

OTA Cites Financial Disaster of Alzheimer's

The Office of Technology Assessment has produced a fat new report on Alzheimer's disease which is expected to supply a basic reference for future federal legislation, particularly in financing long-term care.

The report, "Losing a million minds," says the disease now affects 2 million to 4 million Americans, and other forms of dementia—including that caused by vascular disease—affect another 1 million to 2 million. Since there is no known way to prevent or cure Alzheimer's disease, the number of those afflicted is expected to almost double by 2000 and quintuple by 2040 as the Baby Boomers hit senescence.

Direct and indirect costs of dementia are estimated at \$40 billion a year. People are paying 50% of nursing home costs out of their own pockets, with federal and state sources paying for most of the rest. Private insurance covers only 1%. Medicare, which does not cover long-term care beyond 90 days, contributes only 2%. The big federal contributor is Medicaid, for which people often become eligible only after they have totally exhausted their own resources. Most older Americans are not prepared for the financial realities, according to a Gallup survey which showed that 79% "believed that Medicare would pay for all or part of their nursing home care."

As the report makes abundantly clear, financing is not the only problem. Difficulties are posed by "the fragmented nature, complex organization, limited access, and uncertain eligibility criteria" for long-term care, as well as by the shortage of trained personnel at every level. Physicians have little formal training in geriatrics; the shortage of nurses, "the backbone of long-term care," will reach 75,000 by 1990; and there are few people to coordinate and help patients plan their course of care.

The burden of Alzheimer's and other dementias falls particularly hard on the family members, many of whom are elderly and infirm themselves, who must care for these patients. Government insurance plans lack adequate provisions to relieve some of this burden, such as day care or home services. The report warns that various factors, such as family breakups and the declining birthrate, will probably make family support less common in the future.

Federal concern about dementia has materialized only in the past decade. Research support has gone from less than \$4 million in 1976 to about \$65 million in 1987. Ten Alzheimer's research centers have been cre-

ated in the past few years. The report says the number of publications on the dementias grew from 87 in 1976 to 548 in 1985.

But with no cure in sight, the growing problem of Alzheimer's disease is an urgent reminder that the health care system as now constituted is ill-prepared to handle the country's changing demographics. The aging of the population as a whole requires a new focus on the problems, both physical and psychological, of chronic disease and disablement. ■ **CONSTANCE HOLDEN**

A Secret Plan to Speed Up SDI?

The Pentagon is putting together a highly classified blueprint for a missile defense system that could be deployed in the mid-1990s and has quietly revamped the Strategic Defense Initiative (SDI) to focus on technologies that would be required for such a system, according to a report by two Senate staff investigators.

The report, which is based on interviews with some 60 scientists and managers in the SDI program, could add to the political problems that SDI is already encountering on Capitol Hill. It essentially accuses the Defense Department of moving toward early deployment of SDI even though such a shift in priority has not been approved by either the President or Congress.

The study was conducted for Senators William Proxmire (D-WI) and J. Bennett Johnston (D-LA), both of whom have been highly critical of the SDI program.

Long-term research efforts have been cut to focus on near-term technologies, according to the report, and this "is creating turmoil in a research program that has already been plagued by radically shifting priorities and funding allocations in the past three years." Lt. General James Abrahamson, the head of the SDI program, denied in a letter to Proxmire and Johnston that these shifts reflect a change in the program's timetable toward early deployment. Abrahamson and other SDI officials have said in the past that shifts in priorities have occurred largely because Congress has cut the overall budget for SDI, which has forced choices to be made between competing projects.

The Senate staff report argues that the shifts that have occurred in the past few months all point in the direction of early deployment, however. "We stand by our

conclusions," says James T. Bruce, an aide to Johnston who coauthored the report with Douglas C. Waller of Proxmire's staff.

The report contends that programs to develop heat-seeking missiles have been relatively protected from budget cuts, while more exotic defenses based on lasers and particle beams have been slashed much more deeply. Moreover, the Pentagon is requesting a major infusion of funds for a heavy rocket that would be capable of lofting big payloads into space—platforms for heat-seeking rockets, for example. These shifts in priority occurred late last year, and were reinforced in the Administration's fiscal year 1988 budget request (*Science*, 16 January, p. 277).

Not only is SDI focusing on technologies that could be deployed relatively soon but a "black program" has been initiated to work out a detailed plan of what a near-term missile defense would look like, the report contends. "It appears that most members of Congress are being kept in the dark about this secret program," Bruce and Waller state.

Although they say no SDI officials would admit that such a secret plan exists, Bruce and Waller have concluded that the SDI office has in mind a system that would be deployed around 1994 or 1995. They say it would consist of thousands of small rockets based on space platforms that would be fired at Soviet ballistic missiles soon after launch, and between 400 and 1000 ground-based interceptors that would be used to shoot down some of the warheads that get past the space-based rockets. Such a system would be able to stop only one warhead in six, the report states.

The report comes in the midst of Congress's examination of the SDI budget for FY 1988 and it is likely to provide more ammunition for the program's critics. It is already encountering heavy fire. For example, the House Armed Services Committee last week cut about \$2 billion from the \$5.8 billion the Administration requested for the program, and further cuts are anticipated when the bill reaches the House floor. Moreover, the committee directed the Administration to conduct the SDI program within a strict interpretation of the 1972 Antiballistic Missile Treaty, which would restrict the testing of near-term technologies. The Senate is likely to follow suit.

In past years, Congress has approved an overall budget for SDI and given the Administration considerable flexibility in how the money should be spent. Allegations that the Pentagon is moving toward early deployment could, however, encourage Congress to put some restrictions on how the program should be structured. ■

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