Elderly Care: Similarities and Solutions in Denmark and the United States

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Much of the information about Denmark in this paper was obtained from interviews with government officials, hospital administrators, medical practitioners, and social workers during a 6-week visit in the spring of 1985 during which the authors were based at the Danish Hospital Institute.

Synopsis

Denmark, like the United States and other developed countries, is experiencing an increase in the percentage of dependent elderly in its population. They consume a disproportionate share of health and social services at a time when government is attempting to contain costs. Both countries face similar problems in caring for the elderly—problems of escalating hospital costs, dramatically increased nursing home costs, and insufficient public revenues to cover their entire care.

Denmark has developed a wide range of services for the elderly—home help, home nursing, adult day care centers, day nursing homes, and sheltered housing. The response in the United States has taken somewhat different directions, although in both countries home and community services have been expanded as a substitute for expensive institutional care.

The possible relevance of the U.S. experience in these areas to Denmark and lessons that the United States might learn from the Scandinavian country are discussed.

DENMARK, a relatively affluent nation, developed comprehensive, high-quality, government-financed health and welfare services during a sustained period of economic growth prior to 1980. Since then the economic climate has worsened and its government is striving to maintain the same level of services in the face of budget reductions, increasing demand for expensive medical technology, and rapidly increasing numbers of elderly who are consuming a greater share of available resources. The population of Denmark is 5.1 million, with a large proportion of the population (15.5 percent) being 65 years or older (11.6 percent in the United States). Those 80 years or older make up about 3 percent of the total population, and it is estimated that this will rise to 22 percent by the end of the century.

Unlike in most countries, the medical and social services for the elderly are financed almost totally by taxes and administered by local (county and municipal) government. All hospital and general practitioner services are provided free of charge, and only if a person's income exceeds a certain amount does he or she have to contribute to the cost of nursing home care and such social services as home help, meals-on-wheels, and sheltered housing. There is virtually no private, for-profit sector operating in health or social services in Denmark. Even those few institutions that are built by voluntary organizations are closely regulated, and salaries of the employees are paid by the government.

The increased need for services for the disabled elderly in Denmark's current economic climate is causing a reappraisal of the ways the country is meeting its obligation to its old people.

Responsibilities of the Counties

Denmark has a strong tradition of decentralized government with 15 counties and 275 municipalities assuming more and more responsibilities.

Counties provide virtually all hospital and medical care services for the elderly. They own and administer all of the hospitals in their area. They pay the salaries of physicians who work in the hospitals and reimburse general practitioners for their services on a combination of capitation and fee-for-service basis, except for Copenhagen which pays general practitioners only on a capitation basis. About 78 percent of the county's budget is used for hospitals and other health services.

County services are financed from a combination of county taxes and a State (national government) block grant.

The State has been steadily reducing block grants to counties as a part of its effort to limit public expenditures and would like the counties to assume total financial responsibility for their services in the near future. The State believes that hospital budgets are too large. Therefore, in a move to force hospitals to cut their budgets to reduce expenditures, the State imposed a freeze on the percent of taxes that counties could raise at the same time that it reduced the block grant.

One way the hospitals would like to economize is to phase out beds that are occupied by the elderly whose treatment is finished and who are awaiting spaces in nursing homes, home services, or sheltered housing. Some of the elderly spend months in hospital beds because the demand for accommodations and services outside the hospital far exceeds the supply. The problem is most severe in large urban centers like Copenhagen, where about 25 percent of the acute care beds are "blocked" by the elderly. Long hospital stays are thought to be as bad for the patient as they are for the hospital's budget since hospital life is devoid of privacy, requires the acceptance of services offered whether they are needed or not, and a decreasing hospital staff has little time to give chronically ill patients individualized attention. These and other seemingly unavoidable circumstances result in more dependent persons in need of more social services than would be the case if they could be promptly discharged.

Responsibilities of Municipalities

The municipalities are legally responsible for nursing homes, day nursing homes, home nursing services, home help, meals-on-wheels, day centers for the elderly, and sheltered housing. These services are financed by municipal taxes, a block grant from the State, some occasional specific subsidies from the State and, to a small extent, client contributions from those with an income over a specified amount. When payment is required, it is determined solely on the basis of income so that the elderly person's assets need not be depleted.

Municipalities are making strong efforts to supply services the dependent elderly need and, even though they are reimbursed by the State for 50 percent of the costs of many social services, they are still not able to meet the demand. High priority is placed on providing services that preserve and strengthen the capabilities of the dependent elderly, particularly on services that will enable them to remain in their homes as long as possible. There is little, if any, expansion of nursing homes despite a waiting list of about 1,000 hospitalized persons and 2,000–3,000 persons waiting at home. Social policy makers, believing that nursing homes are inappropriate places for the elderly, hope gradually to eliminate the need for them by strengthening home nursing, home help, and other social services. Ideally, in their view, the elderly would remain in their own homes or move to sheltered housing and remain there until they die, supported by appropriate services 24 hours a day, if necessary.

In addition to supplying the services, the municipalities decide who shall have access to them. This situation often creates tension between the staff of county-run hospitals (who believe that their limited resources are being used to care for patients who should be the municipality's responsibility) and the officials of municipalities that do not have the resources to provide the desired level of home and community services. The expansion of the major services is described in the following sections.

Home-help. Home-help services were increased approximately 60 percent between 1975 and 1985 in part because the State reimbursed 75 percent of their costs between 1978 and 1980 to stimulate growth and then reverted to a 50 percent rate of cost reimbursement. Only persons whose income is above a certain level pay part of the costs. Home-help workers are trained for 7 weeks, but it is planned to increase their training to 1 year and expand their tasks to include some physical exercise and mental stimulation of clients to help maintain physical and mental capabilities. Many home helpers are part-time workers. Some municipalities already have extended their home-help service to include nights and weekends, and others are planning to do so.

All persons approved by the municipality receive some services, but for many, it is not possible to provide the recommended or the optimal amount. Home help is thought to reduce the need for nursing homes and prevent hospitalization of persons needing immediate personal (not medical) care. It is recognized that when the amount of home care exceeds a certain point it is not less expensive than nursing home care but, according to some policy planners, the advantages to the individual of remaining in the atmosphere of the

home offset any additional expenses. However, many health professionals and some social workers are concerned that, when home care is used as an alternative to nursing home care, the severely dependent elderly person may become socially isolated with its consequent negative effects.

Home nursing. Home nurses carry out treatments prescribed by the general practitioner as well as provide personal nursing care. Home nursing service is free to all clients; municipalities and the State each pay 50 percent of the cost. The number of persons employed full time in home nursing services increased by about 51 percent between 1975 and 1985.

Some municipalities have introduced innovations designed to take account of clients' problems early to decrease or delay hospital and nursing home admissions and to help relatives maintain the client at home. These innovations include home nurses available 24 hours a day for both routine and urgent care and a "bed at home" program. In this service, the bed of a severely disabled elderly person in his or her home is recognized as a nursing home bed (and considered as an extension of the nursing home), and the elderly person is visited regularly and frequently by the nursing home team.

Meals-on-wheels. Almost all municipalities offer meals-on-wheels which are paid for jointly by the municipality and the person receiving the service. The meals are often prepared and distributed by nursing homes in the area.

Adult day care centers. The majority of municipalities operate day care centers for the elderly that provide general daytime care, social contacts, and other services (for example, physiotherapy, occupational therapy, baths) to facilitate the independence of participants, thus helping them to remain in their own homes. The number of day care centers for the elderly is steadily increasing. The municipality determines who has access to these centers, the number of times each week they can attend, and how much they must pay.

Day nursing homes. Municipalities are required to provide day nursing homes for persons who need care comparable to the level found in residential nursing homes but who are still able to remain in their own homes at night. Persons admitted to the program pay toward the cost of meals and care. Most day nursing homes are established in conjunction with residential nursing homes, and transportation is provided by the municipality. This type of service is also increasing, and it is expected to decrease residential nursing home admissions.

Nursing homes. Nursing homes are intended for persons who need constant nursing care and cannot manage to live in their own homes or in sheltered housing with the current level of support from home help, home nursing, and other home services. The 50,000 nursing home beds in Denmark are fully occupied, and about 1,000 people in hospitals and at least double that number in the community are waiting for places, according to officials in the Ministry of Social Affairs. The municipalities are responsible for providing the necessary number of nursing home places for their inhabitants. Occasionally, a voluntary organization will finance the building of a home and operate it under contract with the municipality, but the vast majority of homes are built and run by the municipalities.

Before the mid 1960s most of Denmark's nursing homes were private proprietary homes of varying quality, and they were reimbursed by municipalities, which had little effective control over them. That changed in 1964 when a law was enacted which prevented the State from reimbursing municipalities for any costs of nursing homes unless the homes were established and run by the municipalities or by nonprofit organizations under approved conditions. During the 1960s and early 1970s, a time of economic prosperity, municipalities built many high-quality nursing homes, which resulted in the virtual disappearance of private nursing homes.

For the most part, these new homes have single rooms of not less than 15 square meters, a private bath and toilet of 4 square meters, and a closet (*1*). The room is usually furnished with the resident's own furniture. There is a strong conviction that old people have a right to privacy (that is, their own room), and only those institutions built in the 1950s (about 10 percent) have double rooms. For couples, two connecting rooms are provided. The homes are placed in the community to facilitate contact with relatives and friends. The average home accommodates about 40 persons.

Admission to nursing homes must be approved by the municipality. Although physicians in the hospitals can recommend, and in fact have significant influence in determining, who is admitted, the municipality makes the final decision. Once admitted, clients must waive their pensions (but receive

a small amount for personal necessities) and give up any sheltered housing or pensioner's flat (apartments rented by the municipality at low rates to the elderly with low incomes). Once admitted to a nursing home, residents are rarely discharged. They generally remain until they die—an average stay of 2 to 2 1/2 years. Very little rehabilitation is feasible, and extraordinary measures (for example, kidney dialysis or use of respirators) are not used to prolong life. However, if a person becomes acutely ill and the nursing home is unable to cope, the person is transferred to the hospital for treatment.

The cost of building nursing homes is only part of the problem.

As the criteria for admission become more strict (both because of a limited supply and the philosophy of community care), those admitted are more dependent and require more care, and more personnel are needed to maintain the same quality of service (*2*). Increasing costs for personnel is a major concern. It was reported to us that one municipality has completed a nursing home, but it is vacant because there is no money to pay staff.

Appropriate placement of the mentally impaired elderly is also a persistent problem. Psychiatric nursing homes comprise only 4 percent of all nursing homes and have only 2.3 percent of all nursing home beds (*3*). Waiting lists for admission are long, so mildly disturbed persons are often sent to regular nursing homes and only if their behavior becomes very bizarre are they transferred to a psychiatric hospital.

As mentioned earlier, Denmark is limiting the number of nursing homes and hopes that the severely dependent elderly can be accommodated in sheltered housing and expanded home health services.

Sheltered housing. Sheltered housing units accommodate people who are unable to manage in their own homes, and this arrangement is by far the fastest expanding service for the elderly. There were 6,300 sheltered flats in 1985, and the number is estimated to increase to 7,400 by 1988, according to the Ministry of Social Affairs. Limited nursing care and assistance in personal hygiene and housekeeping are provided when needed. Residents can retain their own or use the housing unit's general practitioner, who makes routine visits. These apartments are built to help maintain independent living and have call cords in every room so residents can signal for immediate help day or night. They are designed to accommodate the physically disabled with modified kitchen equipment, wheel chair accessibility to the bath and toilet, ramps, and wide passageways. Residents usually use their own furniture. Although each apartment has a kitchen, meals are also available in a central dining room. Resident councils are active and determine most rules and activities.

Municipalities are responsible for providing sheltered housing which they can establish and operate or delegate operation to a voluntary organization under their authority. The municipality approves access to sheltered housing in the same way it approves admission to a nursing home. Couples can qualify if one spouse needs this type of housing. Pensions and any earnings are retained by the resident, but a charge of 25 percent of income is made for rent, heat, electricity, and services.

Collective housing. Collective housing is similar to sheltered housing, but is intended for persons needing less assistance. It is designed to accommodate disabled persons of any age, but does not have staff on call day and night. Municipalities are not required to provide this type of housing, but many provide loans for construction. The units are rented directly from a voluntary organization or a housing society. The number of these units is increasing, but at a much slower rate than sheltered housing.

U.S. Response to Similar Problems

Rapidly escalating hospital costs for the elderly. The United States, like Denmark and other developed countries, experienced high and rapidly increasing costs and use of hospitals from the 1960s until the 1980s, with the elderly consuming a disproportionate share of hospital resources. In the United States a variety of cost-containing measures were instituted, but by far the most effective was changing the way the Federal Government reimbursed hospitals for care of Medicare patients. Medicare, the Government's largest health program, provides health insurance coverage for about 30 million persons who are 65 years or older or permanently disabled and for those with end stage renal disease. Medicare covers hospital services and a limited amount of nursing home and home health services.

Until recently hospitals, because they were reimbursed by Medicare on a retrospective cost basis, had little incentive to control costs. As a result hospital costs increased at a much higher rate than overall inflation. In order to slow the costs of

hospital care for the elderly Congress legislated in 1983 a new Medicare prospective payment system (PPS) which reimburses hospitals at a single flat rate per case based on diagnosis-related groups (DRGs) to which Medicare patients are assigned. Each hospital keeps or loses the difference between the DRG rate and the actual cost for that unit of care.

Prospective payment was designed to provide strong financial incentives for hospitals to control their costs, and in that regard they have been successful. From 1974 through 1982 Medicare hospital payments increased at an annual rate of 19.9 percent; in 1983 the rate was only 10.2 percent, lower than at any time in the previous 10 years (*4*). By 1985 the rate of increase slowed to 9.2 percent (*5,6*).

The PPS provides incentives to eliminate unnecessary services and improve management. Hospital admissions and length of stays have decreased, and thus far, there are no objective data indicating that access to care has diminished or that the quality of care has declined as a result of the PPS (*6*). The impact of the PPS has extended beyond Medicare to Medicaid (a joint Federal-State Program that finances health care for the poor); several States have developed DRG-based systems for Medicaid; and some private health insurance plans, for example Blue Cross/Blue Shield, are experimenting with prospective pricing.

Increases in nursing home costs. Medicaid pays nearly half of all nursing home revenues in the United States. The States, which contribute close to half of Medicaid funds, as well as the Federal Government, have a strong interest in controlling Medicaid nursing home expenditures. Most Medicaid programs pay nursing homes prospectively determined cost-based rates that are adjusted based on the previous years' costs, inflation, and other factors. The reimbursement is often below cost, causing nursing homes to give preference to higher paying private patients and to less dependent Medicaid patients.

With fixed reimbursement rates nursing homes benefit by allowing the least dependent patients to remain rather than replacing them with new patients who are likely to be more dependent and whose care is more costly. Also, under this system nursing homes feel little pressure to improve the quality of care beyond the minimum required levels.

To combat these problems several State governments are experimenting with case-mix reimbursement systems for Medicaid nursing home residents in which reimbursement is based on the resident's condition and care needs so that nursing home resources are used more effectively and efficiently and, therefore, the access of elderly Medicaid clients with relatively high care needs to nursing homes is approved (*7*). An interesting variation being evaluated is a patient-based nursing home incentive system in which bonuses are paid for admitting severely dependent patients, for discharging patients who remain in the community for at least 3 months, and for achieving specified outcome goals with selected patients who require special care to improve or maintain their functional or health status (*8*).

Insufficient public resources to cover the entire cost of caring for the elderly. The total national expenditures for care in nursing homes in the United States grew 10-fold between 1965 and 1980 and it is estimated that, despite home and community care services, such expenditures will quadruple by 1990 (*9*).

Medicare was not designed to meet the needs of long-term care. It covers only up to 100 days of skilled care in a nursing home under restrictive conditions. Few persons have the private resources to finance long stays in nursing homes. As a result many persons in nursing homes for longer than a year are forced to deplete their resources to the point that they become "poor" and eligible for Medicaid. At that time State and Federal governments bear the cost. The severe strain on both government and individual resources has increased interest in the possibility of private long-term care insurance. A prototype policy has been developed covering nursing home costs after a 90-day deductible period (*9*). A few private insurance companies in the United States are also experimenting with nursing home care policies.

Home and community services as a substitute for institutional care. The sharply increasing cost of nursing home care and the assumption that the disabled elderly benefit from remaining in the community as long as possible have resulted in both the United States and Denmark in an expansion of home and community services in the hope that they will decrease the need for institutional care. Both countries have developed personal and home care services, meals-on-wheels, adult day care centers, and expanded home nursing services for the elderly. However, the view now emerging in the United States is that home and community

services are not a substitute for, but a complement to, nursing home care. Studies show that home and community services rarely reduce nursing home use for those who stay in nursing homes for periods longer than 6 months, and most clients who use these services would not have entered a nursing home even if the services had not been offered (*10*). Community and home care is now coming to be regarded in the United States, not as an effective way to reduce nursing home expenditures, but rather as a new service directed to a new population.

Findings stemming from the recent National Long Term Care Demonstration which involved 6,300 persons in 10 States support this view. Although case-managed community services can reduce unmet needs for basic living assistance and improve the quality of life of the elderly and their families, they did not necessarily help keep the frail elderly out of nursing homes and hospitals (*11*).

Relevance of U.S. Experience for Denmark

Policy planners in Demark might well consider carefully the U.S. studies of the role of community services in long-term care. Among other studies, the National Long Term Care Demonstration (sometimes called the Channeling Demonstrations)—which involved thousands of frail elderly persons, millions of dollars, and 6 years of work—did not support the concept that community care can be substituted for nursing homes. However, it did show that there is a significant group of extremely impaired older people who need organized home and community services. There is an accumulation of evidence suggesting that community services are an integral part of a continuum of long-term care and that it is necessary for a rapidly increasing group of dependent elderly within the population of those over 65. Thus, the lesson to be learned from the United States may be that home and community services and nursing homes are all necessary components of long-term care and that Denmark may still have to increase its nursing home capacity while at the same time continue to expand home and community services.

How to pay for such services is the question of the day. As mentioned earlier, no country has been able to support the entire cost of caring for the elderly out of public funds. In Europe it is common to require those above a certain income receiving social nursing home services to pay part of the cost, while in the United States those with sufficient assets must pay for almost all of their care out-of-pocket. However, the United States is now experimenting with private long-term care insurance. Developments in this direction might be followed as a possible option in financing care for the elderly. Despite the poor experience with nongovernmental nursing homes in Denmark in the past, economic considerations may force an expansion of nursing homes and community services beyond government ownership. The development of more nonprofit, voluntary nursing homes under careful government regulation, financed at least in part by those willing to pay directly or through private insurance coverage, would reduce the strain on governmental resources.

Very few nursing home residents in Denmark are discharged once they are admitted, and our general impression after visiting nursing homes in Denmark is that the residents are less dependent than those in the United States. In the United States most elderly entering a nursing home die quickly after admission or are discharged after a short period of rehabilitation or convalescence. Almost a third of those admitted in the United States are released within 1 month, half are released within 3 months, and nearly two-thirds are released within 6 months (*12*). Possibly, different populations are being served, but budgeting that takes into account the cost of caring for severely dependent elderly and that promotes rehabilitation and discharge might be helpful to municipal authorities as they decide how to allocate their limited resources to nursing homes.

The DRG method of prospective payment has attracted the attention of a number of European countries as a budgeting tactic, not a reimbursement or payment mechanism. At present Denmark does not have an adequate data base for the DRG type of budgeting, but efforts are being made to improve the data base to enable the development of a more reasoned budget process.

Relevance of Denmark's Experience for U.S.

The foremost lesson to be learned from Denmark is the social commitment of both government and people to provide high-quality care for all of the elderly. The exemplary programs that Denmark has developed, which are the envy of other nations, can be attributed largely to that commitment. The Danish people have been willing to support health and social services through heavy taxation. Denmark has one of the highest tax rates in the world (51 percent of the gross national

product compared with only 30 percent for the United States) (*13*).

Another valuable lesson is that government programs can provide extremely high-quality services. The American people and government officials might well ponder this accomplishment.

None of the services we have described offer complete solutions to any of the problems associated with providing appropriate care for the growing numbers of dependent elderly in our populations, but they may generate some insights of fresh ways to approach problems that will move us closer to our goal.

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Birth Weight and Subsequent Growth Among Navajo Children

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Synopsis

An examination of length, weight, and birth weight data routinely collected from the clinics supported by the Navajo Nation Special Supplemental Program for Women, Infants, and Children (WIC) showed an association between birth weight and subsequent growth status. Navajo children less than 2 years of age entering the WIC Program were divided into low, normal, and high birth weight groups, and their growth patterns were plotted when they returned periodically for reassessment.

Overall, the children tended to have low length-for-age and high weight-for-length measures, relative to the reference population, that suggest suboptimal nutritional status. Children with birth weights less than 2,500 grams (g) were consistently shorter, lighter, and thinner than children with birth weights greater than 2,500 g. Although the overall growth status of the children improved between 1975 and 1980, the growth among the children with low birth weights never fully caught up with that of the other Navajo children. Moreover, during that period, the normal birth weight group had a modest improvement in length-for-age relative to the reference population, but the low birth weight group did not. These findings suggest that prenatal interventions to improve the birth weight status of Navajo infants may result in improving the growth status of Navajo children.