

www.PSSRU.ac.uk

Downloaded publication in Acrobat format

The PSSRU retains the copyright in this publication.

All quotations must be acknowledged and permission for use of longer excerpts must be obtained in advance.

We welcome comments about PSSRU publications. We would particularly appreciate being told of any problems experienced with electronic versions as otherwise we may remain unaware of them.

Email: pssru_library@kent.ac.uk

Informal Care for Younger Adults in England: Current Provision and Issues in Future Supply, England 2005-2041

Report to the Strategy Unit (Cabinet Office) and the Department of Health

Linda Pickard

PSSRU Discussion Paper 2513 March 2008

University of Kent at Canterbury, Cornwallis Building, Canterbury, Kent, CT2 $7 \mathrm{NF}$

London School of Economics, Houghton Street, London, WC2A 2AE

University of Manchester, Dover Street Building, Oxford Road, Manchester, M13 9PL

The PSSRU Bulletin and publication lists are available free from the librarian at the PSSRU in Canterbury (01227 827773; email pssru_library@kent.ac.uk) and on the PSSRU website.

The **PERSONAL SOCIAL SERVICES RESEARCH UNIT** undertakes social and health care research, supported mainly by the Department of Health, and focusing particularly on policy research and analysis of equity and efficiency in community care, long-term care and related areas — including services for elderly people, people with mental health problems and children in care. Views expressed in PSSRU publications do not necessarily reflect those of funding organisations. The PSSRU was established at the University of Kent at Canterbury in 1974, and from 1996 it has operated from three branches:

INFORMAL CARE FOR YOUNGER ADULTS IN ENGLAND: CURRENT PROVISION AND ISSUES IN FUTURE SUPPLY, ENGLAND 2005-2041

REPORT TO THE STRATEGY UNIT (CABINET OFFICE) AND THE DEPARTMENT OF HEALTH

Linda Pickard

March 2008

PSSRU Discussion Paper 2513

PERSONAL SOCIAL SERVICES RESEARCH UNIT LSE HEALTH AND SOCIAL CARE LONDON SCHOOL OF ECONOMICS & POLITICAL SCIENCE

Informal care for 'younger adults' in England: Current provision and issues in future supply

Linda Pickard

March 2008

This paper is concerned with provision of informal or unpaid care to younger adults, defined as people aged 18 to 64, with long-term ill-health or disability. The first part of the report is an analysis of the 2000/01 General Household Survey (GHS) data on provision of informal care to younger adults. The second part of the report considers the future supply of informal care to younger adults.

Part One: Current provision of informal care to younger adults

Methodology

The analysis of current provision of informal care for younger adults is based on the 2000/01 GHS data on provision of informal care. The GHS is a nationally representative sample of approximately 14,000 adults aged 16 and over living in private households in Great Britain. People providing care are defined as those who look after, or provide some regular service, for a sick, disabled or elderly person living in their own or another household.

The 2000/01 data are the most recent GHS data on provision of informal care available. Although collected some seven years ago, the GHS remains the 'gold standard' for survey information on provision of informal care (Hirst 2005). Other data sets either do not allow for the identification of the age of all the people cared for (such as the annually collected Family Resources Survey or the British Household Panel Survey), contain only a sub-set of the caring population (such as the English Longitudinal Study of Ageing) or contain only limited information on care provision (such as the 2001 Census).

The analysis of provision of informal care to younger adults using the 2000/01 GHS has been conducted specifically for this paper. Variables have been created that identify care provided to people aged 18 to 64 in England. The analysis distinguishes care by its locus (co-resident and extra-resident), by the relationship to the person cared for (spouse, child, parent, other) and by intensity (all care provided and care provided for 20 hours a week or more). All percentages presented in this report are based on data weighted to compensate for differential non-response. Both the unweighted and weighted bases are given (cf Maher & Green 2002).

The probability of adults providing informal care to people aged 18 to 64 is multiplied by the adult population of England in 2005, to generate an estimated number of people providing informal care to younger disabled people. This estimate utilises Office for National Statistics (ONS) mid-2005 population estimates for England, which were revised to reflect improved international migration data.

Informal care to younger adults by locus and intensity

Table 1 shows that 4.4 per cent of the adult population in England are providing informal or unpaid care to a sick or disabled person aged 18 to 64. Of these, the majority are providing care on a co-resident basis. A higher proportion of care provided to younger adults is co-resident than is the case for informal care provided to sick, disabled and older people overall. The ONS report on carers shows that about a third of informal carers are looking after someone living with them (Maher & Green 2002: x) whereas this is the case for 56 per cent of those caring for a younger adult (Table 1).

Approximately 1.6 percent of adults in England provide intense care for 20 or more hours a week to younger sick or disabled people (Table 1). Over 85 per cent of intense care to younger adults is co-resident care. This is again a high proportion compared to intense care provided overall. The ONS report on carers shows that about three-quarters of informal carers providing care for 20 hours a week or more are looking after someone living with them (Maher & Green 2002: 19) whereas this is the case for 87 per cent of those caring for a younger adult (Table 1).

The GHS suggests that informal care to younger adults is provided by adults aged between 16 and 84 (see later section) and therefore the estimation of the numbers of people providing care is confined to this age-range (Table 2). Using the 2000/01 GHS data on provision of care and the official mid-year population estimates for 2005, *there are estimated to be nearly 1.8 million people providing informal care to sick and disabled people aged between 18 and 64 in England in 2005.* Of these, *nearly 640,000 people provide intense informal care for 20 or more hours a week* to a younger sick/disabled adult, mostly on a co-resident basis (Table 2).

Intensity and locus, England, 2000/01									
Persons aged 16 and over	_		England						
Locus and intensity of care	Percentage of	Weighted sample	Unweighted						
-	population	numbers (000s)	sample						
Any care	4.4	1,615	541						
Co-resident	2.5	925	305						
Extra-resident	1.9	690	236						
Care for 20 or more hours a week	1.6	590	196						
Co-resident	1.4	510	169						
Extra-resident	0.2	80	27						

Table 1Percentage of adults providing informal care to a person aged 18 to 64 by
intensity and locus, England, 2000/01

Source: 2000/01 GHS (author's analysis)

Table 2Percentage and number of adults providing informal care to a person aged 18 to
64 by intensity and locus, England, 2000/01

Persons aged 16 to 84 in private ho	useholds ⁺	England
Locus and intensity of care	Percentages providing informal care to younger disabled adults	Numbers in private households providing informal care for younger disabled adults (000s)
Any care	4.5	1,760
Co-resident	2.6	1,005
Extra-resident	1.9	755
Care for 20 or more hours a week	1.6	635
Co-resident	1.4	550
Extra-resident	0.2	85

Sources: 2000/01 GHS (author's analysis); official mid-2005 population estimates Note: ⁺ Informal care to younger adults is provided by people aged between 16 and 84 and therefore the estimation of the numbers of people providing care is confined to this age-range; population in private households estimated using 2001 Census data (Sample of Anonymised Records (SARs)).

Informal care to younger adults by relationship of person cared for to care-giver

The largest single group of people to whom informal care for younger adults is provided is made up of spouses or partners (Table 3). Nearly 40 per cent of people providing care to adults aged 18 to 64 are providing care to a spouse/partner. The second largest single group of care-receivers are parents or parents-in-law of the care-giver and the third largest group are adult children. Recipients of intense care for 20 hours a week or more are even more likely to be spouses or partners. Around 60 per cent of those to whom intense care is provided are spouses/partners (Table 3).

The proportion of people providing care to a younger adult who are 'spouse carers' is higher than that reported for carers of sick, disabled or older people overall. The ONS report, *Carers 2000*, shows that 45 per cent of people providing care for 20 or more hours a week are spouse carers (Maher & Green 2002:19), whereas the comparable figure for carers of younger adults is 60 per cent (Table 2). The relatively high proportion of spouse carers among those caring for younger adults helps to explain the relatively high proportion of co-resident carers, since all but a few spouses/partners are co-resident with the care-giver.¹

¹ There were 3 ill or disabled spouses/partners in the 2000/01 GHS sample who did not live with their care-giving partner. It is possible that these were people 'living apart together' or possibly those where the ill/disabled spouse/partner was housed in separate specialist accommodation.

Table 3
Provision of care to people aged 18 to 64: relationship of person cared for to
care-giver, England, 2000/01

		Column percentages
Relationship of person cared-for to	Any care	Care for 20 or more
informal care-giver		hours per week
Spouse or partner	36.7	60.4
Child	15.8	19.0
Parent/in-law	22.5	11.9
Other	25.0	8.7
Weighted base (000s)	1,615	590
Unweighted sample	541	236

Source: 2000/01 GHS (author's analysis)

The number of people providing informal care to a spouse or partner greatly exceeds the number providing care in any other relationship (Table 4). Of the estimated 1.8 million people providing informal care to a younger adult, approximately 650,000 are providing care to a spouse or partner. Among those providing care for 20 hours a week or more, nearly 400,000 are spouse carers.

Table 4Numbers of adults providing informal care to a person aged 18 to 64 by
intensity, locus and relationship of person cared for to care-giver
England, 2000/01

Persons aged 16 to 84 in private households $(000s)^+$								
Locus/intensity of	Relationship of person cared-for to informal care-giver							
care								
	Spouse/partner	Child	Parent/in-	Other	Total			
			law					
Any care	645	280	395	440	1,760			
Co-resident	640	175	135	55	1,005			
Extra-resident	10	105	260	380	755			
Care for 20 or more								
hours a week	385	120	75	55	635			
Co-resident	380	100	30	40	550			
Extra-resident	5	20	45	15	85			

Sources: 2000/01 GHS (author's analysis); official mid-2005 population estimates

Note: ⁺ *See notes to Table 2*

Characteristics of people providing informal care to younger adults

Identification of the characteristics of people providing informal care would ideally be informed by existing research. There is, however, very little literature on provision of care specifically to younger adults. As Parker observed some years ago, research on informal care has tended to concentrate on those caring for older people or disabled children (Parker 1993).

A starting point in the analysis of provision of care to younger adults is to examine factors characterising provision of informal care generally. These include age, gender, marital status and socio-economic factors (cf Parker and Lawton 1994, Richards *et al* 1996, Young *et al* 2005, Karlsson *et al* 2005). One socio-economic factor is examined here, education. This socio-economic variable has been chosen because, unlike other socio-economic factors, education is unlikely to be endogenously related to informal care provision. Unlike employment or income, for example, educational qualifications tend to be acquired relatively early in life whereas, as shown below, provision of informal care to younger adults is greatest among people in mid-life.

Table 5 shows the probability of providing informal care to younger adults in England in 2000 by key characteristics. The oldest person providing informal care to a young adult in the GHS in 2000 was aged 83 years of age, and there were therefore no people aged 85 and older who provided this form of care. For this reason the characteristics shown in Table 5 relate to people aged between 16 and 84.

Table 5			
Probability of providing informal care to younger adults by intensity a	nd by	age	.,
gender, marital status and education, England, 2000			
			-

Persons aged 16	to 84 ⁺	,	0 /	Englar	ıd
Characteristics	Categories	% providing	% providing	Weighted	Un-
		care to	care to young	sample	weighted
		young	adults for 20+	base	sample
		adults	hrs p.w.	(000s) =	base
				100%	
Age group	16-44	3.9	1.1	18,533	5,770
	45-64	6.3	2.7	11, 052	3,930
	65-84	3.1	1.3	6,452	2,287
	All aged 16-84	4.5	1.6	35,938	11,954
Gender	Men	3.9	1.3	17,628	5,715
	Women	4.9	1.9	19,002	6,469
Marital status#	Single	3.0	0.7	13,601	4,226
	Married/cohabiting	5.2	2.1	23,029	7,958
Education±	No qualifications	6.6	2.9	7,385	2,493
	Some qualifications	4.2	1.4	24,260	7,950

Source: GHS 2000 (author's analysis)

⁺The provision of informal care to younger adults is confined to people aged between 16 and 84;[#]marital status is de-facto marital status; 'single' people include single (never married), widowed, divorced, separated; 'married' people include those legally married and those cohabiting; ^{*}data on education in the GHS is only available for people below the age of 70.

Table 5 shows that the probability of providing care was greatest for people in midlife, compared to younger and older age groups; women, compared to men; those who were married or cohabiting, compared to those who were single (never married, widowed, divorced or separated); and those with no educational qualifications, compared to those with educational qualifications. This was true of both provision of any care and provision of intense care for 20 hours a week or more.

Table 6 presents results from logistic regression analysis showing odds of providing care to a younger adult at different levels of intensity by key socio-demographic and socio-economic indicators. The logistic regression analysis applies to those aged between 16 and 69 years. This is because the analysis includes education, for which data in the GHS are only available for people under the age of 70. Two logistic regression models were built, one for provision of any informal care and one for provision of care for 20 hours a week or more. Controlling for other variables, people in mid-life (aged between 45 and 64) are significantly more likely to provide care than those in either younger or older age groups. Women are significantly more likely to provide care to younger adults than men, with women having more than 30 per cent higher odds of providing care than men, controlling for other variables. People who are married or cohabiting have a significantly higher probability of providing care to a younger adult than those who are single, particularly where care is provided for 20 hours a week or more. Finally, providing care appears to be associated with socioeconomic status, independently of other variables. People with some educational qualifications are significantly less likely to provide care to a younger adult than those with no qualifications, and this relationship is strong both where any care is provided and where care is provided for 20 or more hours a week.

Table 6
Results from logistic regression models of proportion of the population aged 16
to 69 providing any informal care and providing informal care for 20 hours a
week or more to a younger adult by age, gender, marital status and education,
England, 2000

Characteristics	Categories	Any info	rmal care	Informal care for 20+hrs pw		
		Odds	P value	Odds	P value	
		ratio		ratio		
Age group	16-44	0.74	0.002	0.62	0.005	
	45-64	1.00		1.00		
	65-69	0.66	0.032	0.69	0.195	
Gender	Men	1.00		1.00		
	Women	1.32	0.003	1.36	0.044	
Marital status	Single	1.00		1.00		
	Married/cohabiting	1.53	< 0.001	2.69	< 0.001	
Education	No qualifications	1.00		1.00		
	Some					
	qualifications	0.67	< 0.001	0.54	< 0.001	

Source: GHS 2000 (author's analysis)

The logistic regression analysis is confined to people aged 16 to 69 because it includes education, for which information in the GHS is only available for people below the age of 70. Analysis is based on un-weighted sample data. See also notes to Table 5.

Part Two: Future supply of informal care to younger adults

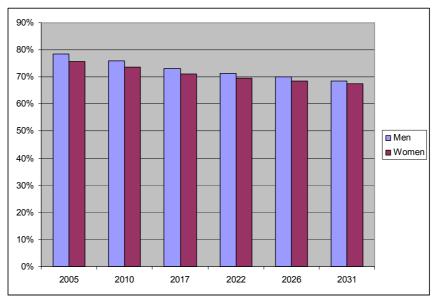
Potential implications of characteristics of informal care-givers for future supply of care

The future supply of informal care to younger adults is likely to be affected by the characteristics of those who provide this form of care. Three characteristics seem particularly important.

First, the age-bands at which care is provided are important. Informal care to younger adults is primarily provided by people who are themselves of working age (under the age of 65). However, nearly 15 per cent of care to younger adults is provided by people aged 65 and over. The population aged 65 and over is increasing faster than the 'working age' population. Therefore, the supply of people providing care to younger adults could potentially exceed demand for care in future years.

On the other hand, the marital status of people providing care could imply a decline in provision of care in the future. There is a strong association between marriage or partnership and care provision, yet the proportion of people in relevant age-groups who are married or cohabiting is projected to decline in future years. The Government Actuary's Department (GAD) 2003-based marital status and cohabitation projections show that, among men and women aged 45 to 64, there is likely to be a decline in the proportions either married or cohabiting between 2005 and 2031 (Chart 7). A decline in marriage/partnerships among people in this age-group is particularly important because people in mid-life have a higher probability of providing care than those in other age-groups.

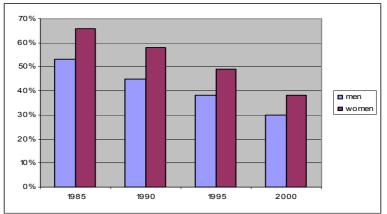
Chart 7 Proportion of men and women aged 45 to 64 who are married or cohabiting, England and Wales, 2005 to 2031



Source: 2003-based GAD marital status and cohabitation projections

The third potential effect of the characteristics of people providing care on the future supply of informal care relates to education. The relationship between education and care provision, together with likely future trends in education, could imply a decline in informal care in future years. People without educational qualifications are more likely to provide informal care to younger adults than those with qualifications, yet the proportion of the population without educational qualifications is falling. In the fifteen year period between 1985 and 2000, the proportion of men aged 45 to 64 without educational qualifications in England fell from around 50 per cent to around 30 per cent, while the proportion of women in this age group without educational qualifications fell from 66 per cent to 38 per cent (Chart 8a). Projections of educational qualifications by age and gender are not currently available for England (Professor M Murphy, LSE, personal communication). However, projections are available for Western Europe to 2030 (Lutz and Goujon 2007). These imply a trend downwards in those without educational gualifications in future years. In Western Europe, the proportions of men and women aged 45 to 64 with either no education or primary education only are projected to more than halve between 2005 and 2030 (Chart 8b). The implication of a fall in the proportion of people without educational qualifications in future is that the supply of informal care to younger adults could also fall in future years.

Chart 8 Proportion of men and women aged 45 to 64 who have no educational qualifications⁺ (a) England, 1985-2000



(b) Western Europe, 2005-2030⁺ 70% 60% 50% 40% men women 30% 20% 10% 0% 2005 2010 2020 2025 2030 2015

Sources: GHS 1985, 1990, 1995, 2000 (England, 1985-2000); Lutz & Goujon (2007) (Western Europe, 2005-2030) ⁺ Data on Western Europe relate to those with no education or primary education only.

Illustrative projections of supply of informal care to younger adults

The previous section suggested that some factors might have the effect of increasing the supply of informal care to younger adults in future years, while others might have the effect of decreasing it. How might these two sets of influences affect informal care provision in the future?

It is not possible to produce projections of the supply of informal care in future years with great accuracy at the present time because of the lack of projections on education for England. However, this section describes *illustrative* projections. They are illustrative because they utilise projections on education for Western Europe on average, rather than for England. These projections are likely to be somewhat conservative, since the proportion of the population with educational qualifications tends to be somewhat higher in England than in Europe as a whole. Nevertheless, the projections are presented here, under clearly stated assumptions, to show the potential interaction of the different factors operating on the future supply of informal care.

The projections of the future supply of informal care relate to the provision of *intense care for 20 hours a week or more* to a younger adult. The focus is on provision of care for 20 hours a week or more partly because care at this level of intensity is more likely to be provided to a *disabled* person than is care provided at lower levels of intensity (*cf* Kemper 1992). Provision of care to disabled younger adults is important in the present context because a key aim is to compare projections of the supply of informal care with projections of future demand for informal care from disabled younger adults (examined later).

The illustrative projections of the supply of informal care to younger adults make the key assumptions shown in Box 1.

Box 1

KEY ASSUMPTIONS OF PROJECTIONS OF SUPPLY OF INFORMAL CARE TO YOUNGER ADULTS

- The number of people by age and gender changes in line with the Government Actuary's Department 2006-based population projections (GAD 2007).
- The proportion of the population in private households, based on the 2001 Census (SARs), remains constant by age and gender.
- Marital status changes in line with GAD 2003-based marital status and cohabitation projections (ONS 2005): as these projections run to 2031, the 2031 marital status rates are applied to 2041.
- The proportion with and without educational qualifications by age and gender changes in line with the Western European average (Lutz and Goujon 2007): as these projections run to 2030, the 2030 rates are applied to 2031 and 2041.
- For people aged 16 to 69, the probability of providing informal care for 20 or more hours a week to a younger adult by *age, gender, marital status and educational qualifications* in England remains unchanged, as reported in the 2000/1 GHS.
- For people aged 70 to 84, the probability of providing informal care for 20 or more hours a week to a younger adult by *age, gender and marital status* in England remains unchanged, as reported in the 2000/1 GHS.

Assuming constant probabilities of providing care by age, gender, marital status and education, the numbers of people providing informal care for 20 or more hours a week to younger adults are projected to increase by approximately 3 per cent between 2005 and 2041 (Table 9). Numbers are projected to rise from nearly 640 thousand in 2005 to approximately 660 thousand in 2041.

The small increase in numbers providing informal care is solely due to an increase in care provision among those aged 65 and over (Table 9). Indeed, among people aged between 45 and 64, the numbers providing informal care are projected to decline. There would also be a decline in care provision by women, by those married or cohabiting and by those with no educational qualifications. There would be increases in care provision by men, single people and those with educational qualifications.

Chart 10 illustrates the changes over time in numbers providing informal care in future years by age. The chart shows a decline in overall numbers providing care to 2031 from around 635 to 630 thousand and an increase in numbers providing care between 2031 and 2041. This latter increase is due to the fact that education is, in effect, held constant after 2031, which in turn arises because projections for education are only available up to 2030. The projected rise in numbers providing care if education is held constant in future years illustrates very well the impact of education on future provision of unpaid care.

Table)
Illustrative projections of numbers of people providing informal care to younger
adults for 20 or more hours a week by age, gender, marital status and education,
England, 2005-2041

Table 9

Persons aged 16 to 84 in private households				England				
	2005	2010	2017	2022	2026	2031	2041	2005/2041 ⁺
All	635	640	640	635	630	630	660	3.2%
Age								
16-44	215	215	205	210	210	215	220	1.7%
45-64	330	335	335	325	315	305	325	-3.5%
65-84	90	90	100	100	105	110	115	32.2%
Gender								
men	255	270	275	275	275	280	295	13.3%
women	380	370	365	360	355	350	365	-3.7%
Marital status								
married/cohabiting	525	525	515	505	500	490	515	-2.4%
single	110	115	125	130	130	140	145	29.8%
Educational qualifications [#]								
no qualifications	240	215	190	155	135	115	115	-52.5%
any qualifications	350	380	405	425	440	455	475	33.7%

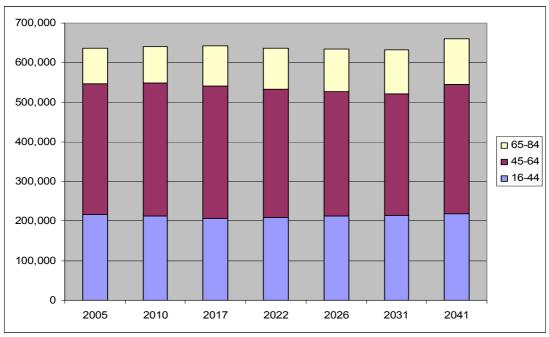
Sources: see Box 1

⁺ Percentage change based on un-rounded figures

[#]Persons aged 16 to 69

See also notes to Table 5

Chart 10 Illustrative projections of numbers of people providing informal care to younger adults for 20 or more hours a week by age, England, 2005-2041



Sources: see Box 1

The supply of informal care to younger adults and demand for informal care

The projected numbers of people providing informal care to younger adults can be compared to the numbers of disabled younger adults projected to 'demand' informal care in future years.

Information on demand for informal care is drawn from the PSSRU long-term care finance model relating to younger adults (Wittenberg *et al* 2007). The PSSRU model shows that there are currently approximately 3 million adults in England aged between 18 and 64 with learning disabilities or physical/sensory impairments. The model suggests that only a minority of younger adults with learning difficulties or physical/sensory impairments receive informal care, with just under one million younger adults receiving informal care in 2005 (Table 11). Not all younger adults with impairments who receive informal care are, however, disabled in the sense that they are unable to perform instrumental activities of daily living (IADLs). In total, the PSSRU model suggests that there are approximately 925 thousand *disabled* younger adults who receive informal care.

Projections of demand for informal care in the PSSRU model are made on the basis of a set of clearly specified assumptions (Wittenberg *et al* 2007). Because demand for informal care in the model relates to younger adults with disabilities, the assumptions on trends in disability are important. The base case of the model assumes that prevalence rates of physical and sensory impairments remain constant in future years and that prevalence rates of learning disabilities rise slightly in line with projections by Emerson and Hatton (2004). The model assumes that the proportions of younger

adults receiving informal care remain constant in future years by age, gender, severity of disability and household composition. The model projects that the number of disabled younger adults receiving informal care will increase by around 15 per cent between 2005 and 2041, so that by 2041 approximately 1.1 million disabled younger adults are projected to receive informal care, if current patterns of care remain constant.

Table 11Projected numbers of younger adults (aged 18 to 64) in receipt of informal care,England, 2005-2041

Persons aged 18 to 64	4 in priva	te househ	olds			Engle	and	
Adults with:	2005	2010	2017	2022	2026	2031	2041	2005- 2041 ⁺
Learning Disability Physical/Sensory	110	115	115	120	120	125	130	20.2%
Impairment (PSI)	850	880	900	940	955	955	980	14.8%
PSI, no IADLs	35	35	35	40	40	40	40	17.4%
Total (excluding those								
with no IADLs)	925	960	980	1,020	1,035	1,040	1,070	15.4%

Source: PSSRU model estimates (Wittenberg et al 2007) ⁺ *Percentage change based on un-rounded figures*

Percentage change based on un-rounded figures

The projected demand for informal care from disabled younger adults is compared in Table 12 with the projected supply of intense care to younger adults, derived from the analysis in the previous section. The table shows that, currently, there are more younger adults with functional disabilities receiving informal care than there are people providing care for 20 hours a week or more to younger adults. A key explanation for this is that, while it is likely that care provided for long hours to younger adults is provided to those with a disability, not all disabled younger adults receiving informal care do so for long hours.¹ As noted above, among those with physical or sensory impairments, disability is defined in the PSSRU model in terms of an inability to perform IADLs without help. People unable to perform IADLs include, for example, those unable to do their shopping, a task that is unlikely to take 20 hours a week to perform. Table12 shows that the current ratio of disabled younger adults receiving informal care ('care-receivers') to people providing intense care to younger adults ('care-providers') is approximately one to 0.7

¹ There could also be more care-receivers than care-providers if care-providers tend to provide care to more than one person with a care need. However, in general, care-providers caring for more than one person tend to be out-numbered by those sharing a care-recipient.

Table 12

Supply of informal care to younger adults for 20 hours a week or more ('careproviders') compared to demand for care by disabled younger adults ('carereceivers'), England, 2005 to 2041

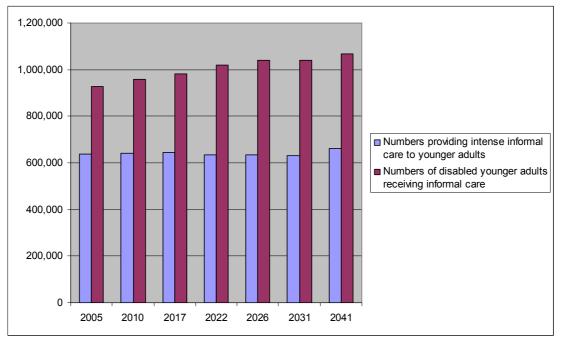
						England			
	2005	2010	2017	2022	2026	2031	2041	2005-2041+	
Providing intense informal care to									
younger adult Disabled younger	635	640	640	635	630	630	660	3.2%	
adults receiving informal care	925	960	980	1,020	1,035	1,040	1,070	15.4%	
Ratio of care- receivers to care-	0.7	0.7	0.7	0.6	0.6	0.6	0.6	-10.1%	
providers Constant ratio of care-receivers to	0.7	0.7	0.7	0.0	0.0	0.0	0.0		
care-providers Numbers	0.7	0.7	0.7	0.7	0.7	0.7	0.7		
providing care assuming constant ratio Difference between numbers	635	660	675	700	715	715	735	15.4%	
projected to provide care and numbers at constant ratio	0	20	35	65	85	85	75		

Source: see Box 1 and PSSRU model estimates (Wittenberg et al 2007)

⁺ Percentage change based on un-rounded figures

Table 12 suggests that the supply of intense informal care to younger adults is unlikely to keep pace with demand in future years. Assuming no change in the probability of providing informal care in future years, the numbers of people providing intense informal care to younger adults are projected to increase by around 3 per cent between 2005 and 2041, whereas the numbers of disabled younger adults in receipt of informal care under the assumptions of the PSSRU model are projected to increase by around 15 per cent over the same time period (Table 12). Under the assumptions utilised here for both supply and demand, the ratio of care receivers to care providers is projected to fall by around 10 per cent over the next forty years. These trends are illustrated graphically in Chart 13, which shows that the numbers providing intense informal care to younger adults remain relatively stable over the next forty years, while the numbers of disabled younger adults projected to receive informal care increase.

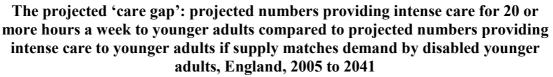
Chart 13 Projected numbers of people providing intense informal care to younger adults for 20 hours a week or more and projected numbers of disabled younger adults receiving informal care, England, 2005 to 2041

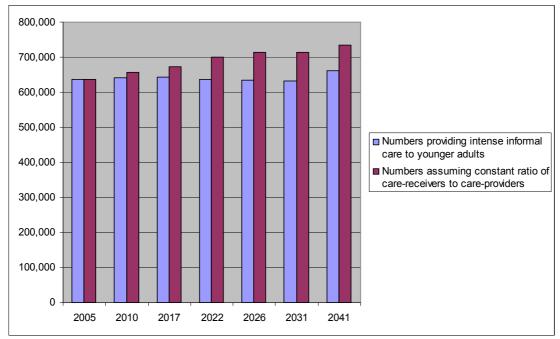


Source: see Box 1 and PSSRU model estimates (Wittenberg et al 2007)

Demand for informal care by disabled younger adults begins to exceed supply from 2010 onwards, with the 'care gap' widening over the ensuing years. Chart 14 compares the numbers of people projected to provide intense care to younger adults over the next forty years assuming no change in the probability of providing care and the numbers of people projected to provide intense care if supply were to rise with demand. The latter figures are calculated assuming that the 2005 ratio of carereceivers (disabled younger adults assumed to receive informal care in future) to careproviders (people providing intense care to younger adults) remains constant in future years. If the supply of care were to keep pace with demand in this sense, then, after 2010, the numbers of people providing care would need to be greater than the numbers projected to provide care under constant probabilities. The gap between the numbers of people projected to provide care assuming constant probabilities of care provision and the numbers needed to provide care if demand is to be met (in the sense defined above) amounts to over 15 thousand care-providers in 2010, rising to over 80 thousand in 2031 (Table 12, Chart 14). The 'care gap' reduces between 2031 and 2041 owing to the assumption that education remains constant in this period.

Chart 14





Source: see Box 1 and PSSRU model estimates (Wittenberg et al 2007)

Conclusions

The key conclusion is that, on the assumptions used in this paper, the supply of intense informal care to disabled younger adults in England is unlikely to keep pace with demand in future years. Demand for informal care by disabled younger adults is projected to exceed supply from 2010 onwards, with the 'care gap' widening over the ensuing years. By 2041, the gap between the numbers of people projected to provide care under the assumptions used in this paper and the numbers needed to provide care if projected demand is to be met amounts to over 75 thousand care-providers.

A key reason why the supply of informal care to younger adults is unlikely to keep pace with demand is the rise in education in the population. This paper has reported a statistically significant negative relationship between provision of care to younger adults and educational qualifications. Those without educational qualifications are significantly more likely to provide informal care. If current trends in education continue, and the population without educational qualifications in England falls in future years in line with the Western European average, the population of unpaid caregivers is also projected to fall over the next thirty years.

The relationship between education and provision of care to younger adults, reported here, is consistent with research evidence relating to provision of care more generally. Recent research using the 2001 Census data for England and Wales shows that, in

multivariate analysis, lower levels of education are associated with an increased likelihood of providing care for 20 hours a week or more (Young *et al* 2005).

Educational qualifications are closely associated with employment status and the findings of this paper are therefore also consistent with analyses which suggest that, as employment, particularly of mid-life women, increases, so provision of informal care may decline (Allen and Perkins 1995, Henz 2004).

The projections of the future supply of informal care reported in this paper are based on a specified set of assumptions (described in Box 1 above). This set of assumptions seems plausible but is clearly not the only possible set. Projections are likely to be sensitive to changes in the assumptions about the key drivers of the supply of informal care in future years. This means that the projections should not be regarded as forecasts of the future (cf Wittenberg *et al* 2007). The projections of the supply of informal care would be improved with data on future trends in the proportion of the population without educational qualifications in England. In addition, the projections of the supply of informal care, reported here, assume that the relationship between informal care supply and education remains constant in future years, but it is possible that this relationship could change as the proportion of the population with no qualifications falls.

References

Allen, I. and Perkins, E. (eds) *The Future Of Family Care For Older People*. London: HMSO.

Emmerson E and Hatton C (2004) *Estimating Future Need/Demand for Supports for Adults with Learning Disabilities in England*. University of Lancaster: Institute for Health Research.

Henz U (2004) The effects of informal care on paid-work participation in Great Britain: a lifecourse perspective. *Ageing & Society*, 24, 851-880

Hirst M (2005) Estimating the prevalence of unpaid adult care over time. *Research Policy and Planning*, 23, 1: 1-16.

Karlsson, M., Mayhew, L., Plumb, R. and Rickaysen, B. (2005) Future costs for long-term care. Cost projections for long-term care for older people in the United Kingdom, *Health Policy* 75: 187-213.

Kemper P (1992) The use of formal and informal home care by the disabled elderly. *Health Services Research*, 27, 4: 441-451.

Lutz W and Goujon A (2007) *Future Human Capital. Population Projections by Level of Education. 2001 Education Projections.* (<u>http://www.iiasa.ac.at/Research/POP/edu07/index.html?sb=11</u>)

Maher J and Green H (2002) Carers 2000. London: The Stationery Office.

Parker G (1993) *With This Body. Caring and Disability in Marriage*. Buckingham: Open University Press.

Parker, G. and Lawton, D. (1994) Different Types of Care, Different Types of Carer.
Evidence From The General Household Survey. London, HMSO.
Richards E with Wilsdon T and Lyons S (1996) Paying for Long-Term Care.
London: Institute for Public Policy Research.

Wittenberg R, Malley J, Comas-Herrera A, Fernandez J-L, King D, Pickard L, Snell T (2007) *Future Demand for Social Care, 2005 to 2041: Projections of Demand for Social Care for Younger Adults in England.* LSE: PSSRU Discussion Paper 2512.

Young H, Grundy E, Kalogirou S (2005) Who Cares? Geographic variations in unpaid caregiving in England and Wales: evidence from the 2001 Census. *Population Trends*, 120, 23-34.