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ABSTRACT

Currently, the extent of palliative care instruction varies considerably across and within the three major phases of the physician education and training process. This analysis of current educational efforts in palliative care is based on information obtained from a survey conducted of all United States medical schools, surveys conducted on United States residency programs, and discussions with people involved in the medical education and training process. Results show that physicians receive varying amounts of instruction in palliative care topics as they progress through 4 years of medical school and 3 to 8 years of subsequent specialized training in a residency program. Each of the seven palliative care areas in the survey was required by 56% or more of the 125 medical schools responding. About half of the 7,787 specialty and subspecialty residency programs educated students in end-of-life care. Some of the medical schools offered palliative care as a student elective; some did not offer it at all. Nonetheless, the survey finds that many medical schools show interest in providing additional instruction and training in palliative care. Also covered are the plans of the United States Department of Health and Human Services for funding palliative care projects. Scope and methodology, U.S. medical school survey results, and U.S. Residency Program survey results are appended. (MKA)

United States General Accounting Office

GAO

Report to Congressional Requesters

April 1998

SUICIDE PREVENTION

Efforts to Increase Research and Education in Palliative Care

HEHS-98-128

GAO

United States
General Accounting Office
Washington, D.C. 20548

Health, Education, and
Human Services Division

B-279326

April 30, 1998

The Honorable James M. Jeffords
Chairman
The Honorable Edward M. Kennedy
Ranking Minority Member
Committee on Labor and Human Resources
United States Senate

The Honorable Thomas J. Bliley
Chairman
The Honorable John D. Dingell
Ranking Minority Member
Committee on Commerce
House of Representatives

Calls to legalize physician-assisted suicide point to public concern, supported by several studies, that the current health care system does not adequately relieve suffering for people with certain health care problems. People suffering from terminal or chronic illnesses or from disabilities are considered especially vulnerable to suicide because their need or desire for palliative—or comfort—care may not be adequately met in a health system that focuses on curative care. Palliative care encompasses a range of approaches to manage the physical, psychological, social, and spiritual suffering that may accompany health conditions that are not responsive to curative treatments.[1] Its goal is to improve the quality of life for patients and their families by dealing with issues such as depression and pain and symptom management.

Concerned about the rates of suicide among persons whose health problems are not responsive to curative treatment, the Congress authorized funding to support the research of palliative care issues by passing the Assisted Suicide Funding Restriction Act of 1997,[2] which became law on April 30, 1997. Section 12 of the act amended section 781 of the Public Health Service Act by adding topics related to palliative care and suicide prevention to the list of topics that the Department of Health

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[1] For this report, the term "palliative care" refers to these more specific subjects. We based our definition on the World Health Organization's definition of palliative care, which states that palliative care (1) affirms life and views dying as a normal process, (2) neither hastens nor postpones death, (3) provides relief from pain and other distressing symptoms, (4) integrates the psychological and spiritual aspects of patient care, (5) offers a support system to help patients live as actively as possible until death, and (6) offers a support system to help family members cope during a patient's illness and during their own bereavement.

[2] P.L. 105-12.

and Human Services (HHS) can support under the Health Professional Education Research Program. Under section 781, HHS can provide funds to public and nonprofit entities for research on a variety of health profession issues. The types of topics authorized by the Assisted Suicide Funding Restriction Act include those for educating and training health care providers in palliative care, advancing the biomedical knowledge of pain management, improving access to hospice programs, and assessing the quality of palliative care in different health care systems.

The act requires GAO to report by April 30, 1998, on the extent to which these section 781 projects have furthered the knowledge and practice of palliative care, particularly with regard to the curricula offered and used in medical schools. Our preliminary work showed that no fiscal year 1998 funding for section 781 projects would be awarded by our reporting date. For this reason, in consultation with authorizing committee staff, we focused our effort on determining (1) the extent to which the physician education and training process currently teaches and tests student competency in palliative care issues, (2) HHS' plans for funding palliative care projects under section 781, and (3) other federal and private palliative care research and education initiatives.

Our analysis of current educational efforts in palliative care is based on information obtained from a survey we conducted of all U.S. medical schools, surveys conducted by others on U.S. residency programs, and discussions with persons involved in the medical education and training process. Our discussion of HHS' plans for funding future palliative care projects under section 781 is based on information provided by HHS officials and HHS budgetary documents. Our information on other palliative care initiatives was obtained from various HHS entities, private foundations, nonprofit organizations, and professional associations. We conducted our work from November 1997 through March 1998 in accordance with generally accepted government auditing standards. See appendix I for a discussion of our scope and methodology.

Results in Brief

Physicians receive varying amounts of instruction in palliative care topics as they progress through 4 years of medical school and 3 to 8 years of subsequent specialized training in a residency program. Each of the seven palliative care areas in our survey was required by 56 percent or more of the 125 medical schools responding to our survey. Similarly, about half of the 7,787 specialty and subspecialty residency programs educated students in end-of-life care. Some of the medical schools offered palliative care as a student elective; some did not offer it at all. In addition, many medical schools do not specifically test for competency in palliative care issues. However, our survey showed that many medical schools are interested in providing additional instruction and training in palliative care. About one-third of the schools reported a need to change their curriculum for addressing palliative care for the chronically and terminally ill. Close to half reported a need to include more clinical training in managing pain and depression for these patient populations.

HHS officials plan to use $150,000 of the $452,000 specified for section 781 in the fiscal year 1998 appropriations conference report to support seven medical education research projects, including one palliative care project. Officials from HHS and the medical education research center receiving these funds were not able to specify the amount being spent on the palliative care project because separate budgets are not developed for each project. Of the remaining section 781 funds, all $302,000 will be used to support research for improving the distribution and diversity of the health care workforce. Because of the higher priority that HHS has assigned to this other research, officials do not plan to use any funds for palliative care research, training, or demonstration projects in 1999.

Nevertheless, a substantial amount of research related to palliative care is being funded in ways other than through section 781. Over the last few years, HHS and private entities have invested tens of millions of dollars into projects similar to those specified in the Assisted Suicide Funding Restriction Act. Some HHS agencies have more general projects, not specified in the act, that could also benefit palliative care in the areas of increasing health care access, improving quality of care, and advancing biomedical research. Private foundations and other private organizations have spent millions of dollars to educate and train health professionals in palliative care and improve the quality of care for the terminally and chronically ill.

Background

Palliative care is an important and emerging issue for health care providers, educators, and the general public. As medical advances increase life expectancy, more and more people suffer from chronic and progressively disabling diseases that require treatment for depression and assistance with pain and symptom management. Some recent studies have pointed to significant problems within the health care system that preclude the achievement of the best possible quality of life for patients and their families.[3] Areas identified for improvement include education and training for health care providers, improved pain and symptom management, and access to appropriate and quality health care services.

The Assisted Suicide Funding Restriction Act of 1997 contains a provision designed to focus federal funding on research, training, and demonstration projects that would address these specific problem areas. The act authorizes funding in a number of palliative care topics (see table 1) and directs the Secretary of HHS to emphasize palliative medicine among its research and funding priorities under section 781. Section 781 is within title VII of the Public Health Service Act, which authorizes numerous programs for health professions education and training. Section 781 was first funded in 1993 to conduct health professions education research in four broad topic areas related to (1) educational indebtedness, (2) effect of programs for minority and disadvantaged individuals, (3) extent of investigations and disciplinary actions by state licensing authorities, and (4) primary care. The Bureau of Health Professions within the Health Resources and Services Administration (HRSA) is the HHS agency responsible for administering grants funded under section 781 of title VII.

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[3] "A Controlled Trial to Improve Care for Seriously Ill Hospitalized Patients: The Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments (SUPPORT)," SUPPORT Principal Investigators, The Journal of the American Medical Association, Vol. 274, No. 20 (Nov. 1995); Approaching Death: Improving Care at the End of Life, Committee on Care at the End of Life, Institute of Medicine (Washington, D.C.: National Academy Press, June 1997); Caring for the Dying: Identification and Promotion of Physician Competency, American Board of Internal Medicine (1996).

Table 1: Palliative Care Topics Added to Section 781 of the Public Health Service Act

General topic	Specific provision
Research	Assess the quality of care received by patients with disabilities or terminal or chronic illness by measuring and reporting specific outcomes.
	Compare coordinated health care (which may include coordinated rehabilitation services, symptom control, psychological support, and community-based support services) to traditional health care delivery systems.
	Advance biomedical knowledge of pain management.
Training	Train health care practitioners in pain management, depression identification and treatment, and issues related to palliative care and suicide prevention.
	Train the faculty of health professions schools in pain management, depression identification and treatment, and issues related to palliative care and suicide prevention.
	Develop and implement curricula regarding disability issues, including living with disabilities, living with chronic or terminal illness, attendant and personal care, assistive technology, and social support services.
Demonstration projects	Reduce restrictions on access to hospice programs.
	Fund home health care services, community living arrangements, and attendant care services.

Extent of Palliative Care in Medical Education Varies Considerably

The extent of palliative care instruction varies considerably across and within the three major phases of the physician education and training process. The first phase is undergraduate medical education—or medical school—where students typically receive 2 years of classroom, or didactic, instruction followed by 2 years of clinical training. The United States has 144 accredited medical schools.[4] The second phase is graduate medical education—or residency training—where residents receive 3 to 8 years of clinical training in a medical specialty. The United States has over 7,700 accredited residency programs. The third phase is continuing medical education, which provides physicians who are already practicing medicine with the education and training necessary to maintain or learn new skills. Continuing medical education courses are provided primarily by medical schools and state medical societies, but such courses are also provided by

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[4] This includes 125 allopathic medical schools leading to a doctor of medicine degree and 19 osteopathic medical schools leading to a doctor of osteopathy degree. These schools include three allopathic medical schools in Puerto Rico. The University of Illinois College of Medicine, one of the 125 allopathic medical schools, has medical schools located in Chicago, Peoria, Rockford, and Urbana-Champaign. The American Association of Medical Colleges (AAMC) considers the four separate locations as one accredited medical school. However, when they conduct their annual survey of medical schools, they send surveys to and summarize survey data from each location separately. In conducting our work, we followed AAMC's practice.

medical associations and consultants. Throughout these three phases, a variety of formal accreditation and certification processes are used to test student competency and to judge the quality of instruction and training.[5]

Extent of Palliative Care Education at Medical Schools Is Mixed

Our review at medical schools showed mixed amounts of attention given to palliative care issues. Accrediting organizations have generally steered away from standards requiring instruction in topics as specific as pain management, preferring to leave such matters to the discretion of the faculty at each school. To determine the extent to which the schools addressed these topics, we surveyed all U.S. medical schools on seven palliative care topics.

For each of the seven palliative care topics we asked about, at least half of the 125 U.S. medical schools that responded to our survey said they had some degree of required instruction. (See fig. 1.) Instruction in palliative care for chronic illness was required by the fewest number of schools (56 percent). For the remaining topics, the percentage of schools requiring the topic was higher; for example, over three-quarters required instruction in the topic of pain management for the terminally or chronically ill, and 94 percent required instruction in depression identification and treatment. Our survey responses showed that some schools have added these topics fairly recently. For example, 24 percent of schools reported adding pain management as a required subject within the last 3 years. (For a more detailed summary of our medical school survey results, see app. II.)

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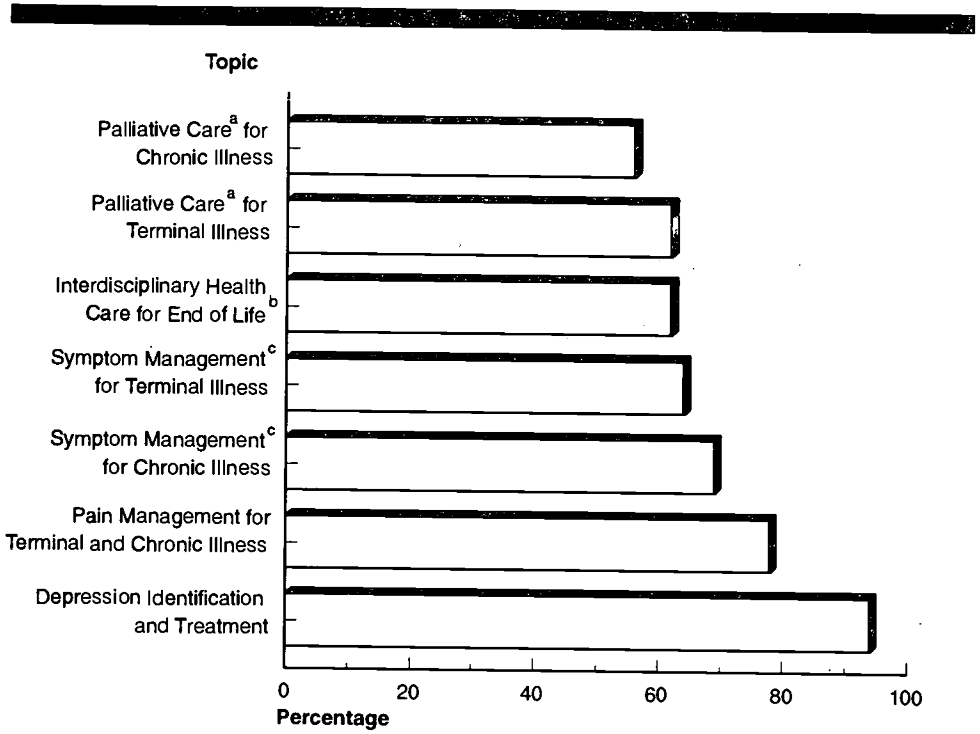
[5] At the undergraduate level, allopathic medical schools are accredited by the Liaison Committee for Medical Education and osteopathic schools are accredited by the American Osteopathic Association. At the graduate level, allopathic residency programs are accredited by the Accreditation Council for Graduate Medical Education and osteopathic programs are accredited by the American Osteopathic Association.

Figure 1: Percentage of Medical Schools Requiring Instruction in Palliative Care Topics



[a] Palliative care encompasses many aspects of noncurative care, including the other topics in our survey. To capture the range of possible instruction, our survey included this broad topic as well as the more specific topics.

[b] Interdisciplinary health care for end of life is a multidiscipline team approach that incorporates a range of specialists and types of caregivers to provide comprehensive and coordinated care at the end of life.

[c] Symptom management is the treatment of patients' emotional and physical symptoms other than pain, such as confusion, fatigue, nausea, shortness of breath, loss of appetite, and muscle wasting.

Many schools reported a need to change palliative care instruction, particularly in the area of clinical training. Overall, 30 percent of schools reported a need to change their classroom curriculum in palliative care, and close to 50 percent reported wanting to provide students with more hands-on training experience in diagnosing and treating patients with pain due to chronic or terminal illness.[6]

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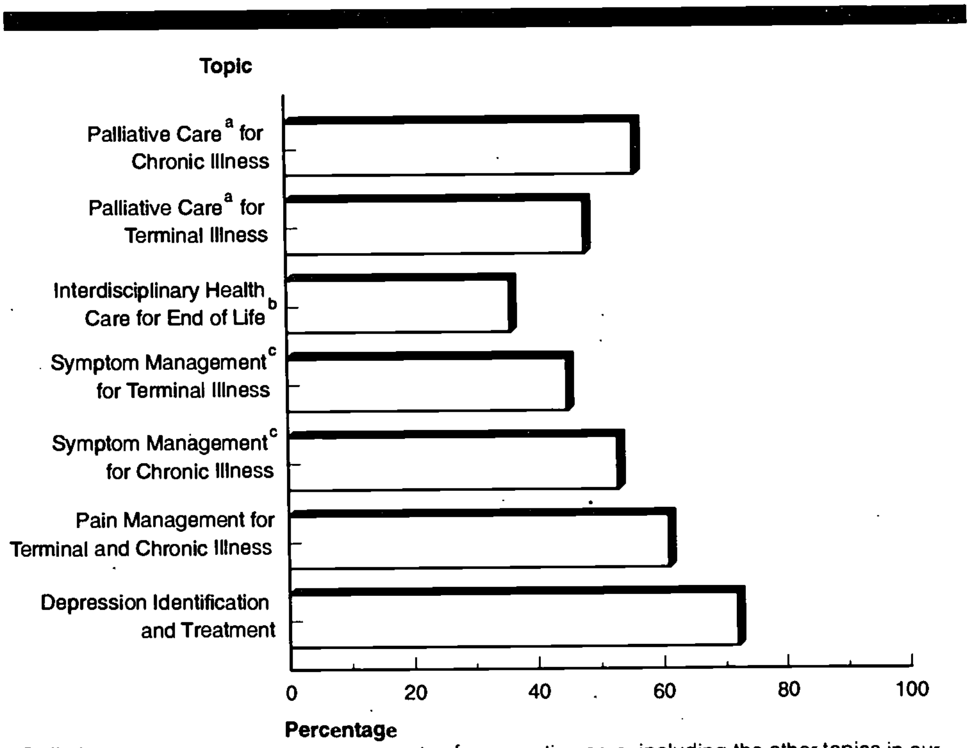
[6] While it was beyond the scope of our work to evaluate why such changes had not yet occurred, changing medical school curriculum presents a significant challenge, according to medical education experts. Because the time available for instruction and training is fixed, providing more time for palliative care education would allow less time for instruction and training in other areas.

Evaluation processes vary in the extent to which they measure students' knowledge of palliative care issues. (See fig. 2.) The percentage of medical schools that reported testing competency in the topics we surveyed ranged from 36 percent for interdisciplinary health care for end of life to 72 percent for identifying and treating depression.

Figure 2: Percentage of Medical Schools Testing Competency in Palliative Care Topics



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Many medical schools also rely heavily on national examinations—the U.S. Medical Licensing Examination or the National Board of Osteopathic

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Medical Examiners' exam—to evaluate student knowledge.[7] A study is currently under way to examine the degree to which the U.S. Medical Licensing Examination tests student knowledge in end-of-life care issues and to develop a method to evaluate student performance on these test questions in the future.

Palliative Care Education in Residency Programs Varied

Our review also indicated that attention to palliative care issues in residency programs varied as well. Accrediting bodies at the graduate level generally require some specific areas of instruction, although, as in medical schools, the primary responsibility for curriculum and training content is assumed by the program director and faculty.[8] Required topics of instruction, such as domestic violence, vary by specialty, and few specialties have requirements including specific palliative care topics.[9] Because of the large number of accredited residency programs in the United States, we did not administer a survey similar to the one we developed for medical schools. We relied on existing surveys done by professional associations that asked residency programs to report whether the subjects of end-of-life care and suicide were included in their training programs.

The American Medical Association's (AMA) 1996 survey showed that nearly half of the nation's 7,787 residency programs[10] include instruction in

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[7] The U.S. Medical Licensing Examination is a three-step examination administered by the National Board of Medical Examiners in collaboration with the Federation of State Medical Boards. The National Board of Osteopathic Medical Examiners' exam, which is administered by each state's licensing board, also has three steps. Medical schools typically provide the education and training to pass the first two steps, which test knowledge of basic sciences and clinical sciences, respectively. Three-fourths of all medical schools require students to pass step 1; one-half also require students to pass step 2. Step 3 is generally taken in the first or second year of a residency program.

[8] The Accreditation Council for Graduate Medical Education is currently studying the feasibility of using educational outcomes in the accreditation process and plans to survey programs to identify models where outcomes are being successfully used. It is unknown at this time whether models will include palliative care outcomes.

[9] Accreditation standards for family practice residency programs require general training on providing patients and families with coping skills for serious illness and loss. Pediatric residencies have general standards requiring content related to the impact of chronic diseases, terminal conditions, and death on patients and their families. Accreditation standards for internal medicine residency programs will encourage training specifically in pain and symptom management starting in July 1998, but training in these areas will not be required.

[10] Includes residency programs for allopathic medicine only; information for osteopathic residency programs was not available.

end-of-life care and over a third teach issues related to suicide.[11] While historical data on the subject of suicide prevention are not available, AMA's data show greater numbers of residency programs now offer instruction in end-of-life care than in the past. In 1996, nearly 50 percent of residency programs taught end-of-life care, compared with 38 percent in 1994.

To some extent, the percentage of residency programs that taught palliative care subjects corresponded to the degree to which these skills might be needed in the specialty area covered by the program. For example, 93 percent of family practice residency programs in the subspecialty of geriatrics reported teaching end-of-life care, while only 10 percent of pathology residency programs in the subspecialty of pediatric pathology reported teaching the subject. However, the percentage of programs that reported teaching end-of-life care was surprising for some specialties for which the need for physicians skilled in end-of-life care seems more evident. For example, nearly half of internal medicine residency programs in the subspecialty of oncology reported not teaching end-of-life care, although physicians treating patients with cancer often deal with terminal patients. (See app. III for a detailed summary of AMA's 1996 residency program survey results.)

The knowledge and skill of resident physicians is evaluated by each residency program's internal evaluations and national examinations. These examinations include the U.S. Medical Licensing Examination[12] as well as examinations some physicians take to become certified in a medical specialty.[13] The extent to which board examinations include questions related to palliative care has not been quantified, and student performance on palliative care questions that may be included on the exams has not been evaluated.

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[11] The AMA surveys do not define "end-of-life care." Residency programs interpret end-of-life care and determine whether their curriculum requires its instruction. Because the surveys are not designed to address specific palliative care issues; we were not able to identify whether specific palliative care topics are required subjects. For example, residency programs teaching end-of-life care may or may not include the specific topics of pain and symptom management, and it is unknown whether instruction is based on clinical training, classroom instruction, or both.

[12] Residents generally take the third and final step of this examination, which is necessary to obtain a medical license, during the first 2 years of their residency program.

[13] Examinations are administered by medical specialty boards. While board certification is not required to practice a medical specialty, it denotes that recipients have the necessary knowledge, skills, and attitudes essential for the provision of excellent care within that specialty.

Few Continuing Medical Education Programs Are Dedicated to Palliative Care

The availability of continuing medical education courses that focus on palliative care issues for terminally or chronically ill people appears limited. Many states and medical associations require physicians to continue their medical education to maintain their medical license or membership benefits, but they generally do not require courses on specific topics such as palliative care. Because of the number and variety of continuing medical education providers, information on the existence of continuing medical education courses dedicated to palliative care issues was not readily available. However, we queried the AMA's database of over 2,000 accredited continuing medical education activities and found that few specifically addressed palliative care. In addition, an official with the American Osteopathic Association said there are few continuing medical education courses related to palliative care for doctors of osteopathy. An example of a course that specifically addresses palliative care issues is a self-study program developed by the American Academy of Hospice and Palliative Medicine, which covers a variety of palliative care topics. Recognizing a need for more courses in this area, private efforts are under way to develop more conferences on end-of-life care issues as well as promote those that already exist.

Plans to Use Section 781 for Palliative Care Projects Are Limited

The fiscal year 1998 conference committee report on HHS appropriations specifies $452,000 for section 781. Officials in HRSA plan to use $150,000 of this amount for seven medical education projects, including one project on palliative care. All seven projects will be conducted by one medical education research center. HRSA plans to provide the funds for the seven projects in May 1998. Because budgets are not maintained separately for each project, HRSA and medical education research center officials were not able to specify the amount of funding dedicated for the palliative care project. The project will assess current medical school courses on death and dying to determine if they meet recommended methods for teaching end-of-life care.

The remaining $302,000 will be used to support projects focused on increasing the knowledge about the needs and resources of the nation's health professions. Information obtained through these projects will be used to assess the effectiveness of current workforce programs. HRSA officials said they consider this research as higher in priority. In addition, the officials said that due to the importance of health workforce research, future funding of palliative care projects in medical education is uncertain. HRSA did not include palliative care research for medical education in its fiscal year 1999 budget justification.

HRSA officials do not plan to fund any of the other types of palliative care topics authorized under the Assisted Suicide Funding Restriction Act. They said these other initiatives, such as demonstration projects to reduce restrictions on access to hospice programs, are not related to the traditional focus of title VII to support health professions education and training. Projects of these types are generally administered by HHS agencies other than HRSA. For example, the act authorizes research funding under section 781 for advancing the biomedical knowledge of pain management, which has been primarily the domain of the National Institutes of Health (NIH). The act also authorizes research under section 781 for using specific outcome measures to assess the quality of care for patients with disabilities or terminal or chronic illness; measuring outcomes and quality of care is an area of expertise for HHS's Agency for Health Care Policy and Research (AHCPR).

Other Federal and Private Palliative Care Initiatives Outside Section 781 Are More Substantial

Several HHS agencies fund projects related to palliative care under their own program authority. Some of these projects directly address the types of research, training, and demonstration projects authorized in the Assisted Suicide Funding Restriction Act, including the following:

- Research authorized by the act includes projects to advance biomedical knowledge of pain management and assess the quality of care for patients with terminal illness by measuring and reporting specific outcomes. NIH—the federal government's primary focal point for biomedical research—estimates that in fiscal year 1997, it spent over $82 million on various types of pain management research. NIH also established a pain research consortium to enhance and coordinate pain research across the various components of NIH. NIH's National Institute of Mental Health has also begun suicide prevention research projects. HHS' Assistant Secretary for Planning and Evaluation is providing $174,000 to evaluate the quality of hospice care in nursing homes—a topic directly related to this provision.
- Training authorized by the act includes projects to teach physicians about palliative care issues. HRSA's HIV/AIDS Bureau is in the process of completing an evaluation of a Canadian instruction module on palliative care and plans to make recommendations on how the module should be modified for use in the United States. AHCPR, which funds projects to improve the effectiveness of health care services, issued guidance in 1994 on management of cancer pain that included discussions and recommendations on palliative therapies used to relieve or ease pain.
- Demonstrations authorized by the act include projects to fund home health care services, community living arrangements, and attendant care

services. The Health Care Financing Administration, which is responsible for administering Medicare and Medicaid, has supported these types of demonstration projects. For example, states can obtain waivers to use Medicaid funds for home health care services, community living arrangements, and attendant care services, which are not normally covered by Medicaid but that are considered necessary to care for and improve the quality of life for medically fragile populations.

Other federal projects do not have an explicit objective related to palliative care and suicide prevention but provide opportunity for benefit in this area. For example, AHCPR has many research initiatives that could address improving palliative care for patient populations most prone to suicide. AHCPR and the American Association of Health Plans will provide $7 million over 3 years to assess the quality of care for patients with chronic diseases under varying features of managed care organizations. In addition, AHCPR has initiatives to develop and improve quality of care measures for health care providers and health service delivery, which could include outcomes for palliative care in the future. AHCPR's Medical Treatment Effectiveness Program—which has traditionally focused on identifying and promoting the most effective treatments to prevent, diagnose, or treat diseases such as cancer, AIDS, or cardiovascular disease—could also incorporate palliative care for these and other terminal or chronic illnesses in future research projects.

Private foundations, nonprofit organizations, and professional associations have recognized palliative care as an emerging and important area of medicine and research. As a result, a variety of private initiatives are under way that cover many of the areas of research, training, and demonstration projects described in the act. The two most comprehensive initiatives we identified are Last Acts, funded by the Robert Wood Johnson Foundation, and Project on Death in America, sponsored by the Open Society, a foundation created by philanthropist George Soros.

- Last Acts aims to raise awareness of the need to improve the care of persons who are dying, improve communication and decisionmaking related to end-of-life care, and change the way health care and health care institutions approach care for dying people. Last Acts has task forces and committees to pursue a variety of issues, including improving provider education on palliative care and developing outcomes and evaluation tools for palliative care.
- Project on Death in America is a $30 million campaign to transform the culture of dying by supporting projects and fostering change in the

provision of end-of-life care, public and professional education, and public policy. It conducts its own projects and provides grants to other individuals and institutions. Its major project is a $7 million faculty scholars program for innovative clinical care, research, and educational programs to improve the care of the dying.

Private entities also provide funding for a variety of other projects in palliative care—some with a specific focus in physician education or improving access and quality to palliative care. (See table 2).

Table 2: Selected Private Initiatives in Palliative Care

Type of project	Project description
Research	Dartmouth College is conducting a study to learn more about the dying experience of seriously ill adults and will develop descriptions of "good" and "bad" dying experiences.
	The University of California, San Diego, is conducting a study to measure the effects of managed care on the type and volume of care delivered to terminally ill Medicare beneficiaries. The study will compare the treatment received in fee-for-service and managed care settings.
	The Center for Ethics in Health Care Research on End-of-Life Care at Oregon Health Sciences University is comparing end-of-life care provided in acute care hospitals, nursing homes, and home hospice.
Training	The AMA and the Robert Wood Johnson Foundation are sponsoring a 2-year, $1.4 million project to educate practicing physicians on the essential clinical competencies in end-of-life care.
	The American Academy of Hospice and Palliative Medicine has developed a six-part self-study program for practicing physicians. The six training modules provide education on such topics as alleviating psychological and spiritual pain in the terminally ill.
	The American Board of Hospice and Palliative Medicine's certification exam for hospice and palliative medicine tests physicians' palliative care knowledge and skills.
Demonstration projects	MediCaring, a project being developed by the Center to Improve Care of the Dying at The George Washington University, is designed to extend the concept of "hospice" to include a broader population of terminally ill individuals than those currently benefiting from the Medicare hospice program.
	Promoting Excellence in End-of-Life Care is a $12 million Robert Wood Johnson Foundation initiative to conduct a variety of demonstration projects aimed at fostering long-term changes in care for the dying.
	The Hospital Palliative Care Initiative, a multiyear, $1.1 million project conducted by the United Hospital Fund of New York, is aimed at promoting new hospital-based palliative care services in New York City hospitals. Projects have been funded in five hospitals.

Agency Comments

We provided a draft of this report to the Secretary of HHS for review and comment. Although we did not receive comments in time for publication, HRSA and NIH officials informed us that they generally concurred with the report's findings. Additionally, NIH officials stated that a conscious effort is needed to change the curricula of health professions education schools to sensitize providers about the needs of the chronically ill and disabled patients. In particular, they emphasized that attention needs to be given to pain management, depression, and symptom management. In addition, officials from HRSA, NIH, AHCPR, and the Office of Public Health and Science provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the Secretary of HHS, interested congressional committees, and other interested parties. We will also make copies available to others on request.

The information contained in this report was developed by Frank Pasquier, Assistant Director; Timothy S. Bushfield; and Lacinda Baumgartner. Please contact me at (202) 512-6543 or Frank Pasquier at (206) 287-4861 if you or your staff have any questions.

Sincerely yours,

Bernice Steinhardt

Bernice Steinhardt
Director, Health Services Quality
and Public Health Issues

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Abbreviations

AAMC	American Association of Medical Colleges
AHCPR	Agency for Health Care Policy and Research
AMA	American Medical Association
HHS	Department of Health and Human Services
HRSA	Health Resources and Services Administration
NIH	National Institutes of Health

Appendix I

Scope and Methodology

We discussed the extent that palliative care issues were taught and tested in medical schools, residency programs, and continuing medical education with representatives from cognizant professional associations including the AMA, the American Osteopathic Association, the AAMC, the American Association of Colleges of Osteopathic Medicine; faculty from various educational institutions; representatives from entities administering national examinations necessary for medical licensure and board certification, such as the National Board of Medical Examiners and the American Board of Internal Medicine; representatives from accrediting bodies for medical schools, residency programs, and continuing education, including the Liaison Committee for Medical Education, the Accreditation Council for Graduate Medical Education, and the Accreditation Council for Continuing Medical Education; and recognized experts in the field of palliative medicine.

To gather more specific information about the extent to which the palliative care subjects addressed in the Assisted Suicide Funding Restriction Act were taught in medical schools, we developed and administered a survey to all accredited U.S. allopathic and osteopathic medical schools regarding their curriculum, training, and testing of student knowledge in pain management, depression identification and treatment, and palliative care. After reviewing literature on the subject and consulting with experts, we selected seven topics to capture the range of possible instruction. Our topics included both the broad topic of palliative care and more specific topics, such as pain management. While the specific topics are components of palliative care, they do not individually encompass the broader concept of palliative care. For this reason, we asked the schools to report on each topic separately.

In conducting our survey of medical schools, we used mailing lists provided by AAMC and the American Association of Colleges of Osteopathic Medicine that they use to conduct annual medical school curriculum surveys. Our response rate was 85 percent. Results are self-reported, and we did not verify or standardize responses among schools. A summary of the survey results is shown in appendix II.

Due to the large number of residency programs and our reporting time frames to the Congress, we did not conduct a similar survey of these programs. However, the AMA provided us with related information reported in its annual survey of 7,787 residency programs accredited by the Accreditation Council for Graduate Medical Education and combined specialty residency programs. The survey covers allopathic programs only.

Residency programs responding to this survey in 1996 reported whether the general subjects of end-of-life care and suicide were included in their curricula. More detailed data on subjects specifically related to pain management, depression identification and treatment, and palliative care were not available. AMA survey data did not include information on whether residency programs tested student competency in particular subject areas.

We discussed HHS' plans for awarding palliative care grants under section 781 with representatives responsible for administering these grants in the HRSA's Bureau of Health Professions. We also reviewed HRSA's plans for funding section 781 projects in HRSA's 1998 and 1999 Justification of Estimates for Appropriations Committees.

We discussed other federal and private palliative care research and education initiatives funded outside section 781 with HHS agencies and private entities involved in similar palliative care activities. HHS agencies or offices we spoke with included AHCPR, NIH, the Health Care Financing Administration, and the Office of the Assistant Secretary for Planning and Evaluation. Private entities we obtained information from regarding ongoing palliative care projects included foundations, such as the Robert Wood Johnson Foundation; nonprofit organizations, such as the Open Society, the United Hospital Fund of New York, and The George Washington University's Center to Improve Care of the Dying; and professional associations, including AMA's Ethics Institute, the American Academy of Hospice and Palliative Medicine, and the American Board of Hospice and Palliative Medicine. The federal and private palliative care projects we identified are examples of the various types of projects being conducted; they are not intended to be a comprehensive listing of palliative care projects.

U.S. Medical School Survey Results

We conducted a survey of all medical schools—both allopathic and osteopathic—in the United States. We asked each school about the extent to which their didactic—or classroom—instruction and clinical training addressed palliative care topics. We received responses from 125—or 85 percent—of these schools. Tables II.1 through II.3 summarize the results of this survey.

Table II.1: Survey Results Regarding Classroom Instruction

Instruction topics	Percent not offering instruction	Percent offering instruction[a]		Approximate hours of instruction[b]		Percent that added subject in last 3 years[c]	Percent responding that a change in the curriculum is needed	Percent that test student competency[d]
		As a requirement	As an elective	Range	Median			
Depression identification and treatment	3%	94%	23%	1-104	6	8%	7%	72%
Pain management for terminal and chronic illness	5	78	38	.5-48.5	4	24	20	61
Palliative care for chronic illness	19	56	41	.5-57	3	22	30	56
Palliative care for terminal illness	10	62	44	.5-24	2	20	31	48
Symptom management for chronic illness	20	69	25	.5-129.5	4	12	20	53
Symptom management for terminal illness	18	64	30	.25-36	2	14	22	45
Interdisciplinary health care for end of life	17	62	33	1-30	3	20	26	36

[a] Some schools reported offering instruction as both a requirement and an elective (schools could offer more than one course for a given topic); as a result, some combined percentages may exceed 100 percent.

[b] Not all surveyed schools that taught these topics reported approximate hours; as a result, range and median only reflect those schools that did report approximate hours.

[c] Only responses from schools that reported offering a topic as a requirement or an elective were included in the calculation.

[d] Only responses from schools that reported offering a topic as a requirement were included in the calculation.

Table II.2: Survey Results Regarding the Types of Patients Students Treat During Clinical Training

	Percent not offering training experience	Percent offering experience diagnosing and treating patients[a]		Percent responding that more training is needed
		As a requirement	As an elective	
Terminal illness	9%	72%	33%	43%
Pain due to chronic illness	12	64	38	46
Pain due to terminal illness	12	63	37	47
Depression due to terminal or chronic illness	11	75	27	39

[a] Some schools reported offering instruction as both a requirement and an elective; as a result, some combined percentages may exceed 100 percent.

Table II.3: Types of Settings Where Students Receive Clinical Training

	Percent not offering training experience	Percent offering students an opportunity to care for patients[a]		Percent responding that more training is needed
		As a requirement	As an elective	
In a hospice	22%	15%	60%	46%
As part of an interdisciplinary team providing end-of-life care	28	19	52	49

[a] Some schools reported offering instruction as both a requirement and an elective.

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Appendix III

U.S. Residency Program Survey Results

The AMA surveyed 7,787 residency programs in the United States in 1996. We obtained data on the number of programs that included end-of-life care and suicide prevention topics.

Table III.1: U.S. Residency Programs Teaching End-of-Life Care and Suicide Prevention

Specialty/subspecialty[a]	Number of resident physicians	Number of programs	Percent teaching end-of-life care	Percent teaching suicide prevention
Allergy and immunology	214	80	40%	26%
Clinical and laboratory immunology	15	15	40	20
Anesthesiology	3,998	150	43	33
Critical care medicine	87	54	69	39
Pain management	238	93	53	37
Colon and rectal surgery	49	31	39	42
Dermatology	851	101	35	34
Dermatopathology	54	41	27	24
Emergency medicine	3,034	116	77	53
Family practice	10,049	474	89	58
Geriatric medicine	22	14	93	29
Sports medicine	33	27	22	26
Internal medicine	21,298	417	88	44
Cardiovascular disease	2,244	202	48	25
Clinical cardiac electrophysiology	65	68	12	12
Critical care medicine	154	56	71	25
Endocrinology, diabetes, and metabolism	378	136	35	22
Gastroenterology	917	176	41	24
Geriatric medicine	220	89	82	26
Hematology	163	49	45	24
Hematology and oncology	628	99	64	30
Infectious disease	548	143	39	19
Nephrology	609	137	47	24
Oncology	277	59	53	29
Pulmonary disease	257	69	74	30
Pulmonary disease and critical care medicine	702	98	62	20
Rheumatology	266	114	39	22
Sports medicine	4	1	0	100
Medical genetics	39	18	17	22
Neurological surgery	854	99	41	30
Neurology	1,449	122	44	38

(continued)

Specialty/subspecialty[a]	Number of resident physicians	Number of programs	Percent teaching end-of-life care	Percent teaching suicide prevention
Child neurology	150	75	32	28
Clinical neurophysiology	105	49	0	0
Nuclear medicine	151	82	21	28
Obstetrics and gynecology	4,941	267	68	36
Ophthalmology	1,532	135	33	25
Orthopedic surgery	2,790	157	43	31
Adult reconstructive orthopedics	14	12	25	25
Foot and ankle orthopedics	1	1	0	0
Hand surgery	87	53	30	19
Musculoskeletal oncology	4	8	38	25
Orthopedic sports medicine	86	58	24	17
Orthopedic surgery of the spine	19	15	20	33
Orthopedic trauma	9	5	60	60
Pediatric orthopedics	23	28	14	21
Otolaryngology	1,197	105	39	38
Pathology—anatomic and clinical	2,675	180	23	28
Blood banking and transfusion medicine	40	47	19	28
Chemical pathology	4	7	14	14
Cytopathology	74	68	21	26
Forensic pathology	47	39	15	28
Hematology	51	54	13	17
Immunopathology	6	9	11	0
Medical microbiology	5	9	33	33
Neuropathology	37	47	13	28
Pediatric pathology	12	20	10	25
Selective pathology	46	9	0	22
Pediatrics	7,618	216	61	39
Neonatal and perinatal medicine	404	101	50	15
Pediatric cardiology	233	48	40	23
Pediatric critical care medicine	251	63	75	24
Pediatric endocrinology	113	63	25	24
Pediatric gastroenterology	113	49	20	18
Pediatric hematology and oncology	252	65	35	23
Pediatric nephrology	74	46	43	24
Pediatric pulmonology	90	44	52	16
Physical medicine and rehabilitation	1,151	81	49	37

(continued)

Specialty/subspecialty[a]	Number of resident physicians	Number of programs	Percent teaching end-of-life care	Percent teaching suicide prevention
Plastic surgery	464	99	41	25
Hand surgery	17	18	28	17
Preventive medicine	381	89	21	25
Psychiatry	4,743	198	56	59
Addiction psychiatry	16	12	25	42
Child and adolescent psychiatry	677	118	31	58
Geriatric psychiatry	82	44	68	41
Radiation oncology	493	82	38	34
Radiology—diagnostic	3,991	204	32	38
Neuroradiology	189	87	33	38
Nuclear radiology	34	33	21	24
Pediatric radiology	63	48	25	21
Vascular and interventional radiology	148	70	24	27
Surgery—general	7,921	267	61	39
Hand surgery	24	2	50	50
Pediatric surgery	48	32	22	31
Surgical critical care	86	52	75	33
Vascular surgery	131	78	46	40
Thoracic surgery	334	92	38	34
Urology	1,098	121	50	36
Pediatric urology	10	10	20	40
Transitional year	1,334	155	69	36
Internal medicine and emergency medicine	65	9	78	67
Internal medicine and family practice	16	2	50	50
Internal medicine and neurology	16	12	42	17
Internal medicine and pediatrics	1,300	98	76	42
Internal medicine, physical medicine, and rehabilitation	51	13	69	46
Internal medicine and preventive medicine	3	3	33	33
Internal medicine and psychiatry	78	21	67	67
Neurology, diagnostic radiology, and neuroradiology	0	4	0	0
Neurology, physical medicine, and rehabilitation	4	3	0	0
Pediatrics and emergency medicine	23	4	75	75
Pediatrics and physical medicine and rehabilitation	45	18	50	22
Pediatrics and child and adolescent psychiatry	54	10	50	50

(continued)

Specialty/subspecialty[a]	Number of resident physicians	Number of programs	Percent teaching end-of-life care	Percent teaching suicide prevention
Psychiatry and family practice	7	10	40	40
Psychiatry and neurology	9	6	50	50
Total	**98,076**	**7,787**	**n/a**	**n/a**

Note: Data for specialties do not include numbers and percents for subspecialties. While subspecialties fall under specific specialties, separate residency programs exist at both the specialty and subspecialty level.

[a] Subspecialties are indented.

Source: Data are extracted from the AMA's annual survey of (1) U.S. graduate medical education programs accredited by the Accreditation Council for Graduate Medical Education and (2) combined specialty programs as of December 31, 1996. Further information on the AMA's 1996 survey is published in the Journal of the American Medical Association, Vol. 278, No. 9 (Sept. 3, 1997).

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