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Care needs and home-help services for older people in Sweden: does improved functioning account for the reduction in public care?

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ABSTRACT
Over the last few decades in Sweden, the proportion of older people living in the community who receive public home-help services has decreased, even amongst the oldest old. At the same time, the abilities of older people in the activities of daily living have on average improved. This paper reports a study of the changes between 1988/89 and 2002/03 in the allocation and utilisation of public home-help services and in the support and care needs of older people (aged 65 or more years). The aims were to analyse whether the reduction in the percentage of home-help recipients could be explained by a reduction in needs among the older population, whether public home-help services had been targeted at people with greater needs, and whether informal care had increased. It was confirmed that over the 15 years, even after taking needs factors into account, the likelihood of an older person being a recipient of public home care had declined. Home help had clearly been targeted at more needy individuals. Among older women (aged 80+ years) with limitations in the activities of daily living and who lived alone, the proportion that received home help declined and the proportion that received informal care increased, which suggests that informal care had substituted for formal care. The findings indicate that the Swedish welfare system had reduced its commitment to the support of older people who require less intensive care and that, in effect, the concept of need for public social care support had been redefined.

KEY WORDS – home-based services, community-based services, home care, policy development, formal care, informal care.

Introduction

The rapid growth of the older population in most developed countries has made it imperative to review national and local policies that serve frail,

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older people at home. Different countries with contrasting welfare state structures have developed different strategies for organising care and services for people with care needs. Sweden at present has the world's oldest population, with five per cent of the total aged 80 or more years. Understandably, therefore, the care of older people has been a key priority for public policy, with the universalism and extensive coverage of state-managed services as official goals (Sweden Government Bill 1997/98: 113). During the last few decades, however, there has been a substantial reduction in the proportion of older people who receive public home-help services; indeed, among those aged 80 or more years living in the community, the percentage decreased from 36 in 1988 to 24 in 2003 (Ministry of Health and Social Affairs 2003). Budgetary constraints associated with slow economic growth during the 1990s, combined with the ageing of the population, have increased the pressures on the provision of public care for older people.

Among the consequences have been that Swedish municipalities have concentrated their resources on those who require more intensive care, with the result that the proportion of older people who receive home help has reduced considerably, and the average number of hours delivered to each client has increased (Szebehely 2005). More of those whose needs are primarily for assistance with domestic tasks have had to rely on family support. The decline in public care provision has coincided with increased family help and care, which suggests that informal support has substituted for formal care (Johansson, Sundström and Hassing 2003). The same trend, of retrenchment in the 'reach' of public home help and a focus on the most functionally-impaired people, has occurred in the United Kingdom, The Netherlands and Finland (Rostgaard and Fridberg 1998; Sipilä, Anttonen and Baldock 2003; Organisation for Economic Cooperation and Development (OECD) 2005).

As public-sector care of older people in Sweden has been scaled down, the functional abilities of the older population have in many ways improved, at least among the younger age groups (Ahacic, Parker and Thorslund 2000, 2003; Larsson and Thorslund 2005). Nationally-representative samples of the Swedish population aged 77 or more years show that average health status was worse in 2002 than in 1992, but that the capacity to undertake the personal activities of daily living (PADLs) had not changed, and abilities in the instrumental activities of daily living (IADLs) had only slightly deteriorated (Parker, Ahacic and Thorslund 2005).[1] Several United States studies have consistently shown a decline in the average level of limitations in IADLs and in functional limitations, although the evidence on whether there has been a decline in limitations

in daily personal-care activities is inconsistent (Freedman, Martin and Schoeni 2002; Spillman 2004).

According to Esping-Andersen's (1990, 1999) much-cited typology, the Scandinavian countries belong to the 'social democratic welfare states', in which the entitlement to public care is firmly based on the individual's need and not restricted to those without family resources or with limited means (Sipilä 1997). Other distinctive features of the Scandinavian 'welfare regime' are the relatively autonomous municipalities and the large scale of public sector home care provision, but in fact welfare provision has diverged in recent decades among the four Nordic countries. During the early 1980s, one-in-six older people (aged 65+ years) in Denmark, Finland, Norway and Sweden received public-sector home-help services, many more than in the rest of Europe; since then, home care has declined in both Sweden and Finland, increased in Denmark and hardly changed in Norway. By 2000, older people in Denmark were three times more likely to receive home care than those in Sweden (25 *versus* 8 %). The percentage in long-term residential care also differs, although less markedly, with the range from 12 per cent in Norway to seven per cent in Finland (Szebehely 2005).

It remains the case, however, that on any international comparison Swedish care and services for older people are extensive (OECD 2005; Rostgaard and Friberg 1998). Under the *Social Services Act 1980*, home-help services are provided to older people in their own homes to facilitate their everyday lives. Depending on the individual's needs, help can be given with personal care (*e.g.* to go to or get up from bed, and with dressing, showers and toileting), and help with domestic tasks (*e.g.* shopping, cleaning, cooking and washing clothes). There are no mandatory rules about the level of the home-help entitlement by need or living arrangement, and there are considerable local variations in provision (Trydegård and Thorslund 2001). Users are charged a fee for home-help services, and most municipalities vary these by both the user's income and the scope of intervention. During the 1990s, about 10 per cent of home-help recipients paid nothing at all, but those with good incomes paid a fee that corresponded to the cost of buying the services out-of-pocket (Ministry of Health and Social Affairs 1999). In 2002, a national regulation introduced an upper limit on user-fees for public elderly care, after which one-third of the recipients paid no fee (National Board of Health and Welfare 2004).

Despite the considerable public provision, in Sweden, as in other nations, informal care is the primary source of assistance for the majority of older people living in the community (Sundström, Johansson and Hassing 2002). Among married people, often the spouse (usually the wife)

is the only care-giver, commonly without support from public elderly care. The majority of older people live alone in their own homes, and only a few per cent live with their children – few Swedes want to give up independent living in old age. Among people aged 80 or more years, 78 per cent of women and 38 per cent of men live alone in ordinary dwellings, and their prime source of informal care is adult children.

There are scarce national data by which to relate the provision of public care services to needs, particularly among the oldest old. This study has examined the development of public home-help services using nationally representative Swedish surveys in 1988/89 and 2002/03. It complements previous studies by combining information on the changes over 15 years in needs-related factors, in the use of public home-help services and in the receipt of informal care among community-dwelling people. The overarching research questions were: have the reductions in public care corresponded to diminished needs in the older population or has the Swedish welfare system pared down its commitment to older people? The specific objectives were to compare the use of home-help services in 1988/89 and 2002/03, and to establish the extent to which the reductions are explained by reduced needs, whether services had been targeted at those with greater needs, and if informal care had substituted for formal care.

Methods

The samples

Statistics Sweden (1996) has conducted annual surveys of living conditions among random samples of the Swedish population since the late 1970s. Most surveys have excluded people aged 85 years and older, but in 1988/89 and 2002/03 the samples had no upper age limit. In 1988/89, 3,583 individuals aged between 65 and 103 years participated, and 3,185 of them lived in ordinary (non-institutional) dwellings. In 2002/03, there were 3,552 respondents aged between 65 and 99 years, and 3,267 lived in ordinary dwellings. As the aim of this study was to examine public home-help services, the study was restricted to people living in ordinary dwellings. The oldest age group was over-sampled to obtain sufficient interviews.[2]

To estimate the risk of selective non-response through poor health, the characteristics of different groups of non-respondents were checked against hospital in-patient registers and the official register of deaths. People who declined to participate for health reasons had twice the risk of being admitted to hospital or dying. Those who could not be located by

the interviewers also had an increased risk of being admitted to hospital. These two groups constituted one-third of the non-respondents. The remaining two-thirds, people who refused to be interviewed, did not have higher risks of being admitted to hospital or dying than the respondents (Lagergren 2004). In spite of the non-response, the two samples were representative of the Swedish population in terms of the percentage that received public home-help services. In the younger age group (65–79 years) in 1988/89, five per cent of the sample received home help compared to seven per cent in Sweden as a whole (Ministry of Health and Social Affairs 2003). In 2002/03, three per cent of the sample received home help, compared to four per cent in the country. Among the oldest (aged 80+ years), 37 per cent of the sample received home-help services in 1988/89 compared to 36 per cent in the country. The corresponding figures in 2002/03 were 21 per cent in the sample and 24 per cent in Sweden.

Measures and analyses

The coding of age, gender, household composition and education are shown in the tables. The *Activities of Daily Living* were separated into the *Instrumental* (IADLs) and *Personal* components (PADLs). For the IADL measure, the participants were asked if they could manage or needed help with practical household activities such as shopping (for groceries), house cleaning, cooking, and laundry (washing clothes). As all home-help recipients needed help with at least one IADL, the variable was dichotomised into 'needs help with 0–1 or 2+ activities'. For the PADL measure, the participants were asked if they could manage on their own personal activities such as (un)dressing, getting out of or into bed, and bathing or showering. The variable was dichotomised into 'needs no help' and 'needs help with one or more activities'.

The participants were also asked about *mobility limitations*, defined as needing walking aids or support from another person to walk. The answers were dichotomised into needs aids or support from another person (no/yes). Those needing help with IADLs or PADLs were asked about sources of assistance, and the answers were coded into three dichotomies: 'receives help from the public home-help services (no/yes)', 'from a spouse/cohabitee (no/yes)', and 'from a child/relative/friend outside the household (no/yes)'.

Bivariate analyses were performed using the chi-squared test to examine percentage differences between the two survey dates, while age differences were tested with the Mann-Whitney test. Multiple logistic regression analyses of the likelihood of receiving public home-help services

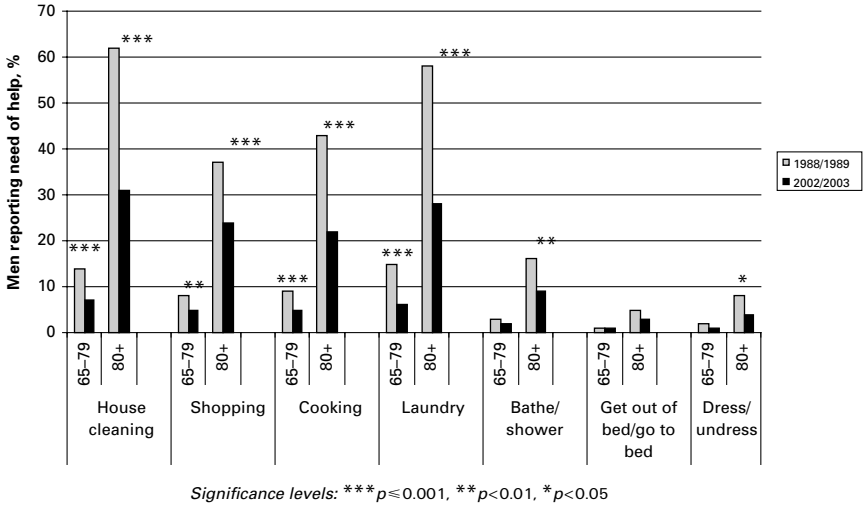

Figure 1. Percentages of men by age group who reported need of help with different ADLs in Sweden, 1988/89 and 2002/03.

in 2002/03 were undertaken with 1988/89 as the reference year (Veall and Zimmerman 1992).

Results

The proportion of older people using public home-help services decreased over the 15 years, particularly among the oldest old. In 1988/89, 37 per cent aged 80 years and older received home-help, compared to 21 per cent in 2002/03. The proportion of older people who reported a need for help with ADLs also decreased between the two surveys. Among the younger age group (65–79 years), 22 per cent reported need of help with one or more ADLs, compared to 14 per cent in 2002/03. Among the older age group (80+ years), in 1988/89 nearly three-quarters (73 %) reported a need for help with one or more activities in 1988/89, compared to a little over one-half (54 %) in 2002/03. Figures 1 and 2 show the proportion of men and women who reported a need for help with the various ADLs.

A considerable change was shown among men, for the percentage that reported a need for help decreased for all IADLs and, with reference to PADLs, the proportion needing help with bathing and dressing decreased in the oldest age group, whereas the change in the percentage needing

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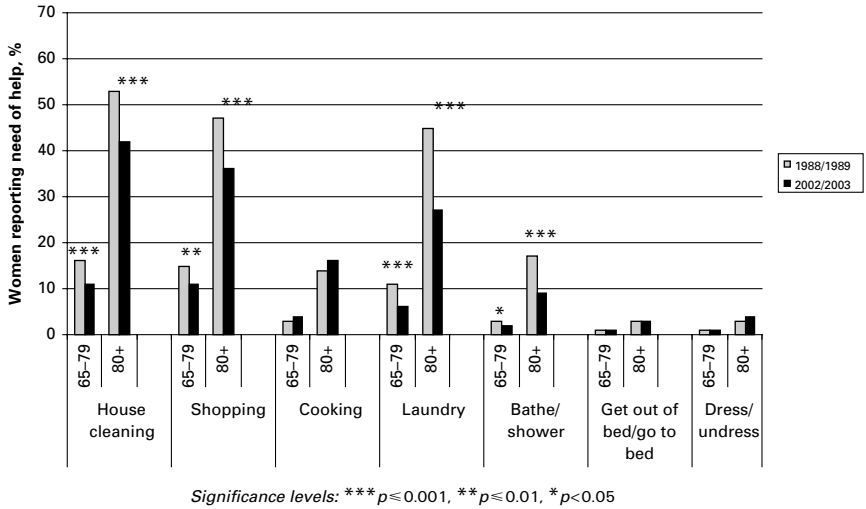

Figure 2. Percentages of women by age group who reported need of help with different ADLs in Sweden, 1988/89 and 2002/03.

help to get out of bed was insignificant (as was the case among the younger men). The same trend, of a reduction in the proportion that reported a need for help with IADLs (except for cooking), was found among women although the decrease was less. With regard to PADLs, the proportion that reported a need for help with bathing fell, but no change was found in women's ability to get out of bed or dress.

A comparison of home-help recipients at the two survey dates shows that they were older in 2002/03 (mean 83 years) than in 1988/89 (mean 80.8 years) (Table 1). A higher proportion were women in 2002/03 than in 1988/89 (72 *versus* 66 %). At the later date, those who received home-help were more likely to have had mobility limitations, for 76 per cent needed walking aids or support from another person to walk, compared to 56 per cent of the recipients in 1988/89. No change was found in the reported need for help with IADLs or PADLs. The educational level among home-help clients had increased, but not as much as in the general population (the percentage with nine or more years of schooling increased from 39 per cent in 1988/89 to 55 per cent in 2002/03). The proportion of home-help recipients living alone who received informal support with the ADLs care rose: in 2002/03, 56 per cent had such support, compared to 41 per cent in 1988/89. A higher percentage of cohabiting people received care from the cohabitee in 2002/03, although the difference was statistically insignificant.

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TABLE 1. *Sample characteristics of people aged 65 or more years by use of public sector home-help services, Sweden, 1988/89 and 2002/03*

	Home help in 1988/89			Home help in 2002/03			
	Total	Yes	No	Total	Yes	No	p^1
Entire sample:							
Age (years):							
Mean	73.7	80.8	72.8	75.0	83.0	74.3	<0.001
Minimum-maximum	65–100	65–100	65–100	65–99	66–99	65–98	
Inter-quartile range	10	8	9	11	10	10	
Female %	57	66	56	56	72	55	0.072
Household composition:							
Living alone %	39	70	35	40	73	37	0.457
Cohabiting %	61	30	65	60	27	63	
Education:							
⩽8 years %	61	71	60	45	65	43	0.071
Limitations in IADLs:							
⩽1 limitation %	79	21	87	86	19	92	0.680
Limitations in PADLs:							
No limitation %	94	68	97	96	64	99	0.280
No mobility limitation %	85	44	91	84	24	90	<0.001
Sample sizes	3,185	465	2,720	3,267	299	2,968	
Living alone:							
No informal care %	80	59	85	82	44	88	<0.001
Sample sizes	1,293	319	974	1,358	220	1,138	
Cohabiting:							
No care by cohabitee %	78	42	80	86	35	88	0.287
No informal care from outside the household %	95	72	96	95	70	96	0.769
Sample sizes	1,892	146	1,746	1,909	79	1,830	

Note: The results in the table are weighted estimates from the respondents to represent the Swedish population. The sample sizes are the number of cases included in the analyses. 1. Comparison between home-help recipients at the two dates.

Public home-help services in relation to need

To analyse the association between the receipt of home-help services and needs, sub-samples of those who reported a need for help with one or more ADLs were defined. The percentage that received home help reduced significantly among women aged 80 or more years, but not among men of those ages or among men or women aged 65–79 years. Figure 3 presents more detailed information for the oldest age group on the variations in the receipt of home-help services by gender and household composition, and the proportions that received informal support from a spouse or other cohabitee and from outside the household. Among older women living alone who needed help with at least one ADL, the percentage that received home help decreased over the 15 years, and

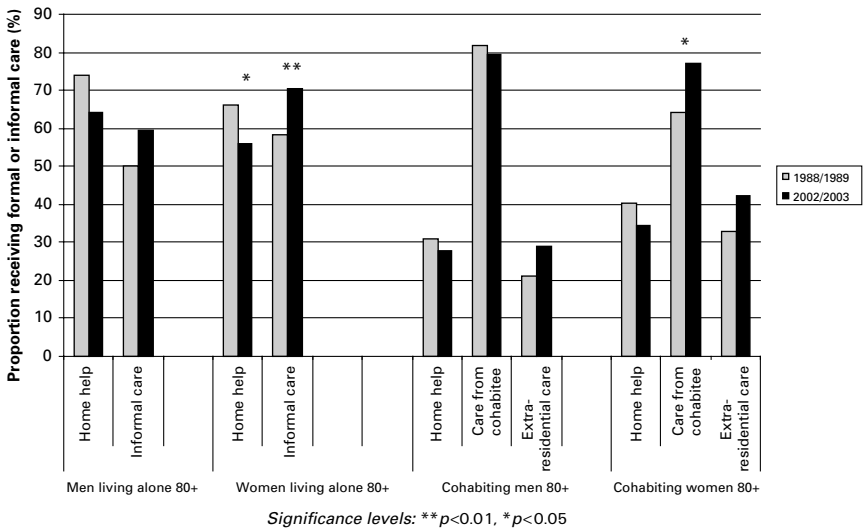

Figure 3. Proportion of people aged 80+ years reporting a need for help with one or more ADLs that received home help and informal care, 1988/89 and 2002/03.

the percentage that received support from informal sources increased (Figure 3). The same trends were found among men living alone, although they were not statistically significant. Among cohabiting women, the percentage that reported support from the person with whom they lived increased.

Multiple regression analyses

To control for variations in socio-demographic and needs-related factors between the two surveys, logistic regressions were performed with the receipt of home help (no/yes) as the dependent variable. The year was entered as an independent variable, and 1988/89 was the reference year (Table 2). In Model 1, the odds of receiving public home-help services were controlled for age, gender, level of education and household composition. When these socio-demographic attributes were controlled, the odds of receiving home-help were 55 per cent lower in 2002/03 than in 1988/89 (odds ratio 0.45). In Model 2, the need for help with IADLs and with PADLs were added as independent variables. As Figures 1 and 2 show, the proportion of older people who reported a need for help with ADLs was substantially lower in 2002/03, but nevertheless, after controlling for need, the odds of receiving home help were 37 per cent lower in that year than in 1988/89. The improved fit of the model confirmed that including need markedly increased the explanation.

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TABLE 2. *Logistic regression results for likelihood of using public home-help services among people aged 65 and older, Sweden, 1988/89 and 2002/03*

	Model 1		Model 2		Model 3	
	OR	*p*	OR	*p*	OR	*p*
Year 2002/03	0.45	<0.001	0.63	<0.001	0.57	<0.001
Aged 65–100 years	1.18	<0.001	1.10	<0.001	1.09	<0.001
Female	1.09	0.453	1.14	0.312	1.05	0.700
High education	0.69	<0.001	0.78	0.053	0.78	0.053
Living alone	2.61	<0.001	5.86	<0.001	5.71	<0.001
Needs help with 2+ IADLs	–	–	18.92	<0.001	13.69	<0.001
Needs help with PADLs	–	–	3.69	<0.001	2.66	<0.001
Mobility limitation	–	–	–	–	2.43	<0.001
Nagelkerke pseudo R^2		0.293		0.546		0.556

Notes: OR: odds ratio. The reference cases were males, with ⩽8 years of education, cohabiting, and had no need for help with no IADL or with one and with no PADLS, and no mobility limitations, and the reference year was 1988/89. 'Age' was a continuous variable in the analyses. The sample size was 6,452.

In Model 3, having mobility limitations was added as an independent variable. Even though such limitations considerably increased the odds of receiving home help (odds ratio 2.43), the main results were unaffected. In summary, after controlling for socio-demographic attributes and self-reported need for help with ADLs and mobility limitations, the odds of receiving home help were 43 per cent lower in 2002/03 than in 1988/89. There were significant interactions between the year and both limitations in PADLs ($p=0.010$) and mobility limitations ($p=0.005$), showing that these two needs-related factors were of greater influence on the receipt of home-help services in 2002/03 than in 1988/89.

Discussion

The Scandinavian countries belong to the 'social democratic welfare state regime' in which the entitlement to public welfare is based primarily on the individual's needs (Esping-Andersen 1990, 1999). This paper has examined one aspect of the development of Swedish public-sector care for older people over 15 years, the association between provision and need. The primary aim was to analyse to what extent the reduction in the proportion of older people who received home help was explained by reduced need. There was a substantial decrease in the proportion of older people who reported a need for help with household chores and PADLs

(Figures 1 and 2). The multivariate analyses, however, showed that the reduced provision of home-help services could not be explained by improvements in the ability to perform daily activities. Even after needs-related factors were controlled, the probability of receiving home help was substantially lower in 2002/03 than in 1988/89.

As it was established that the non-respondents (at both dates) over-represented those with poor health, and that non-response in the oldest age group was higher in 2002/03 than in 1988/89, the sample proportion of people with health problems was probably more underestimated in the later survey. This would not however change the main finding, that the reductions in public care for older people have exceeded the reduction in need as indicated by the improvement in functional abilities. Given the higher non-response rate in the later survey, if the non-respondents with poor health had been included in the sample, the odds of receiving home help in 2002/03 would probably have been even lower.

The *Swedish Social Services Act 1980*, as revised in 2001, stated that care for older people should be provided 'according to need'. To establish whether this was the case, the second aim was to examine whether the reduction of public home-help services had been accompanied by more effective targeting to those with greater needs. It was found that a higher proportion of home-help recipients had mobility limitations in 2002/03 than in 1988/89 (Table 1). The interactions between the year and limitations in the PADLs and mobility showed that functional impairments had significantly more influence on being a recipient at the later date, demonstrating that home help had been targeted towards those with the greatest needs. As there was no information about the number of hours of help provided, it was not possible to relate the intensity of care to the level of the recipients' needs.

The reported analysis has not been able to control for all needs-related factors. There was, for example, no information about the presence of dementia or cognitive impairment, which previous Swedish studies have shown to be a consistent predictor of home-help utilisation (Larsson and Silverstein 2004; Larsson and Thorslund 2002; Larsson, Thorslund and Forsell 2004). The prevalence of dementia increases with age, and it is well known that dementia is associated with a high level of dependency in daily living tasks (Aguero-Torres *et al.* 1998). Dementia frequently brings about a need for help with household chores, irrespective of mobility limitations, because the older person cannot manage on their own. We also lacked information about the health and functional ability of spouses and cohabitees. Among married people, the spouse is frequently the only care-giver, and a deterioration in either the health or functional ability of

either the individual cared-for or the care-giver might imply a need for formal care.

The reduction in the percentage of older people who reported a need for help with an ADL may have several explanations, and some may be associated with cohort change. The participants who were aged 80 or more years in 1988/89 were born between 1888 and 1909, whereas those of the same ages in 2002/03 were born between 1903 and 1923. It is possible that men in the later cohort were more familiar with the household tasks that have customarily been carried out by women. But because the percentage of women that reported a need for help with household tasks declined (except for cooking), improved functioning cannot be explained by changes in the domestic division of labour between men and women. A higher proportion of the older men managed cooking in 2002/03 than in 1988/89. Technological development has brought microwave ovens into many homes, and most grocers offer ready-cooked food, allowing inexperienced cooks to serve themselves meals. The proportion of women needing help with cooking had not appreciably changed, suggesting that this question measured knowledge rather than functional ability. Many older women express pride in their cooking skills, and want to continue to buy food and cook in their own way for as long as possible (Sidenvall, Nydahl and Fjellström 2001). It may in fact be the concept of 'cooking' that has changed during the study period – perhaps with different connotations for men and women.

During the study period in Sweden, increased numbers of cataract and hip and knee replacement operations raised the functional independence of the older population (Larsson and Thorslund 2005). Moreover, many environmental modifications were made to improve accessibility for people with handicaps, such as buses with wider and lower doors, and kerb-removals at pedestrian street-crossings. People with disabilities have access to aids free of charge, and walking-frames with wheels have become common – they facilitate, among other things, food shopping and carrying. Many people have also adapted their homes better to meet their needs. It is easier to shower than to take a bath, and it is easier to use a washing machine at home than go to a launderette (a self-service laundry). If an official assessment finds that an assistive technology or home adaptation is necessary for a functionally-impaired person to manage daily activities, state funding is available for the installation (Lilja *et al.* 2003). Similar changes have taken place in the United States, where the decline in the proportion of older people living in the community who report difficulties with IADLs has been attributed to technological advances (Spillman 2004).

It is also possible that the decreasing probability of becoming a recipient of public care has influenced the propensity to declare a need for help. The participants in the latest surveys may have understood, from their own experiences or from media reports, that older people who need only help with domestic tasks now normally have to manage on their own. Even though the participants were asked to report that they received informal care, the reduced chance of receiving public home help may have influenced their conception of dependency. User-fees may also have influenced whether to seek formal or informal help when in need. Each municipality sets its own fees for home-help services (and did so during the 1980s). Even though fees contribute only about three per cent of the municipal 'care of the elderly' budget (which includes fees for institutional long-term care), some people might still find the services too expensive (Ministry of Health and Social Affairs 1999). A study in 1999 showed that among Swedes aged 75 or more years who reported that they needed help, approximately one-in-six refrained from applying for home-help for cost reasons (National Board of Health and Welfare 2001). Most of the data collection in 2002/03 took place after the implementation of the regulation that set maximum fees for public care, but nonetheless in 2003 the percentage of older people who refrained from applying for home help because of the costs was unchanged (National Board of Health and Welfare 2005). Many had low pensions and would not have paid any fee at all, indicating that poor information dissemination also influences the demand for public care.

The substitution hypothesis suggests that as formal services are provided, the supply of informal care correspondingly decreases (Greene 1983). No significant body of opinion in Sweden, however, maintains that public services for older people risk undermining informal care or family solidarity (as is frequently argued in countries with conservative welfare-state regimes). In Sweden, state-organised care for older people has been seen as a public policy priority (Korpi 1995) and has attracted widespread public support (Andersson 1996). Well-functioning care for older people is considered a resource not only for the recipients but also for their close kin, who are enabled to combine caring responsibilities with employment.

The third aim of the paper was to analyse whether care from informal sources had increased and substituted for formal care. A reduction in public home-help provision and an increase in informal care were found among older women with limitations in ADLs, particularly those living alone, which indicates that informal care was indeed substituting for public care (Figure 3). This trend has occurred in Sweden even though adult children, unlike those in some European countries, have no legal

obligation to provide or pay for their parents' care (Millar and Warman 1996). This finding is evidence of 'reverse substitution', that increased family inputs match the decline of public services (Johansson, Sundström and Hassing 2003). The reversal is inconsistent with most older peoples' preference, for national surveys show clearly that they would rather receive publicly-provided care than depend on their family members (Andersson 2002). In Denmark and Norway, older people express similar preferences not 'to be a burden on their family' or 'dependent on them for elementary support' (Daatland 1990; Lewinter 1999).

A comparative study in Norway, England, Germany, Spain and Israel addressed the extent to which people's preferences for different sources of care for frail older people corresponded with the country's welfare-state regime. Most Norwegians believed that public services should be the prime source of care, a feature of the Scandinavian welfare-state model, whereas in Germany and Spain with conservative welfare states, family care was more favoured (Daatland and Herlofson 2003). This albeit limited evidence suggests that in Scandinavian countries, which have a high volume of community services and where the receipt of public sector social care does not stigmatise the user, a high proportion of the inhabitants prefer public services to family care. The alternative 'complementarity' hypothesis proposes that formal care supplements informal care when an older person's needs exceed the level that informal carers can manage (Chappell and Blandford 1991), and that the informal and the formal systems not only share the task but also form a complementary care-giving partnership. The fact that over the study period of 15 years, an increased proportion of home-help recipients who lived alone received informal care indicates that family members increasingly provided care even to those who received public care.

Even though the ability of older Swedish people to manage daily activities on their own had improved between 1988/89 and 2002/03, the reduction in the percentage that received home-help services could not be explained by the lessened need. This study has shown that after controlling for needs, public-sector care provision retrenched and the percentage of the oldest age group that received informal care increased. This indicates that the Swedish welfare system had pared down its commitment to the support of older people with 'low intensity' needs and targeted its services at those who require most help. Budgetary reductions, in combination with the financial pressures associated with the ageing population, have led to a redefinition of the threshold of 'need' for public home care. This important change has occurred, however, with no legislative change and no announcement of a revision of the state's social policy goals.

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NOTES

1 For definitions of the personal and the instrumental activities of daily living, and the instruments employed in the study, see the details in the later Methods section.

2 In 1988/89, 22 per cent of the sample among both younger and older seniors refused or could not be interviewed, and in 2002/03, 25 per cent of those aged 65–79 years of age, and 31 per cent of those aged 80 or more years refused or could not be interviewed. Among those aged 80 or more years, 14 per cent in 1988/89 and 16 per cent in 2002/03 were proxy interviews. Given the age-stratification of the sample, population estimates are based on age and gender-specific weights for the general Swedish population.

References

Aguero-Torres, H., Fratiglioni, L., Guo, Z., Viitanen, M., von Strauss, E. and Winblad, B. 1998. Dementia is the major cause of functional dependence in the elderly: 3-year follow-up data from a population-based study. *American Journal of Public Health*, **88**, 10, 1452–6.

Ahacic, K., Parker, M. G. and Thorslund, M. 2000. Mobility limitations in the Swedish population from 1968 to 1992: age, gender and social class differences. *Aging* (Milan), **12**, 3, 190–8.

Ahacic, K., Parker, M. G. and Thorslund, M. 2003. Mobility limitations 1974–1991: period changes explaining improvement in the population. *Social Science and Medicine*, **57**, 12, 2411–22.

Andersson, L. 1996. Visible and invisible informal care: Swedish elderly care at the crossroads. In Minichiello, V., Chapell, N., Kendig, H. and Walker, A. (eds), *Sociology of Aging: International Perspectives*. International Sociological Association Research Committee on Aging, Melbourne, 246–58.

Andersson, L. 2002. Äldres önskemål om vård- och omsorgsgivare [Elderly peoples' preferences regarding care-givers]. *Socialmedicinsk Tidskrift*, **2**, 115–8.

Chappell, N. L. and Blandford, A. 1991. Informal and formal care: exploring the complementarity. *Ageing & Society*, **11**, 299–317.

Daatland, S. O. 1990. What are families for? On family solidarity and preference for help. *Ageing & Society*, **10**, 1–15.

Daatland, S. O. and Herlofson, K. 2003. 'Lost solidarity' or 'changed solidarity': a comparative European view of normative family solidarity. *Ageing & Society*, **23**, 5, 537–60.

Esping-Andersen, G. 1990. *The Three Worlds of Welfare Capitalism*. Polity, Cambridge.

Esping-Andersen, G. 1999. *Social Foundations of Post-industrial Economies*. Oxford University Press, New York.

Freedman, V. A., Martin, L. G. and Schoeni, R. F. 2002. Recent trends in disability and functioning among older adults in the United States: a systematic review. *Journal of the American Medical Association*, **288**, 24, 3137–46.

Greene, V. L. 1983. Substitution between formally and informally provided care for the impaired elderly in the community. *Medical Care*, **21**, 6, 609–19.

Johansson, L., Sundström, G. and Hassing, L. B. 2003. State provision down, offspring's up: the reverse substitution of old-age care in Sweden. *Ageing & Society*, **23**, 3, 269–80.

Korpi, W. 1995. The position of the elderly in the welfare state: comparative perspectives on old-age care in Sweden. *Social Service Review*, **69**, 2, 242–73.

Lagergren, M. 2004. *Utvecklingen av de äldres hälsa och levnadslängd* [*The Development of Elderly People's Health and Life Expectation*]. Stockholm Gerontology Research Center, Stockholm.

Larsson, K. and Silverstein, M. 2004. The effects of marital and parental status on informal support and service utilization: a study of older Swedes living alone. *Journal of Aging Studies*, **18**, 2, 231–44.

Larsson, K. and Thorslund, M. 2002. Does gender matter? Differences in patterns of informal support and formal services in a Swedish urban elderly population. *Research on Aging*, **24**, 3, 308–37.

Larsson, K. and Thorslund, M. 2005. Äldres hälsa [The health of elderly people]. In Persson, G. (ed.), *Folkhälsorapport 2005* [*The National Public Health Report 2005*]. National Board of Health and Welfare, Stockholm, 272–90.

Larsson, K. and Thorslund, M. 2006. The health of older people. In Persson, G. (ed.), *Health in Sweden: The National Public Health Report 2005. Scandinavian Journal of Public Health*, supplement, in press.

Larsson, K., Thorslund, M. and Forsell, Y. 2004. Dementia and depressive symptoms as predictors of home-help utilization among the oldest old: population-based study in an urban area of Sweden. *Journal of Aging and Health*, **16**, 5, 641–68.

Lewinter, M. 1999. *Spreading the Burden of Gratitude*. University of Copenhagen, Copenhagen.

Lilja, M., Månsson, I., Jahlenius, L. and Sacco-Peterson, M. 2003. Disability policies in Sweden. *Journal of Disability Policy Studies*, **14**, 3, 130–5.

Millar, J. and Warman, A. 1996. *Family Obligations in Europe*. Family Policy Studies Centre, London.

Ministry of Health and Social Affairs 1999. *Bo tryggt: betala rätt* [*Live Safely: Pay Right*]. Government Commission Report SOU 1999: 33. Ministry of Health and Social Affairs, Stockholm.

Ministry of Health and Social Affairs 2003. *Välfärdsfakta Social. Sammanställning av fakta/nyckeltal inom välfärdsområdet* [*Social Welfare Facts*]. Ministry of Health and Social Affairs, Stockholm.

National Board of Health and Welfare 2001. *Nationell handlingsplan för äldrepolitiken* [*National Action Programme for Policies for Older People: Progress Report 2001*]. National Board of Health and Welfare, Stockholm.

National Board of Health and Welfare 2004. *Äldre: vård och omsorg år 2003* [*Care and Services for Older People*]. National Board of Health and Welfare, Stockholm.

National Board of Health and Welfare 2005. *Avgifter inom äldre- och handikappomsorg – lägesbeskrivning 2005* [*User Fees in Care for Oder People*]. National Board of Health and Welfare, Stockholm.

Organisation for Economic Cooperation and Development (OECD) 2005. *The OECD Health Project: Long-term Care for Older People*. OECD, Paris.

Parker, M. G., Ahacic, K. and Thorslund, M. 2005. Health changes among Swedish oldest old: prevalence rates from 1992 and 2002 show increasing health problems. *Journal of Gerontology: Medical Sciences*, **60**, 1351–55.

Rostgaard, T. and Fridberg, T. (eds) 1998. *Caring for Children and Older People: A Comparison of European Policies and Practicies*. Danish National Institute of Social Research, Copenhagen.

Sidenvall, B., Nydahl, M. and Fjellström, C. 2001. Managing food shopping and cooking: the experience of older women. *Ageing & Society*, **21**, 151–68.
Sipilä, J. (ed.) 1997. *Social Care Services: The Key to the Scandinavian Welfare Model*. Ashgate, Aldershot, Hampshire.
Sipilä, J., Anttonen, A. and Baldock, J. (eds) 2003. *The Young, the Old and the State: Social Care Systems in Five Industrial Nations*. Elgar, Cheltenham, Gloucestershire.
Spillman, B. C. 2004. Changes in elderly disability rates and the implications for health care utilization and cost. *Milbank Quarterly*, **82**, 1, 157–94.
Statistics Sweden 1996. *The Swedish Survey of Living Conditions: Design and Methods*. Statistics Sweden, Stockholm.
Sundström, G., Johansson, L. and Hassing, L. B. 2002. The shifting balance of long-term care in Sweden. *The Gerontologist*, **42**, 3, 350–5.
Sweden Government Bill 1997/98. *Nationell handlingsplan för äldrepolitiken* [*National Action Programme for Policies for Older People*]. Government of Sweden, Stockholm.
Szebehely, M. 2005. Care as employment and welfare provision: child care and elder care in Sweden at the dawn of the 21st century. In Dahl, H. M. and Eriksen, T. R. (eds), *Dilemmas of Care in the Nordic Welfare State: Continuity and Change*. Ashgate, Aldershot, Hampshire, 80–97.
Trydegård, G. B. and Thorslund, M. 2001. Inequality in the welfare state? Local variation in care of the elderly: the case of Sweden. *International Journal of Social Welfare*, **10**, 174–84.
Veall, M. and Zimmerman, K. 1992. Pseudo-R^2 in the ordinal probit model. *Journal of Mathematic Sociology*, **16**, 4, 333–42.

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