
II. PROFILE

Funding And Research Programs In Medications And The Elderly

by Linda G. Greenberg

Per capita health care expenditures for the elderly rose from \$498 during 1972-1973 to \$2,099 in 1988. During this same time period, prescription drug expenditures increased from \$68 to \$326, contributing to an escalation in out-of-pocket expenses from 22 percent to 27 percent of an average elderly person's personal health costs. Recent estimates show that the elderly consume nearly 30 percent of all prescription medications. Advances in drug therapy have made important contributions to increased life expectancy but also place the elderly at increased risk of adverse drug reactions and iatrogenic (treatment-induced) illnesses. There is substantial agreement in government, academia, and the pharmaceutical industry that as costs, potency, and potential for adverse reaction among drugs increase, better data on the use of drugs in the elderly are needed.

This profile explores three sectors of U.S. funding for research in prescription medications and the elderly. These include private foundations, government, and private industries, specifically pharmaceutical companies.

The pharmaceutical industry heavily supports research and development of new medications, and to a lesser degree their effects on the elderly. A small number of foundations fund projects in appropriate drug prescribing methods for the elderly and programs that promote advances in geriatric medicine and clinical pharmacology. Federal agency research varies according to the agency's specified research agenda. Topics include research on drug utilization patterns, drug testing regulations, or pharmacologic approaches to geriatric problems,

among others. This sampling of private- and public-sector funders reports on the status of such research funding.

Foundation Funding Activities

Most foundation initiatives for the elderly support efforts to improve the health of the aging population by providing comprehensive health and social services and strengthening systems for improved services. Educational campaigns to inform the elderly about the risks of medications are among those commonly funded by private foundations. Although foundations may have more flexibility in funding the cutting edge of innovation in medical research than the public sector with limited funding capacities, they contribute a relatively small amount to research efforts in medication therapy for the elderly. During 1986 and 1987, thirteen grants, totaling \$1,952,625, related to prescription medications and the elderly. These figures are drawn from the latest available information from the Foundation Center's database of 2,215 grants for aging in 1986 and 1987.¹

The John A. Hartford Foundation. The John A. Hartford Foundation is one of a limited number of foundations focusing on medication use among the elderly. One of the foundation's two major funding areas is its Aging and Health program, under which sixteen grants were awarded totaling \$5 million in 1989. The Aging and Health program concentrates its resources in four areas: (1) improving drug therapy among the elderly; (2) reducing functional deterioration of hospitalized elderly persons; (3) improving the financing and organization of long-term care for the elderly; and (4) recruiting physicians and researchers to careers in academic geriatrics.

The Medications and the Elderly portion of Hartford's Aging and Health program funds projects that aim to improve prescribing, monitoring, and use of prescription medications among the elderly. The Medications and the Elderly program was initiated in 1985 by the Board of Trustees "to

Linda Greenberg is assistant editor of Health Affairs and writes the GrantWatch section each issue.

effect changes in such areas as prescribing patterns, the monitoring of drug use in institutional and noninstitutional settings, and the transfer of medication information from providers to patients." Four projects totaling \$1.6 million were funded under this program. In 1987, the board authorized an additional \$4.8 million over six years for the program. During 1986 to 1990, ten projects have received a total of \$4 million. The Medications and the Elderly program is reaching the close of its funding cycle and will award remaining program funds in the near future. To date, the foundation has funded twelve projects totaling \$5.2 million.

The Medications and the Elderly program's goal is to encourage innovative solutions to prevalent problems in drug use among the elderly. Funded projects focus on appropriate medication prescribing methods and aim to raise the awareness of physicians, pharmacists, elderly patients, and their caregivers to avoid the dangers of drug-related problems. The foundation has funded a variety of education interventions to reduce the likelihood of inappropriate drug usage or hazardous combinations of drugs prescribed for the elderly.

Projects to improve drug therapy of the elderly in nursing homes also have received Hartford funding. For example, the University of California, Los Angeles received \$250,000 over three years in 1989 to conduct an intervention program in which a pharmacist uses computerized data on patients' medication usage and alerts the nursing home's physician of potential medication problems.

Hartford also has funded several geriatric medical education programs for physicians and health professionals and an annual scholarship program in geriatric medicine and pharmacology for medical students. The American Federation for Aging Research (AFAR) has received about \$500,000 over three years to administer a scholarship program, which aims to encourage medical students to pursue geriatric pharmacology and related research issues.

The Charles A. Dana Foundation. A priority funding area of The Charles A. Dana Foundation is geriatric medicine. In

1985, the foundation initiated a program to develop major centers of aging research within academic institutions that have outstanding geriatrics departments. Five academic institutions received \$2.9 million from 1985 to 1989 to train physicians as geriatric clinical investigators and conduct research on geriatric syndromes such as dementia, malnutrition, loss of mobility, and accidents. Three additional medical research centers have received grants totaling over \$600,000 to develop the capacity to train physicians in academic geriatric medicine and research. Since 1985, Dana has awarded \$690,000 to the American Federation of Aging Research to administer a scholar's awards program for medical students conducting research in geriatric medicine.

Other foundations. A few other private foundations have supported projects that also address medication use among the elderly. For example, The Pew Charitable Trusts awarded \$210,000 over two years in 1988 to Pennsylvania State University's Medicine, Health, and Aging Team for research on the role of prescription drug use and drug coverage on the health status of the elderly and their use of health services.

To explore issues in medications use among the elderly, The Robert Wood Johnson Foundation provided support to the Geriatric Pharmacy Institute of the Philadelphia College of Pharmacy to sponsor meetings in November 1988 and March 1989 with experts in aging and other disciplines. A conference report that summarizes panel discussions and key issues, entitled *Medications Use in the Elderly: A Critical Analysis*, is available from the foundation.

Since 1986, the Retirement Research Foundation has contributed over \$800,000 for six projects. Several of these focus on behavioral alternatives to medication use for specific health problems of older adults and education campaigns on prescription drug use and cost containment for the elderly. Several other foundations, such as the Richard and Rhoda Goldman Fund, the Skillman Foundation, and the Marin Community Foundation, have awarded grants under \$10,000 for projects that provide

medication education services for the elderly.²

While several large private foundations fund programs to improve care for frail and dependent elderly and train health professionals in geriatrics, they do not have specific funding initiatives that target medication use among the elderly.

Pharmaceutical Industry Funding

Pharmaceutical companies support their own research and development (R&D) of new products. Projections for 1989 show that industry (including pharmaceutical firms) accounted for 45 percent of total spending for U.S. biomedical research and development, compared with 33 percent by the National Institutes of Health.³ Beyond new product R&D, several pharmaceutical companies have established geriatric pharmacology scholarship programs for researchers and physicians.

A trend is emerging among pharmaceutical companies regarding foundation activities. "Recently, more pharmaceutical companies have been developing their own private foundations," said Maurice Bechtel, Pharmaceutical Manufacturers Association (PMA) Foundation president, in an interview. A database on these newly formed foundations will be compiled by the PMA Foundation by spring 1991.

The Merck Company Foundation and Merck and Company fund education programs in medical science, contributing over \$9.8 million in 1989. The Merck Company Foundation inaugurated a fellowship program in geriatric clinical pharmacology in 1988 to encourage physicians to become involved in geriatric medicine and clinical pharmacology as it relates to the elderly population. The fellowship program is administered by the American Federation for Aging Research. A total of eight fellows will have received \$50,000 grants over two years by the end of 1990.

Burroughs-Wellcome Fund sponsors an annual Clinical Pharmacology Scholar Awards program (renamed the Experimental Therapeutics Scholars program in 1990), in which scholars receive \$300,000 over five

years to conduct research on medication use among the elderly. The program, initiated in 1961, funds research in disciplines such as experimental therapeutics, molecular parasitology, toxicology, immunopharmacology of allergic diseases, and innovative methods in drug design. Under the fund's Pharmacoeconomics Scholar Awards program, which completed its last year of funding in 1990, three of the program's ten scholars conduct research on prescription drugs among the elderly.

The PMA Foundation's Scholars program awarded \$2.3 million to eighty-two young researchers and scientists to conduct research in clinical and basic pharmacology, toxicology, pharmaceuticals, and pharmacology/morphology in winter 1989 and spring 1990. Although the program funds clinical geriatric pharmacology, it does not have its own separate funding category. Since the program's inception in 1966, grants totaling \$29 million have been awarded.

Federal Government Funding

The major government agencies involved in funding medications and the elderly projects include the National Institutes of Health's National Institute on Aging (NIA), the Health Care Financing Administration (HCFA), and the Agency for Health Care Policy and Research (AHCPR). There is some collaboration between federal agencies in the design and funding of research programs in medications and the elderly.

National Institute on Aging. Recently, NIA launched a first-of-its-kind funding initiative for pharmacology and geriatric medicine research, specifically focusing on the use and effectiveness of medications in older people. The purpose of this request for applications (RFA), announced in August 1989, is to acquire new knowledge in geriatric pharmacology to improve drug prescribing for the elderly. The research community has reacted favorably to the RFA; over 100 applications have been submitted to date, said Stanley Slater, director of the Pharmacology Program, NIA Geriatrics Branch, in an interview. NIA will pro-

vide up to \$2 million for the projects during their first year and cover approved expenses for up to five years. Awardees will be notified in October 1990.

Health Care Financing Administration. In 1988, anticipating enactment of Medicare's new benefit to protect beneficiaries against catastrophic medical expenses, HCFA initiated funding for over thirteen studies, totaling more than \$4 million, that sought to improve the quality and quantity of information about prescription drug use among the elderly. However, with the repeal of the Medicare Catastrophic Coverage Act, HCFA withdrew funding for some research studies. HCFA's Office of Research and Demonstrations is directing the remaining studies. These studies, most of which are ongoing or near completion, include analyses of prescription and nonprescription drug use among the elderly, and techniques to measure quality and develop standards and criteria for drug utilization review. Three studies analyze drug use among the elderly using the Pennsylvania Department on Aging's Pharmaceutical Assistance Contract for the Elderly (PACE) database.

Agency for Health Care Policy and Research. AHCPR expands upon the work of its predecessor, the National Center for Health Services Research and Health Care Technology Assessment (NCHSR). The agency's role is to fund research in health care delivery services, including appropriate drug prescribing methods for the elderly. As early as the 1970s, NCHSR had funded studies focusing on medications and the elderly. Under AHCPR's General Health Services Extramural Research Program, grants support investigator-initiated research in academic institutions. The agency is interested in funding medications research, but no targeted budget is set aside for such projects.

It is roughly estimated that less than 10 percent of AHCPR's extramural program, totaling \$10.9 million in 1990 for new and renewal grants, was awarded to research on medications use in the elderly. In 1990, the University of California, San Francisco received an eighteen-month grant totaling \$320,000 to study drug-related hospitaliza-

tions among the elderly. "Data generated by NCHSR through the [agency's] intramural and extramural programs have challenged people's thoughts in this area," said Norman W. Weissman, director of the Center for General Health Services Extramural Research, in an interview. "We are open to funding good research. There are no limits on [federal] funding in this area."

Health Resources and Services Administration (HRSA). The HRSA Bureau of Health Professions has funded career training in geriatrics and gerontology through Area Health Education Centers and Geriatric Education Centers. While these education programs do not specifically focus on medication use among the elderly, they present an opportunity to train health professionals to meet the elderly's diverse needs. For the past several years, the federal government has allocated \$50 million a year to fund these geriatric education centers, which also are administered through the Administration on Aging, National Institute on Aging, National Institute of Mental Health, and Department of Veterans Affairs.⁴ "By the end of 1989, thirty-eight centers were providing multidisciplinary geriatric training for health professions faculty, students, and community practitioners in twenty-seven states and the Commonwealth of Puerto Rico," noted a recent HRSA report to Congress.⁵

NOTES

1. I.A. Gutheil and R.H. Chernesky, "Grantmaking in Aging: 1983-1987." This research was supported by the Florence V. Burden Foundation to the Postdoctoral Fellowship Program in Applied Gerontology of the Gerontological Society of America. A forthcoming publication based on the authors' research will be published by the Foundation Center this fall.
2. Ibid.
3. National Institutes of Health, *NIH Data Book, 1989* (Washington, D.C.: NIH, 1989), 2.
4. U.S. Department of Health and Human Services, Bureau of Health Professions, *Seventh Report to the President and Congress on the Status of Health Personnel in the United States* (March 1990), III-B-5.
5. Ibid., IV-G-2.

Reproduced with permission of copyright owner. Further reproduction prohibited without permission.