

Calendar No. 222

107TH CONGRESS }
1st Session }

SENATE

{ REPORT
107-97

STROKE TREATMENT AND ONGOING PREVENTION ACT OF
2001

NOVEMBER 9, 2001.—Ordered to be printed

Mr. KENNEDY, from the Committee on Health, Education, Labor,
and Pensions, submitted the following

R E P O R T

together with

ADDITIONAL VIEWS

[To accompany S. 1274]

The Committee on Health, Education, Labor, and Pensions, to which was referred the bill (S. 1274) to amend the Public Health Service Act to provide programs for the prevention, treatment, and rehabilitation of stroke, having considered the same, reports favorably thereon and recommends that the bill do pass.

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I. PURPOSE AND SUMMARY

The Stroke Treatment and Ongoing Prevention Act of 2001 authorizes initiatives at the State and Federal levels to improve and enhance the Nation's capacity to provide effective treatment for stroke.

II. BACKGROUND AND NEED FOR LEGISLATION

Stroke is a loss of brain function resulting from an interruption of the blood supply to the brain, due either to ischemia or hemorrhage. Stroke often causes disability and frequently results in death, due to the tissue damage to the brain that results from an interrupted blood supply. The effects of a vascular accident in the brain are particularly severe, since neural tissue has an extremely limited capacity to regenerate. Even a brief interruption to the blood flow can cause severe neurological deficits.

There are two different types of stroke or Brain Attack—ischemic stroke and hemorrhagic stroke. An ischemic stroke is caused when a blood clot blocks or “plugs” a blood vessel in the brain. There are two ways that a blood-clot stroke can occur. An embolic stroke occurs when a blood clot travels from other parts of the body (for example, the heart) to the neck or brain and blocks a blood vessel. In a thrombotic stroke, a blood clot (thrombus) forms inside one of the brain’s arteries and blocks blood flow. This usually happens inside an artery that has already been narrowed by atherosclerosis, a condition where fatty deposits (plaques) build up along the walls of blood vessels. Ischemic stroke is the most common type of stroke (80 percent–85 percent of strokes are ischemic).

A hemorrhagic stroke is caused when a blood vessel in the brain breaks or ruptures. There are two types of hemorrhagic stroke: a subarachnoid hemorrhage and an intracerebral hemorrhage. With a subarachnoid hemorrhage, bleeding occurs in the space around the brain. Often this is due to an aneurysm—a weak or thin spot on a blood vessel wall. An intracerebral hemorrhage involves bleeding within the brain tissue itself, and this is the more common form. Hemorrhagic stroke occurs in 10 percent of stroke sufferers. While there are mild to severe strokes, the outcomes of a hemorrhagic stroke are usually severe.

The consequences of a stroke vary depending on the region of the brain that is deprived of blood supply. Symptoms of stroke can include blurred or lost vision, difficulties in forming or comprehending speech, muscle weakness or paralysis, disorientation, loss of sensation in a part of the body, loss of consciousness or death. If the blood flow is interrupted for longer than a few seconds, neurons in the ischemic area die, causing permanent losses in brain function.

Stroke has a profound impact on the health of the people of the United States. It is the third leading cause of death in the United States. There are roughly 700,000–750,000 strokes in the United States each year, and almost 160,000 Americans die each year from stroke. Every minute in the United States, an individual experiences a stroke. Every 3.3 minutes an individual dies from one.

Over the course of a lifetime, four out of every five families in the United States will be touched by stroke. Currently, there are four million Americans living with the effects of stroke. 15 percent to 30 percent of stroke survivors are permanently disabled. 55 percent of stroke survivors have some level of disability. 40 percent of these patients feel they can no longer visit people; almost 70 percent report that they cannot read; 50 percent need day-hospital services; 40 percent need home help; 40 percent have a visiting nurse; and 14 percent need Meals on Wheels.

The economic impact of stroke is similarly profound. Stroke costs the United States \$30 billion each year. The average cost per patient for the first 90 days following a stroke is \$15,000. The lifetime costs of stroke exceed \$90,000 per patient for ischemic stroke and over \$225,000 per patient for subarachnoid hemorrhage.

Improving the quality of treatment provided to stroke patients and enhancing stroke prevention would save lives and reduce the economic toll taken by this disorder. However, there is strong evidence that stroke care and prevention is not adequate.

Recent developments in the treatment of persons with stroke could save lives and reduce disability if properly and promptly administered. Thrombolytic medications can improve stroke outcomes if administered rapidly after the onset of a stroke, yet few patients receive these therapies. Nationally, only 2 percent to 3 percent of patients with stroke are being treated with the appropriate thrombolytic agent. Interventional stroke therapies, such as stenting or endovascular treatment of aneurysms, may also be effective for some patients.

Research into new treatments for stroke is ongoing, and promising advances are being made continuously. Advances in imaging, interventional radiology, pharmacology and many other disciplines provide new hope that more effective stroke treatments will be found.

While research promises new treatments for the future, existing treatments are not being administered in the most effective manner even now. For example, in a study of North Carolina's stroke treatment facilities, 66 percent of hospitals did not have stroke protocols and 82 percent did not have rapid identification for patients experiencing acute stroke. A 1995 study found that almost half of all stroke patients who went through the Reading, Ohio Emergency Medical Services System were dispatched as having something other than stroke and a quarter of all patients identified as having stroke by paramedics were later discovered to have another cause for their illness. A 1993 study of patients who had a stroke while they were inpatient found a median delay between stroke recognition and neurological evaluation of 2.5 hours. Improving the delivery of existing therapy can thus have a marked effect on the morbidity and mortality caused by stroke.

Prompt recognition of the symptoms of a stroke is a key to effective treatment, yet public awareness of the symptoms of stroke is poor. Since few Americans recognize the symptoms of stroke, crucial hours are often lost before patients receive medical care. For example, in a 1989 survey of 500 San Francisco residents, 65 percent of those surveyed were unable to correctly identify any of the early stroke warning signs when given a list of symptoms. In a national survey, 29 percent of respondents could not name the brain as the site of a stroke and only 44 percent identified weakness or loss of feeling in an arm or leg as a symptom of stroke. The International Stroke Trial found that only 4 percent of the 19,000 patients studied presented within 3 hours of symptom onset and only 16 percent presented within 6 hours. The average time between the onset of symptoms and medical treatment is a shocking 13 hours.

Recent research provided the committee with important insight into ways to improve outcomes for patients experiencing stroke. This research (detailed below) showed that an integrated and com-

prehensive system of stroke care can save lives and reduce disability associated with stroke. Two strands of research were particularly important in demonstrating the likely benefits of integrated stroke care systems. The first shows that patients treated for stroke at stroke centers experience significantly better outcomes than those treated in other hospital settings. The second shows that implementing statewide systems of care for trauma significantly reduced death rates among trauma victims.

Several comprehensive studies indicate that patients experience improved clinical outcomes if treated at designated stroke centers. A series of 19 clinical trials that included 3,249 patients in European hospitals demonstrated significantly reduced rates of death, disability and institutionalization for patients treated in stroke centers compared to those treated in other hospital settings (meta-analyses reported in *Stroke* (1997) 28:2139; *British Medical Journal* (1997) 314: 1151). Based on this data, the number needed to treat in order to prevent one death was 22. Extrapolating from this data, treating all stroke victims in the appropriate hospital setting might be expected to save approximately 30,000 lives in the United States.

To be most effective, stroke centers should form part of an integrated system of stroke care to ensure that a patient receives the optimal therapy at the time when it is most effective. Stroke care systems should include initiatives to prevent stroke through reduction in risk factors, pre-hospital and emergency care, hospital care, rehabilitation, reintegration into the community, surveillance and research.

The experience of several states that have implemented comprehensive trauma care systems, consisting of most or all of the elements identified above, is instructive in showing the potential benefits of similar systems of care for stroke. These trauma care systems have been shown to significantly improve outcomes for patients. For example, the trauma care system implemented in Nebraska reduced pre-hospital death rates by 28 percent and hospital deaths by 17 percent (data reported in *Journal of Trauma* (1985) 25: 575).

The odds of survival from trauma in Oregon increased by 20 percent in the years following implementation of the state's trauma care system (data reported in *Journal of Trauma: Injury, Infection and Critical Care* (1996) 40: 536). Comparing patient outcomes in states that have implemented trauma care systems to similar states that have not is a particularly important measure of these systems' effectiveness. Comparing patient outcomes in Oregon to those in neighboring Washington (where a trauma system had not been implemented) revealed that patients had a significantly better chance of surviving trauma if treated in Oregon rather than Washington (data reported in *Journal of Trauma: Injury, Infection, and Critical Care* (1997) 43:122; ; *Journal of Trauma: Injury, Infection, and Critical Care* (1998) 44:609). The beneficial effects of a statewide trauma care system were confirmed by a similar study showing that trauma survival rates for pediatric patients were also significantly better in Oregon than in Washington (data reported in the *Journal of Trauma: Injury, Infection, and Critical Care* (1997) 42:514).

While trauma care and stroke care present somewhat different health care challenges, it is the committee's belief that instituting statewide systems of stroke care can provide benefits to patients analogous to those demonstrated to occur after implementation of statewide trauma care systems.

To save lives, reduce disability and improve the quality of stroke care, the Stroke Treatment and Ongoing Prevention (STOP Stroke) Act authorizes important public health initiatives to help patients with symptoms of stroke receive timely and effective care.

III. HISTORY OF THE LEGISLATION

The Stroke Treatment and Ongoing Prevention (STOP Stroke) Act of 2001 was introduced on July 31, 2001, by Senator Kennedy, for himself and Senator Frist, Senator Dodd, Senator Hutchinson, Senator Jeffords, Senator Collins, Senator Bingaman, Senator Edwards, Senator Murray, and Senator Sessions. The bill was referred to the Senate Committee on Health, Education, Labor, and Pensions. On August 1, 2001, the Senate Committee on Health, Education, Labor, and Pensions held an executive session to consider S. 1274. S. 1274 was ordered reported favorably by a unanimous voice vote.

IV. EXPLANATION OF THE BILL AND COMMITTEE VIEWS

The committee seeks to improve systems for the treatment of stroke throughout the United States by reporting favorably the Stroke Treatment and Ongoing Prevention (STOP Stroke) Act of 2001. The Act establishes a grant program for States to implement systems of stroke care that will give health professionals the equipment and training they need to treat this disorder. The initial point of contact between a stroke patient and medical care is usually an emergency medical technician. Grants authorized by the Act may be used to train emergency medical personnel to provide more effective care to stroke patients in the crucial first few hours after an attack.

The Act provides important new resources for States to improve the standard of care given to stroke patients in hospitals. The legislation will assist States in increasing the quality of stroke care available in rural hospitals through improvements in telemedicine and other communications technology.

The Act directs the Secretary of Health and Human Services to conduct a national media campaign to inform the public about the symptoms of stroke, so that patients receive prompt medical care. The legislation also creates the Paul Coverdell Stroke Registry and Clearinghouse, which will collect data about the care of stroke patients and assist in the development of more effective treatments.

Finally, the STOP Stroke Act establishes continuing education programs for medical professionals in the use of new techniques for the prevention and treatment of stroke.

Increased public information on the symptoms of stroke will help stroke patients and their families know to seek medical care promptly. Better training of emergency medical personnel will help ensure that stroke patients receive lifesaving medications when they are most effective. Improved systems of stroke care will help

patients receive the quality treatment needed to save lives and reduce disability.

The committee particularly wishes to stress that it views stroke as a national problem and intends for the initiatives in the Act to be national in scope. While particular areas of the nation may have differing needs with regard to stroke treatment or prevention, the committee intends for the Act to provide for improvements in stroke prevention, treatment and care throughout the nation.

In addition, the committee wishes to clarify its views regarding the following sections of the Act.

Section 2801. Stroke prevention and education campaign

Section 2801 instructs the Secretary of Health and Human Services to carry out a national education and information campaign to promote stroke prevention and increase the number of stroke patients who seek immediate treatment. The committee believes that broad consultation will be important as the Secretary carries out the duties described in this section. Thus, the list of entities with whom the Secretary may consult that is provided in subsection 9(a) of this Section is intended to be illustrative, rather than restrictive.

The committee believes that evaluation of the success of the program authorized in this section is highly important. Thus, the committee expects that the Department of Health and Human Services will design and implement a rigorous program (as described in subsection (b)(7)) to evaluate the effectiveness of the program authorized under this section.

Section 2812. Paul Coverdell National Acute Stroke Registry and Clearinghouse

In approving subsection (b) of this section, the committee recognizes that a wealth of research has already been conducted regarding the activities described in paragraphs (1) through (5). It is not the committee's intention that the Secretary should duplicate existing data in these areas, but rather that the Secretary should conduct new research where necessary to supplement gaps in existing data. Where data exist, it is the committee's intention that the Secretary disseminate that data widely within the health care community so that stroke care can be made more effective. In doing so, it is the committee's intention that the Secretary ensure effective coordination among the agencies within the Department of Health and Human Services.

Section 2821. Establishment of program for improving stroke care

This section authorizes the Secretary to award grants for the establishment of statewide stroke prevention, treatment and rehabilitation systems. Such systems should include prevention, pre-hospital and emergency care, hospital care, rehabilitation, reintegration into the community, surveillance and research.

An important component of stroke care systems is a stroke care center or network of centers, where patients experiencing stroke can receive treatment of the highest caliber from health professionals with special training and experience in stroke care. Such centers use multidisciplinary teams of health care professionals to provide the most advanced approaches and techniques in prevention, treatment and rehabilitation of stroke. Such centers may also

provide improved services for recognizing the symptoms of transient ischemic episodes, so that patients may receive care designed to prevent the onset of a major stroke. A further component of a stroke care center may be to provide high quality rehabilitative care, consistent with the standards established by the Secretary under section 2823.

While the balance between providing care at stroke centers or at other hospital facilities must be struck by each State according to its own needs, the committee takes note of scientific findings showing that patients receiving stroke care at stroke care centers experience better outcomes than patients treated at facilities with less specialized expertise, facilities or training. The committee recognizes, however, that many patients experiencing stroke may not be treated at a stroke center. These health care facilities should be supported to ensure that they can provide an appropriate standard of care before possible transport to a center. Linkages between stroke care centers and other health care facilities will be crucial in ensuring that patients in rural or otherwise medically underserved communities have access to quality stroke care. Telemedicine and other communication technologies that allow for consultation between widely dispersed sites will likely play an essential role in these linkages. Telemedicine is a broad term describing the delivery of health care or sharing of medical knowledge over a distance using telecommunication systems. As such, it includes, but is not limited to, techniques such as telephone consultation, interactive televideo and digital clinical image transmission.

Sec. 2831. Medical professional development in advanced stroke treatment and prevention

Section 2831 authorizes the Secretary to make grants for the development and implementation of educational programs on the prevention and treatment of stroke. The language of the Section lists several health care specialties that may benefit from such educational programs. It is the committee's view that this list is illustrative rather than restrictive of the types of health care professionals who may participate in the activities authorized under this section. The exclusion of a particular health care specialty from the illustrative list provided in this section should not in any way be taken to imply that the specialty in question should be excluded from the activities authorized in the section.

V. COST ESTIMATE

CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

S. 1274—Stroke Treatment and Ongoing Prevention Act of 2001

Summary: S. 1274 would amend the Public Health Service Act to authorize the Secretary of Health and Human Services (HHS) to engage in a number of new activities to inform the public about the symptoms of stroke, and to improve systems of stroke care in order to give health professionals the equipment and training they need to treat this disorder.

S. 1274 would authorize specific sums for fiscal years 2002 through 2006 for grant programs to states to implement systems of stroke care. In addition, the bill would authorize \$40 million in fiscal year 2002 and such sums as may be necessary in 2003

through 2006 for a national stroke education and prevention campaign. Finally, S. 1274 would authorize such sums as may be necessary for the establishment of a national acute stroke registry and clearinghouse and for medical professional development in advanced stroke treatment and prevention in fiscal years 2002 through 2006.

Assuming the appropriation of the necessary amounts, and including adjustments for anticipated inflation, CBO estimates that implementing S. 1274 would cost \$47 million in 2002 and \$594 million over the 2002–2006 period. Without inflation adjustments, the five-year total would be \$584 million. Enacting S. 1274 would not affect direct spending or receipts; therefore, pay-as-you-go procedures would not apply.

S. 1274 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA). However the bill would provide funding to public and nonprofit private entities for programs related to stroke care.

Estimated Cost to the Federal Government: The estimated budgetary impact of S. 1274 is shown in Table 1. For this estimate, CBO assumes that the bill will be enacted this fall and that the authorized and estimated amounts will be appropriated each year. Table 1 summarizes the budgetary impact of the legislation under two different sets of assumptions. The first set of assumptions provides the estimated levels of authorizations with annual adjustments for anticipated inflation. The second set does not include any such inflation adjustments. The costs of this legislation fall within budget function 550 (health).

TABLE 1.—SUMMARY OF ESTIMATED COSTS OF S. 1274

	By fiscal year, in millions of dollars—				
	2002	2003	2004	2005	2006
CHANGES IN SPENDING SUBJECT TO APPROPRIATION					
With Adjustments for Inflation					
Estimated authorization level	112	138	140	166	192
Estimated outlays	47	104	124	147	171
Without Adjustments for Inflation					
Estimated authorization level	112	137	137	162	187
Estimated outlays	47	103	123	144	167

Basis of estimate: S. 1274 would direct the Secretary of HHS to engage in a number of activities related to the treatment and prevention of stroke. Table 2 details estimated authorization levels (adjusted for inflation) for the four programs authorized under the bill.

The bill would direct the Secretary to conduct a national media campaign to promote stroke prevention and increase the number of stroke patients who seek immediate treatment. The bill would authorize \$40 million in fiscal year 2002 and such sums as may be necessary in fiscal years 2003 through 2006 for such purposes. If the necessary sums are appropriated, CBO estimates that this provision would cost \$172 million over the 2002–2006 period.

TABLE 2.—ESTIMATED AUTHORIZATION LEVELS FOR S. 1274 (ASSUMING ANNUAL ADJUSTMENTS FOR INFLATION)

	By fiscal year, in millions of dollars—				
	2002	2003	2004	2005	2006
ESTIMATED AUTHORIZATION LEVEL					
Stroke Prevention and Education Campaign	40	41	42	43	43
Paul Coverdell National Acute Stroke Registry and Clearinghouse	12	12	13	13	13
Grants to States	50	75	75	100	125
Medical professional development in advanced stroke treatment and prevention	10	10	10	11	11
Total	112	138	140	166	192

The bill also would direct the Secretary to establish and maintain the Paul Coverdell National Acute Stroke Registry and Clearinghouse, which would collect data on the care of stroke patients and assist in the development of more effective treatments. The bill would authorize such sums as may be necessary for fiscal years 2002 through 2006 for this provision. If the necessary sums are appropriated, CBO estimates that establishment of the registry and clearinghouse would cost \$52 million over the 2002–2006 period.

The bill also would establish a grant program for states to implement systems of stroke care and train health care professionals in the prevention and treatment of stroke. The bill specifies the sums to be appropriated in each of fiscal years 2002 through 2006, for a five-year total of \$425 million. CBO estimates that outlays from those grants would total \$328 million over the 2002–2006 period.

The bill also would direct the Secretary to make grants to public and nonprofit private entities for the development and implementation of continuing education programs for medical professionals in the use of newly developed approaches for the prevention and treatment of stroke. The bill would authorize such sums as may be necessary for fiscal years 2002 through 2006 for this provision. If the necessary sums are appropriated, CBO estimates that such programs would cost \$43 million over the 2002–2006 period.

CBO estimates the necessary amounts for these programs would total \$112 million in 2002 and \$748 million over the 2002–2006 period. Based on spending patterns for similar programs, CBO estimates that outlays for these programs would total \$47 million in 2002 and \$594 million over the 2002–2006 period.

Pay-as-you-go considerations: None.

Estimated impact on State, local, and tribal governments: S. 1274 contains no intergovernmental mandates as defined in UMRA. The bill would authorize \$425 million in State grants for stroke prevention, treatment, and rehabilitation systems over the 2002–2006 period. To be eligible for the grants, States would have to develop a statewide stroke care system that provides stroke treatment in accordance with federally established standards. After the first year of the grants, States would have to provide matching support for the program, either as in-kind contributions or as cash funding: one-quarter of the program's funding in years two and three; one-third in year four; and one-half in subsequent years. States also would be eligible for planning grants that would not have matching requirements.

Estimated impact on the private sector: S. 1274 contains no private-sector mandates as defined in UMRA.

Estimate prepared by: Federal costs: Niall Brennan; impact on State, local, and tribal governments: Leo Lex; impact on the private sector: Kate Bloniarz.

Estimate approved by: Peter H. Fontaine, Deputy Assistant Director for Budget Analysis.

VI. REGULATORY IMPACT STATEMENT

The committee has determined that there will be no increases in the regulatory burden of paperwork as a result of this bill.

VII. APPLICATION OF LAW TO THE LEGISLATIVE BRANCH

Section 102(b)(3) of Public Law 104–1, the Congressional Accountability Act (CAA), requires a description of the application of the bill to the legislative branch. S. 2731 amends the Public Health Service Act to enhance the treatment and prevention of stroke throughout the nation. This bill does not apply to the legislative branch.

VIII. SECTION-BY-SECTION ANALYSIS

Section 1. Short title

This Act may be cited as the “Stroke Treatment and Ongoing Prevention Act of 2001”.

Section 2. Findings and goal

This section describes the findings of Congress that stroke has a significant impact on the health of thousands of Americans, and that stroke treatment is in need of improvement throughout the United States. The section also states that the goal of the Act is to improve the provision of stroke care in every State and territory and in the District of Columbia, and to increase public awareness about the prevention, detection, and treatment of stroke.

Section 3. Systems for stroke prevention, treatment, and rehabilitation

The Act adds a new Title XXVIII to the Public Health Service Act. Within the new Title, the Act creates the following Sections.

Section 2801 authorizes the Secretary to carry out a national education and information campaign to promote stroke prevention and increase the number of stroke patients who seek immediate treatment.

Section 2811 requires the Secretary, with respect to stroke care, to (1) support and evaluate a grant program to enable a State to develop statewide stroke care systems; (2) foster the development of appropriate, modern systems of stroke care; and (3) provide to State and local agencies technical assistance.

Sec 2812 requires the Secretary to maintain the Paul Coverdell National Acute Stroke Registry and Clearinghouse. The section further requires the Secretary to ensure the availability of published research on stroke or, where necessary, conduct research concerning stroke in areas specified in the Section

Section 2821 requires the Secretary to award grants to States for the purpose of establishing statewide stroke prevention, treatment, and rehabilitation systems. The committee's views on this section are provided in more detail above. In general, the section requires that stroke care systems proposed or implemented with funds granted under this section be consistent with standards adopted by the recipient State and further requires that those State standards take into account national standards. In fiscal year 2004 and beyond, the State standards must take into account national standards for stroke care developed by the Secretary under section 2823.

The section further authorizes the Secretary to award grants to assist States in formulating a plan to develop a statewide stroke care system or for other specified purposes. The section stipulates that a State may receive no more than one such planning grant. The section calls upon the Secretary to develop a model curriculum for training emergency medical services personnel, in the identification, assessment, stabilization, and prehospital treatment of stroke patients. This model curriculum may, at the discretion of the State, be adopted by a State for training emergency medical services personnel.

Section 2822 requires provides that the Secretary may not award a grant to a State unless the State agrees to make available for each year during which the State receives funding under such section, non-Federal contributions (in cash or in kind) toward such costs in an amount equal to (A) for the second and third fiscal years of such payments to the State, not less than \$1 for each \$3 of Federal funds provided; (B) for the fourth fiscal year of such payments to the State, not less than \$1 for each \$2 of Federal funds; and (C) for any subsequent fiscal year of such payments to the State, not less than \$1 for each \$1 of Federal funds provided in such payments for such fiscal year.

Section 2823 provides for an application process for States wishing to receive grants authorized by section 2821. The section further specifies that, to be eligible to receive grants under section 2821, a State must adopt standards of care for stroke patients in the acute, post-acute, and rehabilitation phases of stroke. These standards must take into account national standards, as determined by the Secretary.

The section further requires the Secretary to develop standards of care for stroke patients in all phases of stroke that may be adopted for guidance by the State and a model plan for the establishment of statewide stroke care systems. In fiscal year 2004 and beyond, the State standards must take into account these national standards for stroke care developed by the Secretary.

Section 2825 prohibits the Secretary from using grants authorized under Section 2821 of the Act to (1) to make cash payments to intended recipients of services provided pursuant to such section; (2) to satisfy any requirement for the expenditure of non-Federal funds as a condition for the receipt of Federal funds; or (3) to provide financial assistance to any entity other than a public or non-profit private entity. The prohibition may be waived if the Secretary finds that the purpose described in section 2821(b) cannot otherwise be carried out.

Section 2826 allows the Secretary to seek repayment of funds granted under section 2821 if the recipient State expends those

funds in a manner inconsistent with the agreements made by that State as a condition of receipt of funds.

Section 2827 directs the Secretary, in awarding grants under section 2821, to give special consideration to any State (1) in geographic areas in which there is a substantial rate of disability resulting from stroke or a substantial incidence of stroke; or (2) that demonstrates a significant need for assistance in establishing a comprehensive stroke care system. States with a significant need for assistance may be different than those in which there is a substantial rate of disability resulting from stroke or a substantial incidence of stroke, so that grants under section 2821 may be awarded in geographic areas other than those experiencing the highest rate of stroke.

Section 2828 requires the Secretary to provide to the State (or to any public or nonprofit entity designated by the State) any reasonable technical assistance with respect to the planning, development, and operation of any program carried out pursuant to section 2821. The Secretary may, upon the request of the State, provide supplies and services in lieu of cash payments.

Section 2829 requires the Secretary report to the appropriate committees of Congress on the activities of the States carried out pursuant to section 2821.

Section 2829 authorizes there to be appropriated to carry out this part, \$50 million for fiscal year 2002, \$75 million for fiscal year 2003, \$75 million for fiscal year 2004, \$100 million for fiscal year 2005, and \$125 million for fiscal year 2006.

Section 2831 allows the Secretary to make grants to public and non-profit private entities for the development and implementation of education programs for appropriate health professionals and students in the use of newly developed diagnostic approaches, technologies, and therapies for the prevention and treatment of stroke.

Section 2841 defines the following terms in the following manner. (1) The term "State" means each of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Indian tribes, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands. (2) The term "stroke care system" means a statewide system to provide for the diagnosis, prehospital care, hospital definitive care, and rehabilitation of stroke patients. (3) The term "stroke" means a "brain attack" in which blood flow to the brain is interrupted or in which a blood vessel or aneurysm in the brain breaks or ruptures.

Section 2842 requires the Secretary to consult widely in implementing the provisions of the Act.

IX. ADDITIONAL VIEWS OF MR. FRIST

As the lead Republican cosponsor of the S. 1274, the Stroke Treatment and Ongoing Prevention Act of 2001, I am concerned about some of the wording of the current report. Although I fully support the overall goal of this Act to improve the provision of stroke care across the nation and to increase public awareness about the prevention, detection, and treatment of stroke, I believe that the grants established in section 2831 should target those areas defined as having special consideration (section 2827). All of the other programs outlined within the Act—the medical professional development grants, the stroke prevention and education campaign, and the Paul Coverdell National Acute Stroke Registry and Clearinghouse—will assist with the improvement of stroke care nationwide.

The areas considered to have special consideration under the Act are those geographic areas in which there is a substantial incidence of stroke or a substantial rate of disability resulting from stroke or areas that demonstrate a significant need for assistance in developing a comprehensive stroke care system. As we are all aware, twelve contiguous states—Alabama, Arkansas, Florida, Georgia, Indiana, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and Washington, DC—form the “Stroke Belt”, an area with stroke death rates that are consistently more than ten percent higher than the rest of the country. Those areas with the greatest need should be our focus as we work to increase stroke prevention and treatment programs nationwide. Without this targeted intervention, we will not be able to assist those areas in greatest need.

BILL FRIST.

X. CHANGES IN EXISTING LAW

In compliance with rule XXVI paragraph 12 of the Standing Rules of the Senate, the following provides a print of the statute or the part or section thereof to be amended or replaced (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

PUBLIC HEALTH SERVICE ACT

* * * * *

**TITLE XXVII—REQUIREMENTS RELATING TO
HEALTH INSURANCE COVERAGE**

PART A—GROUP MARKET REFORMS

**Subpart 1—Portability, Access, and Renewability
Requirements**

**SEC. 2701. [300gg] INCREASED PORTABILITY THROUGH LIMITATION
ON PREEXISTING CONDITION EXCLUSIONS.**

* * * * *

**TITLE XXVIII—SYSTEMS FOR STROKE PREVEN-
TION, TREATMENT, AND REHABILITATION**

**PART A—STROKE PREVENTION AND EDUCATION
CAMPAIGN**

SEC. 2801. STROKE PREVENTION AND EDUCATION CAMPAIGN.

(a) *IN GENERAL.*—The Secretary shall carry out a national education and information campaign to promote stroke prevention and increase the number of stroke patients who seek immediate treatment. In implementing such education and information campaign, the Secretary shall avoid duplicating existing stroke education efforts by other Federal Government agencies and may consult with national and local associations that are dedicated to increasing the public awareness of stroke, consumers of stroke awareness products, and providers of stroke care.

(b) *USE OF FUNDS.*—The Secretary may use amounts appropriated to carry out the campaign described in subsection (a)—

(1) to make public service announcements about the warning signs of stroke and the importance of treating stroke as a medical emergency;

(2) to provide education regarding ways to prevent stroke and the effectiveness of stroke treatment;

- (3) to purchase media time and space;
- (4) to pay for out-of-pocket advertising production costs;
- (5) to test and evaluate advertising and educational materials for effectiveness, especially among groups at high risk for stroke, including women, older adults, and African-Americans;
- (6) to develop alternative campaigns that are targeted to unique communities, including rural and urban communities, and communities in the "Stroke Belt";
- (7) to measure public awareness prior to the start of the campaign on a national level and in targeted communities to provide baseline data that will be used to evaluate the effectiveness of the public awareness efforts; and
- (8) to carry out other activities that the Secretary determines will promote prevention practices among the general public and increase the number of stroke patients who seek immediate care.

(c) **AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to carry out subsection (b), \$40,000,000 for fiscal year 2002, and such sums as may be necessary for each of fiscal years 2003 through 2006.

PART B—GENERAL AUTHORITIES AND DUTIES OF THE SECRETARY

SEC. 2811. ESTABLISHMENT.

(a) **IN GENERAL.**—The Secretary shall, with respect to stroke care—

- (1) make available, support, and evaluate a grant program to enable a State to develop statewide stroke care systems;
- (2) foster the development of appropriate, modern systems of stroke care through the sharing of information among agencies and individuals involved in the study and provision of such care; and
- (3) provide to State and local agencies technical assistance.

(b) **GRANTS, COOPERATIVE AGREEMENTS, AND CONTRACTS.**—The Secretary may make grants, and enter into cooperative agreements and contracts, for the purpose of carrying out subsection (a).

SEC. 2812. PAUL COVERDELL NATIONAL ACUTE STROKE REGISTRY AND CLEARINGHOUSE.

(a) **IN GENERAL.**—The Secretary shall maintain the Paul Coverdell National Acute Stroke Registry and Clearinghouse by—

- (1) continuing to develop and collect specific data points as well as appropriate benchmarks for analyzing care of acute stroke patients;
- (2) continuing to design and pilot test prototypes that will measure the delivery of care to patients with acute stroke in order to provide real-time data and analysis to reduce death and disability from stroke and improve the quality of life for acute stroke survivors;
- (3) fostering the development of effective, modern stroke care systems (including the development of policies related to emergency services systems) through the sharing of information among agencies and individuals involved in planning, furnishing, and studying such systems;

(4) *collecting, compiling, and disseminating information on the achievements of, and problems experienced by, State and local agencies and private entities in developing and implementing stroke care systems and, in carrying out this paragraph, giving special consideration to the unique needs of rural facilities and those facilities with inadequate resources for providing quality prevention, acute treatment, post-acute treatment, and rehabilitation services for stroke patients;*

(5) *providing technical assistance relating to stroke care systems to State and local agencies; and*

(6) *carrying out any other activities the Secretary determines to be useful to fulfill the purposes of the Paul Coverdell National Acute Stroke Registry and Clearinghouse.*

(b) *RESEARCH ON STROKE.—The Secretary shall, not earlier than 1 year after the date of enactment of the Stroke Treatment and Ongoing Prevention Act of 2001, ensure the availability of published research on stroke or, where necessary, conduct research concerning—*

(1) *best practices in the prevention, diagnosis, treatment, and rehabilitation of stroke;*

(2) *barriers to access to currently approved stroke prevention, treatment, and rehabilitation services;*

(3) *barriers to access to newly developed diagnostic approaches, technologies, and therapies for stroke patients;*

(4) *the effectiveness of existing public awareness campaigns regarding stroke; and*

(5) *disparities in the prevention, diagnosis, treatment, and rehabilitation of stroke among different populations.*

(c) *CERTAIN RESEARCH ACTIVITIES.—In carrying out the activities described in subsection (b), the Secretary may conduct—*

(1) *studies with respect to all phases of stroke care, including prehospital, acute, post-acute and rehabilitation care;*

(2) *studies with respect to patient access to currently approved and newly developed stroke prevention and treatment services, including a review of the effect of coverage, coding, and reimbursement practices on access;*

(3) *studies with respect to the effect of existing public awareness campaigns on stroke; and*

(4) *any other studies that the Secretary determines are necessary or useful to conduct a thorough and effective research program regarding stroke.*

(d) *MECHANISMS OF SUPPORT.—In carrying out the activities described in subsection (b), the Secretary may make grants to public and private non-profit entities.*

(e) *COORDINATION OF EFFORT.—The Secretary shall ensure the adequate coordination of the activities carried out under this section.*

(f) *AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated such sums as may be necessary for each of fiscal years 2002 through 2006 to carry out this section.*

PART C—GRANTS WITH RESPECT TO STATE STROKE CARE SYSTEMS

SEC. 2821. ESTABLISHMENT OF PROGRAM FOR IMPROVING STROKE CARE.

(a) *GRANTS.*—The Secretary shall award grants to States for the purpose of establishing statewide stroke prevention, treatment, and rehabilitation systems.

(b) *USE OF FUNDS.*—

(1) *IN GENERAL.*—The Secretary shall make available grants under subsection (a) for the development and implementation of statewide stroke care systems that provide stroke prevention services and quality acute, post-acute, and rehabilitation care for stroke patients through the development of sufficient resources and infrastructure, including personnel with appropriate training, acute stroke teams, equipment, and procedures necessary to prevent stroke and to treat and rehabilitate stroke patients. In developing and implementing statewide stroke care systems, each State that is awarded such a grant shall—

(A) oversee the design and implementation of the statewide stroke care system;

(B) enhance, develop, and implement model curricula for training emergency medical services personnel, including dispatchers, first responders, emergency medical technicians, and paramedics in the identification, assessment, stabilization, and prehospital treatment of stroke patients;

(C) ensure that stroke patients in the State have access to quality care that is consistent with the standards established by the Secretary under section 2823(c);

(D) establish a support network to provide assistance to facilities with smaller populations of stroke patients or less advanced on-site stroke treatment resources; and

(E) carry out any other activities that the State-designated agency determines are useful or necessary for the implementation of the statewide stroke care system.

(2) *ACCESS TO CARE.*—A State may meet the requirement of paragraph (1)(C) by—

(A) identifying acute stroke centers with personnel, equipment, and procedures adequate to provide quality treatment to patients in the acute phase of stroke consistent with the standards established by the Secretary under section 2823(c);

(B) identifying comprehensive stroke centers with advanced personnel, equipment, and procedures to prevent stroke and to treat stroke patients in the acute and post-acute phases of stroke and to provide assistance to area facilities with less advanced stroke treatment resources;

(C) identifying stroke rehabilitation centers with personnel, equipment, and procedures to provide quality rehabilitative care to stroke patients consistent with the standards established by the Secretary under section 2823(c); or

(D) carrying out any other activities that the designated State agency determines are necessary or useful.

(3) *SUPPORT NETWORK.*—A facility that provides care to stroke patients and that receives support through a support network

established under paragraph (1)(D) shall meet the standards and requirements outlined by the State application under paragraph (2) of section 2823(b). The support network may include—

(A) the use of telehealth technology connecting facilities described in such paragraph to more advanced stroke care facilities;

(B) the provision of neuroimaging, lab, and any other equipment necessary to facilitate the establishment of a telehealth network;

(C) the use of phone consultation, where useful;

(D) the use of referral links when a patient needs more advanced care than is available at the facility providing initial care; and

(E) any other assistance determined appropriate by the State.

(c) **PLANNING GRANTS.**—

(1) **IN GENERAL.**—The Secretary may award a grant to a State to assist such State in formulating a plan to develop a statewide stroke care system or in otherwise meeting the conditions described in subsection (b) with respect to a grant under this section.

(2) **SUBMISSION TO SECRETARY.**—The governor of a State that receives a grant under paragraph (1) shall submit to the Secretary a copy of the plan developed using the amounts provided under such grant. Such plan shall be submitted to the Secretary as soon as practicable after the plan has been developed.

(3) **SINGLE GRANT LIMITATION.**—To be eligible to receive a grant under paragraph (1), a State shall not have previously received a grant under such paragraph.

(d) **MODEL CURRICULUM.**—

(1) **DEVELOPMENT.**—The Secretary shall develop a model curriculum for training emergency medical services personnel, including dispatchers, first responders, emergency medical technicians, and paramedics in the identification, assessment, stabilization, and prehospital treatment of stroke patients.

(2) **IMPLEMENTATION.**—The model curriculum developed under paragraph (1) may be implemented by a State to fulfill the requirements of subsection (b)(1)(B).

SEC. 2822. REQUIREMENT OF MATCHING FUNDS FOR FISCAL YEARS SUBSEQUENT TO FIRST FISCAL YEAR OF PAYMENTS.

(a) **NON-FEDERAL CONTRIBUTIONS.**—

(1) **IN GENERAL.**—The Secretary may not award grants under section 2821(a) unless the State involved agrees, with respect to the costs described in paragraph (2), to make available for each year during which the State receives funding under such section, non-Federal contributions (in cash or in kind under subsection (b)(1)) toward such costs in an amount equal to—

(A) for the second and third fiscal years of such payments to the State, not less than \$1 for each \$3 of Federal funds provided in such payments for each such fiscal year;

(B) for the fourth fiscal year of such payments to the State, not less than \$1 for each \$2 of Federal funds provided in such payments for such fiscal year; and

(C) for any subsequent fiscal year of such payments to the State, not less than \$1 for each \$1 of Federal funds provided in such payments for such fiscal year.

(2) PROGRAM COSTS.—The costs referred to in paragraph (1) are the costs to be incurred by the State in carrying out the purpose described in section 2821(b).

(3) INITIAL YEAR OF PAYMENTS.—The Secretary may not require a State to make non-Federal contributions as a condition of receiving payments under section 2821(a) for the first fiscal year of such payments to the State.

(b) DETERMINATION OF AMOUNT OF NON-FEDERAL CONTRIBUTIONS.—With respect to compliance under subsection (a) as a condition of receiving payments under section 2811(a)—

(1) a State may make the non-Federal contributions required in such subsection in cash or in kind, fairly evaluated, including plant, equipment, or services; and

(2) the Secretary may not, in making a determination of the amount of non-Federal contributions, include amounts provided by the Federal Government or services assisted or subsidized by a significant extent by the Federal Government.

SEC. 2823. APPLICATION REQUIREMENTS.

(a) REQUIREMENT OF APPLICATION.—The Secretary may not award a grant to a State under section 2821(b) unless an application for the grant is submitted by the State to the Secretary.

(b) APPLICATION PROCESS AND GUIDELINES.—The Secretary shall provide for an application process and develop guidelines to assist States in submitting an application under this section that—

(1) outlines the stroke care system and explains how such system will ensure that stroke patients throughout the State have access to quality care in all phases of stroke, consistent with the standards established by the Secretary under subsection (c);

(2) contains standards and requirements for facilities in the State that provide basic preventive services, advanced preventive services, acute stroke care, post-acute stroke care, and rehabilitation services to stroke patients; and

(3) provides for the establishment of a central data reporting and analysis system and for the collection of data from each facility that will provide direct care to stroke patients in the State—

(A) to identify the number of stroke patients treated in the State;

(B) to monitor patient care in the State for stroke patients at all phases of stroke for the purpose of evaluating the diagnosis, treatment, and treatment outcome of such stroke patients;

(C) to identify the total amount of uncompensated and under-compensated stroke care expenditures for each fiscal year by each stroke care facility in the State;

(D) to identify the number of acute stroke patients who receive advanced drug therapy;

(E) to identify patients transferred within the statewide stroke care system, including reasons for such transfer; and

(F) to communicate to the greatest extent practicable with the Paul Coverdell National Acute Stroke Registry and Clearinghouse.

(c) CERTAIN STANDARDS WITH RESPECT TO STATEWIDE STROKE CARE SYSTEM.—

(1) IN GENERAL.—The Secretary may not award a grant to a State under section 2821(a) for a fiscal year unless the State agrees that, in carrying out paragraphs (2) and (3), the State will—

(A) adopt standards of care for stroke patients in the acute, post-acute, and rehabilitation phases of stroke; and

(B) in adopting the standards described in subparagraph

(A)—

(i) consult with medical, surgical, and nursing specialty groups, hospital associations, voluntary health organizations, State offices of rural health, emergency medical services State and local directors, experts in the use of telecommunications technology to provide stroke care, concerned advocates, and other interested parties;

(ii) conduct hearings on the proposed standards providing adequate notice to the public concerning such hearing; and

(iii) beginning in fiscal year 2004, take into account the national standards of care.

(2) QUALITY OF STROKE CARE.—The highest quality of stroke care shall be the primary goal of the State standards adopted under this subsection.

(3) APPROVAL BY SECRETARY.—The Secretary may not make payments to a State under section 2821(a) if the Secretary determines that—

(A) the State has not taken into account national standards in adopting standards under this subsection;

(B) in the case of payments for fiscal year 2004 and subsequent fiscal years, the State has not, in adopting such standards, taken into account the national standards of care and the model system plan developed under subsection (c); or

(C) in the case of payments for fiscal year 2004 and subsequent fiscal years, the State has not provided to the Secretary the information received by the State pursuant to paragraphs (9) and (10) of subsection (a).

(d) MODEL STROKE CARE SYSTEM PLAN.—Not later than 1 year after the date of enactment of the Stroke Treatment and Ongoing Prevention Act of 2001, the Secretary shall develop standards of care for stroke patients in all phases of stroke that may be adopted for guidance by the State and a model plan for the establishment of statewide stroke care systems. Such plan shall—

(1) take into account national standards;

(2) take into account existing State systems and plans; and

(3) take into account the unique needs of urban and rural communities, different regions of the Nation, and States with varying degrees of established stroke care infrastructures;

SEC. 2824. REQUIREMENT OF SUBMISSION OF APPLICATION CONTAINING CERTAIN AGREEMENTS AND ASSURANCES.

The Secretary may not award grants under section 2821(a) to a State for a fiscal year unless—

- (1) the State submits an application for the payments containing agreements in accordance with this part;*
- (2) the agreements are made through certification from the chief executive officer of the State;*
- (3) with respect to such agreements, the application provides assurances of compliance satisfactory to the Secretary;*
- (4) the application contains the plan provisions and the information required to be submitted to the Secretary pursuant to section 2823; and*
- (5) the application otherwise is in such form, is made in such manner, and contains such agreements, assurances, and information as the Secretary determines to be necessary to carry out this part.*

SEC. 2825. RESTRICTIONS ON USE OF PAYMENTS.

(a) IN GENERAL.—The Secretary may not, except as provided in subsection (b), make payments to a State under section 2821(a) for a fiscal year unless the State involved agrees that the payments will not be expended—

- (1) to make cash payments to intended recipients of services provided pursuant to such section;*
- (2) to satisfy any requirement for the expenditure of non-Federal funds as a condition for the receipt of Federal funds; or*
- (3) to provide financial assistance to any entity other than a public or nonprofit private entity.*

(b) EXCEPTION.—If the Secretary finds that the purpose described in section 2821(b) cannot otherwise be carried out, the Secretary may, with respect to an otherwise qualified State, waive the restriction established in subsection (a)(3).

SEC. 2826. FAILURE TO COMPLY WITH AGREEMENTS.

(a) REPAYMENT OF PAYMENTS.—

(1) REQUIREMENT.—The Secretary may, in accordance with subsection (b), require a State to repay any payments received by the State pursuant to section 2821(a) that the Secretary determines were not expended by the State in accordance with the agreements required to be made by the State as a condition of the receipt of payments under such section.

(2) OFFSET OF AMOUNTS.—If a State fails to make a repayment required in paragraph (1), the Secretary may offset the amount of the repayment against any amount due to be paid to the State under section 2821(a).

(b) OPPORTUNITY FOR A HEARING.—Before requiring repayment of payments under subsection (a)(1), the Secretary shall provide to the State an opportunity for a hearing.

SEC. 2827. SPECIAL CONSIDERATION.

In awarding grants under this part, the Secretary shall give special consideration to any State that has submitted an application for carrying out programs under such a grant—

- (1) in geographic areas in which there is—*

- (A) a substantial rate of disability resulting from stroke;
 or
 (B) a substantial incidence of stroke; or
 (2) that demonstrates a significant need for assistance in establishing a comprehensive stroke care system.

SEC. 2828. TECHNICAL ASSISTANCE AND PROVISION BY SECRETARY OF SUPPLIES AND SERVICES IN LIEU OF GRANT FUNDS.

(a) **TECHNICAL ASSISTANCE.**—*The Secretary shall, without charge to a State receiving payments under section 2821(a), provide to the State (or to any public or nonprofit entity designated by the State) technical assistance with respect to the planning, development, and operation of any program carried out pursuant to section 2821(b). The Secretary may provide such technical assistance directly, through contract, or through grants.*

(b) **PROVISIONS BY SECRETARY OF SUPPLIES AND SERVICES IN LIEU OF GRANT FUNDS.**—

(1) **IN GENERAL.**—*Upon the request of a State receiving payments under section 2821(a), the Secretary may, subject to paragraph (2), provide supplies, equipment, and services for the purpose of aiding the State in carrying out section 2821(b) and, for such purpose, may detail to the State any officer or employee of the Department of Health and Human Services.*

(2) **REDUCTION IN PAYMENTS.**—*With respect to a request described in paragraph (1), the Secretary shall reduce the amount of payments to the State under section 2821(a) by an amount equal to the costs of detailing personnel and the fair market value of any supplies, equipment, or services provided by the Secretary. The Secretary shall, for the payment of expenses incurred in complying with such request, expend the amounts withheld.*

SEC. 2829. REPORT BY SECRETARY.

Not later than 3 years after the date of enactment of the Stroke Treatment and Ongoing Prevention Act of 2001, the Secretary shall report to the appropriate committees of Congress on the activities of the States carried out pursuant to section 2821. Such report shall include an assessment of the extent to which Federal and State efforts to develop stroke care systems, including the establishment of support networks and the identification of acute, comprehensive, and rehabilitation stroke centers, where applicable, have increased the number of stroke patients who have received acute stroke consultation or therapy within the appropriate timeframe and reduced the level of disability due to stroke. Such report may include any recommendations of the Secretary for appropriate administrative and legislative initiatives with respect to stroke care.

SEC. 2830. FUNDING.

(a) **AUTHORIZATION OF APPROPRIATIONS.**—*There is authorized to be appropriated to carry out this part, \$50,000,000 for fiscal year 2002, \$75,000,000 for fiscal year 2003, \$75,000,000 for fiscal year 2004, \$100,000,000 for fiscal year 2005, and \$125,000,000 for fiscal year 2006.*

(b) **LIMITATION ON ADMINISTRATIVE EXPENSES.**—*A State may use not to exceed 10 percent of amounts received under a grant awarded under section 2821(a) for administrative expenses.*

PART D—MISCELLANEOUS PROGRAMS

SEC. 2831. MEDICAL PROFESSIONAL DEVELOPMENT IN ADVANCED STROKE TREATMENT AND PREVENTION.

(a) *IN GENERAL.*—The Secretary may make grants to public and non-profit private entities for the development and implementation of education programs for appropriate medical personnel including medical students, emergency physicians, primary care providers, neurologists, neurosurgeons, and physical therapists in the use of newly developed diagnostic approaches, technologies, and therapies for the prevention and treatment of stroke.

(b) *DISTRIBUTION OF GRANTS.*—In awarding grants under subsection (a), the Secretary shall ensure that such grants are equitably distributed among the geographical regions of the United States and between urban and rural populations.

(c) *APPLICATION.*—A public or non-profit private entity desiring a grant under subsection (a) shall prepare and submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require, including a plan for the rigorous evaluation of activities carried out with amounts received under such a grant.

(d) *USE OF FUNDS.*—A public or non-profit private entity shall use amounts received under a grant under this section for the continuing education of appropriate medical personnel in the use of newly developed diagnostic approaches, technologies, and therapies for the prevention and treatment of stroke.

(e) *AUTHORIZATION OF APPROPRIATIONS.*—There is authorized to be appropriated to carry out this section, such sums as may be necessary for each of fiscal years 2002 through 2006.

PART E—GENERAL PROVISIONS REGARDING PARTS A, B, C, and D

SEC. 2841. DEFINITIONS.

In this title:

(1) *STATE.*—The term “State” means each of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Indian tribes, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

(2) *STROKE CARE SYSTEM.*—The term “stroke care system” means a statewide system to provide for the diagnosis, prehospital care, hospital definitive care, and rehabilitation of stroke patients.

(3) *STROKE.*—The term “stroke” means a “brain attack” in which blood flow to the brain is interrupted or in which a blood vessel or aneurysm in the brain breaks or ruptures.

SEC. 2842. CONSULTATIONS.

In carrying out this title, the Secretary shall consult with medical, surgical, rehabilitation, and nursing specialty groups, hospital associations, voluntary health organizations, emergency medical services, State directors, and associations, experts in the use of telecommunication technology to provide stroke care, national disability and consumer organizations representing individuals with disabili-

ities and chronic illnesses, concerned advocates, and other interested parties.

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