Inside Europe

Denmark: the elderly living in style

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In the next 20 years every country in Western Europe will see a rise in its total numbers of people aged over 60, and since old people are now living longer the proportion aged over 75 will also rise. Both physical and mental disorders become much more common between 60 and 75, so that if these old people are to be provided with accommodation and medical services at contemporary standards (see fig 1) many more places will be needed in sheltered flats, nursing homes, and geriatric hospitals. Yet in the current economic recession most European countries are trying to cut back on public expenditure. How do politicians and administrators reconcile the conflict between the demands created by demographic change and the freeze on public spending? How will the care of the elderly change in response to this conflict? Tony Smith is examining the ways in which old people are looked after in several European countries and their plans for the future. This first article deals with Denmark.

FIG 1—Increase required in residential accommodation in England 1981–2001 to maintain 1976 standards for the rising population of the elderly.¹

“The Danes have shown a much clearer political commitment to the dignity and rights of older people” than have the British²—an observation by a British geriatrician that would be confirmed by any doctor who visits Denmark. The sheltered housing units and nursing homes are mostly modern buildings, light and elegant, spotlessly clean and spacious. Many were built in the “golden sixties,” a decade of affluence during which Danes willingly paid high taxes in order to build a society in which the elderly, the poor, and the handicapped were helped to benefit from the overall national prosperity. In Denmark both the medical and social services for the elderly are financed from public taxation; the private sector is virtually non-existent.

Geography and demography

Denmark is a small country, consisting of a peninsula (Jutland) and 406 islands, and with a total population of just over 5 million. Danes are affluent—their average earnings put them in the top 10 nations in the world. Half the population live in owner occupied houses, and 200 000 families also own holiday cottages. The 1.5 million households have 1.7 million telephones and 1.6 million television sets.

In 1966 there were 90 000 live births, but by 1980 births had dropped to 57 000 a year—a drop of 35%. More women are remaining childless, fewer women are having more than two children, and the rate of population growth is now only 0.5 per 1000.

The over 65s currently total around 750 000, but their numbers are expected to rise to 780 000 by 1995. More important, the proportion of over 65s who are aged over 80 is currently 20% but by the end of the century the proportion will have risen to 25%. This difference is crucial, since around one in every five of the over 80s are in nursing homes or other special accommodation against only one in every 50 of those aged 65 to 79.

Denmark spends 45% of its national budget on social services, 12% on education, and 7% on defence. The Danes (and indeed all Scandinavian countries) continue to pay high taxes to fund health and social services (tables I and II). The state provides

TABLE I—Current marginal tax rates (%) in selected European countries

Sweden	84
Denmark	73
Netherlands	72
Finland	68
France	65
Britain	60
West Germany	56

TABLE II—Expenditure on health per head (in pounds sterling) and as proportion of GNP in selected countries (1979 data)³

Country	Per head (£)	% GNP
Netherlands	357	8.6
Denmark	345	7.4
France	327	7.2
West Germany	280	5.7
Britain	162	5.4

an old age pension at the age of 67, and schooling and medical care in or out of hospital are free. There is, in effect, no private sector either in education or medicine. Old people who are too frail or who cannot afford to live independently in their own homes may be helped in several different ways (see table I).

Firstly, people are encouraged to live in their homes for as long as possible. The general principle is that pensioners pay no

FIG 2—Sheltered housing in Odense.

more than 15% of their income in rent; subsidies in the form of rent support are available provided the dwelling meets with minimum standards and the recipients' aggregate income is below a certain limit. Owner occupiers may also be eligible for a housing grant, but this is partly a subsidy and partly a loan—the loan being secured on the property until it is sold or the pensioner dies.

Many local authorities in Denmark have built "pensioners' dwellings"—small, compact, easy to manage flats available for the elderly to rent. Alternatively, the state will modify an old person's existing house to make it more suitable for occupation by someone with physical disabilities. Home nurses, meals on wheels, chiropody, and the usual gamut of social and medical services are freely available; many local authorities also provide electronic alarm systems for old people living alone.

Secondly, the local authority provides some places in day care homes, from which the old person returns home at night, and further places in sheltered dwellings (fig 2). These are self contained flats adapted for persons with permanent disabilities; some sort of call system is installed to allow the residents to summon help at any time. The rent payable for a sheltered flat is set at 25% of the individual/couple's total income (subject to a ceiling).

Thirdly, local authorities provide places in nursing homes—which are the dominant form of provision for the elderly in Denmark. A nursing home offers accommodation, meals, and nursing care but not acute medical care. Admission to a nursing home is dependent on screening by the local social services department's "assessment committee," which includes a consultant in geriatric medicine. Old persons admitted to nursing homes for permanent residence have their old age pension withdrawn; it becomes part payment for the costs of stay in the nursing home. A small sum is paid to the elderly person as pocket money. The residents are encouraged to work in the kitchens, laundries, and other departments, to clean their own rooms, and to remain as self sufficient as possible.

Care of the elderly sick

The Danish equivalent of the British specialty of geriatric medicine is long term medicine. The major hospitals have assessment and rehabilitation departments to which patients may be admitted directly from their homes or from nursing homes (two thirds) or from the acute medical and surgical units (one third).

In contrast to Britain Danish geriatricians do not make domiciliary visits to patients; if a general practitioner requests admission to one of the long stay units the patient may be seen in outpatients, admitted directly, or discussed at one of the regular twice weekly conferences attended by social workers, home

and hospital nurses, home helps, physiotherapists, occupational therapists, and medical staff.

Once assessment and any rehabilitation are complete the patient will be transferred to a nursing home, a sheltered flat, or whatever accommodation is thought most suitable. The selection is made by the assessment committee (described above in the paragraph on nursing homes), which is a committee of the social services department of the local authority; this means that consistent criteria can be used for admission to the various types of accommodation available and that the responsibility for finding the accommodation rests squarely on a single department.

TABLE III—Where the elderly (over 65) live in Denmark (%)

Own homes (with or without modification)	88.4
Pensioners' flats	4.9
Sheltered flats	0.3
Day care homes	0.2
Nursing home	6.1
Hospital	0.1

Prevention of dependence

Increasing emphasis is being given to encouraging old people to remain active and busy in the belief that this will not only improve the quality of their lives but also postpone their need for institutional care.

As far as possible old people themselves are expected to organise and administer the projects in these programmes. In Odense, for example, the old age committee has eight members, all over 60 years old, and one representative of the social security and health department. The committee has started language courses (most old people I met in Denmark spoke good English and some spoke German and French in addition), gymnastics, cultural activities, and so on. The local authority has given them a redundant gas works canteen which the old people themselves are converting into a social centre—doing the brick laying, plastering, decorating, etc, with the materials being provided by the local authority.

Another imaginative project that I visited was a residential school for the elderly at Tisulde, on the coast north of Copenhagen. Courses at the school (fig 3) are open to couples or single pensioners. During the 12 day stay there are 60 hours of teaching—36 on academic topics and 24 on recreational/hobby activities. Some shorter courses have specific themes such as art, music, or literature. Many of the pensioners I met at the school had attended regularly each year for as long as seven years.

FIG 3—Residential school for the elderly, N Denmark.

Theory and practice

So much for the theory: how does the system function in practice? The visitor is immediately impressed by the high quality of the accommodation provided for the elderly.

Nursing homes differ from those in Britain in one striking respect: the inmates live in (mostly) single units with their own furniture and personal possessions. Some of the rooms are small, but even so the walls and flat surfaces are usually covered with pictures and bric a brac. Meals are usually served to residents in their own rooms. There are also day rooms for communal use.

FIG 4—Occupational therapy, sheltered housing, Copenhagen.

The sheltered flats (which may be at the same site as the nursing home) are larger; a couple will usually have two rooms, a kitchenette, and a bathroom, and again most of the furniture will be their own—so that often a small flat seems overcrowded with possessions. The units I visited were in modern buildings with spacious communal areas (fig 4), gardens, and corridors—indeed the architects seemed to have been allowed to design to very lavish standards. At present the cost per place in new nursing homes averages at 600 000 DK (about £42 100).

Demand exceeds supply. Around 3000 patients in Danish hospitals are waiting for admission to nursing homes; the average waiting time is between one and six months and the average interval between admission to a nursing home and death is two years. Because nursing homes are capable of looking after patients with severe disabilities they fulfil many of the functions of long stay hospitals in Britain, but without the backup of a hospital's technical and medical facilities. Denmark does not have hospices for the terminal care of patients dying from cancer—but such patients are given high priority for admission to nursing homes.

Future prospects

If the generation of old people now in their 60s are to be provided when 80 with the same access to nursing homes and other purpose built accommodation many more units will be needed. By the end of the century the elderly population will include 50 000 more people over the age of 85. On present standards one third of these would need places in nursing homes. No one expects these new places to be built. Economic growth has declined in Denmark since 1979 and shows little sign of accelerating. In theory some additional resources should be available as a result of the decline in the school population, but in practice few schools are being closed and the education budget has not been substantially cut.

The solution currently being advocated for the problems that will be created by demographic change is that more old people will have to be helped to live in their own homes. By encouraging pensioners to be more active physically and mentally politicians hope to postpone their need for social and medical help (though I know of no evidence that such a programme will affect the incidence of dementia).

The second arm of this proposed solution is an expansion of support facilities to allow the infirm elderly to continue to live in their own homes: structural conversion of houses and flats, more home helps, home nurses, electronic surveillance systems and so on. Whether this policy will prove cheaper than admission to nursing homes or sheltered flats remains to be seen; it may prove to be no more than a formula for justifying a virtual freeze on building. Already local authorities are being asked to cut their budgets and their payrolls—an instruction that is plainly incompatible with the growth in domiciliary services that is already needed.

Lessons for Britain

Old people in Denmark face a brighter future than their contemporaries in Britain: the years of national prosperity were used to build facilities for the elderly that make many of our old people's homes look Hogarthian. Furthermore, with six to seven places per 100 elderly people Danish nursing homes provide over twice the capacity of Britain's part III and long stay hospital sectors combined, so that the social welfare system has a lot of fat on which it can live in the lean years ahead.

The lessons for Britain seem to me to be part political and part medical.

Firstly, with a marginal tax rate that is lower than any of our European neighbours how can Britain continue to claim that it must cut public expenditure if taxes are not to rise? Would not most high earners pay more tax if they knew the money would be spent on health and social welfare? Are Britons and Danes so different in their attitudes?

Secondly, the Danish system shows that good quality nursing homes, adequately staffed and financed, can provide a quality of life for the elderly good enough to preclude any competition from the private sector. The steps that should be taken to bring Britain up to standard depend, however, on political decisions.

References

- 1 Grundy E, Arie T. Falling rate of provision of residential care for the elderly. *Br Med J* 1982;284:299-302.
- 2 Godber C. A happier old age in Denmark. *Br Med J* 1982;284:1729-30.
- 3 Office of Health Economics. *Compendium of health statistics*. 4th edn. London: Office of Health Economics, 1981.

May nifedipine be given in the presence of atrioventricular block to control Prinzmetal's angina?

I presume the question refers to atrioventricular nodal block rather than to bilateral bundle branch block. Therapeutic doses of nifedipine have little influence on the conducting pathways¹ and may be used cautiously in the presence of first degree atrioventricular block. The combination of second or third degree atrioventricular block and Prinzmetal's angina calls for specialist evaluation because coronary artery spasm may itself cause or worsen conduction disorders. Specific treatment for the heart block, as well as for the angina, may then be needed to prevent serious symptoms.—D A CHAMBERLAIN, consultant cardiologist, Brighton.

¹ Rowland E, Evans T, Krikler D. Effect of nifedipine on atrioventricular conduction as compared with verapamil. Intracardiac electrophysiological study. *Br Heart J* 1979;42:124-7.