency already has an impact on disposable income for those relying on a state pension to support them due to the strength of the pound against the Euro. Changes in standards and systems that EU membership brings may also result in spiraling local costs. It may well be that retirement in Malta will not be such a cost-effective situation in the near future, which could result in those who are ill and in need of services being unable to afford to return to the UK while experiencing a decline in standards of living and the only option for certain services being to pay privately; an option that will only be feasible to those with more robust finances.

Participants in this study had found British enclaves to provide social networks to enjoy their leisure-style retirement, largely through the presence of the BRA. Such a body provides opportunities for socializing and there are volunteer welfare officers who can give limited advice and support. The Association is not set up, however, to provide services to those in need of support and may not provide the safety net of an established local community network supplemented by formal service provision in the UK.

It is thus unclear how the capacity of existing systems in Malta will be able to cope with larger numbers of retired migrants in the future placing

demands on an already stretched health service (just like the UK). It is unclear who will fill the care breach if those in need have not established a circle of friends beyond what one participant called ''social acquaintances'' who would help out in times of need. There are no real restrictions on Britons moving to Malta imposed by the Maltese authorities as EU nationals have freedom of movement across member states; and EU nationals are free to live and settle in Malta provided they can demonstrate that they will not be dependent on the state and have the economic means to support themselves while living in Malta. In addition, Malta has a reciprocal health arrangement with the UK which entitles UK nationals living in or on holiday in Malta access to health care. However, relatively high property prices (compared to the UK and other European destinations) may be a deterrent, the absence of after care in UK terms may also give cause for pause for those considering the move. Those living in Malta who participated in this study are enjoying their retirement and the outdoor lifestyle the climate offers them; it remains to be seen if such lifestyles could be supported in times of need by the local service structure or by the social networks promoting a desired leisure lifestyle driving the decision to migrate to warmer climes.

Conclusion

This study illustrates the impact broad social forces are having on certain retirees' experiences of growing older retirees who tend to be in good health and relatively well-off in comparison to their peers and who are able to choose to follow an aspired retirement lifestyle. The study demonstrates that participants' choice of Malta as a retirement destination mirror the general factors influencing citizens from Northern European countries to move to alternative locations, namely climate, lifestyle opportunities offered, quality of life and lower costs of living, and as such provides detailed examples of the established push–pull factors that underlie retirement migration decisions. In addition, an important draw for participants in this study were similarities to the UK, most importantly the widespread use of the English language and that they could continue to drive on the same side of the road. The Foreign and Commonwealth

Office encourages would-be migrants to consider carefully the move to another country, and there are a growing number of accounts where ''things go wrong''. Participants in this study, while sometimes making speedy decisions, appeared to have familiarized themselves with some key issues that will impact on their ability to sustain their positive accounts of their lifestyle in Malta. Communication is not a problem as all professionals they encounter speak English, the size of the island means that no one is in a truly remote location, and good public transport aids travel around the island. This contrasts with, for example, expatriates living in Spain who elected to move to remote and rural areas where health and social care services are not readily available (Dwyer 2001).

Participants' perceptions of Malta as similar in some ways to those of Britain, or Britain in a bygone era, also enhance participants' ability to integrate and feel accepted by the Maltese people, reflecting to an extent O'Reilly's (2000: 153–156) concept of an ''historical Britain''. However, the similarities extend beyond abstract thinking to tangible and practical factors, for example, of driving on the same side of the road, the widespread availability of local papers produced in English, and health professionals who speak English and who are likely to have spent time training or working in the UK, and thus meeting the expectations of retirees about health care. This in turn provides an ability to understand and work with the basic infrastructure many migrants seek (King et al. 2000).

The small size of this study is an undoubted limitation as it offers only a small snapshot of the lives of 16 British people growing older in Malta. It does, however, contribute to the growing body of work concerned with reasons for retirement migration as well as the positive ageing experienced by retirees when they choose an alternative place to live. A positive ageing that social integration appears to facilitate, although as suggested above this may not be supported in times of crisis. It also draws attention to negative impressions of living in Malta; an area that was not identified in previous research that included Malta as a fieldwork site (Warnes & Patterson 1998).

Social integration has been established as an area that is important to the experiences of migrants (King et al. 2000; O'Reilly 2004). This study

demonstrated the role of expatriate and host communities in helping facilitate social integration. In addition, the importance of retaining links with family and friends out of Malta was documented. The importance of social integration and how this relates to positive accounts of retirement migration are important areas worth further enquiry and provide a range of fruitful themes that could be explored in a comparative study of the lives of retired British migrants to Mediterranean Islands.

Participants suggested that for real insight into their day-to-day life I would, in the words of one participant ''need to come and live here for a while and see what it is like, spend time doing what we do''. This suggestion makes sense; to gain a fuller understanding of the lived realities of retirees in Malta would require a period of ethnographic work enabling a detailed picture of British retirees in particular areas of Malta. O'Reilly's (2000) ethnographic work has produced one of the most important in-depth accounts of expatriates living in Spain and provides an excellent example which could be applied to other countries, including Malta, to begin to add depth and nuance to the general issues that IRM research has elucidated to date. Following participants over time would be one way to explore what happens in times of crisis or times of need in a country which, although similar to the UK, has a different system of welfare services and care services available.

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Age changes in subjective work ability

*By Per Erik Solem**

Abstract

This article explores the influence of psychosocial work environment on age-related subjective changes in work ability and discusses differences between work ability and job performance. The results show age and physical health to be strong predictors of subjective decline in work ability. The age effect is independent of age-associated declining health. It is not clear what it is about age that produces the subjective decline in work ability. While primary age changes may produce decline, stereotypes and self-stereotypes about ageing may also be important. Among psychosocial factors, options for learning and problems at work are robust predictors of subjective changes in work ability. One practical consequence is to ensure learning opportunities for workers, even for workers approaching retirement age. By giving learning opportunities to senior workers, subjective work ability may be maintained, and competence acquired through learning may in a direct way support stability or improvements in job performance.

Keywords: ageing and work, work ability, job performance, psychosocial work environment, age management, Norway.

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Introduction

Decrease in work ability predicts early retirement, particularly early retirement due to disability. This statement seems obvious; those who become unable to work are most likely to stop working, and one eligibility criterion for disability pension is reduced work ability, in the Norwegian disability scheme work ability should be reduced by at least 50% (Blekesaune & Solem 2005). Thus, changes in ability to perform work are expected to influence timing of retirement. Early retirement is a lasting political issue of high relevance in most OECD countries. After a period of policies supporting early exit in many countries in the 1970s and 1980s, policies in favour of reversing this trend and extending work careers have recently been implemented (Maltby et al. 2004; OECD 2006a; Vickerstaff et al. 2007). In addition to restrictions in pension rules, improving the work ability of older workers is one way of extending work careers – an approach particularly inspired by the work of Juhani Ilmarinen and his colleagues at the Finnish Institute of Occupational Health. Work ability according to Ilmarinen's model (Ilmarinen 1999), may be advanced both by measures directed towards individual workers, such as strengthening physical health and competence and by improving work environments, work organisation and managerial attitudes towards older workers. Thus, what rates as good enough individual work ability depends upon how work environments and work conditions match the capacities of older workers.

Assessment of work ability involves both subjective and objective abilities. While subjective abilities consist of individual workers' self-conceptions concerning their ability to perform job tasks, the real physical and mental capacity to perform the tasks are ''objective'' and measurable in laboratory tests (WHO 1993). The objective capacities of, for example, physical strength and endurance are crucial when it comes to performing certain tasks, such as lifting heavy tools or nursing bedridden patients. However, what workers believe they are able to do, influences to what extent they use their potential of objective abilities. This influence is the core of what is known as the ''Thomas theorem'': ''If men define situations as real, they are real in their consequences'' (Thomas & Thomas 1928, as cited in Merton 1995). For ageing individuals, defining themselves as less able than their objective potential, is more probable than defining themselves as more able (Levy 2003).

Subjective evaluations are also essential in the widely used Work Ability Index (WAI; Toumi et al. 1998), indicating the central but not exclusive role of subjective self-conceptions as they apply to performance. The data on which this article reports are all based upon subjective evaluations alone, and the main research question is: what is the role of age and what is the role of the psychosocial work environment in workers' assessments of age changes in their own work ability? Leading up to this question, Norwegian data on age differences in subjective work ability and in subjective job performance are presented to illustrate the different patterns of age changes in subjective work ability and subjective job performance.

I will first discuss the central concepts of age changes, job performance and work ability, before presenting the data sources for analysing age differences in subjective work ability, in subjective job performance and in subjective changes in work ability over the past ten years. The next section presents the results. Psychosocial work environment correlates of subjective age changes in work ability are discussed. The article concludes with some observations on the practical consequences of the findings.

Central Concepts

Age Changes

All workers are ageing, and the processes of ageing do not start at a specific age. Ageing is ongoing over the life course, producing small changes that over the years add up to qualitative differences between age groups. These changes include such obvious ones as most 70-year-olds having poorer eyesight than most 40-year-olds (Margrain & Boulton 2005). Yet, most 70-year-olds have more experience from life and from work life than most 40-year-olds. During the entire span of work life, age changes, including both growth and decline, take place (Baltes & Baltes 1990). The early phases of life involve more growth than decline, with the reverse happening in the late phases of life, and perhaps also in the final phases of work life. But there is no clear-cut point at which decline exceeds growth, and some growth and opportunities for either improving or preserving abilities continue even up to the age of 90 (Schaie 1996).

Large individual differences are based upon both genetic differences (''primary ageing'') and differences over the life span in living conditions, lifestyles, life experiences and work careers (''secondary ageing''). As shown in a number of studies, work careers influence ageing processes, for example, challenging, self-directed and complex work increases the intellectual flexibility of workers, and conversely, limited challenge, self-direction and complexity decrease flexibility (Schooler 1990; Schooler et al. 1999). Similar results have also been reported more recently by Bosma et al. (2003) – cognitive demands at work prevent cognitive impairment – and by Ansiau et al. (2005), who found positive correlations between work-related cognitive stimulation and cognitive performance. Both in the USA and Poland (Miller et al. 1985 referred by Schooler et al. 1999) and in France (Ansiau et al. 2005) older workers are found to be exposed to less complex tasks than younger workers, thereby the risk of cognitive decline with increasing age is enhanced. On the other hand, if older workers are given challenges, variation, flexibility and autonomy, the growth part of ageing is likely to be fuelled. Thus, ageing is not a uniform process that we can expect to inexorably result in uniform patterns of age changes – decline or growth – in work ability or job performance.

Job performance is defined as the effectiveness of job behaviour in real work settings (Warr 1994). This work effectiveness is influenced by ergonomics, work organisation, the motivation of the worker and his or her objective and subjective work ability. Objective work ability could be measured in the laboratory and subjective work ability could be measured as self-conceptions of the worker's ability to perform work. In the following sections, I will look further into the concepts of job performance and work ability.

Job performance

In the Norwegian disability pension scheme, one of the objective criteria for reduced work ability is decreased job performance as measured by reduced ''income capacity''. In addition, an objective medically diagnosed disease, injury or other problem must normally be the reason for reduced work ability. In other words, for a worker to receive a disability pension, reduced work ability due to illness or injury must be the cause of the declining performance. Accordingly, in the disability pension scheme,

work ability and job performance are two different concepts. While the level of performance may *indicate* the level of ability, performance may decline with age for reasons other than diminishing work ability. Weak motivation, negative attitudes towards older workers from supervisors and colleagues, and negative self-conceptions about ageing among older workers themselves are possible reasons for their job performance to decline without a corresponding drop in objective work ability. Likewise, the other way around, a strong motivation, positive attitudes and a positive self-image may keep job performance steady despite declining objective work ability. Work environment adaptations and improvements in work organisation and ergonomics may also contribute to the maintenance of job performance. We therefore need this distinction between work ability and job performance to understand the apparent paradox in the literature of ageing and work; that is, while work ability seems to be decreasing with age, job performance is found to be more stable (Salthouse & Maurer 1996).

Income is frequently used as an indicator of job performance, e.g. in disability pension systems. In research, income is used as a proxy for job performance when an ideal type of a liberal economy is taken as a model (Skirbekk 2004). In the liberal ideal type, the market is expected to regulate individual earnings to correspond to productivity. But the Nordic context with rather strong collective bargaining systems is more complicated. The effect of age on productivity as measured by income is also obscured by the traditional seniority principle that, while weakened over the last two decades, still prevails. As an effect of seniority, wages as an indicator may overestimate the productivity of older workers. However, Gelderblom (2006) argues that according to Gary S. Becker's human capital theory, marginal productivity will exceed wages among older workers, while the reverse is true for younger workers. Therefore, wage is less than perfect as an indicator of productivity or job performance.

Other indicators of individual job performance are product counts (e.g. units sold, cars repaired or cases settled), judgments by supervisors, and self-perception. The last two may be biased by prejudices about ageing and corresponding self-stereotypes (Levy 2003), because such biases might underestimate the performance of older workers. Overestimation is also possible, as when a supervisor's judgment is coloured by the worker's

earlier contributions, by his or her loyalty to the company or by the worker having an inflated conception of his or her own performance (Skirbekk 2004; Gelderblom 2006).

Most professions have no simple or concise way of measuring individual productivity or job performance (Gelderblom 2006). This makes it difficult to establish the exact effects of age on job performance. Despite many studies, uncertainty remains about the link between age and job performance. Most reviewers of research conclude that *in general* job performance does not appear to decline with increasing age (Stagner 1985; Waldman & Aviolo 1986; McEvoy & Cascio 1989; Salthouse & Maurer 1996; Warr 1994, 1998; Czaja 2001). However, results are contradictory, and some reviewers conclude with a parabolic relationship showing initial increase, a period of stability and an eventual decrease towards the end of the career (Skirbekk 2004; Gelderblom 2006) – or else a parabolic relationship only for low complexity jobs (Sturman 2003).

Reviewers agree that the patterns of age changes in job performance vary according to job characteristics. If the job requires quick reactions or heavy physical work, age may be a disadvantage, even as early as the thirties (WHO 1993). To the extent that experience or expertise could improve the performance of job-related tasks, age becomes an advantage throughout the work life (Warr 1994). According to Rotundo and Sackett (2002), job performance, in addition to task performance, consists of citizenship performance (e.g. team support, job dedication) and counter-productive performance (e.g. deviant, destructive behaviour or voluntary absenteeism). Even given some variation in the relationships between age and citizenship performance on the one hand and between age and counterproductive job performance on the other, the relationships seem to be age positive, particularly in terms of stronger dedication to the job and less voluntary absenteeism among older workers (Zacher 2007).

Salthouse and Maurer (1996) conclude that ageing per se is not a direct cause of job performance, but rather that factors like knowledge, skills and abilities mediate the relationship between age and job performance, as when older workers maintain high job performance because they have acquired greater amounts of job-relevant knowledge or skills. By this reasoning, what should interest human resource managers most is not age,

but ways of using, maintaining and improving the knowledge, skills and abilities of ageing workers.

Work ability

The most elaborate operational definition of work ability is the WAI (Toumi et al. 1998; Ilmarinen 1999; Ilmarinen et al. 2005). Results from this index, as used in many countries, give a more universal picture of deterioration than studies of age changes in job performance. However, the age decline in work ability starts at different ages in different jobs. For example, decline starts earlier in physically strenuous jobs than in mentally demanding jobs (Ilmarinen 1999; Capanni et al. 2005). In this way, patterns of age changes according to job characteristics resemble patterns of age changes in job performance. The WAI includes seven dimensions of self-reported work ability: (1) subjective evaluation of present work ability compared, on a scale from 0 to 10 points, to the person's best work ability ever; (2) subjective work ability in relation to physical and mental demands of the job (2–10 points); (3) number of current diseases diagnosed by a physician (1–7 points); (4) estimated degree of restrictions in work due to illnesses (1–6 points); (5) number of illness-related days of absence over the previous year; (6) health problems appraised as limiting the likelihood of remaining in the job for two more years (1–7 points); and (7) subjective optimism, vitality and hope (i.e. attitudinal resources) (1–4 points). About half (25 points) of the maximum score of 49 come from health problems; the rest come from subjective appraisals of work ability (20 points) and from attitudinal resources (4 points).

Subscales with subjective appraisals of work ability (subscales 1 and 2) have the highest weight and correlate the best with the sum score (Ilmarinen 1999), particularly in samples of healthy workers (Torgén 2005). The WAI is shown to be a good predictor for disability pension and is an effective instrument for Health and Safety Management in preventing disability and early exit from work. Interventions may be applied at the individual level not only to strengthen the work ability of the worker, for instance by training, but also to improve and adapt work conditions according to the capacities of the worker (Arnkil 2006). The index appears better at detecting problems with work ability in need of intervention than at differentiating levels of work ability among healthy workers. In healthy

samples, there is a risk of ceiling effects and problems in detecting changes (Torgén 2005), as in normal ageing. In general, age is found to explain less than 10% of the decline in WAI scores over the work life period (Goedhard & Goedhard 2005; Tobia et al. 2005).

In this article, I shall explore how age is related to subjective work ability and subjective work performance in Norwegian samples, using subscale 1 from WAI on subjective work ability (sample A), a measure of subjective work performance (sample B) and a measure of subjectively experienced changes in work ability over the past ten years (sample C). In the third data set (sample C), which includes data on psychosocial work environment, I will explore possible effects of psychosocial work environment on subjective changes in work ability.

Data sets

To discuss age changes in subjective work ability and in subjective job performance, I shall report data from three different Norwegian samples. In the three studies, measurement of three different concepts is available: subjective work ability, subjective job performance and subjective changes in work ability. All the data sets are cross-sectional.

Sample A consists of 900 municipality workers aged 20–69 from all over Norway and in all municipality occupations (Mykletun et al. 2000). The majority are women (in this sample, 74%) working in the fields of health, education and care. Subjective work ability is measured in a postal questionnaire by subscale 1 of WAI. The question is: *How do you assess your actual work ability compared to the best work ability you have ever had? Give your best work ability ever 10 points, and set work disability to 0 points. Circle the number that fits best.*[1]

Sample B is the Norwegian Senior Policy Barometer produced by the market research firm MMI (Dalen 2003) by computer-assisted telephone interviews (CATI), for the semi-public agency Centre for Senior Policy. The

1 Work ability is not defined in the question used in sample A, nor in sample C. Some individual interpretations of work ability may have common connotations with job performance (how well the tasks of the job are subjectively mastered). Since the distributions of the answers concerning work ability and job performance are different, the two concepts are at least conceived as different.

nationwide sample ($N = 1001$) includes employed persons 15 years and older with all main occupational categories represented, 53% are women, compared to 47% of employed persons nationally in 2003 (Statistics Norway 2007). The target question in the Senior Policy Barometer is about how well the respondents *master* their jobs; in other words the question is about the workers' self-perception of their job performance. As the question gives no frame of reference, we cannot know whether the respondents make any comparisons (e.g. to others or to their younger selves). If work ability is declining with age, older workers might adjust their evaluation scale by, for instance, referring to others their own age. The question is: *How well do you feel that you master the tasks of your job? (Very well, fairly well, neither well nor poorly, somewhat poorly, very poorly.)*

Sample C is from the first wave of the longitudinal Norwegian Study of Life Course, Ageing and Generations (NorLAG). Data were collected in 2002/2003 from 5589 subjects aged 40–79, by CATI and postal questionnaires, and from registries administered by Statistics Norway. The response rate of the CATI interviews is 67.0%, while 74.6% of those interviewed, answered the questionnaire. The question on work ability, in the postal questionnaire, was answered by 2501 employed persons 40–69 years: *Compared to 10 years ago, have you experienced changes concerning. . . . work ability? (Much better/somewhat better/no change/somewhat poorer/much poorer.)*

Fifty-two per cent of the respondents are women, compared to 47% of the employed aged 40–74 nationally in 2003 (Statistics Norway 2007). Employment rates of course decrease with age, in this Norwegian sample they decrease from 89% among the 40 to 49-year-olds to 53% among the 60 to 64-year-olds and 23% among the 65 to 69-year-olds.

In addition to age (40–69 years) and gender, the analyses include the following variables:

Physical health (measured by SF-12; Gandek et al. (1998), and used as a category variable; very good, good, poor, or as a continuous variable from 10; poor to 65; excellent)

Occupation (nine categories based upon the International Standard Classification of Occupation – ISCO-88)

Education (three categories: primary school, secondary school and university)

Psychosocial work environment (to a great extent, to some extent, to a small extent or not at all: hectic and stressful work, little variation in tasks,

hard-to-learn computer systems, irregular working hours, colleagues asking for advice, supervisor appreciating one's work, opportunities to learn new things, job autonomy)

Training (over the last 12 months (yes/no): have attended courses outside the work place, have participated in on-the-job-training)

Reorganisations/problems at work (over the last 12 months (yes/no): have experienced major reorganisations, have experienced problems at work)

The work environment variables are selected on the basis of research on predictors of early retirement. Studies provide evidence that physical strain increases the risk of early retirement (Krause et al. 1997; Blekesaune & Solem 2005). Data on physical strain are not available in the present study, which focuses on effects of various psychosocial work variables. Such psychosocial variables also predict early retirement in a number of studies (Quinn 1978; Solem & Mykletun 1997; Phillipson & Smith 2005; Midtsundstad 2006; Loretto et al. 2007; Furunes 2008). The variables are selected on the assumption, presented in the introductory section, that decreasing work ability predicts early retirement. This gives reason to explore if variables predicting early retirement may also predict decreasing subjective work ability.

Results

Age differences in subjective work ability

In sample A, the subscale of the WAI used on municipality workers shows a linear decline in subjective work ability (Table 1).

The correlation between subjective work ability (compared to the best ever) and age is low and negative (− 0.22) – and equal for men and women (Table 1). In other words, with increasing age, more workers feel they have passed the peak of their work ability.[2] However, even among workers aged 60 and above, as many as 7% answer that they now have the best

2 One-way ANOVA shows that except from the below 30 years group, the subjective work ability of all the age groups differs significantly from the next age group.

Table 1. Subjective work ability (compared to the best ever) by age and gender. Municipality employees. Mean and Pearson r. (*N*)

	≤ 29 years	30–39	40–49	50–59	60 years ≥	*r*
Women	8.4 (49)	8.4 (141)	8.1 (184)	7.6 (198)	6.9 (43)	− 0.22*** (615)
Men	9.0 (11)	8.1 (49)	7.7 (64)	7.8 (73)	7.0 (27)	− 0.21** (224)
Total	8.6 (60)	8.3 (190)	8.0 (248)	7.7 (271)	7.0 (70)	− 0.22*** (839)

**$p < 0.01$, ***$p < 0.001$.

work ability ever. Thus, age is a significant, but modest predictor of subjective work ability, as also found in studies using the complete WAI (Goedhard & Goedhard 2005; Tobia et al. 2005).

Some of the observed age-related decline in work ability may be inherent in the method of comparing to the worker's best work ability ever. The problem here is that because young workers have a shorter career, they have a higher probability of being at their peak. Conversely, older workers have longer careers, which makes it more likely that they have experienced their peak earlier. Correction for this methodological problem is expected to produce an even less steep age decline in subjective work ability than already observed.

The observed patterns are of the same size (r − 0.17 to − 0.27) in different job categories and municipality departments (table not shown). This uniform pattern may be a result of the orderly processes of primary ageing, i.e. that basic ageing processes produce similar ageing gradients across occupations. The similarity may also be a result of negative self-stereotypes about ageing common to most members of the Western culture (Levy 2003). The influence from such stereotypes on subjective work ability may be stronger than the influence from objective job performance; therefore, many older workers may believe that they perform more poorly than they actually can or do perform. Since most people tend to overrate the negative effects of ageing (Palmore 1999; Levy 2003), effects of self-stereotypes about ageing might be similar across gender, occupations and types of industry.

Another possible explanation of the similarity of patterns is that the nine job categories of municipality work in sample A might be an insufficient differentiation for capturing possible effects.

Age differences in subjective job performance

In sample B, the Senior Policy Barometer from 2003, subjective mastery of the job tasks or subjective job performance, shows a different pattern by age compared to subjective work ability (sample A). The correlations are weaker and in the opposite direction from subjective work ability (Table 2). The proportion with very good mastery of the tasks of their job is particularly low in the youngest group. After age 30, age differences are small and insignificant. For example, even if 80% of men aged 60 and above experience very good mastery of their tasks, the difference from men aged 50–59 (60%) is only approaching significance ($p = 0.09$).

The lack of age decline in subjective job performance might be a selection effect of early exit from those with poor job performance. But as we have seen from Table 1, a possible selection effect is not strong enough to mask the age effect on subjective work ability on the WAI subscale 1. At least the different age gradients on the two scales indicate that they measure different concepts – subjective work ability and subjective job performance, respectively – which behave differently over the course of work life. The age pattern confirms the earlier mentioned paradox of declining work ability with age combined with stable job performance (Salthouse & Maurer 1996).

One interpretation of the combined results from sample A on work ability and sample B on job performance might be the following: while young workers feel that they are at their best concerning work ability, their assessment does not necessarily mean very good performance, whereas older workers feel that they are past their very best work ability while they still assess their performance as very good.

Table 2. Proportion with very good subjective mastery of their job tasks by age and gender. Norwegian Senior Policy Barometer 2003. Percentage and Spearman r(*N*).

	≤ 29 years	30–39	40–49	50–59	60 years ≥	*r*
Women	43.1 (65)	56.5 (154)	54.1 (159)	61.9 (113)	55.9 (34)	0.08* (525)
Men	44.8 (58)	56.0 (125)	56.3 (142)	60.2 (123)	80.0 (25)	0.12** (473)
Total	43.9 (123)	56.3 (279)	55.1 (301)	61.0 (236)	66.1 (59)	0.10** (998)

*$p < 0.05$, **$p < 0.01$.

Given these findings, treating work ability and job performance as two separate concepts is reasonable. Job performance may be maintained even if work ability has diminished, for instance by measures such as improved ergonomic adaptations of work conditions, more flexible working hours (e.g. self-determined micro pauses), preventive or rehabilitative health measures, and options for learning and competence development (Ilmarinen 1999). Such measures are a mixture of actions targeting work ability improvements and actions focusing more directly on job performance. One measure particularly useful for enhancing job performance is to stimulate motivation of workers to perform closer to their maximum work ability.

The experience of age changes in work ability

In sample C, the NorLAG study, the experience of changes in work ability is essentially dichotomously distributed, with 92% of the respondents clustering on two values, those experiencing no change (59%) and those who have somewhat poorer work ability than ten years ago (33%) (Table 3).

In the following analyses, I treat the variable as dichotomous and split between better work ability or no change and poorer work ability compared to ten years ago.

With age, an increasing proportion of workers have experienced declining work ability: from 24% among the 40 to 44-year-olds to 54% for those 65–69 years old (Table 4). However, as many as 45% of the 65 to 69-year-olds have experienced no change, and 1% claims improvement in work ability over the last ten years, indicating that a large proportion of those still working in their late sixties feel that their work ability is intact. However, compared to subjective work ability (sample A) and subjective

Table 3. Subjective changes in work ability over the last ten years among employed persons 40–69 years of age by gender. NorLAG. Percentage. (*N*)

	Much better	Somewhat better	No change	Somewhat poorer	Much poorer	Sum (*N*)
Men	0.8	4.2	57.9	34.3	2.8	100 (1198)
Women	1.2	5.5	60.2	30.8	2.5	100 (1303)
Total (*N*)	1.0	4.9	59.1	32.5	2.6	100 (2501)

Table 4. Proportion experiencing declining work ability over the last ten years among employed persons aged 40–69 years, by age, gender, physical health (SF-12), occupation and education. NorLAG. Percentage. (*N*)

	Men	Women	Total (*N*)	Sign. of gender diff.
Age	***	***	***	
40–44	26.6	21.1	23.5 (493)	
45–49	22.7	25.7	24.3 (539)	
50–54	34.6	36.9	35.9 (563)	
55–59	45.0	43.6	44.3 (490)	
60–64	51.0	44.6	47.9 (284)	
65–69	66.7	39.5	54.3 (94)	**
Physical health	***	***	***	
Very good	25.9	21.0	23.4 (1146)	*
Good	37.4	32.9	35.2 (816)	
Poor	61.5	59.0	60.0 (488)	
Occupation	*	*	***	
Managers	30.6	21.6	27.5 (335)	
Professionals	39.8	35.4	37.6 (513)	
Technicians and associate professionals	35.2	30.0	32.2 (516)	
Clerks	34.9	32.3	32.9 (210)	
Service, sales, and care workers	32.4	36.0	35.3 (385)	
Agricultural, forestry and fishery workers	52.1	50.0	51.7 (87)	
Craft and related trade workers	40.6	30.0	39.3 (163)	
Plant and machine operators and assemblers	30.6	40.0	32.1 (159)	
Elementary occupations	36.4	43.7	42.7 (82)	
Education				
Primary school	38.3	36.9	37.6 (282)	
Secondary school	35.6	33.2	34.4 (1327)	
University	35.8	32.2	33.8 (840)	
Total (*N*)	36.2 (1171)	33.2 (1292)	35.1 (2463)	

Significance by Pearson chi-square: * < 0.05, ** < 0.01, *** < 0.001.

job performance (sample B), the distribution resembles the work ability distribution (decline) more than the job performance distribution (stability).

Although gender differences are small and insignificant in the total material, the age pattern differs (Table 4). The increasing proportion of workers experiencing declining work ability levels off around age 55–59 among women, while still increasing among men. No obvious reason appears for female workers in their sixties to feel a significantly lower decline in work ability than male workers. One possibility is that many women in this cohort of older workers have a shorter career in paid work behind them. They may have a stronger motivation to work either to further their career or to earn a full pension. In the NorLAG study, women more often than men say that work is very important to them (Solem & Blekesaune 2005). Such a motivation may colour the subjective work ability in brighter shades. Controlling for work motivation, however, does not take away the gender difference in subjective work ability (table not shown). Another explanation could be that women workers at this age are a more biased group of able workers. The employment rate among women in Norway is lower than among men (62 and 73%, respectively, in the age group 55–64; OECD 2006b). However, data show no significant health differences, as measured by SF-12 (Gandek et al. 1998) between older employed men and women (table not shown).

Finally, one reason for gender differences in work ability changes might be that women work part-time more often than men. Part-time workers are less exposed to working conditions challenging their work ability and may both preserve work ability better and function well enough for a few hours with less work ability than is required for full-time work. In this study, 38% of employed women aged 40–69 work part-time, compared to 10% of employed men in the same age group. However, the gender difference remains when controlling for working hours (table not shown). Therefore, these analyses show no clear reason for female workers in their sixties to experience a lower work ability decline than older male workers.

The occupation variable shows small effects on subjective work ability changes (Table 4). When controlling for age (table not shown), only agricultural, forestry and fishery workers more often experience a decline in subjective work ability. I have also run controls for psychosocial work

environment variables and for physical health as measured by SF-12 (Gandek et al. 1998). None of them remove the effect of agricultural, forestry and fishery work on subjective work ability decline. Heavy physical workload, which is not available in the data set, might be a cause of early work ability decline. However, a workload that has the effect of reducing work ability should also reduce physical health. In spite of this, physical health is declining only slightly more in primary industries than in other occupations ($r - 0.26$ compared to $r - 0.19$ in the total material) and as mentioned, control for physical health does not remove the effect of occupation in the primary industries on declining subjective work ability.

Psychosocial work conditions and work ability change

In this section, I shall elaborate on the effects of psychosocial work conditions on subjective work ability change (Table 5).

Hectic and stressful work shows a curvilinear effect. Both those with hectic and stressful work ''to a great extent'' and ''not at all'' experience more decline in work ability. This finding is in accordance with earlier research showing a curvilinear relationship between hectic and stressful work and disability retirement (Holte et al. 2000; Blekesaune & Solem 2005). Other research indicates increased risk of nondisability early exit (Blekesaune & Solem 2005) or of early exit in general (Solem & Mykletun 1997), with low levels of job stress. While this finding may seem counterintuitive, it is explained by the classical stress theory of Hans Selye (1974), that both high stress and low stress are detrimental. Solem and Mykletun (1997) see low stress leading to early exit as an indication of older workers' detachment from work and of employers' requesting less of their older workers. Workers approaching retirement may be written off rather than invested in and may be less included in further education, training and reorganisation.

Except for autonomy, all of the psychosocial work environment variables show significant effects on subjective work ability (Table 5). Workers with little variation in tasks, hard-to-learn data systems and irregular working hours experience more decline in work ability, while workers whose colleagues ask them for advice, whose supervisors appreciate their work and who have on-the-job opportunities to learn

Table 5. Proportion experiencing declining work ability over the last ten years among employed persons aged 40–69 years Psychosocial work environment variables. NorLAG. Percentage. (*N*)

	To a great extent	To some extent	To a small extent	Not at all	Sign. (*N*)
Is your work characterised by ...					
Hectic and stressful work?	37.4	31.6	33.0	41.6	** (2462)
Little variations in tasks?	42.6	37.2	32.3	33.8	* (2461)
Hard to learn data systems?	35.3	40.0	30.2	34.6	* (2460)
Irregular working hours?	29.9	39.4	35.5	34.1	* (2463)
Do you experience in your job that ...					
Colleagues ask you for advice?†	30.4	33.7	39.4	46.2	** (2244)
Your supervisors appreciate your work?‡	30.6	34.1	37.6	44.4	* (2097)
You have opportunities to learn new things?	28.8	33.3	44.0	48.5	*** (2459)
You have autonomy in the job?	34.1	33.7	39.9	48.2	ns (2462)

Significance by Pearson chi-square: * < 0.05, ** < 0.01, *** < 0.001.
†Not asked to self-employed persons with no employees.
‡Not asked to self-employed persons.

new things experience less decline. The opportunity to learn new things is the strongest predictor of sustained subjective work ability. The opportunities to learn are experienced as less good by increasing age. In data set B, 61% among those below 30 years say that they ''to a great extent'' have opportunities to learn new things at their job, compared to 45% among those 40–59 years and 37% among those above 60. A shift appears to happen around 40 years and in data set C with an age range from 40 to 69, differences are smaller, but still statistically significant. In the oldest group (60–69), 31% say that they ''to a great extent'' have opportunities to learn new things at their job, compared to 37% in the 40–49 years group.

The ''opportunity to learn new things'' is the only psychosocial work environment variable with consistent significant effects through controls

for age, occupation, health and the other psychosocial variables (tables not shown). But while opportunities to learn new things seem to prevent declining subjective work ability, the causal direction might also be opposite – that those with preserved subjective work ability get more opportunities for learning. Either way, it might be a problem if lack of opportunities for learning is detrimental to subjective work ability. It might also be as serious a problem if those with declining subjective work ability are given fewer opportunities for learning.

Workers having used opportunities for learning by attending courses or participating in on-the-job training confirm the impression that opportunities for learning have strong connections to subjective work ability (Table 6). Table 6 also shows that problems at work increase the risk of subjective work ability decline. While the type of problem is not specified, major work reorganisations do not appear to be a problem of this kind, since no effect on subjective work ability is found. However, as with stress, reorganisations may well have both benign and negative effects on subjective work ability, and may result in no effect in the dichotomous variable used here. The degree of employee involvement in planning and implementation of reorganisations is expected to be crucial (Ingebretsen & Lindbom 2000).

Logistic regression of declining work ability (Table 7, model 1) shows that age and ''problems at work'' contribute to declining subjective work ability. Problems at work is an unspecified variable with no indication of what kind of problems are connected to the declining work ability – nor of the causal direction. Insufficient work ability may cause problems at work

Table 6. Proportion experiencing declining work ability over the last ten years among employed persons aged 40–69 years. Participation in courses or training and experience of reorganisations or problems at work. NorLAG. Percentage. (*N*)

	Yes	No	Sign. (*N*)
Attended course outside work place last year	29.9	37.9	*** (2463)
Participated in on-the-job-training last year	30.2	38.1	*** (2463)
Experienced major reorganisations last year	36.1	34.1	ns (2446)
Experienced problems at work last year	42.7	33.5	** (2448)

Table 7. Logistic regression of subjective declining work ability by age, gender, physical and work characteristics. Employed persons 40–69 years. NorLAG

	Model 1 ($N = 2434$)		Model 2 ($N = 2422$)	
	Odds ratio	Sig.	Odds ratio	Sign.
Age (40–69)	1.069	0.000	1.068	0.000
Gender (0 = female, 1 = male)	1.083	0.380	1.194	0.062
Attended courses (0 = no, 1 = yes)	0.833	0.062	0.915	0.385
On-the-job-training (0 = no, 1 = yes)	0.803	0.024	0.826	0.058
Hectic and stressful work (1–4)†	0.979	0.669	1.048	0.362
Little variation in tasks (1–4)†	1.006	0.901	1.053	0.307
Hard to learn data systems (1–4)†	0.946	0.285	0.947	0.316
Irregular working hours (1–4)†	0.985	0.699	0.979	0.614
Opportunities to learn (1–4)†	1.268	0.000	1.203	0.002
Autonomy in the job (1–4)†	1.017	0.798	1.017	0.805
Problems at work (0 = no, 1 = yes)	1.608	0.001	1.557	0.002
Major reorganisations (0 = no, 1 = yes)	1.080	0.559	1.068	0.540
Physical health (10–65)			0.931	0.000
Nagelkerke R^2	0.10		0.19	

†Grading from 1 = to a great extent to 4 = not at all.

and – in the other direction – problems at work, for example conflicts with colleagues or supervisors, may result in loss of motivation and self-confidence, leading to a decline in subjective work ability.

Learning opportunities and participation in on-the-job-training, contribute to sustained subjective work ability.

Two variables from the bivariate analyses in Table 5 – ''colleagues ask you for advice'' and ''your supervisors appreciate your work'' – are not included in the logistic regression models. Because those questions are not asked of the self-employed, inclusion of the variables would reduce N with 15%, and when included, neither of them remain with a significant contribution to subjective declining work ability.

Physical health declines with age ($r \ -0.19$ in this study) and may mediate the effect of age on subjective work ability change. Accordingly, I have included physical health (as measured by SF-12) in model 2 (Table 7)

and found essentially no effect on the odds ratio of age. In other words, the age effect on subjective work ability change is independent of changes in physical health with age. However, other odds ratios change when physical health is included in the model. The effects of ''opportunities to learn'' and ''problems at work'' remain significant, while ''on-the-job-training'' fail to meet the 5% criterion.

Discussion

Job performance is often well preserved among older workers, even if work ability declines. This conclusion is supported by results from two Norwegian samples indicating that (1) subjective work ability declines with age and (2) subjective job performance is essentially stable with age. A third data source is the NorLAG study, where workers 40–69 years old are asked if they have experienced changes in their work ability over the past ten years. The proportion experiencing decreasing subjective work ability rises steadily from 24% among the youngest (40–44 years) to 54% in the age group 60–69. Less self-reported decline appears among older women than among men of the same age. The difference remains when controlling for motivation for work, for part-time work and for the ''healthy worker effect''. Differences between occupational categories are small when controlling for age, although agricultural, forestry and fishery workers more often experience a decline in subjective work ability. Workers in these industries in Norway are most often self-employed and work (part-time) at higher ages than most other workers, and therefore have more opportunities to experience decline while still doing the same kind of work.

The main research question of this article explores the possible effects of the psychosocial work environment on age-related changes in subjective work ability. As the analyses of subjective work ability and subjective job performance have shown, the two concepts follow different age patterns. This discrepancy raises the possibility that positive psychosocial environments may ensure the potential for high-quality job performance even if work ability declines. The environment may compensate for deterioration or negative self-conceptions with encouragement, appreciation, requests for older workers' involvement or advice and, above all, the opportunity to

learn new things. In this way, personnel policies may not only compensate for declining work ability, but also even prevent declining work ability, as perceived by older workers, thereby supporting high quality performance from seniors.

Age is a strong predictor for subjective changes in work ability with age, which does not mean that declining subjective work ability is inevitable. However, this study is unable to pinpoint what it is about age that might cause such changes. One possibility is that primary age changes, for instance in reaction time or in cognitive abilities, might cause objective changes in work ability that are reflected in subjective evaluations. Another possibility is that subjective evaluations are in tune with cultural stereotypes and corresponding self-stereotypes about detrimental age changes among older workers themselves. The negative affective flavour of ''age'' and ''ageing'' in Western cultures may very well influence self-esteem and performance among ageing individuals, as shown by Levy (2003). A third possibility is that not age per se, but health decline associated with age, causes a work ability decline that is reflected in the subjective evaluations of work ability change. The results from the NorLAG study do not support this explanation since age has effects on subjective work ability change that are independent of physical health.

Primary age changes – changes that are inevitable and irreversible – may cause decline in subjective work ability. If so, the first priority of age management would be to ease the effect of age: to ease strain by ergonomic and organisational means and to adapt work conditions to the changing abilities of ageing workers. However, ageing includes both primary age changes and secondary age changes. Secondary changes come from environmental influences on the ageing processes, from living conditions and from the work career. Work may have negative effects through strain, monotonous work, exposure to detrimental work environments, and positive effects through variation in tasks, responsibility, task complexity and challenges concerning professional and personal development and human growth.

According to the NorLAG study, challenges at the job as indicated by variation in tasks, opportunities to learn new things, participation in courses and on-the-job-training, and ''some extent'' of hectic and stressful work, may counteract subjective decline in work ability. This is in line with

research, cited earlier, on the effects of task complexity on cognitive abilities. In addition, social support at the job – appreciation from supervisors and requests from colleagues – also seems to have positive effects on subjective work ability. On the other hand, to have experienced problems at work during the last year is associated with subjective work ability decline. Likewise, to be exposed to ''some extent'' of hard to learn computer systems and irregular working hours, seem to have a negative effect on the subjective work ability. A ''great extent'' of irregular working hours is associated with less subjective decline in work ability. This variable probably includes both restrictive irregularity, such as in shift work, and flexible irregularity, as among the self-employed. Differentiation between positive and negative effects of irregular working hours is difficult on the basis of this variable.

The pattern of connections I have found between psychosocial working environment and subjective change in work ability is complex. Multivariate analysis leaves on-the-job-training, opportunities to learn and problems at work, with independent effects on subjective work ability change. When physical health is included among the independent variables, the effects of the psychosocial variables become weaker, but opportunities to learn and problems at work remain significant.

To the extent that age changes in subjective work ability are attributable to context variables at the workplace, the challenge for employers is to deal with those variables as directly and effectively as possible. The NorLAG study points in particular to the inclusion of older workers in training, competence development and learning as a means to prevent negative age changes in subjective work ability. Although the NorLAG study indicates that opportunities to learn new things may prevent declining subjective work ability, the causal direction might also be the opposite – that those with preserved subjective work ability get more opportunities for learning. Either way, the correlation between options for learning and maintenance of subjective work ability poses a challenge to managers. From one direction, if the lack of opportunities for learning causes subjective work ability to decline, an evident solution is to provide learning opportunities for everyone, even for seniors. From the other causal direction, if seniors with declining subjective work ability receive fewer opportunities for learning, the consequence for managers is the same: to provide learning

opportunities. If not, a vicious cycle resulting in suboptimal productivity and early exit may be in progress.

Also for problems at work, the direction of effects is not obvious, but calls for handling problems in a way that prevents deterioration of subjective work ability. It is too simple to expect problems to be solved by retirement. A next step in research on psychosocial work environment and subjective work ability, would be to study different problems at work, how they are coped with, and what effects the coping strategies may have on work ability.

In sum, this article confirms the relevance of three challenges to age management: to ease the possible effects of primary age changes, to prevent secondary ageing due to detrimental work environments and poor work organisation, and not least to include older workers in training, career development and problem solving; thereby stimulating growth processes during ageing.

A more general challenge is how to counteract decline in work ability that may be fuelled by age stereotypes prevailing in the Western world. Change of cultural stereotypes is, of course, a complex task that involves a whole range of social institutions, as well as it is a time-consuming task. In the meanwhile, employers and workers might do their best to keep informed and to inform others about the assets and drawbacks of older workers, as realistically as possible, with adequate importance attached to the diversity of older workers. To involve older workers more in learning activity, attention may need to be drawn to self-stereotypes among older workers themselves concerning their ability to learn.

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Characteristics of multiple-diseased elderly in Swedish hospital care and clinical guidelines: Do they make evidence-based priority setting a ''mission impossible''?

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Abstract

In Sweden, an expected growing gap between available resources and greater potential for medical treatment has brought evidence-based guidelines and priority setting into focus. There are problems, however, in areas where the evidence base is weak and underlying ethical values are controversial. Based on a specified definition of multiple-diseased elderly patients, the aims of this study are: (i) to describe and quantify inpatient care utilisation and patient characteristics, particularly regarding cardiovascular disease and co-morbidity; and (ii) to question the applicability of evidence-based guidelines for these patients with regard to the reported characteristics (i.e. age and co-morbidity), and to suggest some possible strategies in order to tackle the described problem and the probable presence of ageism. We used data from three sources: (a) a literature review, (b) a register study, based on a unique population-based register

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of inpatient care in Sweden, and (c) a national cost per patient database. The results show that elderly patients with multiple co-morbidities constitute a large and growing population in Swedish inpatient hospital care. They have multiple and complex needs and a large majority have a cardiovascular disease. There is a relationship between reported characteristics, i.e. age and co-morbidity, and limited applicability of evidence-based guidelines, and this can cause an under-use as well as an over-use of medical interventions. As future clinical studies will be rare due to methodological and financial factors, we consider it necessary to condense existing practical-clinical experiences of individual experts into consensus-based guidelines concerning elderly with multi-morbidity. In such priority setting, it will be important to consider co-morbidity and different degrees of frailty.

Keywords: priority setting, evidence-based guidelines, elderly, co-morbidity, cardiovascular disease, ageism.

Introduction

Evidence-based guidelines are supposed to support clinicians in clinical decision making (Fortin et al. 2006; Guyatt et al. 2000). By encouraging standardisation among health care providers, the aim is to optimise benefits to patients with specific diseases; the benefits have been well documented (National Committee for Quality Assurance 2003; Tinetti et al. 2004). Crucial parts of guidelines are randomised controlled trials (RCTs) and systematic reviews, which provide the most reliable data (Rothwell 2005). However, RCTs and systematic reviews primarily focus on internal validity (Alderson et al. 2004; Altman et al. 2001), while their external validity and generalisability, i.e. whether the results can be applied to patients in a specific clinical setting in routine practice, can be questioned (Braithwaite 2007; Green & Glasgow 2006; Rothwell 2005; Tinetti et al. 2004). Hence, many evidence-generating RCTs, which constitute the base of clinical guidelines, exclude elderly patients with multiple co-morbid conditions (American Heart Association Council 2007; Fortin 2006; The Swedish Council on Technology Assessment in Health Care 2003). Table 1 contains sets of exclusion criteria that are commonly

Table 1. Reported exclusion criteria, regarding age, co-morbidity and other conditions for patients with acute coronary syndromes, in five evidence-generating RCTs cited in two meta-analyses (Hoenig et al. 2006; Metha et al. 2005)

Study	Exclusion criteria
FRISC II	Increased risk of bleeding episodes
	Anaemia
	Other acute or severe cardiac disease
	Renal insufficiency
	Liver insufficiency
	Clinically relevant osteoporosis
	Other severe illness
	Anticipated difficulties with cooperation
	Advanced age (e.g. >75 years)
	Angioplasty in the past 6 months
	Hypersensitivity to randomised drugs
	Previous open-heart surgery
VINO	Any concomitant disease which may have possible influence on 1-year prognosis
	Lack of patient cooperation
	Coronary angioplasty or bypass surgery less than 6 months previously
TIMI IIIB	Percutaneous coronary angioplasty within 6 months
	Coronary artery bypass grafting at any time
	Pulmonary edema
	Systolic arterial pressure >180 mmHg or a diastolic pressure >100 mmHg
	Coexisting severe illness
	Receiving oral anticoagulants
(TACTICS)-TIMI 18	
See TIMI IIIB	
ICTUS	Age >80 years
	Primary percutaneous coronary intervention or fibrinolytic therapy
	Hemodynamic instability or overt congestive heart failure
	Use of oral anticoagulants in the past 7 days
	Percutaneous coronary intervention within the past 14 days

Table 1 (*Continued*)

Study	Exclusion criteria
	Recent trauma or risk of bleeding Hypertension despite treatment Weight greater than 120 kg Inability to give informed consent A contraindication to treatment with percutaneous coronary intervention or glycoprotein IIb/IIIa inhibitors

used in RCTs. Several of those co-morbid conditions can modify risks and benefits in elderly patients (American Heart Association Council 2007; Boyd et al. 2005; Braithwaite 2007). In fact, it has been suggested that adhering to guidelines in caring for elderly patients with several co-morbid conditions may have undesirable effects (Boyd et al. 2005).

The Swedish National Board of Health and Welfare (Socialstyrelsen) has been commissioned since 2000 to draw up evidence-based guidelines to support priority setting in health care. The guidelines are expected to influence health care policy making as well as clinical decision making. They are to be based on the parliamentary resolution on priority setting that was launched in 1997 (Swedish Parliament 1997). The basic ethical principles are those of human dignity, need and solidarity and cost-effectiveness. The national initiative for priority setting started with heart disease. The first guidelines for the care of heart disease were published in 2004 and a second generation of these guidelines was published recently (The Swedish National Board of Health and Welfare 2008). Other medical areas have undergone a similar process, including cancer, cerebrovascular disease and chronic obstructive pulmonary disease.

The model for priority setting and drawing up guidelines can be described as a process with three major steps. First, current scientific knowledge is reviewed by experts. Then, medical conditions and medical actions are paired, forming so-called prioritisation objects. Each such object is finally ranked by experts on the basis of the following four aspects: valuation of the degree of severity of the medical condition (the needs of the patient group), the expected results of the action (patient's benefit-risk), the cost-efficiency of the category and the degree of evidence. Problems in constructing useable priority setting in a Scandinavian context

have been described (Social- og Helsedepartementet 1997), particularly when there is a lack of evidence, when the patient groups are not satisfactorily defined and when there is uncertainty about how different ethical values should be weighed, especially concerning the aims of health care. Elderly patients with multiple diseases represent all of these issues.

First, there is a lack of scientific studies on the effect of different treatments for diseases in elderly patients, especially those with multiple diseases (The Swedish Council on Technology Assessment in Health Care 2003). It is problematic to extrapolate from studies on younger populations without multi-morbidity due to the limited generalisability of the study results (Boyd et al. 2005; Braithwaite 2007; Green & Glasgow 2006; Rothwell 2005; The Swedish Council on Technology Assessment in Health Care 2003; Tinetti et al. 2004). Hence, the model for priority setting that is based on the ranking of *one medical action* for *one medical condition* does not seem well adapted to this population of patients. Regarding heart disease, interactions between normal biological ageing processes in the cardiovascular system, age-related pathology, sequelae of heart disease and co-morbidity contribute to the problem. Second, a generally accepted base of indicators of good ageing appears to be missing (Bowling & Iliffe 2006). This lack of consensus also concerns how we should weigh different ethical values and patient preferences when the aims of care and relevant end-points of scientific studies are identified and applied to the multiple-diseased elderly (Fried et al. 2002; Tsevat et al. 1998). Finally, there is no generally accepted definition of multiple-diseased elderly patients (Akner 2004).

The demographic prognosis for the Swedish population stresses the volume of the problem. Today 460,000 people are 80 years of age or older. In 25 years, this number is estimated to be 760,000 (Statistics Sweden 2004). The percentage of elderly and very elderly people in our hospitals will continue to grow, and many of them will have multiple diseases. In Sweden and in other Western countries, the most common diagnostic category for this patient group is cardiovascular disease (The Swedish National Board of Health and Welfare 2005; Wenger 2000). Regarding patients with acute coronary syndrome, studies and reviews have addressed the prognostic importance of acute and chronic co-morbid conditions (American Heart Association Council 2007; Lichtman et al. 2007; Taneva et al. 2004).

We believe that it is of value *per se* to study elderly people with multiple diseases in order to avoid stereotypical use of guidelines for priority setting that are not adapted to this population of patients. Otherwise, there will be a risk of ageistic policy and decision making. Further, if the national guidelines remain in force, there will be a need to develop the process of priority setting to include complex cases. Our core thesis is that since the results of studies on chronologically and biologically much younger patients, preferably without relevant co-morbidities, cannot *a priori* be extrapolated to multiple-diseased elderly patients, clinical guidelines are not *a priori* applicable for these patients.

Based on a specified appropriate definition of multiple-diseased elderly patients, the aims of this study are: (a) to describe and quantify inpatient care utilisation and costs, as well as patient characteristics, particularly regarding cardiovascular disease and co-morbidity; and (b) to question the applicability of evidence-based guidelines for these patients in Swedish inpatient hospital care with regard to the reported characteristics (i.e. age and co-morbidity), and to suggest some possible strategies in order to tackle the described problem and the probable presence of ageism.

Methods and Material

To obtain an operational definition, we conducted a literature review via secondary data sources (Cochrane Library and Clinical Queries), a meta-database (Google) and primary databases (Medline and CINAHL). The following search words were used: elderly, very elderly, frail elderly, frailty, multiple-diagnosed, multiple-diseased, multi-morbidity and co-morbidity. From the few definitions of multiple-diseased elderly that were found, one was chosen and the reasons for that choice are presented.

On the basis of the chosen definition, we extracted a population, diagnosed in 2005, of elderly with multiple diseases, focusing on those patients with at least one documented episode of a cardiovascular disease. The population was characterised through the Patient Register maintained by the National Board of Health and Welfare. The Patient Register is a comprehensive national register of the consumption of inpatient hospital care. It is based on the care providers' databases, which are based on information from the patients' records. It contains information concerning

patient characteristics, health care consumption, diagnoses and major procedures for each patient and episode of care. The annual rate of under-reporting during the last few years is estimated to be less than 1% for somatic health care. We estimated the costs of hospital care for the multiple-diseased elderly by using data from two epidemiological reports (The Swedish Association of Local Authorities and Regions 2005; The Swedish National Board of Health and Welfare 2005), and the national database on cost per patient (the KPP database). Cost per patient is a method used to calculate the cost of each patient and episode of hospital care. There were 601,000 care episodes in the database in 2005. Approximately 43% of the total number of episodes of somatic hospital care was included.

Our estimation of the hospital care costs was based on three presumptions. (1) We presumed that the age-related cost per day of hospital care for a multiple-diseased elderly patient was similar to that of any individual 75 years of age or older. We used a template, derived from the KPP database and based on the age interval-related cost per day of hospital care: the cost per day in the age interval 75–84 years was 7220 Swedish Kronor (SEK), the cost per day in the interval 85 years or older was 5895 SEK (1 Euro = 9.40 SEK). (2) Furthermore, we presumed that the distribution of hospital care episodes for the two age intervals to be of the same proportion for those 83% of the multiple-diseased elderly patients who had manifested a cardiovascular disease (and for whom we had detailed information) as for the total number of multiple-diseased elderly patients. The pattern of hospital care consumption of the former subgroup was similar to that of all multiple-diseased elderly patients. (3) In addition, we presumed that the distribution of episodes of hospital care for the two age intervals (about which we had information) was of the same proportion as the distribution of days of hospital care for the two age intervals.

Results

Definition and Previous Attempts at Characterisation

We found no generally accepted definition of multiple-diseased elderly, although several articles focused on elderly with multiple co-morbidities.

Important risk factors in elderly patients are the number of co-morbid conditions (multi-morbidity), the degree of cognitive impairment of the patient, the degree of disability and lack of social support. The prognosis depends to a great extent on the patient's biological age, which in turn largely depends on the type and degree of co-morbidity. Accordingly, the patient's relative fitness and frailty seems to be a more appropriate predictor of risk and prognosis than is chronological age (Mitnitski et al. 2002; Rockwood et al. 2005, 2006). However, this concept, like the frailty index concept and frail elderly concept, the latter often defined as ''older adults or aged individuals who are lacking in general strength and are unusually susceptible to disease or to other infirmity'', does not seem sufficiently distinct as the basis for a quantitative study. The WHO's International Classification of Functioning, Disability and Health (ICF), which focus on needs, function and activity, participation and surrounding factors (Cieza et al. 2006), is not yet in common use. Several articles on co-morbidity and co-morbidity of the elderly were noted, many of them addressing challenges in the context of evidence-based medicine (Bierman 2004; Boyd et al. 2005, 2007; Cieza et al. 2006; Fortin et al. 2006; Karlamangla et al. 2007; Lichtman et al. 2007; Starfield 2006; Taneva et al. 2004; Tinetti et al. 2004).

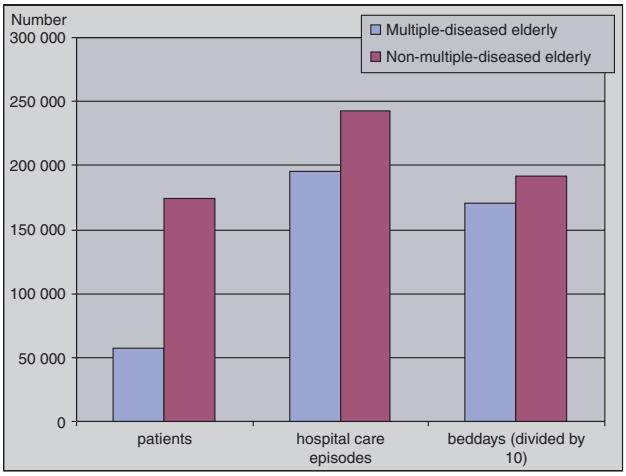
In a Swedish context, we found three definitions. In 2002, the Centre of Epidemiology at the National Board of Health and Welfare formulated the following definition: ''Individuals 75 years old or older, who during the past 12 months have received inpatient hospital care three or more times and who have three or more diagnoses in three or more diagnostic groups according to the classification system ICD-10'' (The Swedish National Board of Health and Welfare 2002). The definition has some shortcomings. The criterion concerning the number of formal diagnoses in the hospital probably leads to an underestimation of the number of elderly in society with multiple diseases. Primary care and elderly care in the municipalities are not considered. Further, multi-morbidity is not always completely documented in the patients' records. The Stockholm Gerontology Centre (Stiftelsen Äldrecentrum) has proposed a similar definition (Gurner & Thorslund 2001), with the difference that the criterion ''...diagnoses in three or more diagnostic groups...'' has been omitted. Consequently, more patients would be expected to be included. Faced with the above

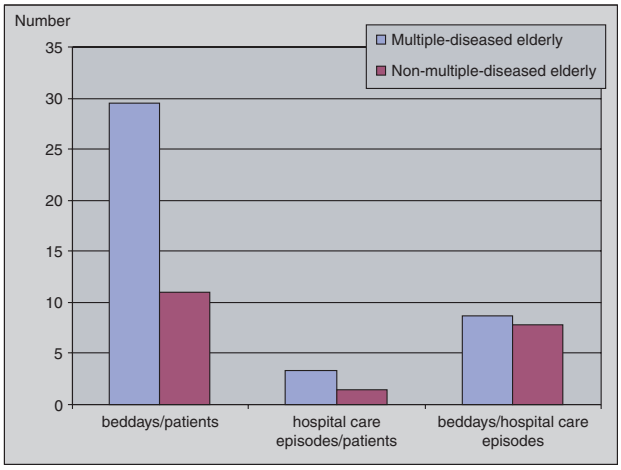
mentioned disadvantages, and considering that several organ systems can fail at the same time, the following definition of ''multi-failing elderly'' has been proposed by the Gerontology Centre: ''Patients above the age of 75 years with some diagnosis or several diagnoses, problems with reduced mobility and energy, and with a need for rehabilitation and/or function supporting actions over a long period of time. On the whole, this means a fragile, rapidly changing life situation, with a need for recurrent re-evaluation of care-, nursing- and rehabilitation actions''. Although this definition seems expressive and clinically relevant, like the definition of the frail elderly, it is not useable in the context of a register study. In spite of its disadvantages, we found the definition formulated by the National Board of Health and Welfare to be useable. Each of the three dimensions contributes to a relevant delimitation of a population with complex needs. The chronological age limit of 75 years is arbitrarily chosen, but it recurs in other tentative definitions. A vast majority of patients who fulfil the criteria, not least that of recurrent hospital care, would truly have multiple and complex needs. Furthermore, our search study resulted in several articles that showed a relation between the number of diagnoses/deficits of a patient and his or her prognosis (Mitnitski et al. 2002; Rockwood et al. 2005, 2006). Finally, the definition is precise and useable on a population level.

Hospital Care Consumption

The initial search was as follows: all patients aged 75 years or older, with at least one episode of hospital care during 2005 and with at least two more episodes of hospital care during the previous 12 months, and with diagnoses from at least three different chapters of the ICD-10 classification. The result was that in 2005 there were 57,872 unique multiple-diseased elderly patients who consumed inpatient care. In 2005, those patients had 195,900 hospital stays for a total of 1,709,446 days. The average number of hospital care episodes per patient per year was 3.4, the number of days per patient per year was 29.5, and the number of days per episode was 8.7. Their consumption can be compared to that of patients aged 75 years or older who do not fulfil the rest of the definition (Figure 1). Of the total number of hospital care episodes of patients aged 75 years old or older, the percentages of multiple-diseased elderly were 48% for internal medicine,

Figure 1. Comparison of the annual hospital care consumption of the multiple-diseased elderly patients with that of 75 years old or older patients, not defined as multiple-diseased elderly





42% for surgery and 52% for geriatrics. The contribution of each speciality to the care consumption of this patient group is shown in Figure 2. In all, 81% of the patients consumed at least one care episode in internal medicine.

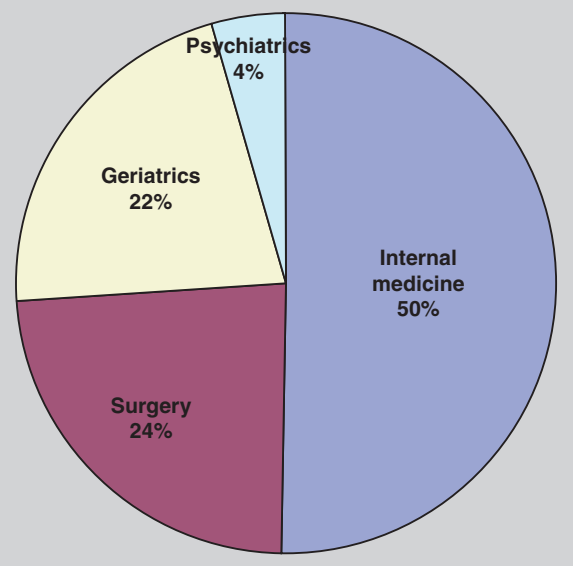
If the criterion in the definition for the minimum number of episodes had been two instead of three, with the rest of the definition unchanged, 87,382 patients would have been included. If the criterion had been only one episode, 109,036 patients would have been included.

Multiple-diseased patients with at least one episode of a manifested cardiovascular disease (from the ICD10-chapter Diseases of the Circulatory Organs) were quantified. In 2005, there were 47,986 such unique patients (83% of the total number of multiple-diseased elderly patients), and they manifested a total of 163,588 episodes of hospital care. In 110,266 of those episodes at least one diagnosis of a cardiovascular disease was registered. Their pattern of hospital care consumption was similar to that of all multiple-diseased elderly patients. The distribution of these care episodes over the three main types of Swedish hospitals was as follows: small hospitals 30%, mid-sized hospitals 41%, and regional hospitals 29%.

Characteristics of Multiple-diseased Elderly Patients with at Least One Manifested Care Episode for Diagnosed Cardiovascular Disease

The distribution of patients by age intervals and sex is presented in Figure 3. Number of health care episodes was distributed according to age intervals as follows: 75–79 years: 51,356; 80–84 years: 57,158; 85–89 years: 37,867; and 90 years or older: 17,207. To survey the most common morbidity of the multiple-diseased elderly with a manifested cardiovascular disease, we conducted a datasearch at the ICD10 section level. The 25 most common diagnostic sections are shown in Figure 4. Quantitatively, cardiovascular diseases dominated, i.e. heart failure and arrhythmias (I30-I52), ischaemic heart disease, hypertension, status and rehabilitation after cardiovascular interventions (Z80-Z99 and Z40-Z54), cerebrovascular insults and peripheral arterial diseases. Regarding other diseases, the following were noted: diabetes, chronic diseases of the lower respiratory tract (particularly COPD and asthma), anaemias, metabolic diseases (e.g. thyroid disorders), renal insufficiency, infections (urinary, pulmonary, septic and influenza), cognitive and mental diseases (e.g. dementia),

Figure 2. Relative contribution of each speciality to the total consumption of hospital care episodes by the multiple-diseased elderly

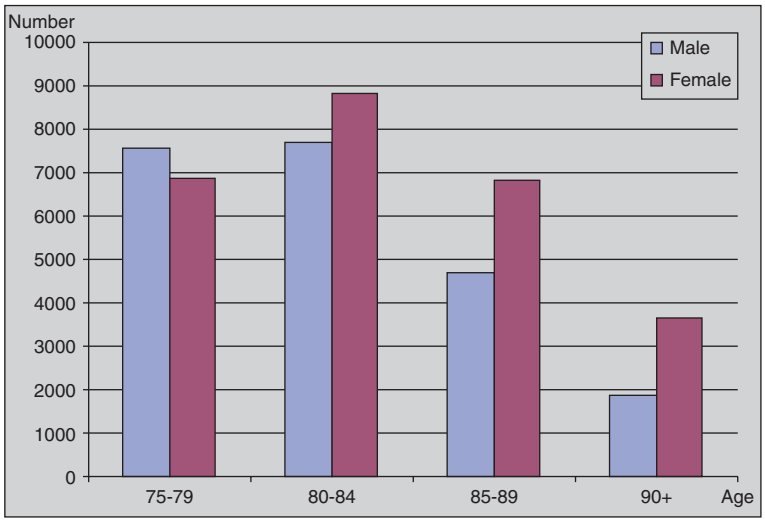


gastric and bowel diseases and injuries, and pain in the hip region. It should be stressed that malignant diseases would be on the list if the different types (particularly prostatic cancer and breast cancer) were added together.

Estimation of the Annual Cost of Swedish Hospital Care for Multiple-diseased Elderly

We considered the subgroup of patients with a manifested episode of a cardiovascular disease, constituting 83% of multiple-diseased elderly, as representative of the total population. Consequently, the total annual cost

Figure 3. Distribution by age and sex of multiple-diseased elderly patients with at least one diagnosis of a cardiovascular disease



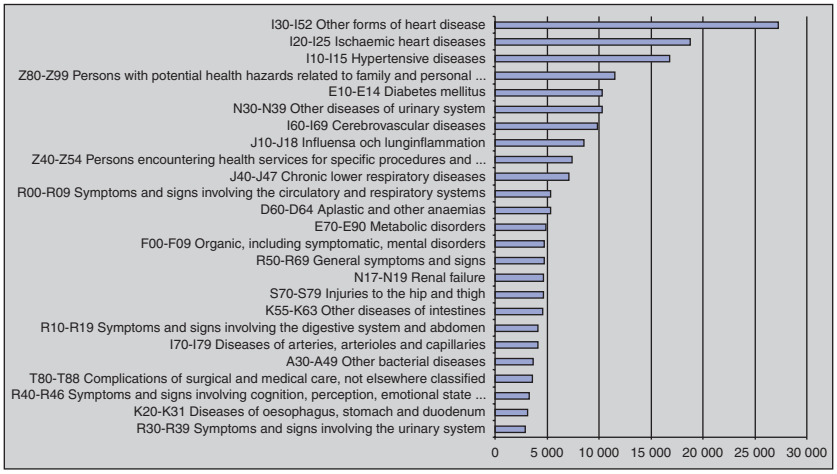
of Swedish hospital care for the multiple-diseased elderly was estimated according to presumptions (1), (2) and (3) (see Methods and Material):

1,133,939 days × SEK 7220/day (75–84 years) + 575,506 days × SEK 5895/day (85 years or older) = SEK 11,579,652,000 and subsequently SEK 11,579,652,000/60,764,000,000 = 19.1% of the total cost of Swedish hospital care.

Discussion

We did not find any generally accepted definition of multiple-diseased elderly in Sweden or elsewhere. In our register study, we used and analysed a definition stipulated by the National Board of Health and

Figure 4. The most common diagnostic sectors of the multiple-diseased elderly patients with a manifested cardiovascular disease



Welfare. The definition's three dimensions made it useable for quantifying and characterising patients on the hospital population level.

Of unique patients aged 75 years or older who consumed hospital care in 2005, 25% were multiple-diseased elderly patients. Of all hospital care consumed by patients aged 75 years or older, these patients consumed 45% of all episodes of care and 47% of all days of care. This is in agreement with earlier estimations (Akner 2004). Given the chosen definition, elderly patients with multiple diseases consume almost three times as many days of care per year as the other patients aged 75 years or older. Following the definition, the difference depends on the greater number of episodes of care per patient per year (3.4 vs. 1.4) rather than on the greater number of days of care per episode (8.7 vs. 7.9). There is a significant overlap between the different medical specialities from which our studied population consumes hospital care. This reflects the population's multi-morbidity, including medical and surgical diagnoses, and heterogeneous profile of

needs. However, 81% of the patients consumed at least one care episode in internal medicine, which was the dominant speciality from a quantitative point of view. Regarding types of hospitals, 71% of the multiple-diseased elderly patients with a known manifestation of a cardiovascular disease were cared for in mid-sized (county hospitals) or smaller hospitals.

Given the presumptions (1–3), the total annual cost of Swedish hospital care for the multiple-diseased elderly was estimated at SEK 11.5 billion, i.e. 19% of the total cost of Swedish hospital care. An estimation based on a cost template per care day leads to a significantly higher cost than a model based on a cost template per case episode. The reason for this is that the number of hospital care days per episode is significantly higher for the studied population than for the average hospital care population (8.7 vs. 5.9 days). Because of our first presumption (1) and the chosen definition in itself, the result will nevertheless probably constitute an underestimation of the total cost.

Patient characteristics included an average age of 83 years, with a median of 82 years. Women dominated quantitatively in the very oldest age strata. Of the multiple-diseased elderly patients with at least one hospital care episode in 2005, 83% manifested a cardiovascular disease. The most common non-cardiac co-morbidities were as follows: diabetes, infections (urinary, pulmonary, septic and influenza), cerebrovascular diseases, chronic diseases of the lower respiratory tract (chronic obstructive pulmonary disease and asthma), malignant diseases, anaemias, metabolic diseases (e.g. thyroid disorders), cognitive and mental diseases (e.g. dementia), renal insufficiency, injuries to the hip and thigh, gastric and intestinal diseases and injuries (e.g. liver insufficiency) and peripheral arterial diseases.

The reported characteristics, i.e. regarding age and co-morbidities, of multiple-diseased elderly patients clearly deviate from those of study populations in clinical studies that constitute the evidence base. In fact, several of the most prevalent co-morbid conditions of the multiple-diseased elderly patients constituted exclusion criteria in the most frequently cited studies on heart disease (see Figure 4 and Table 1). Most evidence-generating RCTs, which constitute a crucial part of evidence-based guidelines and priority setting, have preferably included

biologically much younger patients, i.e. chronologically younger patients with less co-morbidity.

Elderly individuals with multiple diseases are often mentioned in different clinical, administrative and political contexts, but there have been few attempts to describe their care consumption and characteristics. We used the Patient Register, a unique Swedish population-based register of high quality, and the relatively new national database on cost per patient, the KPP database. We found only one Swedish cost of illness (COI) study on this population with a similar aim, although it was based on a different definition and a different, i.e. local, context (Jönsson & Gurner 2001). Further, we could describe and quantify patient characteristics, i.e. age, sex and co-morbidity, in the context of cardiovascular diseases. The reported characteristics imply limited applicability of clinical guidelines for this patient group, which could constitute an important and growing example of ageism. We believe that describing co-morbidity is an important first step in any future attempt at categorisation and priority setting for this population, since co-morbidity can influence the benefit-risk ratio of a certain medical action for a certain medical condition (American Heart Association Council 2007; Boyd et al. 2005; Braithwaite 2007; Tinetti et al. 2004).

However, the population's diagnostically heterogeneous nature and co-morbidity limit the diagnosis-related cost-estimation. It would have been possible to do a more precise estimation by combining data about individual patients in the Patient Register with the information in the KPP database. This would have had potential ethical implications, and in addition, such a detailed estimation was beyond the scope of this article. Further, our rough estimation of the cost of hospital care for multiple-diseased elderly patients is not in itself aimed at guiding priority setting or assessing cost-effectiveness. Instead, it constitutes an aspect of this population that, to our knowledge, has been very rarely studied. The definition's three dimensions made it useable for quantifying and characterising patients on the hospital population level; however, on the clinical level another, more need-focused definition is recommended.

Regarding the reported health care utilisation, and taking into account the multimorbidity and the complex needs of the studied population, the average number of days of care per episode seems relatively low compared

to the number of care episodes. Between 1992 and 2003, the percentage of people aged 80 years or older increased by 22%, while hospital beds were reduced by 50% (The Swedish National Board of Health and Welfare 2004). It should be mentioned that the average age of patients at Swedish medical clinics is 75 years and the average age of patients at geriatric clinics is 80 years (The Swedish Council on Technology Assessment in Health Care 2003). A large part of the studied population is cared for in small and mid-sized hospitals; this could be related to the present trend in Sweden of closing smaller hospitals. Such structural changes could affect the care of patients in special need of generalist competence and continuity of care.

The most common diagnoses of elderly with multiple diseases are found among the cardiovascular diseases. Earlier studies have shown that these diagnoses are expressions of underlying chronic cardiovascular diseases, which become acute prior to and in connection with hospital care episodes. Considering the basis of the data search, the resulting quantitative predominance of cardiovascular diseases was expected. In addition, there are causal connections between several of the registered diagnoses, e.g. heart failure is often caused by ischaemic heart disease; high blood pressure and diabetes mellitus are well-known risk factors for cardiovascular diseases. In our data search, we did not find any Swedish studies on the specific issue of co-morbidity of elderly patients with cardiovascular disease. A few non-Swedish studies have addressed the topic (Bierman 2004; Flood et al. 2007; Lichtman et al. 2007; Taneva et al. 2004, 2004). In summary, the most common co-morbidities reported among elderly patients with cardiovascular disease in those studies were similar to those reported in our study. The Patient Register and a corresponding report cited in the manuscript (The Swedish National Board of Health and Welfare 2005) provide information about reported numbers of health care episodes related to specific diagnosis groups. Among all patients 75 years of age or older who received hospital care in 2005, the 15 most common diagnosis groups were as follows: cerebrovascular diseases, infectious diseases, malignant diseases, myocardial infarctions, heart failure, heart arrhythmias, gastric and bowel diseases, hip fractures, diabetes and other metabolic diseases, chronic obstructive pulmonary disease and asthma, uro-genital diseases (e.g. renal insufficiency), haematological diseases

including anaemias, arthrosis, spine diseases, neurological diseases, cognitive and mental diseases (e.g. dementia). Considering the most common diagnostic sections reported in multiple-diseased elderly patients, it seems reasonable to conclude that non-multiple diseased patients 75 years of age or older manifest quite similar proportions of the most common reported diseases. However, given the stipulated definition of multiple-diseased elderly patients, the individual patients of this group manifest more diagnoses and more treatment episodes on average.

Very elderly patients and patients with major and/or multiple co-morbid conditions are often excluded from evidence-generating studies that constitute the base of clinical guidelines (e.g. American Heart Association Council 2007; Boyd et al. 2005; Braithwaite et al. 2007; Fortin et al. 2006; Rothwell 2005; Tinetti 2004; Wright et al. 2003) (see Table 1). To a large extent, multiple-diseased elderly cardiac patients in Swedish hospital care would have met one or more exclusion criteria in these studies; see Figures 3 and 4 regarding characteristics, i.e. age and co-morbid conditions, of the studied population. The average age of patients in the cited evidence-generating studies is 62 years (Mehta et al. 2005), while the reported average age among multiple-diseased elderly patients is 83 years. And more importantly, there is an evidently heavier burden of co-morbidities among these patients. Since the results of studies on chronologically and biologically much younger patients, preferably without relevant co-morbidities, cannot *a priori* be extrapolated to multiple-diseased elderly patients, clinical guidelines are not *a priori* applicable for these patients. In addition to this main methodological-rational argument addressing limited external validity and generalisability, there is also increasing knowledge of interactions between age-related pathology and normal biological aging processes, which modify clinical presentations and responses to treatments, making extrapolating counterintuitive (Fitchett & Rockwood 2002). Further, there is a growing knowledge of co-morbidity as a modifier of prognosis and/or effect (American Heart Association Council 2007; Anpalahan & Gibson 2008; Boyd et al. 2005; Braithwaite et al. 2007; Braunstein et al. 2003; de Groot 2002; Fitchett & Rockwood 2002; Lichtman et al. 2007; Rockwood et al. 2005; Taneva et al. 2004) and there are studies and reviews arguing against *a priori* application of present clinical guidelines for multiple-diseased elderly patients (e.g.

American Heart Association Council 2007; Boyd et al. 2005; Braithwaite et al. 2007; Fortin et al. 2006; Tinetti 2004). Those who argue in favour of extrapolating evidence to these patients should indeed bear the burden of evidence.

The term ''ageism'' has been minted and used to denote prejudices against other age groups (Butler 1969; Tornstam 2006, 2007). Stereotypical views can cause discrimination against the elderly within health care (Bowling 1999; Bowling et al. 2006). Attitudes among health care professionals, as well as a weak evidence base due to a lack of scientific studies, may contribute to this phenomenon. In addition, the results of our study indicate that the problem with limited applicability of clinical guidelines is particularly striking in the context of multiple-diseased elderly in hospital care. Models for priority setting in practice have been based on the ranking of *one* medical action for *one* medical condition, which does not seem to be adapted for use in elderly patients with multiple diseases and complex needs. Nevertheless, in the clinical setting, decisions are made daily regarding these patients. In fact, the evidence base is weakest for the age groups (75+) that most frequently receive different kinds of treatments (The Swedish Council on Technology Assessment in Health Care 2003). Over-treatment as well as under-use of interventions can follow lack of evidence, *both* of them with potentially deleterious consequences for the elderly. In the absence of both relevant studies generating results that are possible to apply to these patients, as well as applicable guidelines, there is a risk of arbitrary and unfair care. It is most likely that priority setting for the oldest patients is currently suboptimal and should be improved. If probable ageism in clinical research and policy making could be reduced, then ageism in clinical practice would be easier to disclose and control.

From the perspective of priority setting, it is obviously not sufficient to consider organ specific benefit and risk; instead, the total benefit and risk of a medical action must also be considered. Co-morbidity can influence the benefit-risk ratio of a particular medical action regarding a particular medical condition in different ways and directions. For a multiple-diseased elderly individual with acute cardiovascular disease, e.g. acute coronary syndrome (ACS), some of the most common listed co-morbid

conditions could potentially be of great interest from the perspective of priority setting and clinical decision making.

There is obviously a great need for medical research and structured discussions of ethical values. We would like to confront physicians, e.g. cardiologists, with authentic cases representing elderly multiple-diseased patients, in order to evaluate their decision making in practice, especially the possible role of their attitudes. We hypothesise that these attitudes, given the present evidence base, cause an under-use of interventions like coronary angiography for chronologically aged patients and an over-use of the same interventions for biologically aged patients with severe frailty and/or clinically relevant co-morbidity. Further, prospective trials with few exclusion criteria that assess co-morbidities, cognitive status, frailty (Rockwood 2005) and patient preferences would be desirable. In the future, however, such studies may be rare due to methodological and financial factors. We suggest a trial to condense existing practical-clinical experiences of individual experts into consensus-based guidelines concerning elderly with multi-morbidity. A first step would be to identify tentative patient categories, with each category having the same index diagnosis, e.g. acute coronary syndrome without ST elevation (NSTE ACS), but with different patterns of co-morbidity and different degrees of frailty. Then benefit-risk ratios regarding especially crucial interventions such as coronary angiography could be estimated for each category, thus forming a basis for priority setting that is adapted to complex cases. We are fully aware of the difficulties of such an approach. But what are the alternatives?

Conclusions

In conclusion, given our stipulated definition, the multiple-diseased elderly constitute a large and probably growing population in Sweden and throughout the industrialised world (Thorslund et al. 2005). They have major, multiple and complex needs, which results in a large utilisation of inpatient hospital care. They often have manifested cardiovascular disease and multiple co-morbidities. These patients are not only elderly and have a large *number* of medical conditions, which follows from the mentioned definition, but also to a great extent they have *specified co-morbid conditions*,

which constituted exclusion criteria in the relevant studies. There is a relationship between reported characteristics, i.e. age and co-morbidity, and limited applicability of evidence-based guidelines, and this can cause an under-use as well as an over-use of medical interventions. More medical research and ethical discussions are strongly needed regarding this population. Further, we recommend that any model for priority setting that concerns the multiple-diseased elderly should be adapted; to be able to categorise these patients and to rank the prioritisation objects, further knowledge of different patterns of co-morbidity and degrees of frailty is crucial.

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Traute Meyer, Paul Bridgen and Barbara Riedmüller (2007). *Private Pensions versus Social Inclusion? Non-State Provision for Citizens at Risk in Europe*. Cheltenham: Edward Elgar, 260 pp. ISBN 978 1 84720 353 3 (available as e-book)

*Reviewed by Lars Harrysson**

Research projects may be reported in different ways. This particular research group has chosen an audience of initiated scholars and policy makers. Thus, it is neither surprising nor questionable to hold this hard cover US$ 130 volume in my hand with its cover illustration promoting a feeling of the Lord's sharing and enlightened palm balancing an air floating euro cent coin. I do not get the idea. Perhaps there is none.

Why this opening of my review of Meyer, Bridgen and Riedmüller's very interesting research project report? Well, I feel a troublesome conflict in the way the research results are chosen to be presented and the objective of the research and the positioning of those subjects' at risk it is said to represent. At first glance it really feels as if it is empty words providing a worry for those in needs, or presumably in need in the future, when these risk groups' experiences and ways of thinking are not represented in the research, which I believe is a necessary condition to understand what the meaning of a pension regime is.

* *Lars Harrysson*, School of Social Work, Lund University, Sweden.

So, while this volume is concerned with the re-distributive consequences of pension reforms enacted in Europe over the past decade to manage the effects of a graying society and based on projected socio-economic biographies, it does not provide life biographies based on narratives. That means leaving actual life experiences and personal pension planning and thoughts sidelined. Without such stories it is not possible to sketch real life pension regimes, but projected ones. The question then is who is controlling this projection. For whom are we producing these results, and for whom do they make a difference?

To be honest, I do not know. The choice of a publisher well known for high-quality economics volumes priced so that most cannot afford to buy them points in a direction of academic inclusion or status rather than a wish to enlighten those at risk. However, I may of course be wrong; it would not be the first time, and those actually in need of enlightenment are researchers, insurance managers, politicians and others. Or, in other words, it is aimed at those people who may have the power to make a difference, to change the world, in the authors' perspective. That is a top-down view on how things change, and I believe it makes the primary objective of the volume, which I will come back to shortly, problematic. I believe that important research, such as what is presented in this volume, should be accessible to a wider audience. Particularly students and other young people who are to fill the spots after our generation in universities, insurance companies and politics.... The book is available as e-book.

The Overall Objective

This volume has a ''do good'' perspective. It is concerned with worrying social consequences. In accepting that non-public ways of providing income support in old age have increased and that increasing government initiative are not to be expected, two major knowledge gaps have been identified and are addressed in the volume. Firstly a question of how financially sustainable the appearing private–public mixes are, and secondly in what ways these mixes provide security against exclusionary processes within retired groups. Using the editors' words I understand the over arching objective with the book as to: ''explore to what extent widespread confidence that multi-pillar arrangements pose no major problems for levels of social exclusion is justified.'' (p. 5).

The project is a simulation study based on a common set of biographies tested in six case nations; the UK, the Netherlands, Switzerland, which are referred to as private pension veterans, and Germany, Poland and Italy, referred to as newcomers. In each case the biographies have been simulated through the existing pension system. By comparing the simulation results in pension income to the national poverty, thresholds interpretations have been made to which degree these income levels can be seen as socially inclusive or not. The research group have been very good at keeping to the research design and thus provided comparability between the six nations. In combination with thorough descriptions of the national pension systems this volume holds more than isolated country reviews. This is a clear strength.

It is not an easy book to read, or review, and requires some prior knowledge about pension development, social policy issues and, if the results are to be discussed and questioned, statistical and econometric understanding. For those interested in the assumptions backing the arguments in the book, the construction of the biographies and limitations in the covering of pension systems are closely discussed and described. Particularly Appendices 1.1 and 1.2 are informative, but in each chapter additional national characteristics are added.

Private pensions are commonly viewed as closely connected to individual pension insurance, but that insurance is a way of collectively sharing risks is often forgotten. However, the result from this study clarifies that where private pensions form a compulsory collective system and the government provides a fairly generous basic system, the private character of a supplementary system does not necessarily mean non-inclusive consequences for those at most risk. However, in most respects, seen as a provider of enough income for subsistence in old age, and here seen as inclusionary, the path of private solutions presents a risky alternative. Social inclusion is thus based on the notion that there is a common overarching way of sharing responsibilities in society, pensions no exception, and a notion I feel inclined to agree with. However, while this is a social inclusionary process, most rhetoric covering the change towards private–public mixes in pensions move free choice and personal responsibility to the forefront and in doing so promoting a clearly social exclusionary process. I miss a clear discussion on the process character of

inclusion and exclusion processes in the pension development. There is an indication in the final words of the volume opens for the historical and institutional character of the consequences of an implemented system of pension provision in a certain setting, or in other words a spill of path dependency. What I would have liked to see is a thorough discussion on how the methods used are able to fetch this kind of processes.

Finally, this is a book I think you should read if you are interested in pension development. It is a comprehensive study and in several ways it presents new paths and methods. However, watch out for and critically scrutinize the authors' way of treating stigma, compulsion, the time for private alternatives to form at government retrenchment, and pension regimes.

IJAL

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