

"(3) Programs to upgrade the skills of older persons to enable them to obtain more rewarding employment, and

"(4) programs designed to broaden the educational, cultural, or social awareness of older persons so that they will be better able to lead more productive and rewarding lives in retirement.

vided for in this part through grants or contracts with public and private agencies, including other Federal agencies, State educational agencies, local educational agencies, the vocational educational agencies of the States, the vocational rehabilitation agencies of the States.

"APPROPRIATIONS AUTHORIZED

"SEC. 742. There are authorized to be appropriated for the fiscal year 1973, and for each succeeding fiscal year ending prior to July 1, 1975, such sums as may be necessary to enable the Secretary to carry out the provisions of this part."

By Mr. HARTKE:

S. 3078. A bill to amend title 5, United States Code, to require the heads of the respective executive agencies to provide the Congress with advance notice of certain planned organizational and other changes or actions which would affect Federal civilian employment, and for other purposes. Referred to the Committee on Post Office and Civil Service.

PRIOR NOTICE FOR REDUCTIONS IN FORCE

Mr. HARTKE. Mr. President, I am introducing today a bill to require the heads of the respective executive agencies to provide advance notice of certain planned organizational, and other changes which would affect Federal civilian employees. I feel that this legislation is particularly relevant in light of the expressed intention of the executive branch to carry out considerable reductions in personnel.

This legislation is designed to protect Federal civilian employees from being the victims of sudden changes in employment policies. At the present time, Federal employees are subject to dismissal or relocation without sufficient notice. In order to protect these employees, this bill provides that when an agency or executive policy necessitates the dismissal or relocation of civilian employees, the head of the executive agency shall inform the Post Office and Civil Service Committees of the Senate and House of Representatives, and the respective employee organizations at least 120 days before any such action is taken.

It is my hope that this legislation will provide Federal workers the adequate notice that is necessary prior to reductions in personnel. Fairness to the Federal worker demands that we do no less.

Mr. President, I ask unanimous consent that the text of the bill be printed in the RECORD at the conclusion of my remarks.

There being no objection, the bill was ordered to be printed in the RECORD, as follows:

S. 3078

A bill to amend title 5, United States Code, to require the heads of the respective executive agencies to provide the Congress with advance notice of certain planned organizational and other changes or actions which would affect Federal civilian employment, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of

America in Congress assembled, That (a) subchapter II of chapter 29 of title 5, United States Code, is amended by adding at the end thereof the following new section:

"§ 2955. Advance notice to Congress of certain proposed actions of executive agencies affecting Federal civilian employment

"Whenever it is determined by appropriate authority that any administrative action, order, or policy, or series of administrative actions, orders, or policies, shall be taken, issued, or adopted, by or within any executive agency, which will effectuate the closing, disposal, relocation, dispersal, or reduction of the plant and other structural facilities of any installation, base, plant, or other physical unit or entity of that executive agency and which—

"(1) will necessitate, to any appreciable extent, a reduction in the number of civilian employees engaged in the activities performed in and through those facilities of that agency, without reasonable opportunity for their further civilian employment with the Government in the same commuting area; or

"(2) will necessitate, to any appreciable extent, the transfer or relocation of civilian employees engaged in the activities performed in and through those facilities of that agency, in order to provide those employees with reasonable opportunity for further civilian employment with the Government outside the same commuting area; or

"(3) both;

the head of that executive agency shall transmit to the respective Committees on Post Office and Civil Service of the Senate and House of Representatives and to employee organizations having exclusive recognition, at least one hundred and twenty days before any such action, order, or policy is initiated, written notice that such action, order, or policy will be taken, issued, or adopted, together with such written statement, discussion, and other information in explanation thereof as such agency head considers necessary to provide complete information to the Congress with respect to that action, order, or policy. In addition, the agency head shall provide to such committees such additional pertinent information as those committees, or either of them, may request."

(b) The table of sections of subchapter II of chapter 29 of title 5, United States Code, is amended by adding at the end thereof—

"2955. Advance notice to Congress of certain proposed actions of executive agencies affecting Federal civilian employment."

By Mr. KENNEDY (for himself, Mr. WILLIAMS, Mr. JAVITS, Mr. SCHWEIKER, Mr. BAYH, Mr. BROOKE, Mr. CASE, Mr. CRANSTON, Mr. EAGLETON, Mr. HARRIS, Mr. HART, Mr. HUGHES, Mr. HUMPHREY, Mr. INOUE, Mr. MAGNUSON, Mr. MCGEE, Mr. MCGOVERN, Mr. MONDALE, Mr. MUSKIE, Mr. NELSON, Mr. PASTORE, Mr. PELL, Mr. PERCY, Mr. RANDOLPH, Mr. RIBICOFF, Mr. SCOTT, Mr. STAFFORD, Mr. STEVENSON, and Mr. TUNNEY):

S. 3080. A bill to amend the Lead Based Paint Poisoning Prevention Act, and for other purposes. Referred to the Committee on Labor and Public Welfare.

Mr. KENNEDY. Mr. President, I am pleased to take this opportunity to introduce legislation extending the provisions of the Lead Based Paint Poisoning Prevention Act. My bill authorizes the continuation of a program that was enacted January 13, 1971, to eliminate the

hazards of childhood poisoning caused by lead based paints.

In 1969, when I proposed legislation to create a Federal program to fight this disease, the Senate overwhelmingly expressed support for this program by unanimously approving the provisions in that measure. Today, I am pleased to announce that 24 Senators, including the chairman of the Labor and Public Welfare Committee; and Senator JAVITS and Senator SCHWEIKER join with me in introducing this new bill that will guarantee continued Federal support in the fight against the hazards of childhood lead based paint poisoning.

The need for continuing programs in this area is clear. In one year about 200 youngsters die from lead based paint poisoning. At least 400,000 children get lead sick each year. But only 12,000 to 16,000 children actually receive treatment. Of those who are seen by physicians, it is estimated that 50 percent are left mentally retarded because the disease usually had advanced too far by the time a doctor is summoned. Indeed, the greatest tragedy of childhood lead-paint poisoning is that our society has so far failed to prevent the disease even though we know how to do that.

Lead exists naturally in the environment. But many products are manufactured with lead additives to enhance various qualities like staying power and color in paints, and efficiency in automobile fuels. Interior paints used in houses built before World War II customarily included large quantities of lead. Today, many of those homes are dilapidated slum dwellings. They have been allowed to deteriorate to the point where wall and ceiling surface are chipped, cracked, eyesores, flaked with peeling paint. Young children eat these chips. And when lead paint chips are ingested over a period of time, the victims are stricken with nausea, fever, coma, mental retardation, and death. Sadly, even the mothers who know their children eat paint chips fail to realize that it is harmful. Though her child's body is baked with fever, and trembling with convulsions, too often that mother is unprepared to tell her doctor about the paint eating episodes.

Many doctors are unprepared and unaware that these are the symptoms of plumbism—the scientific term for lead based paint poisoning. For that reason, lead sick children are often treated for the wrong thing. Those who are fortunate enough to get treatment, however, are tragically sent back to the same conditions that caused the disease in the first place. Once a child gets lead sick, he is likely to be sick again.

Community workers and health officials who have attempted to fight the hazards of lead based paint poisoning know that the effects of this debilitatingcrippler can be halted. Programs are needed most urgently in communities where the risk is high because of widespread conditions of housing deterioration.

These are the communities that must have awareness programs—awakening parents, teachers and medical professionals to the problems associated with lead-based paint poisoning. In these

communities, screening projects to seek out youngsters with high lead levels must be established if we intend to help the children who are suffering.

The existing legislation, Public Law 91-695, authorizes Federal assistance for community-based screening programs. Health officials and lay workers in at least 50 cities have contacted the bureau of community and environmental management in the Department of Health, Education, and Welfare for assistance to establish lead poisoning programs under the present legislation. During hearings in 1970, Dr. Jonathan Fine told the health subcommittee that a city the size of Boston could spend at least \$1 million in an annual program aimed at the elimination of the hazards of this disease. For a nationwide attack against lead-based paint poisoning, significantly more money will be required.

The bill I am introducing today authorizes \$20 million for the Department of Health, Education, and Welfare to award contracts and grants for screening programs that will identify those youngsters who need treatment. Spurred by current concerns about this disease, many communities have attempted to establish programs that will measure the extent of the lead poisoning problem. Whenever investigators look for lead sick children, they find them. And the more they look the more they find.

I am convinced that it is vital for us to continue the provisions of Public Law 91-695 authorizing detection programs. We must provide adequate resources if we intend for these programs to make a difference. The \$20 million authorized for screening and detection programs in my bill will hopefully make a significant impact in this area.

Unlike many health hazards, lead-based paint poisoning and its effects are well understood. This is not a mysterious malady demanding extensive research to seek a cure. Once a victim has been diagnosed with high lead levels doctors use chelating agents to rid the body of the excessive amounts of lead. But when those children are discharged from a hospital after treatment they are usually returned to home surroundings—peeling walls, chipped and cracked window sills—that are just as lethal as they were when treatment began.

The authorization in my bill recognizes that it is just as important to remove those surfaces from exposure to young children as it is to seek out and treat the sick child. The existing legislation authorizes the Department of Health, Education, and Welfare to assist in the development of community programs that will identify high risk areas and neighborhoods and provide procedures to eliminate the hazards detected in those communities. My bill authorizes \$25 million for the Department of Health, Education, and Welfare to extend areawide detection programs. It has been clear for many years that proper maintenance of residential housing can prevent the exposure of lead paint chips to young children.

But, as well all know, peeling paint chips are usually a symptom of a much bigger problem—the gross lack of con-

cern absentee landlords have for inner city properties. In too many cities the number of deteriorating houses has increased enormously because outmoded zoning regulations and other restrictions encourage owners to abandon rather than repair the homes occupied by poor people. Modern wall coverings as well as deleaded paints can eliminate the hazards of lead-based paint poisoning. Yet, municipal health authorities and housing officials are too often embroiled in jurisdictional disputes to produce effective action on the hazards of this disease.

I am hopeful that communities around the country will begin to obtain the assistance needed to eliminate the hazards of lead-based paint poisoning with the assistance of the resources in the bill I am introducing today.

Finally, my bill authorizes \$5 million for the Department of Housing and Urban Development to work in cooperation with the Department of Health, Education, and Welfare to determine the extent of the lead-based-paint-poisoning problem and to establish the most efficient ways to cover up exposed surfaces in residential communities.

Although we know that deleaded paints, wood wall panels, and other materials are marketed extensively, too little has been done to insure the use of such products in all housing rehabilitation and construction projects. It is my hope that this legislation will develop the action needed to protect future generations of children. Perhaps one of the most effective ways that we can develop safeguards against the hazards of this disease is by eliminating lead and lead compounds as additives to interior paints.

Although manufacturers of household paints had adopted voluntary standards years ago, that specify a limit of 1 percent lead in paints, there is increasing evidence of the need to seek the elimination of all but trace amounts of lead in paints used in houses. My bill is designed to embrace that concept. It is my hope that during hearings on this bill we will learn more about the feasibility of eliminating lead from paint intended for residential interior surfaces.

Mr. President, I am pleased to offer this bill. I respectfully request that it be referred to the Subcommittee on Health where hearings will be scheduled as soon as possible. This bill is designed to continue a very worthwhile program regarding community health needs and I look forward to favorable action on this measure by the Senate.

Mr. President, I ask unanimous consent that the text of the bill be printed in the Record at this point.

There being no objection, the bill was ordered to be printed in the Record, as follows:

S. 3080

A bill to amend the Lead Based Paint Poisoning Prevention Act and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 101 of the Lead Based Paint Poisoning Prevention Act is amended by adding at the end thereof the following new subsection:

"(e) The Secretary is also authorized to

make grants to State agencies for the purpose of establishing centralized laboratory facilities for analyzing biological and environmental lead specimens obtained from local lead based paint poisoning detection programs."

SEC. 2. Section 501(3) of the Lead Based Paint Poisoning Prevention Act is amended by striking out "1 percentum lead by weight" and inserting in lieu thereof ".06 per centum lead by weight."

SEC. 3. (a) Section 503(a) of the Lead Based Paint Poisoning Prevention Act is amended (1) by striking out the word "and" and inserting in lieu thereof a comma, and (2) by inserting before the period a comma and the following: "and \$20,000,000 for each fiscal year thereafter."

(b) Section 503(b) of such Act is amended (1) by striking out the word "and" and inserting in lieu thereof a comma, and (2) by inserting before the period a comma and the following: "and \$25,000,000 for each fiscal year thereafter."

(c) Section 503(c) of such Act is amended (1) by striking out the word "and" and by inserting in lieu thereof a comma, and (2) by inserting before the period a comma and the following: "and \$5,000,000 for each fiscal year thereafter."

(d) Section 503(d) of such Act is amended by striking out all matter after the semicolon and inserting in lieu thereof "any amounts authorized for one fiscal year but not appropriated may be appropriated for the succeeding fiscal year."

MR. RIBICOFF. Mr. President, today, in conjunction with the Senator from Massachusetts (Mr. KENNEDY) and other Senators, I am introducing a bill to provide Federal assistance for the battle against childhood lead-based paint poisoning.

The problem of childhood lead poisoning caused by the ingestion of lead-based paints is reaching epidemic proportions in most of our large cities. This problem is almost solely confined to young children living in city slums. The accessibility to flaking and peeling lead paint and broken plaster and the ingestion of these paint chips can lead to either death or irreversible brain injury. Since acute lead poisoning causes permanent brain damage which cannot be modified by medical treatment, it is imperative that prompt action be taken to eliminate this man-made environmental hazard.

The bill I am cosponsoring extends the Lead-Based Paint Elimination Act of 1970, which expires on June 30, 1972.

Our proposal authorizes \$45 million for the Department of Health, Education and Welfare to extend programs for detecting and treating lead poisoning victims, for identifying areas where lead-based paint poisoning presents a high risk and for State health agencies to analyze lead samples in centralized laboratory facilities.

This proposal would also authorize \$5 million for the Department of Housing and Urban Development to continue its research and demonstration program in the development of improved methods for removing the hazards of lead-based paint poisoning from residential housing.

This bill also changes the acceptable limit of lead additives in interior paints from 1 percent to .06 percent.

It is tragic that a disease which is entirely preventable continues virtually unabated. The cost per person to remove

PROPOSED AUTHORIZATION OF APPROPRIATIONS FOR THE SALINE WATER CONVERSION PROGRAM

A letter from the Assistant Secretary of the Interior, transmitting a draft of proposed legislation to authorize appropriations for the Saline Water Conversion Program for fiscal year 1973, to delete section 6(d) of the Saline Water Conversion Act, and for other purposes (with accompanying papers); to the Committee on Interior and Insular Affairs.

REPORT OF FEDERAL JUDICIAL CENTER

A letter from the Director, the Federal Judicial Center, Washington, D.C., transmitting, pursuant to law, a report of that Center, for the year 1971 (with an accompanying report); to the Committee on the Judiciary.

PROPOSED EXTENSION OF COMMISSION ON CIVIL RIGHTS

A letter from the Chairman, U.S. Commission on Civil Rights, transmitting a draft of proposed legislation to extend the Commission on Civil Rights for 5 years, to expand the jurisdiction of the Commission to include discrimination because of sex, to authorize appropriations for the Commission, and for other purposes (with an accompanying paper); to the Committee on the Judiciary.

REPORT OF NATIONAL ADVISORY COUNCIL ON EDUCATION PROFESSIONS DEVELOPMENT

A letter from the Chairman, National Advisory Council on Education Professions Development, Washington, D.C., transmitting, pursuant to law, a report of that Council entitled "Windows to the Bureaucracy" (with an accompanying report); to the Committee on Labor and Public Welfare.

PROPOSED AUTHORIZATION OF APPROPRIATIONS FOR NATIONAL SCIENCE FOUNDATION

A letter from the Director, National Science Foundation, Washington, D.C., transmitting a draft of proposed legislation to authorize appropriations for activities of the National Science Foundation, and for other purposes (with accompanying papers); to the Committee on Labor and Public Welfare.

REPORT ON NOISE

A letter from the Administrator, Environmental Protection Agency, Washington, D.C., transmitting, pursuant to law, a report on noise, dated December 31, 1971 (with an accompanying report); to the Committee on Public Works.

PROPOSED AUTHORIZATION OF APPROPRIATIONS FOR U.S. ATOMIC ENERGY COMMISSION

A letter from the Chairman, U.S. Atomic Energy Commission, Washington, D.C., transmitting a draft of proposed legislation to authorize appropriations to the Atomic Energy Commission in accordance with section 261 of the Atomic Energy Act of 1954, as amended, and for other purposes (with an accompanying paper); to the Joint Committee on Atomic Energy.

PETITIONS

Petitions were laid before the Senate and referred as indicated:

By the ACTING PRESIDENT pro tempore (Mr. Moss):

The petition of Albert S. Sullivan, of the State of Illinois, praying for a redress of grievances; to the Committee on the Judiciary.

REPORTS OF COMMITTEES

The following reports of committees were submitted:

By Mr. JORDAN of North Carolina, from the Committee on Rules and Administration, without amendment:

S. Res. 226. A resolution to provide addi-

tional funds for the Committee on Agriculture and Forestry for routine committee expenditures (Rept. No. 92-596).

S. Res. 240. An original resolution authorizing additional expenditures by the Committee on Rules and Administration for inquiries and investigations (Rept. No. 92-597).

S. Res. 239. An original resolution authorizing the printing of the 73d Annual Report of the National Society of the Daughters of the American Revolution (Mar. 1, 1969-Mar. 1, 1970) as a Senate document (Rept. No. 92-598).

INTRODUCTION OF BILLS AND JOINT RESOLUTIONS

The following bills and joint resolutions were introduced, read the first time and, by unanimous consent, the second time, and referred as indicated:

By Mr. HUMPHREY:

S. 3073. A bill to create River Basin Waste Treatment Authorities for the purpose of assuming control over, planning, constructing, and operating waste treatment facilities throughout the United States in order to eliminate water pollution in our nation's rivers and streams. Referred to the Committee on Public Works.

By Mr. HARTKE (by request):

S. 3074. A bill to amend title 38, United States Code, to provide for the review of certain veterans' benefit cases forfeited for fraud on or before September 1, 1959, and for remission of forfeitures. Referred to the Committee on Veterans' Affairs.

By Mr. HARTKE:

S. 3075. A bill to increase the contribution of the Federal Government to the costs of employees' health benefits insurance. Referred to the Committee on Post Office and Civil Service.

S. 3076. A bill to strengthen and improve the Older Americans Act of 1965. Referred to the Committee on Labor and Public Welfare.

By Mr. MCINTYRE:

S. 3077. A bill for the relief of Okechukwu Baldwin M. Ewuzie and Theresa Nwanneka Ewuzie. Referred to the Committee on the Judiciary.

By Mr. HARTKE:

S. 3078. A bill to amend title 5, United States Code, to require the heads of the respective executive agencies to provide the Congress with advance notice of certain planned organizational and other changes or actions which would affect Federal civilian employment, and for other purposes. Referred to the Committee on Post Office and Civil Service.

By Mr. DOLE:

S. 3079. A bill for the relief of Capt. Ronald W. Grout, USAF. Referred to the Committee on the Judiciary.

By Mr. KENNEDY (for himself, Mr. WILLIAMS, Mr. JAVITS, Mr. SCHWEIKER, Mr. BATH, Mr. BROOKE, Mr. CASE, Mr. CRANSTON, Mr. EAGLETON, Mr. HARRIS, Mr. HART, Mr. HUGHES, Mr. HUMPHREY, Mr. INOUYE, Mr. MAGNUSON, Mr. MCGEE, Mr. MCGOVERN, Mr. MONDALE, Mr. MUSKIE, Mr. NELSON, Mr. PASTORE, Mr. PELL, Mr. PERCY, Mr. RANDOLPH, Mr. RIBICOFF, Mr. SCOTT, Mr. STAFFORD, Mr. STEVENSON, and Mr. TUNNEY):

S. 3080. A bill to amend the Lead Based Paint Poisoning Prevention Act, and for other purposes. Referred to the Committee on Labor and Public Welfare.

By Mr. GOLDWATER (for himself and Mr. FANNIN):

S.J. Res. 188. A joint resolution providing for renaming the central Arizona project as the Carl Hayden project. Referred to the Committee on Interior and Insular Affairs.

By Mr. BROCK:

S.J. Res. 189. A joint resolution to authorize the President to designate the period beginning March 26, 1972, as "National Week of Concern for Prisoners of War/Missing in Action," and to designate Sunday, March 26, 1972, as a national day of prayer for these Americans. Referred to the Committee on the Judiciary.

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS

By Mr. HUMPHREY:

S. 3073. A bill to create river basin waste treatment authorities for the purpose of assuming control over planning, constructing, and operating waste treatment facilities throughout the United States in order to eliminate water pollution in our Nation's rivers and streams. Referred to the Committee on Public Works.

RIVER BASIN WASTE TREATMENT AUTHORITY ACT OF 1971

Mr. HUMPHREY. Mr. President, I am today introducing the River Basin Waste Treatment Authority Act of 1972. This legislation mandates the creation of water basin regionwide sewage authorities that will be accountable for treating all water pollution—from whatever the source—within the boundaries of that river basin. The authorities will own and manage existing plants, will plan and build new facilities.

Mr. President, only 70 percent of the Nation's population is served by sewer systems; and only about 40 percent of these treatment plants are adequate to meet needs. A majority of the sewage plants in the United States are overloaded or in need of major upgrading. Even fewer collection systems are designed to handle storm water runoff.

In addition, our current efforts at water quality control are marked by, in the words of a report from the Public Works Committee: fragmented responsibility; jurisdictional incompleteness which allows entire areas to be completely unserved; the financial weakness of local units responsible for implementation; the irrational posture of Federal enforcement; the gap between authorization and appropriation; the sad fact that many States and localities have had to pay the Federal share of treatment works costs; the impounding of Federal water and sewer funds; and the financial havoc which promised but unpaid Federal shares have caused to local and regional organizations.

Some of these deficiencies will likely be corrected by Federal Water Quality Control Amendment passed by the Senate last session. I heartily support the good work of the Public Works Committee; but I am apprehensive because I feel that unless we take a completely systematic approach to water pollution treatment, then our programs will always be inadequate. Our approach in the past has largely been negative. We have worked with the planning agencies of States and localities to come up with plans which essentially say to communities—you build the treatment plants. And that has been all. Our financial assistance has been skimpy at best, even where it has been forthcoming at all.

It seems clear to me that when over 1,400 communities dump raw sewage in rivers: When many existing plants are inefficient with poor design, poor operation, and maintenance; when waste loads from municipal systems are expected to increase four times over the next 50 years; when over 1,000 communities outgrow their treatment systems each year; when there are lengthy delays in enforcement, then if we are ever to solve our pollution problem, we must have a new concept, an approach of new jurisdictional entities which have responsibility for entire river basins.

These new agencies must have responsibility for entire river basins. They must be charged not only to plan for interstate, interlocal, and interregional cooperation, but also for building, operating, and maintaining adequate treatment facilities.

Their operations and building programs will be financed by user charges against users of existing plants as well as new plants. The authorities will fund their building programs by issuing bonds for the entire cost of construction on the national investment markets. The Federal Government will pledge to pay 40 percent of the debt service costs. The terms of the bonds will be long so as to approximate the useful life of the facilities.

In addition, the authorities will have full powers of condemnation so that they will be able to carry out expeditiously an effective pollution control program. We must put the responsibility for pollution control in a single agency for each river basin and then give that agency the powers, tools, and assistance that will insure it can carry out its mandate.

While the financing of agency bonds will be federally guaranteed and insured, the agencies will not be Federal instrumentalities. Rather they will be supervised and operated by boards that represent States and local governments.

The Federal responsibility will be in standard setting in order to assure a minimum level of clean water for citizens throughout this country; the major responsibility and operating details remain with the States and localities.

The bill represents a new approach to solving our water pollution crises. I ask that the text of the bill and a section-by-section summary be printed in the CONGRESSIONAL RECORD.

There being no objection, the bill and summary were ordered to be printed in the RECORD, as follows:

S. 3073

A bill to create River Basin Waste Treatment Authorities for the purpose of assuming control over, planning, constructing, and operating waste treatment facilities throughout the United States in order to eliminate water pollution in our nation's rivers and streams

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

SECTION 1. This Act may be cited as the "River Basin Waste Treatment Authority Act of 1971".

FINDINGS AND PURPOSE

SEC. 2. (a) The Congress hereby finds and declares that the continued deterioration of our water supply threatens the integrity of our national environment and that improvement in the cleanliness of our water supply is essential to the survival of our citizens and our system; that continued population growth and industrial expansion mean an ever mounting demand for clear, usable water; that after two decades of experience with water pollution control efforts, the purity of water is no more assured today than it was when Federal efforts first began; that an effective program of pollution control necessitates expenditures by government over and above the capital investment of \$18 billion needed to meet existing water quality standards over the next five years; that State and local governments even when aided by Federal grant programs cannot provide either the funds or the personnel necessary to assure water quality; and that effective pollution control requires coordination of treatment systems, river basin-wide planning and implementation, and access to large amounts of funds.

(b) The purpose of this Act is to constitute throughout the United States River Basin Waste Treatment Authorities that will assume control over, plan, build, operate, and maintain waste treatment facilities sufficient to control and abate water pollution in entire river basin drainage systems.

DEFINITIONS

SEC. 3. For the purposes of this Act the term—

(1) "United States" includes the States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, and Guam;

(2) "waste treatment facilities" means installations and devices used in the treatment of sewage or industrial wastes of a liquid nature, including the necessary intercepting sewers, outfall sewers, pumping, power, and other equipment, and their appurtenances;

(3) "Administrator" means the Administrator of the Environmental Protection Agency; and

(4) "Authority" means a River Basin Waste Treatment Authority established pursuant to this Act.

DESIGNATION OF RIVER BASINS

SEC. 4. The Administrator, after consultation with the Secretary of the Army and the Secretary of the Interior and within ninety days after the date of enactment of this Act, shall designate river basin regions which together will encompass the entire United States. The area of each such region shall be determined on the basis of physical, hydrologic, or other relationships which will enable the provision of the most systematic and economical waste treatment for the area.

ESTABLISHMENT OF AUTHORITIES

SEC. 5. (a) There is hereby established an Authority for each region designated pursuant to section 4. Such Authority shall not be an agency or establishment of the United States Government but shall be subject to the provisions of this Act, and to the extent consistent with this Act, to the District of Columbia Business Corporation Act. The right to repeal, alter, or amend this Act at any time is expressly reserved.

(b) (1) Each Authority shall have a board of directors consisting of—

(A) the Governor, or his designee, of each State within the Authority's region;

(B) the mayor, or his designee, of each city having a population of 35,000 or more within such region;

(C) a designee of the governing board of each county which is entirely within such region and has within it a city having a population of 35,000 or more; and

(D) a representative of the Environmental

Protection Agency designated by the President;

(2) The President is authorized to appoint an appropriate substitute for any director authorized pursuant to paragraph (1) but not designated as provided in such paragraph and such substitute shall serve as a director is appointed pursuant to such paragraph. Each director who is a representative of the Environmental Protection Agency shall serve for a term of five years. Vacancies shall be filled in the same manner as initial appointments.

(3) For the purpose of this subsection population shall be determined on the basis of the latest decennial census.

(c) Each director, other than those in the employ of the Federal or a State government, shall receive compensation at the rate of \$100 per diem. All directors shall be reimbursed for actual expenses, including travel and subsistence expenses incurred by them in the performance of their duties.

(d) A majority of the designated members of each board shall constitute a quorum for the purpose of carrying out the functions of the board.

FUNCTIONS

SEC. 6. Each Authority shall within its region—

(1) acquire, by purchase, condemnation, or otherwise, not later than June 30, 1973, and operate all public waste treatment facilities;

(2) prepare and carry out a plan for providing, as soon as practicable and for the future, such additional waste treatment facilities as are necessary to comply with State and Federal requirements and standards for water pollution control;

(3) construct, in accordance with established priorities in such plan, such waste treatment facilities as are necessary to carry out such plan;

(4) cooperate with other Authorities in preparing and carrying out such plan;

(5) determine any disputes that may arise with other Authorities with respect to the location of facilities in border areas or other matters by appeal to the Waste Treatment Facilities Review Board established pursuant to section 8; and

(6) levy appropriate charges for the use of its facilities as are necessary to provide funds to carry out its functions, including the retirement of the Authority's indebtedness.

POWERS

SEC. 7. Each Authority shall have the following powers:

(1) to adopt, alter, and use a corporate seal;

(2) to adopt, amend, and repeal bylaws, rules, and regulations governing the manner of its operations, organization, and personnel, and the performance of the powers and duties granted to or imposed upon it by law;

(3) to appoint and fix the compensation of such personnel as may be necessary to carry out its functions, including a general manager who shall be the executive officer for the board of directors and who shall not receive compensation in excess of the maximum rate prescribed for GS-18 in the General Schedule of section 5332(a) of title 5, United States Code;

(4) to sue and be sued in its corporate name;

(5) to acquire by purchase, lease, condemnation, or in any other lawful manner, any property, or any interest therein; to hold, maintain, use, and operate the same; to provide services in connection therewith, and to charge therefor; and to sell, lease, or otherwise dispose of the same at such time, in such manner, and to the extent deemed necessary or appropriate for the

OFFICE OF THE SECRETARY
OF THE TREASURY,
Washington, D.C., December 10, 1971.

Hon. JACOB K. JAVITS,
U.S. Senate,
Washington, D.C.

DEAR SENATOR JAVITS: This is in response to your letter of November 22, 1971, in respect to a proposed amendment to section 1039 of the Internal Revenue Code of 1954.

Section 1039 generally provides for non-recognition of the gain realized on the sale of a "qualified housing project" to the extent the proceeds are reinvested in another qualified housing project. Under section 1039 (b) a "qualified housing project" is a project with respect to which the owner is limited as to the rate of return and limited to rate of occupancy charges; and with respect to which a mortgage is insured under section 221(d)(3) or section 236 of the National Housing Act. Thus, section 1039 is presently limited to Federally-sponsored housing projects.

Your amendment would extend section 1039 to apply to state or local housing projects which have been certified, under standards approved by the Secretary of Housing and Urban Development, as being comparable to qualified housing projects under Federal programs. A similar amendment to the Tax Reform Act was introduced in 1969, but did not become law.

I agree that there is no meaningful distinction between housing projects sponsored under Federal programs and similar housing projects sponsored under state and local programs. In either case, the statute is primarily concerned that the project have a limited rate of return and that rental or occupancy charges also be limited. Where a state or local program meets these conditions, and where the program has been certified in accordance with standards approved by the Secretary of Housing and Urban Development as being consistent with the standards applied under the Federal programs, I can see no objection to extending the benefits of section 1039.

Section (b) of the proposed amendment would make these changes apply to "taxable years" beginning after December 31, 1971. Since section 1039 itself applies to "dispositions" of qualified housing projects after the effective date, you may wish to revise section (b) of your amendment to apply to dispositions after the date of enactment of the amendment.

Sincerely,

JOHN E. CHAPOTON,
Tax Legislative Counsel.

SUDDEN INFANT DEATH

Mr. MONDALE. Mr. President, on Tuesday, January 25, the Subcommittee on Children and Youth had a very moving and informative hearing on the Sudden Infant Death Syndrome.

Among our witnesses were Dr. Abraham B. Bergman and Mrs. Judith Choate, president and executive administrator, respectively, of the National Foundation for Sudden Infant Death, Inc.; Dr. Jay M. Arena, president of the American Academy of Pediatrics; Dr. Merlin K. DuVal, Assistant Secretary for Health and Scientific Affairs at HEW; Mr. Saul Goldberg, president of the International Guild for Infant Survival; and Mr. Frank Hennigan and Mr. Arthur Siegal, fathers of children who died suddenly for no apparent reason.

Because of the virtual ignorance surrounding this major killer of young children, I ask unanimous consent that the testimony of our witnesses and other

relevant materials be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

STATEMENT OF SENATOR WALTER F. MONDALE, CHAIRMAN, SENATE SUBCOMMITTEE ON CHILDREN AND YOUTH

This morning's hearing is the first of a series the Subcommittee will hold concerning "the rights of children." Today we will explore the most fundamental right of all—the right of a child to live.

Every night several million American mothers feed their babies, put them in their cribs, and say goodnight. The next morning they return, greet their children and begin another day of care.

Yet every morning anywhere from 30 to 60 mothers return to find their babies lying dead in their cribs—victims of a mysterious and frightening disease that takes the lives of at least 10,000 infants each year.

Some people know this disease by the name of "crib death" or "cot death." Others call it "Sudden Infant Death Syndrome." By any name it is an elusive disease which strikes not only the child, but his whole family. Sometimes the victim's parents and brothers and sisters never recover from the shock, guilt and self-incrimination that follow.

The death of any baby, any child, is a tragedy. But consider the tragedy of the mother who has fed her healthy child as usual and put him to bed. She awakes in the middle of the night, looks in on the baby and finds him dead. Can she ever hope to escape the gnawing feeling that she was in some way responsible for that death . . . the tortured thoughts that if she had only checked one more time, that the death could have been prevented?

Consider the woman who wrote: "I lost my son almost 24 years ago . . . with this syndrome. An autopsy was not performed. I have since divorced and my ex-husband has told both my daughters that I killed the baby. I fed him at 3 a.m. and at 6 a.m. he was dying when I went in to check on him . . . I have seen two psychiatrists but I still have terrible guilt feelings."

Crib death is not an isolated occurrence. It is the leading cause of death of infants between one month and one year old, striking 3 out of every 1,000 children born in this country. It strikes silently and unexpectedly at healthy babies who are sleeping peacefully in their cribs one minute and found dead there a few hours later. When an autopsy is performed—and this does not always happen—no specific cause of death can be identified.

Although it touches thousands of American families every year, most Americans know little about it.

Although medical researchers have explored a variety of hypotheses on the causes of crib deaths, none of them has been confirmed.

Although the National Institute of Child Health and Human Development calls it the largest cause of death in infants from one to twelve months old, SIDS is not even mentioned in government statistics on infant mortality.

Although Sudden Infant Death Syndrome was finally identified and described as a specific disease in 1969, large numbers of medical and legal authorities are not up to date on the research findings and implications of SIDS.

We need to review our efforts to discover the medical cause of these deaths . . . and ways to prevent them. And, we need to examine the extent to which families who lose their babies to this mysterious killer are receiving the help and support they need from the doctors and nurses, medical examiners and policemen, coroners, and rescue squad officials they encounter following their child's death.

This is why we are holding this hearing today:

To learn about past and present research efforts

To explore the prospects for discovering the cause—and preventing future occurrences—of SIDS

To understand the scope of activity within HEW, to inform the public and professions about this disease

To learn from government officials, medical experts, and parents—what more we can do both to determine the cause and provide assistance to those families who have been the victims of this deadly disease.

STATEMENT OF DR. MERLIN K. DUVAL, ASSISTANT SECRETARY FOR HEALTH AND SCIENTIFIC AFFAIRS, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE ON SUDDEN INFANT DEATH SYNDROME, BEFORE THE SENATE LABOR AND PUBLIC WELFARE SUBCOMMITTEE ON CHILDREN AND YOUTH, JANUARY 25, 1972

Mr. Chairman, I am pleased to appear before the Committee this morning to discuss with you the sudden infant death syndrome, also known as "crib death," and report the efforts of the Department of Health, Education, and Welfare through its component, the National Institutes of Health, and specifically the National Institute of Child Health and Human Development, to increase our understanding of this tragic medical problem about which so little is known.

Let me first outline briefly for you some of the obstacles to explaining accurately and fully the occurrence of crib death, what we have learned about it so far, and then describe the Institute's plans for future research on sudden infant death syndrome.

Since its establishment in 1963, the NICHD has been increasingly concerned with the syndrome and has directed its efforts to enlarging our understanding of the syndrome. But progress has been slowed by three critical factors:

(1) There is a paucity of scientists interested in the phenomenon of sudden infant death. In the last nine years, only a very small number of applications dealing specifically with sudden infant death syndrome have been submitted to the NICHD for consideration. Eight of these were disapproved by the initial review group because of their poor scientific merit; of the five approved, all were funded.

(2) There is currently no code in the International Classification of Diseases for this syndrome. These deaths according to the classification system may have been categorized as mechanical suffocation, pneumonia, ill-defined conditions, and accidental deaths. We recognize the need to gain valid, reliable vital statistics in certifying cause of death for these babies. The NICHD is working closely with the Director of Health Statistics Analysis of the National Center for Health Statistics of the Health Services and Mental Health Administration to identify more accurately infant deaths attributed to sudden infant death syndrome and to establish a separate category for sudden infant death syndrome in the ninth edition of the International Classification of Diseases. The definition of sudden infant death syndrome as put forth in the Second International Conference on Causes of Sudden Death in Infancy will be used as a basis for this classification.

(3) Finally, an even more serious limitation on our understanding of sudden infant death syndrome is the very nature of the syndrome. Its starting point is the death of an infant, which is instantaneous and without warning. There is no opportunity to observe the forces and interrelationships leading up to the baby's death. It has been necessary first to gather information on the nature of the syndrome and the characteristics of the victims and their environment. Much of this has now been accomplished; we

tiation, they can agree to submit the matter to the International Court. After hearing both sides, the Court renders an opinion. Should one party to the dispute decide not to abide by the Court's opinion, the Court has absolutely no power to enforce its opinion. Only the goodwill of the parties to the dispute enforces the opinion.

Article IX of the Genocide Convention says that any disputes over the meaning of this treaty will be decided by the International Court of Justice. Nothing is said about giving the Court the power to try individuals, a power the Court has never had. Instead the Court is to issue an opinion as to what the treaty says. Should any party to the dispute disagree with the Court's opinion, the Court still has no power to enforce its opinion.

Article VI of the Genocide Convention does speak of an international tribunal to try individuals, but in the 22 years that the Convention has been in force such a tribunal has never been established. The reason is because neither article VI, nor any other part of the Convention, establishes such a tribunal. Rather article VI makes it clear that if the nations of the world should desire an international tribunal to try persons for genocide, they will have to enter into a separate agreement. Such an agreement would have to be approved by each nation before it was in force for that nation. Thus the Senate would have to ratify that agreement before the United States was bound by it. There is no movement to attempt to establish an international tribunal.

We see, Mr. President, that the Genocide Convention does not provide for the trial of individuals by the International Court of Justice or any other international body. Rather the trial must occur in a competent tribunal of the country where the crime allegedly occurred. The time has come for the Senate to ratify the Genocide Convention.

PROPOSED BILL TO FACILITATE LOW- AND MODERATE-INCOME HOUSING

Mr. JAVITS. Mr. President, in the Tax Reform Act of 1969 section 1039 relating to sales of low-income housing projects was added to the Internal Revenue Code. The purpose of this section is to provide for nonrecognition of gain if a "qualified housing project" is sold by a taxpayer and within a certain specified period the taxpayer constructs or acquires another qualified housing project. The term "qualified housing project" was defined as one in which a mortgage is insured under section 221(d)(3) or 236 of the National Housing Act and which is limited as to rate of return on investments and as to rentals charged for units in the project.

This section allows an initial investor in a federally assisted housing project to sell the property to the occupants or to a tax-exempt organization managing the property without paying tax on any gain that might be involved in the transaction. This would allow private developers to construct housing and turn

it over to nonprofit groups or to tenants for their use.

At the time the Tax Reform Act was passed by the Senate I offered an amendment, which was accepted on the Senate floor by the managers of the bill, to apply section 1039 to State and local programs which contained the same controls as the Federal programs, and which would be approved by HUD. My amendment was deleted in conference and did not become law.

I believe that this tax incentive should be extended to housing under State or local programs which are assimilated to the Federal program and which are based upon guaranteed mortgages, direct loans or which operate through tax abatement. In New York State this would apply to programs such as those operated by the State urban development corporation and the State Mitchell-Lama program. According to the Department of Housing and Urban Development approximately 19 other States beside New York have enacted legislation establishing viable State assisted housing programs. Under my bill State programs would be eligible for the same preferential tax treatment in section 1039, which is now granted to the Federal programs. I believe that this would further encourage the development of housing for low- and moderate-income persons. Much greater use could be made of section 1039 than is presently being done.

I have written to the Department of Housing and Urban Development and the Treasury Department asking them to comment on this legislation and both have indicated that the extension of section 1039 to State and local programs would be a desirable step. I would hope that this legislation could be enacted as soon as possible so that greater use could be made of section 1039.

I ask unanimous consent that my letters to the Treasury Department and HUD, together with their replies be placed in the RECORD and that a copy of the bill be printed in the RECORD.

There being no objection, the letters were ordered to be printed in the RECORD, as follows:

NOVEMBER 19, 1971.

Hon. GEORGE W. ROMNEY,
Secretary, Department of Housing and Urban Development, Washington, D.C.

DEAR MR. SECRETARY: The Tax Reform Act of 1969 as enacted into law contained a provision allowing for nonrecognition of gain to the initial investor in a housing project insured under Section 221(d)(3) of Section 236 where the properties are sold to the occupants or a tax-exempt organization managing the property, but only to the extent that the investor reinvests the sale proceeds in other similar housing.

At the time this legislation was considered in the Senate I offered an amendment to extend this favorable tax treatment to projects which are insured under state or local programs which have been certified by the Secretary of Housing and Urban Development to be in accord with the standards used in approving the sale or disposition of a qualified housing project under federal programs. Unfortunately this amendment was deleted in the Conference Committee and did not become law.

I am planning to submit the amendment again on the pending tax legislation since many states, like New York State, now have responsible state programs for low and mod-

erate income housing. I believe it is essential to extend Section 1039 to these state-assisted programs so that it can work more effectively.

I would appreciate your comments as to the merits of my amendment and any other suggestions you might have on the matter.

With warm regards,

Sincerely,

JACOB K. JAVITS.

THE SECRETARY OF HOUSING
AND URBAN DEVELOPMENT,
Washington, D.C., December 9, 1971.

Hon. JACOB K. JAVITS,
U.S. Senate,
Washington, D.C.

DEAR JACK: This letter is in response to your letter of inquiry of November 19, 1971, regarding a proposed amendment to Section 1039 of the Internal Revenue Code. I appreciate your desire to obtain our opinion prior to the introduction of such a measure.

At the present time the Department "certifies" state and local programs for the purpose of qualifying them to receive interest subsidy payments under Section 236(b) of the National Housing Act. Our certification for that purpose does not include any review of the standards used in approving the sale or disposition of a qualified housing project. Perhaps the legislation should call for a separate certification by the Department to the Internal Revenue Service of the fact that the standards used by the state and local program in question for such purposes are in accord with the standards used under Federal programs.

I certainly agree that the extension of Section 1039 to the state and local programs, where they qualify, would be in our interests in assisting the growth of those programs. I would also like to suggest that you consider a further extension of Section 1039 to include non-profit sponsors.

I appreciate your inquiry.

Sincerely,

/s/ GEORGE
GEORGE ROMNEY.

NOVEMBER 22, 1971.

Mr. JOHN B. CHAPOTON,
Tax Legislative Counsel Department of the
Treasury, Washington, D.C.

DEAR MR. CHAPOTON: The Tax Reform Act of 1969 which is now Section 1039 in the Internal Revenue Code which allows for nonrecognition of gain to the initial investor in a housing project insured under Section 221(d)(3) or Section 236 of the National Housing Act where the properties are sold to the occupants or a tax-exempt organization managing the property, but only to the extent that the investor reinvests the sale proceeds in other similar housing.

At the time this legislation was considered in the Senate I offered an amendment to extend this favorable tax treatment to projects which are insured under state or local programs which have been certified by the Secretary of Housing and Urban Development to be in accord with the standards used in approving the sale or disposition of a qualified housing project under federal programs. Unfortunately this amendment did not become law.

I am planning to submit the amendment again this year to an appropriate tax bill since many states, like New York State, now have responsible state programs for low and moderate income housing. I believe it is essential to extend Section 1039 to these state-assisted programs so that it can work more effectively.

I would appreciate your comments as to the merits of my amendment and any other suggestions you might have on the matter. I am enclosing a copy of the amendment language for your review.

With best wishes,

Sincerely,

JACOB K. JAVITS.

now have a better understanding of who the vulnerable baby is (i.e., premature infant, the sleeping baby), and the environment from which he is most likely to come (i.e., low socio-economic level and minority group).

In an effort to generate interest in the sudden infant death phenomenon, and to provide a focus for the exchange of the knowledge we do have about it, the NICHD has supported two conferences on sudden infant death, one in 1963 and another in 1969. As a result, it was possible to identify the condition as a disease, not a mystery killer, and both conferences recommended certain types of research which were needed to provide the most helpful data. Proceedings of the two conferences are available and have been submitted to you. A pamphlet designed for general public information is now being prepared.

On the basis of three carefully controlled studies in the United States¹ and one in the United Kingdom,² it appears that the sudden infant death syndrome may result in up to 10,000 deaths each year in those countries (about 3 per 1,000 live births), and is the major cause of death in infancy after the first month of life.

Table 1, attached at the end of my statement, details the number of deaths per 1,000 live births attributed to SIDS by each of these researchers, and the infant subjects observed.

It is generally agreed that "crib death" is the unexpected demise of an infant not known to have had a serious disease whose death remains unexplained after complete autopsy. Sudden unexplained infant death occurs in the young infant who is apparently in good health. In the majority of cases, the baby does not have a cold or infection and takes his feeding without difficulty. The infant is then placed in his crib for a nap or for the night; several hours later, or in the morning, the baby is found dead.

It occurs more frequently in nonwhite babies than in white babies; in families of lower socio-economic status than in the higher socio-economic status; in premature infants, particularly those with gestational ages between 34 and 35 weeks, than in full-term infants; and in babies who have had recent infections. Twins may have increased risk of SIDS, but it is difficult to be certain of this because twins are frequently of low birthweight and low gestational age. Victims are mostly between the ages of two and six months; the frequency is highest around the third month of life.

The baby is most frequently found dead during sleeping hours. The largest number of the deaths occur in the winter, between the months of November and February. There is some suspicion that sudden changes in temperatures may be influential in triggering the syndrome. Risk of sudden infant death syndrome appears to be highest in crowded dwellings and among younger mothers who have several other children. All known associations, however, are intertwined with one another; therefore it is not known which one of the associations is most important.

A number of hypotheses have been proposed for the cause of this syndrome. None has yet been proven correct. In the past, single-factor explanations were advanced, but no single factor has been causally related to SIDS. Table II, which I have attached to the end of my statement, lists the more important single-factor theories. More recently, multifactorial theories of SIDS etiology have been advanced. For example, an important current theory involves a combination of factors involving infection; instability of

the nervous system, and sleep. This theory holds that inflammation of the respiratory tract, that could be caused by an upper respiratory infection, may trigger a nervous system response that results in a spasm of the muscles controlling the airway opening to the lungs. This laryngeal spasm effectively keeps oxygen from getting to the lungs and the infant dies. This hypothesis is difficult to test since no animal model exists that will permit us experimentally to define the interaction of the immune response and the autonomic nervous system. Table III shows several factors which could lead down a final common pathway to acute heart failure.

During fiscal year 1971, 43 grants relating to SIDS and totalling \$1.8 million were supported by the NICHD. Of these, one is directed specifically to the cause of SIDS and is funded at a level of \$46,258. The other grants are in areas of research which have been identified by scientists working in the field as being relevant to the sudden infant death syndrome, for example:

At Stanford University, a study of the relationship of oxygen to temperature stability is being supported. It has been confirmed through epidemiologic investigation that the risk of premature infants becoming victims of SIDS is significantly greater than for full-term infants. Premature infants have multiple problems related to the relative immaturity of vital physiologic functions, and a major problem in these infants is the maintenance of temperature stability. Because both low environmental temperature and oxygen lack due to nasal or pharyngeal obstruction have been implicated in the onset of the syndrome, this study is highly relevant to the sudden infant death syndrome.

It is also well documented that SIDS occurs much more frequently in cold weather months than at other times in the year. This observation has resulted in questions about the relationship between cold and thermal regulating processes to the phenomenon. In this area, a NICHD-supported investigator at the University of Washington has found that heat production and temperature control of premature infants and young infants is unstable, and that rapid changes in environmental temperature can affect respiratory state and function, frequently resulting in a temporary loss of breath.

Sudden infant death occurs most frequently when the infant is in a sleeping state. He apparently does not wake up or cry out. This observation has led to the suspicion that the sleep mechanism is closely tied to the pathogenesis of this phenomenon. A study of the relationship between heart rate, eye movements, respiratory rate, and bodily movement in three-month-old infants is being supported at the University of California at Los Angeles. This investigation will describe neural developments in premature and full-term infants, and the relationship of nervous system development to the stability of sleep and the wake/sleep cycle.

In addition to grants for research on SIDS, the NICHD has initiated two contracts specifically concerned with the sudden infant death syndrome. One was a contract with the Children's Hospital in the District of Columbia to study the role of viral and other infections in the etiology of the syndrome. Although no specific virus was incriminated,

the investigators frequently found evidence of viral infection either in the victim or his family.

The other was a contract for a review of world literature on sudden infant death syndrome covering the years 1954 through 1966. This was published in *Pediatrics* in 1967. In the follow-up of this review of the literature, the Institute is currently working on an annotated bibliography of sudden death syndrome for the years 1960-1971. This bibliography will be available by midyear.

On August 16, 1971, the NICHD held a research planning workshop to define new directions in research into the causes of the syndrome utilizing the data presented at the February 1969 conference as well as more recent research findings. As a result of this workshop, a plan for an integrated program of research for the prevention of sudden infant death syndrome has evolved which will serve as a basis for an active, Institute-sponsored program of scientific research in this area. We will distribute this document in the scientific community in an effort to stimulate research grant proposals.

As a result of the August 1971 NICHD workshop on sudden infant death syndrome and an earlier NICHD-sponsored conference on growth and development, an age parallelism between risk of sudden infant death syndrome and pattern of sleep physiology development was identified. Death rate for SIDS peaks at about three months of age, just when chaotic infant sleep patterns change to the more regular adult rhythms. Because of the probable involvement of sleep physiology in the etiology of this syndrome, we feel that a descriptive study of sleep physiology would be valuable, and a longitudinal study of sleep parameters in a selected population is planned. High risk (or SIDS) and low-risk subjects will be studied prenatally, immediately postpartum, and at monthly intervals during the first half year of life. We hope that parallels between sleep physiology and SIDS risk will give strong indications of the etiology of this syndrome.

In addition to exploring the interrelationship of age and sleep patterns with SIDS, the NICHD is now reviewing a proposal to identify possible relationships between the events of sudden infant death syndrome and physiologic, demographic, meteorological, and environmental factors. This area of research is important because of the possible relationship between abrupt and sharp temperature changes and the occurrence of sudden, unexplained, infant death that has been reported by several investigators.

Finally, the NICHD plans to undertake a national survey of death certificates to determine the incidence of the syndrome in the United States, based on the techniques developed in a 1966 study of SIDS in King County, Washington. Examination of death certificates confirmed the incidence of SIDS reported by an earlier detailed pathological study in the same area. The close corroboration of SIDS incidents in these studies leads us to believe that a careful examination of death certificates for the entire United States would yield useful and valid data on the incidence of SIDS.

Thank you, Mr. Chairman, I would be happy to answer any questions you may have.

TABLE 1.—INCIDENCE OF SIDS

Author	Year	Place	Number per 1,000 live births	Subjects
Fitzgibbons et al.	1969	Olmstead County, Minn. (Mayo Clinic)	1.2	All infants.
Ministry of Health of Great Britain	1965	England and Wales (overall)	1.4	Do.
Carpenter	1965	England and Wales (overall)	2.2	Exclusively twins.
Froggatt et al.	1968	Northern Ireland	2.3	All infants.
Valdes-Dapena et al.	1968	Philadelphia	2.55	Do.
Peterson	1968	Seattle	2.87	Do.
Steele et al.	1967	Canada	3.00	Do.

¹ 1.41 Caucasians; 4.32 Negro.

² 2.71 Caucasians; 4.66 Negro and American Indian.

¹ Fitzgibbons et al. (1969), Valdes-Dapena et al. (1968), and Peterson (1966) (Second International Conference on Sudden Infant Death Syndrome, p. 3).

² Froggatt et al. (1968) Ibid.

TABLE II.—Sudden unexpected death in infants: Etiologic theories that involve the heart—hypotheses and particular explanations¹

Reflex vagocardiac inhibition.
Subendocardial fibroelastosis.
Congenital heart disease.
Primary and secondary myocarditis.
Arrhythmias consequent to an exaggerated "diving reflex" or myocardial electrolyte disturbance.
Inherited conduction anomalies.
Myocardial hypocalcemia.
Infantile arrhythmias.

¹ Taken from Froggatt, et al: Amer. J. Cardiology, 22:457, 1968.

TABLE III.—Sudden unexpected death in infants: Etiologic theories other than those involving the heart¹

PRINCIPAL HYPOTHESIS

Mechanical suffocation.
Respiratory infection plus abnormal response.
Antigen hypersensitivity.

SUBSIDIARY HYPOTHESES AND PARTICULAR EXPLANATIONS

Thymic death.
Fulminating septicemia.
Suffocation by milk feeds or vomit.
Mass viscerovisceral reflex.
Low serum gammaglobulin.
Adrenal insufficiency.
Anaphylactic pulmonary edema.
Renal anaphylaxis.
Protein intoxication.
Enteritis-enterocolitis.
Laryngo- and bronchospasm.
Pulmonary thrombi.
Thymus dysfunction.

¹ Taken from Froggatt, et al: Amer. J. Cardiology, 22:457, 1968.

TESTIMONY OF AMERICAN ACADEMY OF PEDIATRICS, JANUARY 25, 1972.

I am Dr. Jay M. Arena of Durham, North Carolina, here today in my capacity as President of the American Academy of Pediatrics. The American Academy of Pediatrics is the world's largest association of board certified physicians providing care to infants, children and adolescents. Since establishment in 1930, the Academy and its membership have been committed to working for the welfare of children and to establishing and maintaining the highest possible standards for pediatric practice, education and research.

It is a great personal honor for me to appear here today. I wish also to convey the appreciation of the Academy to appear again before this Subcommittee on behalf of children. We in the pediatric community feel a special attachment to you, for despite the fact that many committees within the Congress have within their purview activities affecting the safety, health and welfare of children and youth, this Subcommittee is the only unit within the Legislative Branch which identifies its relationship to children and youth in its very title.

Mr. Chairman, if I were to leave today having imparted through my presentation only one impression, I would hope that it might be this: Children must have greater visibility within our national priorities. There are many impediments which deprive children of a full share of life; they must be more closely scrutinized, and more vigorous efforts must be mounted to conquer them. Sudden Infant Death Syndrome, which we are to discuss today, is but one example of a phenomenon affecting children which must become the object of relentless efforts to understand and overcome.

Sudden Infant Death Syndrome (SIDS) claims one of every 330 infants. Although there are seasonal variations in the incidents, the magnitude of this disease might be even more greatly appreciated if expressed in the

daily toll of young lives—which is approximately twenty-seven, or if expressed in the term of approximately 190 deaths per week. How long might such a situation be tolerated without an indication of a commitment to reduce these incidents. Well, today there is a great restlessness within government, within the medical community and among the public; a restlessness which is making it abundantly clear that greater attention must be devoted to the number one killer of children between one month and one year of age. These proceedings are but one manifestation of that concern.

Crib death is not yet preventable, there are no symptoms, there is no known treatment. Although the correlation of information from research efforts is helping us to better understand this phenomenon, nonetheless SIDS is one of medicine's mysteries yet to be solved. The scientific community has been perplexed, but it has not given up. Within the medical community, our information has been scanty, and our understanding at best has been incomplete. But much the same way cancer research and the conquest of outer space have challenged this nation, so too must we zero in our efforts to understand more fully the developmental phenomenon of the fetus, growth and development of the newborn, the early life process and the interrelationship of these various facets with man's environment. Therein we are likely to find the answers we seek.

A task of this magnitude and nature is not beyond our ability. One need only look at our efforts in the space program, wherein an ideal environment has been manufactured for our astronauts traveling beyond the influences of earth. Truly a remarkable feat. Yet, we note how much we must still uncover regarding man's first environment—*intrauterine life*—and how much there is still to be done in perinatal biology and conquering the causes of infant mortality. The question is not can we do it, the issue is whether we have the will to do it—the will as a nation to commit our resources to assure children their right to the quality of life.

RESEARCH

The pediatric community has followed with intense interest the development of the NIH and particularly NICHD in the past decade. Although NICHD's fiscal year 1972 budget request submitted last year by the President to the Congress contained a \$10 million increase, nonetheless few appreciate that there was a net decrease for child health research. The responsiveness of the Congress was heartening, and \$5 million was added to remedy this shortcoming. However, in a letter to Secretary Richardson on December 13, 1971 I conveyed our frustration over the fact that the increase for child health research grants had been frozen by the Administration. These monies are now available for allocation I'm pleased to note. For the information of the Committee and the public I wish to include my letter in the record of these proceedings and the response thereto. My letter underlines the discrepancy between needs in support for child health research and the not yet adequate measure of support provided.

Research into the Sudden Infant Death Syndrome is part and parcel of our entire child health research effort. While further exploring the physiology of the young child, we may come to understand the interrelationship of prematurity, the infant's response to the stresses of labor, temperature, sleep physiology, infection, etc. and the relationship of each to SIDS. Prematurity, postnatal asphyxia, and congenital malformations account for more than half of the deaths of children under one year of age. The majority of these instances occur during the perinatal period (twentieth week of gestation thru twenty-eighth day of life), while SIDS accounts for the majority of deaths among in-

fants beyond one month of age. There is a correlation among these phenomenon, and a greater understanding of one will enhance our knowledge to deal more effectively with early life.

The Academy would recommend that Administration and the Congress identify child health research as a national priority, and that these efforts be particularly directed at the perinatal period and postnatal periods (through one year of age). The dedication of our financial resources to research should be viewed not as an effort to save a life, but to save a lifetime; not as an effort to eliminate a disease or conquer a handicap, but as an effort to improve the quality of life for all Americans.

The corollary of this must also be mentioned (only in passing), for not all within our capacity now to prevent or eliminate has gotten off the shelf and has reached the people. Health care for many is wanting, diseases which should have been eliminated run rampant, and our capacity to train qualified professionals and allied health personnel has not been taxed. While research is important, the entire compendium of activities in child health must be more fully supported, including service programs and training activities.

NICHD has been attentive to meeting its responsibilities to support outside research efforts, and it has supported professional and public education activities. The 1963 and 1969 Conferences supported by NICHD are further tangible manifestations of our federal government's responsiveness to meeting its responsibilities. However, in consequence of the paucity of fundable applications for SIDS research, the Academy would recommend that an extensive intramural research effort be developed by NICHD, facilities be allocated, and trained personnel be engaged to foster quality work.

PROFESSIONAL EDUCATION

The Academy itself has attempted to be responsive in the area of professional education regarding SIDS. Our official publication, *Pediatrics*, is the principal professional publication for physicians caring for children and at least a half dozen references to SIDS may be found in the past few years. Much the same as quality research applications are wanting, so too there is a paucity of writings.

Within the past few months a Committee of the Academy has been charged to prepare a statement on SIDS for the pediatric community. Although the work is not yet completed, I understand the statement will discuss the lack of professional education, the physician's role to counsel victim parents so that self incrimination might be averted, and the need for humane treatment of family members.

I anticipate the promulgation of this statement among the Academy members will be accompanied by a recommendation to our state chapters that they identify and establish liaison with the principal parent groups, and become more actively involved with this problem within the community.

Since SIDS is a phenomenon occurring at home, attempts must be made to have physicians at teaching hospitals and medical centers become more interested in work in this field. Hopefully renewed emphasis placed upon SIDS by the AAP will stimulate interest in research efforts by the academic and research community. Along these lines, the utilization of hospital pediatric departments and medical schools for autopsies may help to provide more complete information on SIDS.

PUBLIC EDUCATION

The contribution which might best be made by the Academy in the area of public education, in addition to our cooperative efforts with government and parent groups, is to continue to stress the value of pre-care, proceed with our program of education regarding parental care of children, and con-

tinue to emphasize the value of health supervision and preventive medicine. Until we know more about SIDS, we must simply continue to help parents understand the essentials of good child care.

The federal government might continue to play a role in supporting periodic conferences and publishing timely reports and articles. Although we have not explored the feasibility of a federal agency becoming the cornerstone of a nationwide program to assist SIDS parents, the Office of Child Development in the Office of the Secretary of HEW might develop a program capable of responding to the needs of SIDS parents with appropriate and timely information. Perhaps simply augmenting the efforts of SIDS parent groups and aiding them in education efforts of parents and professionals would be sufficient. Even though no cure is immediately at hand, parents who in the past have spent hellish days blaming themselves may find it easier to live with an explanation rather than only with an unanswerable why.

There also may be a role for government in the education and training of personnel who most frequently come in contact with parents soon after tragedy strikes, such as police, coroners and medical examiners, physicians, social workers, and perhaps attorneys. The objective of such an educational effort would be to assure respectful and humane treatment of family members.

The peculiar nature of SIDS is such that it strikes without warning. There is no prevention, there is nothing which the parent can do to avert its coming. Consequently, we endorse the approach of the Children's Bureau of not discussing SIDS in its publications for parents. Other than to raise apprehension and fear, there is little to be benefited.

It is appropriate at this point to acknowledge the tremendous efforts of the parent groups, most notably The National Foundation for Sudden Infant Death, Inc. I wish to express my high admiration for parents who have experienced SIDS and who are presently working to somewhat lighten the burden and grief for other parents.

DATA

Incidents of SIDS should be reported, but measures must be taken to facilitate data collection. The Academy is considering the feasibility of recommending that SIDS be classified as a term in the International Classification of Diseases and that cases be reported and recorded. I anticipate we will be exploring this issue with the National Center for Health Statistics in the coming months.

Earlier I alluded to the need for the medical community to become more deeply involved and interested in this disease. The potential for unlocking the mystery of SIDS through a greater participation of hospital and medical center based physicians cannot be underestimated. At this time we are unable to recommend whether a nationwide standard procedure might be developed, such as the program in Washington State, wherein the medical institution plays an important role by performing autopsies on deceased persons under three years of age. Certainly this is an avenue which might be further explored and hopefully will be discussed by other witnesses. Perhaps two needs now existing are (1) standardization in procedure and agreement upon the criteria for post-mortem diagnosis and (2) the need for autopsies among all unexplained infant deaths.

Mr. Chairman, thank you again for this opportunity to appear here today on behalf of the American Academy of Pediatrics. I will be sure that you are kept apprised of our efforts in this field, and you have our pledge of further cooperation and assistance whenever possible. If you or other members of Subcommittee have questions, I will be pleased to attempt answering them. Thank you.

SUDDEN INFANT DEATH SYNDROME

(Statement by
Senator LOWELL P. WEICKER, JR.)

JANUARY 25, 1972.

I am honored to have the opportunity today to introduce representatives of an organization that has provided support to thousands of families whose children have died of Sudden Infant Death Syndrome.

Nine years ago I was present at the founding of the Mark Addison Roe Foundation, the predecessor of the National Foundation for Sudden Infant Death. The original foundation was formed by my friends, Mr. and Mrs. Jedd Roe, following the crib death of their infant son, Mark. Their tragic experience in losing Mark and subsequent creation of the foundation has resulted over the years in greater public awareness of Sudden Infant Death and its sad implications for families.

I only regret that despite the years of effort by the Roes, the Foundation, the International Guild for Infant Survival and other dedicated individuals, we still do not know the cause of crib death. We know that 10,000 babies can be expected to die mysteriously this year; and that we will be able neither to predict nor prevent these innocent deaths and so we know that much work remains to be done.

Mr. Chairman, I commend you for taking an interest in this serious problem, and for bringing it to the attention of your colleagues in the Senate and the general public.

I am pleased now to introduce Dr. Abraham Bergman and Mrs. Judie Choate, who serve respectively as President and Executive Administrator of the National Foundation for Sudden Infant Death.

SUDDEN INFANT DEATH SYNDROME IN THE UNITED STATES

(Testimony of Abraham B. Bergman, M.D.)

MR. CHAIRMAN: I am Abraham B. Bergman, M.D., President of the National Foundation for Sudden Infant Death. I am Director of Outpatient Services at Children's Orthopedic Hospital and Medical Center and Associate Professor of Pediatrics and Health Services at the University of Washington in Seattle.

I first want to express my deepest appreciation to you, sir, on behalf of all of us interested in the problem of sudden infant death. The very fact that you have convened these hearings in the United States Senate on this tragically neglected problem is a signal event which could well mark the turning point in efforts to remove the destructive veil of ignorance which surrounds the disease.

WHAT IS THE SUDDEN INFANT DEATH SYNDROME?

Sudden infant death syndrome (SIDS) is best defined by describing a typical case. An apparently healthy infant, usually between the ages of three weeks and six months, is put to bed without the slightest suspicion that things are out of the ordinary. He may have signs of a slight cold. Some time later, without any warning, the infant is discovered lifeless. The autopsy reveals a minor degree of inflammation of the upper respiratory tract and some congestion of the lungs. Otherwise, there are no lesions sufficient to account for death. In about 10% of cases where infants die suddenly and unexpectedly, a definite cause of death is identified at autopsy, such as a bacterial infection, an inflammation of the heart or bleeding in the brain. All of these can cause sudden death, and such children should not be considered to have SIDS. Approximately 90%, therefore, of infants who die suddenly and unexpectedly are victims of a disease which we call sudden infant death syndrome.

INCIDENCE

We estimate that approximately 10,000 infants a year die in the United States of SIDS. This figure was derived from communities where all infant deaths were carefully monitored (e.g. Philadelphia, Cleveland, Seattle,

San Diego, Kingston, Ontario; Belfast, Northern Ireland; Prague, Czechoslovakia). Interestingly, the incidence of three per 1,000 live births, or one out of every three hundred babies, seems to be constant in all of these communities spread around the globe. An interesting exception is a study from Olmstead County, Minnesota where an exceptionally low rate of 1.2 cases per 1,000 live births was recorded. The figure 10,000 then is reached by plugging in the total number of births per year in the United States. (A map estimating the number of crib deaths in each state for the year 1969 is attached to this testimony.)

How does this figure compare to other causes of death in children. The largest group of infants who die, do so during the first week from complications of prematurity. When the first week of life is excluded, however, SIDS ranks by far as the greatest cause of death during the first year of life and second only to accidents as the greatest killer under age fifteen years. SIDS outranks deaths from all types of birth defects including heart disease. Over twice as many children die of SIDS than cancer. (A table showing the causes of death in children in King County, Washington for a three year period is attached.)

HISTORY OF SIDS

SIDS is not a new disease. References are made to "overlying" in the Bible. A Scottish physician by the name of Templeman wrote an article about SIDS in the *Edinburgh Medical Journal* in 1892. Regrettably, he described his cases as suffocation, ascribing the cause to carelessness of parents. Because of the aura of mystery which has surrounded this condition both among the lay public and medical profession, virtually all parents feel themselves to be responsible for their child's death. The resultant toll of broken spirits and mental illness from needless guilt reactions has been enormous.

Theories have abounded to explain why previously well infants are suddenly found dead in their cribs. The first international conference on the causes of sudden death in infants held in Seattle in 1963 marked a turning point in SIDS research. What little organized research that had been conducted took place mostly in overworked and underfinanced coroner's offices. To this day, the amount of research being conducted on SIDS is still minuscule in relation to its importance.

THE TWO INTERNATIONAL CONFERENCES ON SIDS

The two international conferences in 1963 and 1969, both sponsored by the National Institute of Child Health and Human Development, were extraordinarily productive.

The proceedings of the first conference in 1963 were notable for cataloging and critically evaluating available theories about sudden infant death and charting pathways of future research needed to answer the questions raised. At that first conference it was not possible even to say that sudden infant death syndrome was a distinct disease entity. Several of the research paths recommended at the 1963 conference were subsequently followed resulting in significant advances, particularly in the fields of epidemiology; pathology and virology. By the time of the second international conference in 1969, held near Seattle, it was finally possible to say that sudden infant death syndrome is a real disease entity that is readily definable and not some vague mystery killer.

KNOWN FACTS ABOUT SIDS

In epidemiology we learned that the incidence of one out of 300 live born babies was amazingly constant in different parts of the world. SIDS is more apt to occur in babies born prematurely and in those living in overcrowded conditions. We learned about the peculiar age incidence, namely, that it rarely occurs before the age three weeks or after eight months. The peak incidence is at the two or three month age period. It occurs

more often in winter months and almost always during sleep.

The distinguished pathologists at the conference spelled out the criteria whereby a positive diagnosis of SIDS could be made. No unusual or expensive tests are required. The diagnosis can be made on a routine type of post mortem examination. Finally, it was shown that no single killer virus is involved; the same viruses that cause common colds are associated with SIDS.

As was also the case at the first conference, future research pathways were recommended. Among them being, the need to come up with some type of animal model of SIDS and concentration in elucidating the exact mechanism of death. Also, as was the case following the first conference, the proceedings were edited, published and widely disseminated throughout the scientific community. These two publications, both subsidized by NICHD, are invaluable resources for all who seek knowledge about the disease.

CURRENT STATUS OF RESEARCH

My colleagues, Drs. J. Bruce Beckwith, C. George Ray, and I, in Seattle, have studied every single case of sudden infant death syndrome occurring in our area since January 1, 1965. To date, we have intensively investigated approximately 470 cases. We feel that SIDS occurs because of a sudden closure of vocal cords during sleep shutting off the airway. For reasons that I shall not detail here, we feel that this catastrophic event is mediated through nerves that control the vocal cord and that the presence of a viral infection somehow causes them to be more sensitive and susceptible to spasm. Certainly not all investigators agree with us. Others, such as Dr. Edward Shaw in San Francisco, feel that the airway suddenly becomes obstructed at a higher level than the vocal cord and that the babies who die are those who have not learned to open their mouths when their nasal passages close. Still other investigators feel that something goes wrong with the nerves that control the heart.

I report two very hopeful developments that should certainly be classed as preliminary observations. Dr. Alfred Steinschneider at the Upstate Medical Center in Syracuse who has long studied the development of the autonomic nervous system in infants has found distinct changes in the behavior of certain infants at the two to three month age period during sleep while they have colds. This and other observations have led to the planning by NIH of an important collaborative study by sleep physiologists (scientists who study different bodily functions during sleep) in Los Angeles and New York.

At the University of Washington, Dr. Orville Smith, a physiologist who heads the Primate Center, and his associates have observed that some infant monkeys die during sleep. Dr. Beckwith, a pathologist, has found their autopsy findings closely resemble those of human infants dying of SIDS. I should emphasize that a great deal more work must be done to confirm these preliminary findings. But if, in fact, they pan out, we could have our long sought after animal model of SIDS. Drs. Ray, Smith and Beckwith plan to make intensive observations on the infant monkeys in an attempt to simulate SIDS, a requisite step before possible preventive measures can be postulated.

FEDERAL SUPPORT OF SUDDEN INFANT DEATH RESEARCH

Mr. Chairman, I am of two minds about the adequacy of research support for SIDS. Firstly, I am extremely grateful for what NIH has done in the past and yet believe a great deal more could have been done and, indeed, should be done in the future. From its very inception, the National Institute of Child Health and Human Development has placed a top priority on supporting research into sudden infant death. As I mentioned previously, NIH sponsored both international con-

ferences and supported the publishing of the proceedings. In fiscal year 1971, NICHD supported forty-three extramural research grants pertinent to SIDS totaling about \$1.8 million. One grant, the one in Seattle with Dr. Ray as the principal investigator, is the only one directed specifically to the cause of SIDS. The others are in areas of research that have been identified by scientists working in the field as being relevant to SIDS.

To my knowledge, NIH has never turned down a request for funds for a qualified research project in SIDS. What does that mean? It has to do with the review mechanism for grants at NIH which I wholeheartedly support. All applications are studied by panels of distinguished scientists, respected by their peers, outside of government service. These panels, called study sections, evaluate whether the purposes of a proposed study are worthwhile, whether the proposed methods are likely to achieve the desired results, and whether those making the proposal possess the necessary expertise to do what they say they want to do. Though, doubtless, mistakes have been made, this system of passing upon grants has received universal acclaim in the scientific community; and I submit that it is the only way in which taxpayers money can wisely be spent in scientific research.

I can also testify that the first Director of the National Institute of Child Health and Human Development, Dr. Robert Aldrich, now Vice President for Health Affairs at the University of Colorado, and his successor, the present Director, Dr. Gerald LaVeck, have had deep personal commitment to SIDS research. The problem simply has been that scientists capable of performing quality research work, for the most part, have remained ignorant about the very existence of SIDS and have not turned their attention to its solution.

Could more have been done? Certainly! When it was known that there were not enough qualified investigators working in the infant death field, active efforts to solicit them should have been made. The Institute should have taken the initiative in contracting for scientific work that needed to be done instead of passively waiting for grant applications to come in. In the last few months, this effort is finally being made; the collaborative study in sleep physiology is one result.

What about funds? That's big problem. Though the National Institute of Child Health and Human Development received an increase in its budget during the past fiscal year, most of it went for population research. There was no increase in funds for child health research.

Frankly, the supporters of child health research carry very little clout either with the people who draw up the NIH budget, the Office of Management and Budget or you legislators up here on the Hill. Though this hearing was not called to examine how research priorities are decided in the United States, it is interesting to note that there is no research going on in accident prevention and only a minuscule amount of research on SIDS, the two big killers of children. I would venture to guess that this has something to do with the fact that those who make budgetary decisions are either heading into or already in their golden years. Kids don't vote!

HUMAN ASPECTS OF SIDS

Mr. Chairman, I have talked about the scientific aspects of sudden infant death syndrome; I should now like to turn to the human aspects. While much has been learned from research in the past decade and future prospects look hopeful, virtually no progress whatsoever has been made in the handling of sudden infant death cases in the United States. Virtually every parent whose infant dies suddenly and unexpectedly feels responsible for that death. The aura of mystery that surrounds crib death services only to rein-

force and perpetuate this needless guilt. Moreover, the callous and inhumane handling of sudden infant death cases throughout the United States wreaks an incredibly large toll of broken spirits. Ten thousand infants perish every year in this country; they are gone. Ten thousand sets of guilty, stricken parents, however, are created every year and they live on.

Earlier I described a typical clinical picture of a case of SIDS. Now let me describe how that typical case is probably handled. When an infant is discovered lifeless, a call for help goes out responded to by police or firemen. Frantic resuscitation efforts are undertaken while the shocked parents hover in the background. A thoughtless comment like "It looks like another case of suffocation" or "probably choked on his food" are uttered.

Being that all sudden unexpected deaths come under the jurisdiction of a medical examiner or coroner, the body is removed to the local morgue. Police detectives come by to "just ask a few questions." "Did the baby give you any trouble?" "Could the other kids in the family have hit it?" Maybe an autopsy is performed and maybe not. A coroner's inquest is held. "What kind of care did you give this baby?" The verdict comes back, "death by suffocation," "smothering," "over-laying," "aspiration." The results of the autopsy may come back a week, two weeks, a month, six months, a year later.

The wife of a young doctor in Chicago last summer tearfully handed me a crumpled piece of paper labeled "death certificate" and asked me what the words meant. On it were the words "tracheo-bronchitis." There had been a public coroner's inquest. I asked her what her husband thought and she dissolved in more tears. "He won't talk about it." If this type of treatment is afforded physician's families, picture if you will a family in an urban ghetto or on an Indian reservation. Picture a family where there is no father in the home, or where a babysitter was involved. It's ugly!

A woman called me from St. Louis last week asking for help. Her baby's death certificate read "aspiration pneumonia." I asked her if she had discussed the matter with her physician. She broke down and cried and said, "Why do you think I'd be calling you long distance in Seattle if I were able to talk to my physician; he refuses to speak to me." Lest the members of this Committee feel that I am exaggerating, I would respectfully invite you to examine the hundreds of letters that the National Foundation receives every month—letters that break one's heart.

Such letters break my heart because it is all so needless. The fact that survivors of crib death victims in the United States are treated like criminals is a national disgrace. With our present state of knowledge, crib death itself is neither predictable nor preventable. The divorces, the mental illnesses, the torment of unrelieved guilt are completely preventable. How? By the humane handling of infant death cases.

WHAT CONSTITUTES HUMANE TREATMENT?

Mr. Chairman, no longer should we have to tolerate callous coroners' or medical examiners' administrative procedures whereby families are kept waiting months for autopsy results or subjected to cruel inquests. Sudden infant death syndrome must be recognized as a disease entity. No family should be denied autopsies because of lack of funds. No longer should we have to tolerate the lack of instruction about sudden infant death among health professionals. Without knowledge there will be no impetus for new research nor will young health professionals be prepared to deal with the syndrome should it occur during the course of their careers. Every doctor in the United States should be prepared to offer the family more than the consolation of "these things just happen."

The National Foundation for Sudden Infant Death proposes a standardized pro-

ture in every community in the United States for the handling of cases of infants who die suddenly and unexpectedly that is both compassionate and medically sound. Autopsies must be performed and parents promptly informed of the results. The criteria for the diagnosis of sudden infant death syndrome should be disseminated to coroners and medical examiners throughout the United States, and the term "sudden infant death syndrome" should be utilized on death certificates.

Every family should receive authoritative information about SIDS from a physician, nurse or other health professional who is both knowledgeable about the disease and skilled in dealing with characteristic grief reaction. These services should not be denied to families because of lack of funds.

I regret to inform the Committee that the Department of Health, Education and Welfare, with its multi-billion dollar budget, has been totally derelict in dealing with the human suffering created by sudden infant death. Strong action by this Committee would do much to alter their neglectful posture.

A major effort should be undertaken to increase the amount of research being conducted on SIDS by the National Institute of Child Health and Human Development. Consideration should be given to the establishment of regional infant death research centers. Such centers could perform autopsies on infants from localities that lack adequate facilities and provide skilled counseling for families. Technical assistance could be provided to coroners and medical examiners' offices from these centers and, of course, the research effort in infant death would be boosted tremendously.

The major goal of our Foundation is that physicians and other health professionals, as well as the lay public possess sufficient knowledge about sudden infant death syndrome so that families who lose babies feel no more guilty than those who lose children to heart disease, cancer or meningitis. I respectfully submit that this objective is readily achievable.

Thank you for the privilege of appearing before you.

TABLE IV.—Causes of death of children in King County during 1965-67, demonstrating the numerical significance of SIDS

First year (excluding first week of life):	
Sudden Infant Death Syndrome.....	139
Congenital Malformations.....	66
Diseases of Early Infancy.....	47
Influenza and Pneumonia.....	36
Accidents.....	24
First 14 years (excluding first week of life):	
Accidents.....	192
Sudden Infant Death Syndrome.....	139
Congenital Malformations.....	110
Malignant Neoplasms.....	63
Influenza and Pneumonia.....	41

SUDDEN INFANT DEATH SYNDROME (By Judith Choate)

The National Foundation for Sudden Infant Death, Inc., established in 1962 as the Mark Addison Roe Foundation, Inc., was the first lay organization to propose a plan of public education about the sudden infant death syndrome as well as to provide understanding and information to SIDS families. The NFSID was begun by parents who had lost an infant to the syndrome and SIDS families continue to be the major contributors to its growth. Volunteer parents, officers and Board of Trustees have led the Foundation from a family basement office in Connecticut to national headquarters in New York City, offering support and information to parents across the country; assistance to seventeen established chapters (many in formation); factual literature to the general public, medical and allied

health organizations; promotion of SIDS educational projects and aid to qualified research projects.

The financial support of these same volunteers has kept its literature free of charge and paid the salary of the one staff member. The concern of the knowledgeable volunteer worker holding out a hand to others in time of crisis has alleviated the guilt and grief most often associated with SIDS for thousands of other SIDS families.

I began my work with the National Foundation for Sudden Infant Death, Inc. in 1965 after the death of my healthy, thriving five month old son. He was found dead in his crib in the early morning after his normal night time sleep. Unlike most families who are faced with the death of their infant to SIDS, we were aware of both "crib death" and the Foundation. We immediately notified the fire and police resuscitating units and our own pediatrician, and it was, of course, useless.

If we had not been aware of the problem, our case would be much like the cases of most families in the United States. Our baby's body was left in our house, in a closed room, with a policeman guarding the door until late in the afternoon at which time a medical investigator from the Medical Examiner's office interviewed us and observed the baby. If a death is unexpected and unexplained, one is, at first, suspect; and we were, in fact, suspected of criminal neglect and not treated as parents grieving over the death of their child. We were asked such questions as "How many times did you hit the baby?", "Did your other child choke or in any way abuse the infant?", "Did you let your dog bite the baby?" If we had not been confident that our child was a victim of SIDS, one can imagine the guilt and self-accusation such questions can elicit as is the case for most families.

In the seven years I have been involved in the work of the National Foundation for Sudden Infant Death, I have spoken to, consoled and informed hundreds of families. Families who have not only suffered the loss of a loved infant but agonized over their own feelings of responsibility for it, the ignorance of their communities, the accusations of infanticide by neighbors or relatives, the lack of knowledge of their physicians and countless other emotional strains. In many areas of the United States autopsies are not performed on SIDS victims. In others, if they are performed, a substantial fee is charged the family. It is the rule rather than the exception that families must wait months to hear the results of an autopsy from a medical examiner's or coroner's office. The latter was made especially poignant recently when I received a call from a mother who had seen me on a local television show. She had lost a son on the same day and in the same year that I had and, seven years later, is still waiting to hear from the medical examiner's office as to the cause of death. All of these only reinforce the natural guilt that parents feel after losing an infant suddenly, unexpectedly and with no explanation.

Each day, we receive correspondence from families in every area of the United States who have lost children to the sudden infant death syndrome asking for help and information. Families who feel abandoned by their communities and by their physicians. I quote, "Do you think I killed my baby or did she really die from 'crib death' and what is 'crib death'? Please help me, I don't want to kill my new baby." "It wasn't until a few months ago, two years after our daughter's death, that we found out about your organization. It is a long time to go around wondering and feeling guilty." "The guilt we feel is tremendous, please help us." "We had an autopsy performed. They listed the cause of death as 'bronchial pneumonia' which the doctor said was a common use for 'crib deaths'. Why would they say 'bronchial

pneumonia' if it was 'crib death'? Why don't they say 'sudden infant death syndrome'?" "Our pediatrician said 'She's dead, what do you want me to do?'"

"The police beat us to the emergency room and the homicide detective began questioning me even before the doctor had pronounced the baby dead."

Only time and concerted research efforts will find a cause and cure for the syndrome; however, much can be done now to alleviate the guilt and suspicion of the victim family. Particularly with involvement of national, state and local governments to promote SIDS research, upgrade autopsy procedures, disseminate the criteria for the post mortem diagnosis of SIDS to coroners and medical examiners throughout the country, to enforce the use of the term "sudden infant death syndrome" on death certificates, distribute authoritative information through health departments, coroners' and medical examiner's offices and law enforcement agencies and to insure that no family is assumed guilty of criminal neglect until such accusations are proven, the burden of the victim family will be eliminated.

The National Foundation for Sudden Infant Death, Inc. asks that each and every family experiencing an SIDS be given the chance to face the death with knowledge and dignity. We have pledged our entire resources to this end. We request the assistance of all agencies and individuals concerned with the welfare of not only the child, but the entire family unit, to help us make dignity a part of the lives of 10,000 families a year.

STATEMENT FOR HEARING ON "SUDDEN INFANT DEATH SYNDROME"

(By Frank Hennigan)

On the morning of August 5, 1969, my wife and I rose from our bed and set about our daily routines. While I was shaving, Diana, my wife, checked on our still sleeping six children (aged 10 years to 7 months) only to find, to her horror, that our infant son was apparently dead.

In my panic, I seized the child from her arms and screamed for her to get the keys to the car. I ran outside to the car, yelling all the way for her to hurry. While waiting for Diana, I attempted to give mouth to mouth resuscitation but Jimmy's jaws and lips were tightly drawn together. I laid him down on the car's front hood and jammed the fingers of both my hands into his mouth and forced it open. I knew he was dead but my emotions still ruled over my intellect and I again attempted mouth to mouth resuscitation. I continued this activity as my wife drove to the hospital. Needless to say, there was no positive response from my child—only a sound resembling pulmonary edema caused by my own breath being forced into his lungs.

At the hospital, it was immediately obvious to those unemotional, unexcitable, calm, "professional" medical authorities that the child was dead and therefore there was a more interesting subject to be discussed. "Had the child fallen?" "Were there symptoms of illness?" "The doctor who pronounced Jimmy 'Dead on Arrival' stated to me that 'He looks like he's been squeezed. How about that, Mr. Hennigan?' My answer was 'Go to Hell!'"

We returned home and told our remaining children the sad news and set about making funeral arrangements. A few hours later we were notified that the dead child we had just taken to the hospital was now at the city morgue and that we were obliged to report there and identify the body. Under the circumstances, I felt this was extremely cruel as well as unnecessary but, of course, we did as directed.

About mid-afternoon, we noticed an unmarked car pull up in front of our house

and a man get out and head toward our door. He had no jacket on. The thing that made him look conspicuous was the revolver jammed down, half exposed, under his belt. He introduced himself as Detective Goldberg of the Criminal Investigations Department and explained that it was his job to determine whether there was foul play involved in the death of our child. His line of questioning was typical of what Joe Friday employs on "Dragnet". I was asked "When you saw your child was not breathing, why didn't you call the fire department?" My answer was "Because the house wasn't on fire. I thought my son needed a doctor not a fireman."

In Detective Goldberg's report which was read at the Coroner's Jury Inquest he stated words to the effect that "Mr. and Mrs. Hennigan have five other children. They appeared to be well fed and cared for. There was no evidence of abuse or maltreatment. They were clean and well-clothed. The house was neat and fully furnished. There was every indication of a pleasant harmonious household." We were told that there would be an inquest in a few weeks which would require our presence.

The cruellest part of this whole nightmare was the inquest. I asked that my wife be spared this additional assault to her emotional stability and mercifully, she was excused. The supposition is that a panel of experts, forming a jury, is to listen to all the facts associated with the death of the child and then decide whether the evidence warrants prosecution. In actual fact, the coroner's jury consists of aging political appointees who are neither expert in law nor medicine and who rubber stamp the conclusions made by the State Attorney's office.

I stood tearfully as the official read the "facts"—"Caucasian male, two feet, four inches long, twenty eight pounds; no social security number . . . cerebral spinal fluid negative for arsenic . . . evidence of healed fractured rib probably sustained at delivery . . ." His conclusion, following his statement of all the facts, was that there was "No evidence of foul play." The jury retired to their deliberation room and returned within five minutes to report their agreement that indeed no crime had been committed.

My feeling is that it is a crime to subject loving parents, grieving for their child who has been stricken by "crib death," to such treatment. Sudden unexpected death in children should not be handled by the intern on duty in the hospital emergency room and the disposition of the body left to clerical aids. An elected coroner speaks well for his own personal charm but says nothing for his qualifications as a forensic pathologist.

It is my understanding that in a Medical Examiner's System as opposed to Chicago's Coroner's System children who are received "Dead on Arrival" at any hospital must be examined by a forensic pathologist on the spot. If, in his opinion, based on both medical and legal training, there is need for legal action, so be it but for an intern, fresh out of medical school who has had no training about or contact with Sudden Infant Death Syndrome, to be playing detective is ludicrous. A Medical Examiner's System, with qualified and knowledgeable pathologists, will save hundreds of parents who are confronted with this dread disease each year from unnecessary and unwarranted criminal investigations. As one can well imagine they have enough to deal with managing to maintain their sanity and marriage and family and attempting to explain to their not too understanding relatives how their happy, healthy infant could possibly have died.

SUDDEN INFANT DEATH SYNDROME (By Arthur A. Siegal)

On the evening of December 24, 1966, our sixteen month old happy, healthy son,

Danny, was put to bed, along with his older sister, at their usual bedtime after spending a normally hectic day. I looked into his room at approximately 12 midnight before going to bed and he was sleeping peacefully. Since he was still in a crib, he had kicked his blanket off and I can remember covering him.

When I got up at 7:00 a.m. the following morning, I went in to check the children. I first went over to Danny's crib and realized that he was not breathing. I picked him up and listened for a heart beat. There was none. Danny was dead. Although I knew rationally that he was dead, I called to my brother-in-law, who was our houseguest, and he tried by mouth-to-mouth resuscitation to revive him while I called the police and our pediatrician. The police arrived within minutes. My brother-in-law met them at our front door with Danny and they (the police) placed the mask of a resuscitation unit over Danny's face and took him directly to the Emergency Room of the hospital which was five minutes from the house. My brother-in-law, wife, and I followed in our car.

We arrived at the hospital a few minutes after the police, and were met at the Emergency Room door by the nurse on duty who simply said, "I'm sorry." The two policemen also expressed their sympathy before they left. We were treated with every kindness but received no facts until our pediatrician arrived a few minutes later. He was visibly badly shaken. He said that he felt that Danny had died from "crib death" and asked that we allow an autopsy to be performed. He told us that he had had two other "crib deaths" in his practice over the last six years and continually stressed that we were in no way to blame and that his death could not have been predicted or prevented.

We did, of course, allow the autopsy to be performed and the results (which took approximately 10 months to receive) revealed all findings to be negative and the cause of death was stated as "Hemorrhagic Pneumonia" with sudden, unexpected death in parenthesis.

As we had only lived in New Jersey a short time, we still maintained a very close relationship with our pediatrician in New York. When my wife called to tell him of Danny's death, he again assured us that we were in no way to blame and that he had had several SIDS in his own practice. In fact, his brother, who was also a pediatrician, lost his child to SIDS.

Both my wife and I were indeed fortunate that on the day of Danny's death and the days following, we were surrounded by informed, understanding and kind professional people. We were also fortunate in the fact that we had been aware of SIDS before Danny died, and therefore could accept the facts and not blame each other or ourselves for his death.

Even with the intellectual knowledge that there was nothing we could have done, guilt feelings still occur especially when family members and friends cannot accept the fact that a beautiful, healthy child is found dead for no apparent reason.

None of our immediate family or close friends had ever heard of SIDS and there was then, and still is today, the doubt in some of their minds that we were neglectful to our son and that if we had been "better parents" Danny might still be alive today. Many of our friends, some of them who had children the same age as Danny, could not handle the situation and could not face us. As a matter of fact, one couple never spoke to us again.

SIDS, as it's name implies, leaves the immediate family with a "high grief" reaction. With SIDS there is no extended illness or time to prepare for the child's death. Death is instantaneous and in many cases is not accepted until weeks later. Our only strength came from the one fact that we knew we were not to blame and that there

was nothing that could have been done to save him.

Approximately four weeks after Danny's death, my sister-in-law sent us an article entitled, "Crib Deaths: Search For A Mystery Killer", that had appeared in the Saturday Evening Post. This article mentioned Mark Addison Roe Foundation. My wife immediately called and was fortunate enough to talk to Mrs. Judith Choate who is now the Executive Director of the NFSID, and had herself lost a son to SIDS. All the consolation, understanding and comfort given SIDS parents by professionals and friends cannot replace talking to another parent who has experienced this tragedy.

In the years following Danny's death, we have been in contact with many families whose children have been the victims of SIDS. Although we were fortunate in the way our case was handled by the professional people we had contact with, we seem to be very much in the minority. We know the urgent need for public education about SIDS, and for reforms in the Medical-Legal system in regard to this disease.

SUDDEN INFANT DEATH

(Statement of the International Guild for Infant Survival, Inc., Baltimore, Md.)

Thank you, Senator, for this opportunity to exercise my participation in our democratic form of government. Accordingly, I speak before you as a private citizen, as a father for his family, as a parent who has personally experienced the tragedy of Sudden Infant Death, and as President of The International Guild for Infant Survival and Chairman of the International Council for Infant Survival. In all these capacities, I thank you and the Committee for your interest in what we call Sudden Infant Death and for your holding this hearing. On behalf of everyone I represent here today, we greatly and gratefully appreciate your concern for the very lives of our young children.

I need not dwell on the characteristics and details of Sudden Infant Death for I would like to assume we all understand something of its nature and tragedy. But I would like to say a personal word for background purposes.

My family experienced our own Sudden Infant Death tragedy when we suddenly lost our daughter Suzanne on Wednesday, December 4, 1963, a scant 12 days after the tragic assassination of President Kennedy. If you can recall the magnitude of your own shock and our nation's grief at the loss of this great leader, then you have some insight into the magnitude of our own personal shock and grief at the loss of our normal, healthy, beautiful little 2-month-old girl! Multiply this by the thousands of similar sudden deaths of equally precious babies and you begin to obtain some idea of the disastrous proportions and extent of this major problem of infant mortality.

In trying to discover as much as possible about this unknown killer of infants, we were frustrated as individuals to learn that little or nothing was being done anywhere to get to the bottom of this phenomenon, and that very, very few people, including physicians and public health officials, knew anything about it. In fact, many never heard of it before, or had some misconception about it. So, in the true spirit of American togetherness, friends and strangers banded together for common purpose in pursuit of this killer in our midst.

And so The Guild for Infant Survival was founded in Baltimore in late 1964 . . . to fight this killer, to help solve the mystery of Sudden Infant Death, to eradicate it from the face of the earth and save the lives of thousands of infants here in our own country and around the world as well. From the beginning, we established three main purposes: to help families understand about Sudden Infant Death and its ramifications, to educate and arouse the general public to an

awareness of its seriousness and scope, to support and encourage medical and scientific interest and activity in the study of this puzzling mystery.

The Guild for Infant Survival has grown to 10 affiliated autonomous groups, 25 regional representatives in various states and communities from coast to coast, plus personal or medical contacts in almost a dozen countries over the globe. The Guild is a membership organization of both stricken parents who know first-hand about Sudden Infant Death and those who have the good fortune to be spared but share our concern—who have a voice in what we do and how we do it. Their work is done on a voluntary, spare-time, unpaid basis. In addition to members and contributors, there are many who serve and support us in a variety of ways individually and through other groups and organizations, so that there are literally thousands of citizens involved with us.

In communities where Guild groups are most active, the problem of Sudden Infant Death is no longer unheard of. For people have come to realize that, instead of sticking their heads in the sand, or ignoring this problem, the way to solve a problem is to face it, honestly . . . squarely . . . meaningfully. At least 4 research projects have been given impetus due to the efforts of our Guild groups, and there may be more. We estimate that Guild contributions directly for Sudden Infant Death research now approximate \$30,000 without large corporate, foundation, or public funds, donated by ordinary, wonderful people who really care about our kids.

The Guild reaches out its hand of friendship and its heart full of understanding to hundreds, perhaps thousands of "crib death" families. You can imagine how heavy the burden of self-guilt must hang over the family and anyone else with the baby at the time, and how important it is to relieve that unnecessary weight with information and compassion. Our Guilds bring these parents and the public in closer contact with researchers themselves and their facilities, sponsor meetings with health personnel, and held the first parent-medical conference in 1969.

We have succeeded in bringing our own state health officials to recognize Sudden Infant Death as a legitimate cause of death on medical certificates, to undertake special studies and statistical tabulations, and to call on us in time of need and cooperation. In Maryland, state appropriations to complete the research floor of the new Medical Examiners Building were obtained with Guild help so there would at least be a place in which research could begin, and in which it has.

Our Guild groups are satisfied that we can successfully aid and console the families of these young victims, provided we can expect the cooperation of medical authorities and public health officials, especially in verifying the serious extent of Sudden Infant Death. Much of this is also true when we reach out to the general public but the need for greater Government participation is more so. This is because the mass media which influence public knowledge and opinion so dramatically and extensively turn to those in a position to know and inform.

In the first few years of Guild for Infant Survival activity, it was very important for us to impress upon those we contacted that there was such a phenomenon as Sudden Infant Death and that it was serious. Although much correspondence was exchanged with Federal health officials and visits made to the National Institutes of Health, we could not obtain a relatively simple written statement acknowledging the true nature and extent of Sudden Infant Death. Nor could we find even one reference to this problem in any available Government publication on health, infant care, or mortality statistics. And I am speaking in general terms, not in specifics

more difficult to come by. In fact, it wasn't until a year or two ago that we finally received statements in writing that were pertinent and helpful. I don't think these services of Government, which exist for public good, should be so withheld, and I certainly shudder to think that the National Institutes of Health has a "head in the sand" attitude.

Beyond this, most of the problems we have encountered lie in the direction of skimpy medical activity to stamp out this killer, and our intention as a Government to seriously pursue this goal. In order to ascertain the status of basic knowledge and information known about Sudden Infant Death, our Guild in Baltimore undertook a nationwide survey. A questionnaire concerning Sudden Infant Death was mailed to the chief health official of each of the 50 states and the District of Columbia in June 1971. Within 2 months or so, replies had been received from all but 9 states. Thirty-nine (39) states and the District of Columbia returned completed questionnaires and two states submitted their information in letter form. I should like to refer to the preliminary analysis of this survey in this statement now.

It seems logical to assume that before we attack a problem, we should all understand what the problem is. This involves terminology, definition, description. In the 8 years of our involvement, there is still no uniform, accepted definition, no standardization description—and worse, no universally designated name or term. We are all familiar with the variety of names in current use: Sudden Infant Death, Sudden Unexplained Infant Death, Sudden Death Syndrome, Sudden Death in Infancy, etc. It is difficult to believe that we have yet to take this obvious initial step in official recognition.

Our questionnaire replies revealed 16 different names or phrases being used to identify what is essentially the same phenomenon. "Crib death" was most frequently named, by 20 of the 42 jurisdictions replying; Sudden Infant Death was second with 7 states. Nine (9) states used no official designation at all and 6 states were guided by the certified cause of death or pathological diagnosis. In only 14 states was a single designation employed, but there were still 7 different terms used among those 14 states! Nine (9) states used two terms and 4 states used 3. This illustrates a confusing situation in naming the problem we are talking about and trying to solve.

The Guild for Infant Survival recommends use of the term "Sudden Infant Death" in cooperation with other parent groups. To use "crib death" implies death in the crib, but this is not always true and may be misleading if officially adopted. It may, however, have value in colloquial usage. Sudden Infant Death is simple, direct, and easily understood by stricken parents and scientific researchers.

Along with a name should be a definition. No uniform or standard phraseology exists. I understand that just recently the National Institute of Child Health and Human Development has circulated a suggested one. But earlier this year, the Guild delved into this shortcoming with our medical advisors and proposes the following working definition: The death of an ostensibly healthy infant or young child which occurs suddenly and unexpectedly and which remains unexplained after post-mortem examination.

Before any name and definition agreed upon can be of value, their use must be recognized and accepted by the state filing information. In our survey, 5 states replied that no term is acceptable. Twenty-seven (27) states said they did recognize and accept one of the terms but 8 more qualified their affirmative response; for example, only if no other cause could be found or if the certifying authority used it.

Another fundamental piece of information needed before a logical attack can be made

on Sudden Infant Death is, we think, to know the frequency and its relation to other health problems and causes of infant mortality. We all know about the International Classification of Diseases and Causes of Death (Adapted) and its detailed classification of all health problems with accompanying code number identification. One would expect to find some specific category within this system for our subject today, Sudden Infant Death (or some related terminology). There is none. Yet if we look far enough, we find a catch-all category of ill-defined causes or conditions.

Our survey revealed use of two such categories in this section frequently mentioned by state health officials. The state of Indiana put it the best way: "Sudden Infant Death is recorded in accordance with the 8th Revision International Classification of Diseases and with instruction from the National Center on Vital Statistics. SID is classified in the Symptoms and Ill-Defined Conditions Category '795 Sudden death (cause unknown)'. A crib death diagnosis is charged to '796.2 Found dead (cause unknown)'. If a more specific cause is indicated the death is charged to that category; e.g., interstitial pneumonitis, asphyxia, etc. . . ." In our discussion here, I think it is agreed among the experts that Sudden Infant Death and crib death are one and the same. Yet the International Classification is used to split these into two parts (above). Note also that neither category makes any reference to age. Adults as well as infants can and do become tabulated in both classifications. In the Guild survey, 8 states use both categories, 18 states use one or the other, 4 states use some variation of the two, 2 use a supplemental number, a couple of states use the accidental death category (E913); one used other conditions of newborn (778.9) for crib deaths under 28 days. Thirty-one (31) states mentioned some code number, 5 mentioned none, 5 were indefinite. Mention was also made of the imprecise or vague specification as to age, as not being sufficient for Sudden Infant Death.

The Guild for Infant Survival believes it is important for the National Center for Health Statistics to officially propose before the forthcoming Revisions Committee of the International Classification of Diseases a separate and specific classification term and code number for Sudden Infant Death. With the Federal health authorities showing the way for the states—as formally proposed by resolution of the state assembly of California—this revision would be a monumental step in the right direction.

This special classification and coding is essential to the accurate state tabulations of crib deaths. Fifteen (15) states reported no official tabulation in state health statistics; 25 said they do, especially when age is considered, but noted variables. Minnesota responded when asked if SID's are tabulated in state statistics: "Yes but, the variations in methods of certification and coding lead to some confusion. ICDA 795 should include the total—but some are coded 796.2 for various reasons." Tennessee said: "Those rules for selecting and classifying the cause of death are quite sensitive to the manner in which the medical certification is completed. Thus, in interpreting data regarding cause of death it is important to remember that a slight variance in the statement of cause of death may result in an appreciable difference in the cause to which the death is assigned by using the standard rules."

North Dakota noted the extra effort required: "... No separate tabulation has been made of 'crib deaths' or 'sudden death of infants' other than the fact that these would be in the total of 'ill-defined' causes. To tabulate differently would require individual examination of each infant death certificate by a qualified medical person which service is

not available to the Division of Vital Statistics (N. Dak.) at this time."

The National Institute of Child Health and Human Development is fond of quoting statistics which we believe are, in reality, too low. References are continually being made to projections based on 2 to 3 sudden infant deaths per 1,000 live births, to rationalize estimates as low as 7500 and as high as only 12,000. We believe even the higher estimate to be too low in the overall significance of the problem. Our reasons are these: Projections for the entire country are based on only 2-3 study areas like Seattle and Philadelphia. Yet the Chief Medical Examiner of Maryland noted the Sudden Infant Death rate in Baltimore as 6 per 1,000 live births. Since we are told there is a correlation between Sudden Infant Death incidence and general infant mortality, it would seem that SID incidences would be higher in areas with greater infant mortality, as in the South, thus increasing the total annual number.

Then there is the problem of finding and tabulating every Sudden Infant Death. Even as successful and enlightening as we have been in Maryland, there are still occasions when there is no official record of a Sudden Infant Death which we have discovered privately, as through a hospital or the family itself or a relative or neighbor. It is likely these "hidden" cases are more frequent in less enlightened communities. It is not difficult to accomplish this, especially where affluence and influence coincide. Finally, no consideration of this syndrome can be complete without regard for the phenomenon of "near" Sudden Infant Deaths . . . when normal, healthy infants suddenly are found near death but for some unexplained reason pull out of this situation, recover, and return to normal. Yet competent medical examination cannot explain this strange occurrence. These, too, should be included in the SID count. For all these reasons, our Guilds and our local advisors believe it is quite possible the frequency of Sudden Infant Death could reach as high as 25,000 infants/yr.

For all this concern, with all these uncertainties and lack of knowledge, relatively little research funding has been granted by the National Institute of Child Health and Human Development (NICHD) down through the years. Here again, we have never been able to ascertain the exact extent of research funding. This continuing inability to pin down specific information, which should be available to the public, may lead to suspicious conclusions.

As of last year, the Guild was able only to estimate the extent of specific SID research funding by NICHD at about \$700,000 in the 8 years of Institute existence. It is also conceivable at the time that up to 200,000 American babies were lost to SID in 8 years. Simple arithmetic reveals that only \$3.50 per lost child was being spent. Even if we conceded the Institute's upper estimate of 12,000 SID losses per year, we would still be spending only about \$7.00 each.

In an honest attempt to prove or disprove our \$700,000 figure, we asked the Institute to provide us with a yearly breakdown of funding since its inception. It would seem logical that an index of research grants by title or specific subject would yield this data conveniently. Yet it took more than 2 months to obtain these statistics, and then only for the 1971 fiscal year. The information sheet listed 43 grants totalling \$1.8 million relating to infant mortality/SID, but only one specifically for Sudden Infant Death of \$46,000 (or \$2-4 per child). In 1970, there was only one grant, for \$33,000 (\$1.50-\$3 per child). Yet the total NICHD budget rose from \$76 million to \$94 million in 1971, with a \$5.7 million increase for support of general child health research, which includes crib death.

It is our position that the problem of Sudden Infant Death is too devastating and horrible to be explained away by 43 funding grants which may indirectly relate to the problem—that the magnitude and significance of the problem are so great as to demand commensurate and specific funding.

This lack of substantial funding is further explained by Government officials by a lack of "meritorious research ideas" or "qualified researchers." There are many potential researchers ready and willing to investigate SID in new and potentially promising directions. Although they may not meet the established standards of scrutinizing study sections, there are respected men of competence and position in their own fields and are worthy of a chance to explore their theories. It just may be that such a bizarre problem may require a bizarre or non-conformist approach, instead of standard or restricted technique.

We say this for two good reasons: First, we must always keep in mind the lives which are lost every day. I find it indecent and inhuman to wait for just the proper meritorious ideas to come along for consideration while our babies are being struck down before our eyes day in and day out. Second, the funds to support research are public funds, derived from us the taxpayers. The very fact that these same taxpayers in many numbers voluntarily and anxiously contribute their own monies to our private efforts to fund research serves as a mandate to public officials to put their taxes to use to save lives now!

Our proposal is sensible and meaningful: Establish a certain substantial sum of money earmarked specifically for Sudden Infant Death research. Invite all interested researchers to apply for funding. Then choose those most capable and promising for funding. Make the most of what there is now; don't wait for an ideal who may never come. Only in this way will we know that our Government really cares about our babies!

Down through the years, NICHD has calmed us with repeated phrases that Sudden Infant Death has a high priority for attention and action. That it is the greatest single killer of infants from one month to one year of age. And more. Looking back, however, relatively little has been undertaken and even less has been accomplished. It is almost as if there were no such entity as Sudden Infant Death if you search the records and literature . . . even though thousands of empty cribs, tiny graves, and broken hearts bear mute evidence of the total destruction of this killer in our midst.

Is this, then, the record of a Government which serves the people? In seeking to solve every problem of man's development from prenatal care to geriatrics, does a problem like Sudden Infant Death get lost in the overwhelming responsibilities of this comprehensive health Institute? Is Government's priority and present preoccupation with birth control and population growth conflicting with the saving of the lives of newborn babies? The time has come for our Government to back up its words and intentions with dollars and sense! We spend millions in research to perfect birth control devices, but paltry thousands to save new human lives we love so much. Where is our sense of values?

Experience indicates that Government does not act on its own initiative to solve serious problems, but only reacts when some unexpected, disastrous episode compels it to positive action. Are these daily unexpected disastrous episodes too commonplace to attract urgent, serious action? Are these infant tragedies therefore being compounded by inaction?

We of The Guild for Infant Survival cannot keep silent and watch more children die in vain without lifting a finger and raising

our voices. We cannot ignore these daily tragedies happening before our very eyes . . . watching these precious babies slip through our hearts and homes! And America cannot afford to sit idly by while millions of hours of manpower and talent which could be to peaceful and productive purpose buried forever.

These departed children can no longer speak for themselves . . . so we of The Guild for Infant Survival speak for them, so they shall not have died in vain. We come to plead for the lives of future generations who face this same horrible threat of sudden death at the very beginning of life.

No one can say who will be touched in the weeks and months ahead. We do know there will be many; unfortunately, far too many. How much longer will our babies—yours and mine—die so tragically and so unnecessarily? How much do we really value life itself?

Today, you have a golden opportunity given to very few: to save thousands of lives every year in every future generation of mankind . . . by considering and acting on what we have said here today . . . to speed the day when no more babies will die . . .

John Donne said it best:
"No man is an island, entire of itself. Every man is a piece of the Continent, a part of the main . . . Any man's death diminishes me, because I am involved in Mankind. And therefore never send to know for whom the bell tolls, it tolls for thee. . ."

FACTS ABOUT SUDDEN INFANT DEATH SYNDROME

THE BASIC FACTS ABOUT SIDS

SIDS is a definite disease and is the number one cause of death in infants after the first week of life.

SIDS cannot be predicted or prevented, even by a physician.

The cause is not suffocation, aspiration or regurgitation, although sometimes death certificates use such terms in error.

A minor illness such as a common cold be present, but many victims are entirely healthy prior to death.

There is no suffering; death occurs within seconds, usually during sleep.

SIDS is not contagious in the usual sense. Although a viral infection may be involved, it is not a "killer virus" that threatens other family members or neighbors. SIDS rarely occurs after seven months of age.

SIDS is not hereditary; there is no greater chance for it to occur in one family than in another.

The baby is not the victim of a "freakish disease." About 10,000 to 15,000 babies die of SIDS every year in the United States (two or three per 1,000 live births).

SIDS is at least as old as the Old Testament and seems to have been at least as frequent in the 18th and 19th centuries as it is now. This demonstrates that new environmental agents, such as birth control pills, fluoride in the water supply and smoking, do not cause SIDS. Despite increased attention in the literature in recent years, the incidence of SIDS is not rising.

Recent research shows that SIDS causes over 85 per cent of sudden unexpected death in infants.

WORST FREQUENTLY ASKED QUESTIONS

What is SIDS?

SIDS (Sudden Infant Death Syndrome), commonly known as "crib death" or "cot death," is a disease which causes from 10,000 to 15,000 infant deaths annually in the United States. SIDS has been with us since Biblical times, but only in recent years has it been recognized to be a "specific disease entity." It is best defined by describing a typical case.

An apparently healthy infant, usually between the ages of three weeks and six months, is put to bed without the slightest suspicion that things are out of the ordinary.

He may have signs of a slight cold. Some time later the infant is found dead. Often there is no evidence that a struggle has taken place, nor did anyone hear the baby struggling. Sometimes, though, the child has obviously changed position at the time of death.

An autopsy reveals, at most, a minor degree of inflammation of the upper respiratory tract, but no lesion sufficient to account for death. Often the autopsy reveals absolutely no evidence of illness.

In about ten per cent of crib death cases, careful examination does demonstrate a previously unsuspected abnormality or a rapidly fatal infectious disease, such as meningitis or pneumonia. These particular children are not victims of SIDS. If death results from an infectious disease for instance, the family may need to have protective medication. A thorough autopsy can put the family at ease about this.

How can a healthy baby die so suddenly without finding a cause at autopsy?

Unravelling the mystery of death can be extremely difficult. A typical picture is seen which consists mainly of changes in the tissues of the respiratory system. The consistent pattern has in itself now established a definition of death as due to SIDS.

Was it my fault?

Virtually every parent feels responsible for the death of his child, until the facts are known. In untold thousands of cases much needless blame has been placed by one parent upon the other, by relatives upon the parents, upon a babysitter who happened to be with the infant at the time it died, or upon the family doctor who pronounced the infant healthy shortly before it died. We know of families that have been broken up by repercussions arising from this problem. Therefore, it is important to make clear that recent research proves that *SIDS cannot be predicted*, and in the light of present knowledge *SIDS cannot be prevented*. The disease has no specific symptoms and occurs in the families, to the most competent, careful and loving parents. Indeed, we often feel that the victims of SIDS are unusually robust, healthy, and obviously well cared for. Even when the infant has recently shown signs of a slight cold and has been taken to the doctor, nothing has been found that would lead him to anticipate SIDS. Regardless of how thorough the examination or of the treatment prescribed, SIDS cannot be predicted even by a physician. SIDS sometimes even occurs in hospitals to well babies admitted for minor surgery.

Did my baby suffocate in its bedding?

It is not uncommon for victims to be found wedged into the corner of their cribs or with their head covered by blankets. Sometimes their face is turned down into the pillow or mattress or is discolored. Under such circumstances, it is natural to assume the baby smothered. However, SIDS also occurs under conditions where there is no possibility of smothering. The baby is found without any articles of bedding, clothing, toys or pets around or near the face. The autopsy findings are identical in both types of cases. Investigators have found that even when infants are covered by bedding, the amount of oxygen is not reduced to the point of causing suffocation. Thus it is possible to say with certainty that *SIDS is not caused by external suffocation*.

Could my baby have vomited and choked after his last feeding?

SIDS is not caused by vomiting and choking. Sometimes milk or even blood-tinged froth is found around the mouth or on the bedding. This has been shown usually to occur after death, and at autopsy is found not to block the internal air passages.

Can SIDS be prevented?

There is no known way to prevent its occurrence. No symptoms exist, so extreme

anxiety will serve no useful purpose. Although SIDS is not infectious in the usual sense, there are many health reasons why it is better to avoid taking a young infant into crowds of people.

This does not mean infants should be kept away from small family groups or kept away from others in their family. Babies need company and thrive on meeting others outside the immediate family. But this can be done without undue exposure to crowds.

What causes SIDS?

There have been many theories through the years as to the cause of SIDS. None of these have yet been proven and most have been discounted. Years ago an enlarged thymus gland was believed to block off the infant's airway. We know now that this does not happen. This assumption was made because the thymus gland of a healthy infant is large compared to that of an infant who has been ill. In the past, examining physicians were accustomed to seeing only those thymus glands of infants who had died of disease because few autopsies were done. We now find that some causes of SIDS had small thymus glands due to recent illnesses from which the infants had recovered.

Allergy to cow's milk has been suspected by some to bring on sudden reaction severe enough to cause death. However, recent studies on antibodies in SIDS cases have failed to support this theory, and some SIDS babies have received no cow's milk.

Other theories that have been discounted are: bacterial infection, radiation fall-out, use of modern machines and drugs, smoking, adding bleach to the diaper wash, "whiplash" injury to the spinal cord, air pollution, and fluoridation. It is important to emphasize that SIDS is not a new disease and is no more frequent now than it was centuries ago.

Did my baby suffer?

It is known that SIDS can occur within five minutes. It is probably almost instantaneous. There may be some movement during the last few seconds of life, accounting for the displaced blankets or unusual positions that are sometimes evident. However, the babies do not cry out and very often show not the slightest trace of having been disturbed in their sleep. Therefore, it is safe to conclude that *SIDS does not cause pain or suffering to the baby*.

Was it something infectious? Is the immediate family in danger?

SIDS is not contagious in the usual sense of the word. For example, sometimes one of twins in the same bed is taken by SIDS, yet the other is spared. There are seasons during which SIDS is more commonly seen but there is no reason for unusual concern in cases where an infant is exposed to an SIDS case.

SIDS virtually never happens after the first year of life, so older children are not at risk. There is no need to be concerned about contamination from clothing, bedding, or furniture of an SIDS baby. The common viruses which appear to play a leading role in SIDS do not survive outside living bodies.

Would it have helped if I had breast fed my baby?

Breast feeding does not prevent SIDS. Literature of previous centuries, when nearly all babies were breast fed, mentions the problems of sudden infant death. Recent research shows SIDS occurs to breast fed as well as to bottle fed babies. Breast feeding is recommended to mothers because the breast milk is usually well tolerated by the baby. Some additional antibodies are received from the mother in the colostrum which is present before the actual breast milk comes in. However, a baby is born with his major supply of antibodies that help him fight infection.

What about babies we might have in the future?

About two to three of every 1,000 newborn babies will die of "crib death" yearly in the

United States. According to the best available data, *SIDS is not hereditary*. Therefore, it is probable that any future babies in a family will run no more than the random risk of two to three per 1,000. This is quite a small risk. *More harm than good may be done to a subsequent child by excessive anxiety over SIDS.*

Is this a new disease? Aren't there more deaths of this kind now?

There is evidence that SIDS has been with us since antiquity. In Biblical times it was referred to as "overlaying." Then, as in some cultures today, mothers slept with their infants. When a mother woke to find her child dead, she assumed she must have rolled over on him and caused his death. Any new mother, however, knows how aware she is of the new baby and how impossible it would be for her to do this.

We do not believe there has been an increase in the number of SIDS cases in recent years, but there is more publicity about them than in the past. Studies in many areas of the world consistently show the figures of two to three SIDS deaths per 1,000 live births. Enlightened communities list the cause of death as SIDS or "crib death"; other areas list them as "suffocation," etc. This is a tragedy for the family as it leaves them with a lifelong feeling of guilt by indicated neglect. This is absolutely untrue and unnecessary. In some communities, confusion still exists about this disease. Only recently have the research facts about SIDS been added to medical school texts.

Do these deaths occur all over the world?

There is evidence that SIDS is an extremely widespread condition. Studies of the syndrome in England, Ireland, Australia, Czechoslovakia, Canada, Denmark, as well as New York, Washington, D.C., Pennsylvania, Ohio, Washington, Oregon and elsewhere in the United States have all revealed similar rates of occurrence. We know that SIDS occurs in tropical climates of Florida and the heat of southern California as well as in the cooler climates of the Northwest and the Northeast.

With present day communications and transportation, researchers are able to keep informed of other studies and can meet together to discuss the course of further research with the hope that the solution to this problem will be found soon.

PROBLEMS OF GRIEF

About parents' grief

After the initial shock and the numbness of the first few days begins to wear off, parents find that they are left with a prolonged depression. There will be "ups and downs" that can be brought on by a thoughtless or innocent remark from someone who doesn't understand the disease or by remembering that it is the same day of the week or date in the month that the baby died. At these low points, it is often very helpful for them to talk to a member of the "parents group." (See section on "Sources of Help and Information.") Only another parent who has had this same experience can convincingly say that things won't always look as they do today, that time really does make a difference. If there is no such person available, the family physician or minister can be reassuring.

Parents find that it is difficult to concentrate for any length of time. The mind wanders making it difficult to read, write, or make decisions. Some experience a "whirling around" sensation or pressure in the head. This is very normal and does not indicate that a person is losing his mind. *Sleep is difficult*, often leaving parents fatigued. If they have a family to care for or a job to get back to, they may need some temporary help from their doctor in the form of mild medication in order to get some rest. Even with sleep, the feeling of exhaustion persists.

Those in grief may experience muscular problems or other physical symptoms centering around the heart or in the stomach.

Often there is no appetite, and they eat only because they know they must. They may feel "tied in knots" inside. Mothers nearly always say their arms "ache to hold their baby."

There may be an irresistible urge to get away, a fear or dread of being alone, or unreasonable fears of danger. If there are other children, parents fear for their safety and don't want to let them out of their sight, but at the same time may be afraid of or shun the responsibility of caring for them. Even with this concern about their children, there may be feelings of extreme irritation and impatience with their behavior. Parents rely a great deal on family and friends, but at the same time may resent their help and feel guilty about this. The situation is made even more difficult when the community around them does not understand SIDS. Friends or relatives who are trying to help seem to say the wrong things or do not understand the disease.

The grief reaction of husband and wife may be different

It is quite normal that husbands and wives express their grief in different ways and this is not always understood. For instance, mothers generally need to "talk out" their grief while fathers tend to suffer more in silence. Husbands are diverted by their work while wives are usually at home surrounded by constant reminders. Very often the loss of the infant is the first grief situation either parent has faced.

Children's reaction to death

Children will be affected in some way by a death in the family. A small child who is too young for explanations needs mainly to be shown love and affection by his parents for his own security. Little ones may have some very frightening thoughts that they cannot express. They may cling to the parents and do naughty things to get the attention they need. If there are older brothers and sisters in the family, one can expect special kinds of grief reactions. Children often feel terribly guilty about the death of a sibling. They often fear their own thoughts towards the baby could have caused its death. An older child should be told as much about the facts as he is able to understand. He should feel that this is an open subject in the family and that he can express his thoughts or questions about death as they arise.

Children may not show their grief in obvious ways. Because they cannot deal effectively with tragedy, they may deny it and seem quite unconcerned. It is important to talk with brothers and sisters about the death and to discuss the fact that this was a disease. It is best not to say "the baby 'went away' in sleep." It is important to explain that the reason the baby died is because of a disease that strikes suddenly to only a few infants of that particular age. Brothers and sisters should be assured that older members of the family including themselves are immune. (In cases where there is a surviving twin, the entire family should receive special counseling.)

Many youngsters have been a source of strength for the family. They have written poetry and verse and often have a very simple, unshakable faith about the pattern of life and death. Some children, on the other hand, because of circumstances or age or emotional make-up have felt great insecurity after an infant's death. This has manifested itself by nightmares, bed wetting, difficulty in school, and other disturbances. Any such problems should be discussed with the child's doctor.

Close relatives, babysitters, etc.

Occasionally the baby is in the care of relatives or babysitters when the death occurred. This is a special problem and counseling should be made available to them also. It is often helpful for them to have literature or talk with the doctor. At first parents may

tend to blame the babysitter or to blame themselves for having left the baby at all. On occasion the mother has been blamed by the husband or relatives for the death of the baby. So it is important that everyone understands about the disease. Often giving literature is more helpful than trying to explain.

SOURCES OF HELP AND INFORMATION

The National Foundation for Sudden Infant Death, Inc., 1501 Broadway, New York, NY 10036, Phone: (212) 563-4630.

This is a national organization with chapters in many areas of the United States. It maintains contact with and makes referrals to other groups and individuals concerned about Sudden Infant Death Syndrome, some of whom are not directly affiliated with it. (See "Role of Parent Groups," Appendix I, *Proceedings of the Second International Conference on Causes of Sudden Death in Infants*.) The purpose of the NFIID, Inc., is to assist parents, educate the community about SIDS, and promote SIDS research.

The Foundation was the first organization to call attention to the need for research and has awarded grants to assist several studies. It promotes and sponsors programs of professional counseling, publishes a quarterly newsletter and distributes literature. It financially supports the mailing of information to various community agencies and medical groups. Many prominent physicians and lay people serve on its advisory board and as officers. It formerly was named the Mark Addison Roe Foundation and was started by the Jedd Roe family whose son Mark was a victim of SIDS when they lived in Greenwich, Connecticut.

Administered by a board of trustees composed at present of sixteen doctors and laymen, the Foundation is a tax-exempt charitable corporation supported by contributions from the public and from a small number of private philanthropic foundations.

In keeping with its national character, there are trustees on the board from Seattle, Denver, Chicago, Toledo and Philadelphia as well as from New York, New Jersey and Connecticut metropolitan areas. A medical board appointed by the trustees advises them on all medical matters and recommends action on applications for research grants.

The medical board consists of: Marie A. Valdes-Dapena, M.D., Chairman, M. Renate Dische, M.D., J. Bruce Beckwith, M.D., James R. Patrick, M.D., Eli Gold, M.D.

Donations should be mailed to the New York address above or to any local chapter. (Local group information may be included with this brochure.) The Foundation sends an acknowledgement card to the donor and to the family of the person being memorialized.

Scientific information

Two major sources of scientific information regarding SIDS are:

Sudden Death in Infants; Proceedings of the Conference on Causes of Sudden Death in Infants (1963), National Institute of Child Health and Human Development, Bethesda, MD, 20014.

Proceedings of the Second International Conference on Causes of Sudden Death in Infants (1970), University of Washington Press, Seattle, WA 98105.

MISINFORMATION

A great deal of misleading information and erroneous interpretation about sudden infant death finds its way into print. The most recent items serve as examples:

A newspaper filler that we see every few months states, "suffocation in the crib is the number one killer of infants under one year . . ." This is of course referring to SIDS, and we know now for certain that external suffocation is not a cause of SIDS and that babies do not suffocate in bedding, no matter how any one incident might appear at the time.

Many "theories" are among seven completely discounted in the proceedings of the Second International SIDS Conference.

If you read such obvious errors in the press, you can help correct them. Clip the statement or article out of the newspaper or magazine; identify the publication, date of appearance and page number; and mail to the National Foundation for Sudden Infant Death, 1501 Broadway, New York, NY, 10036. It is extremely cruel and confusing for these statements to keep reappearing in print. If you feel qualified, you might write the publication yourself, particularly when articles suggest accidental causes such as the statements printed above. Your note should state that SIDS is not accidental, but a definite disease entity which is, at this time, not preventable. Refer them to the National Foundation for further information and strongly urge them to print a correcting statement as soon as possible.

SUDDEN INFANT DEATH SYNDROME—THE EXTENT OF THE PROBLEM IN THE UNITED STATES

Problem: The sudden infant death syndrome—the death of an apparently healthy infant which remains unexplained after a complete post mortem.

Incidence: Annually, 10,000 thriving, well-cared for infants die as victims of the sudden infant death syndrome. This is three in every 1,000 live births, almost one sixth of all infant mortalities in the United States. In a large metropolitan area, such as New York City, one baby dies every day. The attached map illustrates the incidence of SIDS, per state, yearly.

Victim: SIDS has no regard for race or economics; it strikes babies in every level of our society. However, babies who are black, Indian, Mexican or poor white Americans and whose families live in urban ghettos will more frequently be SIDS victims than babies of the more privileged classes. This is also the case with babies born prematurely or of a low birth weight.

Psychological trauma: Virtually every family losing an infant to SIDS feels responsible for the death, due to ignorance of the disease on the part of health professionals and the lay public. Without immediate understanding, the problems of guilt and deep grief are long lasting and destructive to the entire family unit.

Medicolegal system. Since SIDS strikes without warning and without a physician in attendance, infant victims are delegated to the medical examiner or coroner for investigation. In many areas of the United States, autopsy is neither mandatory nor is it performed on SIDS victims. Deaths are often certified by the neighborhood funeral director or a coroner unskilled at pediatric pathology. Consequently SIDS is too often dealt with as a criminal case or certified as suffocation (or other unsubstantiated theories) which carry a connotation of negligence on the part of the family. For accurate statistics, new medical data and an ethical standard in dealing with the SIDS family, there must be a concerted effort to revise the entire medico-legal system.

Medical awareness: SIDS warrants only perfunctory discussion in medical textbooks and is almost never examined in the classroom. Since the victims are not hospitalized, rarely are they seen in teaching hospitals where the major thrust of modern medical ideas originate. In every community, in private practice or in clinics, physicians and nurses are completely unprepared to deal with the death of a healthy infant or to offer understanding and knowledge to the family.

Research status: Although support of research on sudden infant death syndrome is a high priority at the National Institute of Child Health and Human Development, there are few applicants for the available funds as long as SIDS continues to be nonexistent.

medical training, there will be no new impetus for research.

Model system: In the entire United States, there is but one community committed to an organized, humane system of dealing with SIDS. In King County, Washington (Seattle), every SIDS is autopsied at a teaching hospital, the family is immediately contacted by the attending pathologist, a visit is made to the family by a public health nurse and a subsequent visit, two weeks later, is again made. With cooperative efforts of the NFIID and government agencies, this system could exist nation-wide and no family would have to face the torment of not knowing why their baby died.

[From the Washington Post, Jan. 26, 1972]
INQUIRY INTO "SUDDEN INFANT DEATH"
(By Stuart Auerbach)

It is perhaps the most horrible death of all. At midnight the infant is sleeping easily. By morning—suddenly, without explanation—he is dead.

At least 10,000 children a year—three of every 1,000 babies born in America—die this way. Each morning, as many as 60 American mothers walk to their babies' crib only to find them dead of a disease called sudden infant death syndrome (SIDS) or more simply, crib death.

Medical science does not know what causes SIDS. And since its only symptom is death, they have no way to treat it. There is not even an official classification for the disease on medical records, and it is often listed by doctors as pneumonia or suffocation.

"It's almost as if there were no such entity as sudden infant death if you search the records and literature—even though thousands of empty cribs, tiny graves and broken hearts bear mute evidence of the total destruction of this killer in our midst," said Saul Goldberg of Baltimore, president of the International Guild for Infant Survival.

He and three other parents of infants who died of SIDS testified yesterday before the Senate Subcommittee on Children and Youth headed by Sen. Walter F. Mondale (D-Minn.), where they pleaded for more federal money for research into the causes of the disease.

Dr. Abraham B. Bergman of the University of Washington in Seattle, head of the National Foundation for Sudden Infant Death, said the government has neglected research into SIDS.

Dr. Merlin K. DuVal, assistant secretary of Health, Education and Welfare for health affairs, said few scientists seek grants to study SIDS.

Of 13 grant requests submitted to the National Institute of Child Health and Human Development over the past nine years, five passed initial review and all were funded—a total of \$700,000. In addition, he said, 43 projects relating to SIDS costing \$1.8 million were funded in 1971.

SIDS occurs more frequently among the poor and the non-white than the affluent and white; it especially hits premature infants and rarely occurs after a baby is one year old. It is the largest cause of death in children between one month and one year.

Most deaths occur between November and February, leading some doctors to believe that changes in temperature trigger the disease.

But most researchers now believe there is no single cause for SIDS. The best current theory, DuVal said, involves a combination of infection and the instability of the nervous system during sleep.

The parents told Mondale's subcommittee that their children's deaths left them guilt-ridden—feeling that perhaps they were somewhat to blame.

There still is today," said Arthur A. Gal of Closter, N.J., "doubt in some of the

minds (of family and friends) that we were neglectful to our son (who died five years ago) and that if we had been 'better parents' Danny might still be alive."

[From the Washington Post, Jan. 26, 1972]
THE MYSTERY OF CRIB DEATH

Among the many baffling mysteries of the human body, few remain as persistently unsolvable as crib death. The disease is known medically as sudden infant death syndrome (SIDS). Estimates vary on how many victims die every year; the National Institute of Child Health and Human Development believes between 7,400 to 10,500 occur annually, while two private groups—the National Foundation for Sudden Infant Death and the Guild for Infant Survival—put the figures between 10,000 and 20,000. Whatever the number, little argument exists that SIDS is a definite disease and is the number one cause of death in infants after the first week of life. Mystery is present because it can neither be predicted or prevented. The infant is usually under six months of age. Typically, the baby is healthy and normal, though sometimes a common cold may be present; he or she has been put to bed routinely but some hours later, with neither a cry or any indication of pain, is found dead.

On Tuesday, the Senate Subcommittee on Children and Youth held one day of hearings on crib death. One expected and much needed result of these hearings is that greater public attention will now be focused on this dangerous and widespread disease. Dr. Abraham Bergman of Children's Orthopedic Hospital in Seattle and president of the National Foundation for Sudden Infant Death, believes that the urgent problem about SIDS "is ignorance among the medical profession and lay public. In the vast majority of communities, parents who lose children to SIDS are treated as criminals. . . . Many medical examiners and coroners are still calling the disease suffocation or a variety of other names." In addition to normal reactions of grief, parents of SIDS victims often suffer guilt or emotional pain unmatched by other diseases. "The toll of broken families around the country for sudden infant death is shocking," said Dr. Bergman.

As a beginning sign of congressional interest in SIDS, the hearings were useful. As Sen. Walter F. Mondale, the subcommittee chairman noted, it was only three years ago that crib death was finally identified and described as a specific disease. What needs to be done now is for NIH to examine its research possibilities, first to discover the causes of SIDS and then to see how it may be prevented. Neither goal will be easy to reach, but with annual deaths ranging in the 10,000 area, the reduction of infant mortality should at least be a major concern of both Congress and the government. No one can deny that SIDS is surely a major concern to tens of thousands of parents.

[From the New York Times, Jan. 26, 1972]
SENATE PANEL TOLD "CRIB DEATH" IS UNSOLVED DESPITE HIGH TOLL

WASHINGTON, January 25.—"Crib death," a mysterious disease that kills seemingly healthy babies while they sleep, claimed at least 10,000 lives last year, but the Federal Government spent only \$46,000 on research and prevention of the disease, a Senate panel was told today.

A series of witnesses at a hearing of the Senate Subcommittee on Children and Youth offered little hope that a cure would be found soon to end the disease—also called Sudden Infant Death Syndrome—or even that causative factors of the disease would be learned.

"Consider the tragedy of the mother who has fed her healthy child as usual and put him to bed," said Senator Walter F. Mondale, chairman of the subcommittee.

"She awakens in the middle of the night, looks in on the baby and finds him dead," the Minnesota Democrat continued. "Can she ever hope to escape the gnawing feeling that she was in some way responsible for that death?"

Medical witnesses said parents had no reason for guilt. Dr. Merlin K. DuVal, Assistant Secretary of Health, Education and Welfare for scientific affairs, said progress in research on the cause of crib death had been slowed because few scientists were interested and because of the nature of the phenomenon itself.

"Its starting point is the death of the infant, which is instantaneous and without warning," Dr. DuVal said. "There is no opportunity to observe the forces and the interrelationships leading up to the baby's death."

He said there apparently were many factors involved and said a current theory involved infection, instability of the nervous system, and sleep.

Dr. DuVal added that the theory was difficult to test because no animals were available for laboratory research.

But Dr. Abraham B. Bergman of Seattle, president of the National Foundation for Sudden Infant Death, reported that Dr. Orville Smith of the University of Washington had discovered that some infant monkeys die during sleep and that autopsy results closely resembled that of infants whose deaths were similar.

Dr. DuVal said research at the National Institute of Child Health and Human Development directed specifically at the cause of the syndrome is funded at the level of \$46,258.

He said \$1.8-million was spent on related research.

[From the Washington Post, Dec. 31, 1971]
NEITHER PREDICTABLE NOR PREVENTABLE—THE SUDDEN INFANT DEATH MYSTERY
(By Colman McCarthy)

Perhaps no other death is more difficult for the survivors to bear or the community to understand than the death of an infant. The special kind of funeral—the white coffin the size of a toy box—the mother's grief on carrying a baby inside her for nine months only to lose the child after it is soon outside, the straining of religious faith that says the infant's death is somehow in "God's plan": little of this helps. Yet, about 10,000 to 15,000 babies die of what is called sudden infant death syndrome (SIDS) every year in the U.S. One infant in 350 is a victim. According to HEW figures, 77 infants died of SIDS in the District of Columbia in 1969; 220 died of it in Virginia and 169 in Maryland. Popularly called crib death, SIDS is a major American health problem. Excluding the first week of life when infants die from complications of prematurity, SIDS is the nation's largest cause of death in infants under one year and second only to accidents as the largest cause of death to children under age 15. A news story occasionally appears on the subject and magazine "health columns" refer to it periodically; but the ones who know it best are the parents of the victims. The subject is topical this week because the National Foundation for Sudden Infant Death in New York has announced that Dr. Abraham Bergman is its new president. Bergman is a Seattle pediatrician who for years was a leader in the fight to get flammable clothing off the market.

The mystery of crib death is that it always occurs in sleep. It is neither predictable nor preventable. Parents who give their infant its last feeding of the day—either by bottle or breast—never dream that death is about to strike. The child runs no fever, is not coughing and sounds no louder than usual in the final cry before falling off to sleep. Not many parents even know about SIDS, but, even if they did, obsessive worry-

ing about it would be neurotic. Research groups at the University of Washington and Children's Orthopedic Hospital in Seattle, where Bergman teaches, believe that SIDS babies die from a sudden spasm of the vocal cords that close off the airway during sleep. This is often associated with a viral infection. Yet the viral infection does not cause the death, only causes the vocal cords to be more susceptible to a sudden spasm. Even more mysterious is why a viral infection in a 2- or 3-month baby is different than in a 3- or 4-year-old, or an adult. One researcher has reported that sudden unexplained infant deaths "tend to occur most frequently during cold weather in a sleeping 2- to 4-month-old infant born prematurely or of low birth weight, who at the time had an upper respiratory infection. However, one of the major problems that continues to require solution concerns the means by which these characteristics result in or lead to SIDS."

Two international conferences, in 1963 and 1969, were held on crib death, but research is only beginning. Although Bergman reports that some critics say the federal government is purposely doing nothing in the field, he believes the opposite is true. To date he says the National Institutes of Child Health and Human Development has never turned down a qualified research application on SIDS. "The problem," notes Dr. Gerald LaVeck, the Institute's director, "is mostly a lack of trained scientific investigators interested in conducting research into the problem."

While the physical mysteries of crib death are explored, there is no confusion about the emotional and social pains suffered by the surviving family. "There is a large amount of ignorance in the U.S. medical profession and the lay public about SIDS," says Bergman. "In the majority of communities, parents who lose children to SIDS are treated as criminals. In many places, they can't get autopsies or else must pay themselves. Usually, families must wait many months to hear the results of these autopsies from a medical examiner's or coroner's office. Many examiners and coroners still call the disease 'suffocation' or a variety of other wrong names. This only reinforces the natural guilt that parents feel anyway. Many are subjected to coroner's inquests and questioned by police. This is a national scandal and must cease."

The destructive emotional effects of crib death can last long after the regular mourning period. Tremendous after-guilt may be felt by fathers or mothers who did not "go in to check" when the baby cried during its last night; physically, though, it would have made no difference, because crying does not occur during the baby's agonal period. Other parents suffer excessive guilt at not having taken the infant to the pediatrician, especially if coughing or a fever was present. If they did just visit the doctor and the baby dies, parents wonder "what the doctor missed." Curiously, Bergman reports, "physicians themselves harbor the same doubts, often for many years. A discussion of SIDS at a medical meeting invariably turns into a confessional for physicians who feel the need to stand up and re-live their traumatic experience and be convinced of the known facts."

It is not that easy for parents. Occasionally, divorce follows a crib death, the father refusing to live with the mother who "let a baby die." If a babysitter or relative was home at the time, they may be blamed, with the parents always feeling guilty about going out for the evening. "In the weeks following the death," Bergman says, "there is often marked change of moods. The parents have difficulty concentrating and frequently express hostile feelings toward their closest friends and relatives. Denial of death is common; the mother may continue to draw the baby's bath or prepare his food. Dreams about the dead child are common, as is a

fear of being left alone in the house. . . . Other common reactions are anger, helplessness and loss of meaning of life. Parents are fearful, particularly about the safety of their surviving children. A fear of 'going insane' often occurs in the first few days and may last for several weeks. Guilt is universal and pervasive. Whether they say so or not, most if not all the parents feel responsible for the death of their babies."

The last point is the most crucial if the surviving parents are to lead normal lives. In medical fact, they are not responsible. Doctors, medical examiners, counselors and friends have the obligation to inform the parents that they did nothing wrong and could not have prevented the death. Guilt or anxiety may never be totally removed, but at least it can be lessened so that life can go on. If families can be consoled after a member dies of cancer, a car crash or other common cause of death, why not with SIDS? Perhaps if the disease is recognized as a disease, and not as a form of suffocation or pneumonia, more can be learned about it. Preventive medicine has conquered other diseases of mystery; it can conquer this one too.

[From the CONGRESSIONAL RECORD, Jan. 19, 1970]

"CRIB" DEATH—THE MYSTERIOUS KILLER

Mr. TYDINGS. Mr. President, on December 2, 1969, Mr. Saul Goldberg, president of the International Guild for Infant Survival, Inc., of Baltimore, Md., presented some very important testimony before the Senate Appropriations Subcommittee on Labor, Health, Education, and Welfare. The guild, which I have the privilege of serving as a member of the honorary advisory board, is a nonprofit charitable and educational organization comprised of citizens across America who are deeply concerned with the tragedy of thousands of infants who died each year soon after birth.

In his presentation before the Appropriations Committee, Mr. Goldberg discussed a little known and little understood form of infant mortality called "crib" death. It takes the lives of 15,000 to 25,000 infants a year; yet we understand nothing of its cause or its prevention. In a Nation that prides itself on its medical advancement and scientific sophistication, this situation is nothing short of criminal. As Mr. Goldberg so eloquently points out, it is clearly time we began devoting the attention and the research resources to this mysterious killer that it demands.

To all who are interested in this critical problem, I strongly recommend Mr. Goldberg's excellent statement. Therefore, I ask unanimous consent that his remarks be printed in the RECORD.

There being no objection, the statement was ordered to be printed in the RECORD, as follows:

STATEMENT BY SAUL GOLDBERG

I have been asked to be brief in my testimony. I wish I were not here at all for the purpose I must be. I come before this distinguished subcommittee as president of The International Guild for Infant Survival, Inc., a non-profit charitable and educational organization of parents and other citizens throughout the United States tragically bereaved or deeply concerned by the horrible loss of helpless infants who are not here to speak for themselves. I speak to you now in their name: the tens and hundreds of thousands—perhaps millions—of innocent babies who have died suddenly and unexpectedly in years past. I speak to you also in the name of the 15,000-25,000 normal, healthy babies in our 50 states who are dying in this same bizarre manner this year of 1969. More importantly, I speak for the untold thousands and hundreds of thousands of the babies in future generations who face this same terrible fate at the very beginning of life.

These precious babies of ours are with us no longer. There is no "poster child" for us to bring here to remind you of this tragic problem. There is no handicapped youngster to accompany me to evoke your sympathy and help. Their passing comes so quick and silently, these infants have little time to become known outside their own family and the general public is thus unaware that this dilemma even exists. Yet, for every victim, death is final. And all that remain are an empty crib . . . a tiny grave . . . and broken hearts.

Who will speak for these departed children? Who will come forward to plead for the lives of future generations? A group of stricken parents and some who have been spared but feel a deep compassion, a deep empathy, have banded together as The International Guild for Infant Survival to serve as the voice of all these dear children, to provide comfort and information to bereaved families, to give encouragement and support to scientific research activities in this field, and to bring the seriousness and scope of this major health problem to the widest public attention.

We cannot keep silent and watch more children die in vain without lifting a finger. We cannot ignore what is happening before our very eyes, seeing these loveable babies slip through our hearts and homes. We cannot stick our heads in the sand in the mistaken belief that somehow all this tragedy will disappear. And America can no longer afford to sit idly by while millions of hours of manpower and talent which could be put to peaceful and productive purposes are buried forever.

Our growing group of Americans represents an important point of view in many parts of this great country which I would like to respectfully bring to your attention at this time.

1. I would like to inform you, first of all, of the actual existence of this mysterious phenomenon which concerns our most precious asset—our babies and their very lives. We know only as sudden infant death, or sudden death syndrome, or "crib death." So little is known about it, there is not even a medical or scientific name to describe it.

2. Sudden infant death kills infants from 10 days to 2 years old, most being between 2-3 weeks and 6 months of age, without any warning and for no apparent reason.

3. From all reports given by parents, pediatricians, and medical examiners, these babies were perfectly normal and healthy. Some had been given a medical examination a few days before. Some had fathers who were physicians themselves—at home at the time—and they could do nothing. Yet the same set of circumstances is repeated over and over again. A mother puts her young child to sleep or to nap and, when she goes to check on the child later on, the baby is found dead.

4. This distressing mystery is all the more puzzling because it persists in an era when babies have been made more safe from fatal diseases today than ever before. Years ago, families were purposely large because it was expected that one or two babies would die in infancy. The old scourges like diphtheria, whooping cough, typhoid fever, polio, and others now have all been eliminated. Yet our infant mortality rate remains too high. It is the very success of modern medicine today that has ironically exposed this serious sudden infant death problem—for which there is still no known cause, no prevention, no treatment, no cure.

5. Sudden infant death provokes serious feelings of guilt, self-recrimination, and inadequacy. After the first few moments of stunned disbelief, the stricken parents usually start blaming themselves and wondering what they did wrong. How else can you explain the loss of such a beautiful little baby? The emotional impact of such a traumatic experience can have lasting effects:

disrupting families, unbalancing other children, wrecking marriages, and fostering personal chaos to such an extent that some will dare not think or speak about it for years. Others think this tragedy is something of a personal stigma to hide from and forget. Some place the guilt on an innocent third party, such as the doctor, the baby-sitter, or a housekeeper.

6. Yet, there is no foundation in fact for these feelings of guilt, frustration, and failure. Upon medical investigation and detailed autopsy, the vast majority of reports in these cases reveal no explanation to account for death. Sometimes there may be some evidence of a slight infection or a cold in the family, but nothing to medically cause death itself. Frequently, there is no clue at all. Everything is negative and normal.

7. Experts and investigators cannot tell us how extensive this problem actually is. The most conservative estimates start at 10,000 deaths each year in the United States alone. More realistic estimates range between 15,000-25,000 deaths a year, while some refer to incidences as high as 35,000 annually. This then represents from 10% to 25% of all infant mortality after the first few days following birth. One reason it is not known how many sudden infant deaths there are is because most states do not permit the frank term, "death unexplained" or "sudden unexplained infant death", to officially appear on certificates as the cause of death, even though most high medical authorities recognize this dilemma for the tragedies they are. To place these figures in better perspective, this frequency of sudden infant death is almost as high each year as the total number of Americans killed in Vietnam over several years!

8. Sudden infant death can strike any home, any time, any place. It is no respecter of race, color, religion, creed, nationality, national origin, geography or socio-economic status. It does strike all kinds of families from every background—from the poor ghetto family to that of your colleague from Connecticut Senator Ribicoff.

9. How significant is this sudden infant death problem? The National Institute of Child Health and Human Development, specifically involved with this problem, helped to support only the Second International Conference on sudden infant death, bringing together over 40 medical experts and concerned scientists in infant mortality earlier this year. From this important meeting came the news that sudden infant death is the leading cause of death among all health problems of young children. In some communities, it was mentioned, sudden infant death even surpassed accidents as the number one cause of death among all children.

10. So challenging and disturbing is this mystery that some medical men have taken it upon themselves to do some investigation on their own without significant progress thus far. Several theories have been offered, but none as yet withstand the test of careful scrutiny. However, it now appears certain that suffocation and neglect are not the answers, nor did anyone with the baby at the time do anything to contribute to his death. More recognized experts have become concerned in recent months and have spoken of their theories and research ideas, hoping for the financial resources to pursue their interest in saving these young lives. Regrettably, the National Institute of Child Health and Human Development specifically, and the Department of Health, Education, and Welfare generally, have such comprehensive responsibilities and such limited budgets that up until now there has been too little incentive to encourage these efforts, interests, and plans.

11. In summary, therefore, sudden infant death is a leading killer of our most precious asset—our children. Yet so little is known

about it, there is no scientific name, no exact accounting of the number of these deaths, no known cause or prevention, let alone a cure, and this tragedy contributes significantly to our high infant mortality rate. Knowledgeable medical men and health officials recognize these losses of young life as one of the most distressing and puzzling problems in the entire field of medical practice—and want to devote their time and effort to this kind of research in the fact of a limited research budget for this specific dilemma.

12. It seems apparent to us that there is a definite need for this distinguished panel to seriously consider an increased research budget to find out all we can about what sudden infant death really is once and for all. It seems vital to us that larger research appropriations are required through the National Institute of Child Health and Human Development and the Department of Health, Education, and Welfare commensurate with the magnitude and scope of these deaths in today's infant mortality picture and the extent of medical ignorance to this day. This is a major health problem which is concerning a growing number of citizens and professional men—that we respectfully suggest deserves your fullest attention and consideration.

The President has stated that one of this administration's major concerns is the first 5 years of life. His predecessor was equally concerned with our high infant mortality rate. The Vice President has generously given us and the lives of our dear babies his personal support, as has our own Maryland Congressional delegation led by Senator Tydings. Senator Ribicoff's family knows of this tragic experience first-hand.

No one can say who will be touched in the weeks and months ahead. We do know there will unfortunately be many, far too many. How much longer will our babies die so tragically and so unnecessarily? How much do we really value life itself? Today, you have a golden opportunity given to very few . . . the opportunity to save thousands of lives every year! Speaking for all our children, you hold in your hands and minds the power to speed the day when no more happy, healthy, precious babies—so full of life—face this terrible fate of sudden death.

For those who may question personal involvement, permit me to quote from John Donne's famous paragraph (Devotions, XVII): "No man is an island, entire of itself. Every man is a piece of the Continent, a part of the main. . . . Any man's death diminishes me, because I am involved in Mankind. And therefore never send to know for whom the bell tolls, it tolls for thee."

For those who see the task too difficult, allow me to recall the words of Senator Robert Kennedy: "Some men see things as they are and say, Why? I dream things that never were and say, Why not?"

Our dear babies can be given life. For as another of our great Presidents once said: "... here on earth, God's work must surely be our own."

ULMS AND AWACS: IS THERE A SOUND RATIONALE?

Mr. PROXMIRE. Mr. President, the new defense budget presented to Congress earlier this week by the administration includes large funding requests for a number of major strategic weapon systems. Some of these requests call for a further step-up on programs to which sizable commitments have already been made. Examples are the ABM—which remains in limbo at a cost of \$1.5 billion pending a SALT agreement which would allow a cutback—and the B-1 bomber—up to \$440 million in the third year of its prototype development program. Also in-

cluded, however, are major step-ups on two other strategic programs which have been funded in the past at a relatively low research and development effort. I refer to the undersea long-range missile system—ULMS—which is budgeted to rise from \$103 million to \$942 million and the airborne warning and control system—AWACS—which is slated for a jump from \$140 to \$470 million.

YEAR OF DECISION

This budget session in Congress will be a year of decision for both ULMS and AWACS. The new budget requests involve production funds for the first time, and history has shown us the great difficulty in cutting back later on programs for which production funds have once been authorized. The point is well taken in an editorial of the Washington Post. Mr. President, I ask unanimous consent that a copy of this editorial be printed at this point in the Record.

There being no objection, the editorial was ordered to be printed in the Record, as follows:

[From the Washington Post, Jan. 28, 1972]

FUNDS FOR STRATEGIC WEAPONS SYSTEMS

Q: Here, when you talk procurement, you're talking R&D procurement as opposed to deployment procurement?

A: Yes.

Q: No deployment decision?

A: No deployment decision.

Q: Same as on AWACS [airborne warning and control system], no deployment?

A: No deployment.

Q: Does this mean you're going to build one of these things?

A: It is \$942 million. The answer is that you do not move this fast unless you intend to build submarines and new missiles. . . .

The exchange between Assistant Secretary of Defense Robert C. Moot and newsmen who were being briefed on the fiscal 1973 defense budget at the Pentagon the other day casts a few flickering rays of light on a murky—yet absolutely crucial—aspect of that budget: the manner in which it may create commitments to vast and costly new weapons systems well in advance of any formal decision to proceed with them. In fact, these are commitments of time, money and technological skill that tend to render subsequent decisions superfluous, representing an investment of resources that is in itself a decision and generally an irreversible one. What makes this so important in relation to the fiscal '73 defense budget is the fact that Mr. Nixon is requesting a great leap forward in several strategic systems all at once, and their cost for the coming fiscal year—a few billion dollars—high as it is, will be as nothing to their costs if and when real deployment occurs.

In dealing with this particular aspect of the defense budget, then, it seems to us pertinent to wonder where the money for these projects is taking us, as distinct from arguing about where it has (or will) come from. That the so-called Vietnam peace dividend would prove illusory has long been known: dwindling expenditures for the Vietnam war have been, in large part, absorbed by congressionally approved pay increases for the military and these and related maintenance and operations costs, constituting as they do the bulk of military outlays, are best discussed in the context of other policy choices—specifically, those dealing with the desirability of an all-volunteer army and with the size and deployment of our general purpose forces as a whole. The "hardware" decisions are something else again.

Of the proposed budgetary increases for nuclear weapons systems, the most striking

and significant is that which would add about \$1 billion in new obligatory authority for work on the undersea long range missile system—or ULMS. This ICBM-bearing nuclear-powered submarine has almost twice the range of the Polaris/Poseidon system that is being deployed now, and an increased missile-bearing capacity. Although no one supposes that the roughly \$1 billion the President is requesting in spending authority for this project will in fact be spent in the coming fiscal year, neither can anyone suppose that Mr. Nixon is being tentative or restrained as regards a commitment to it—he is requesting authority for a decisive investment.

The "crash program" aspect of the ULMS request has provoked surprise and, in turn, speculation as to why the President has chosen to accelerate this project so dramatically at this time. One answer that has a degree of plausibility is that the President's hefty request for funds for this specific system goes a certain way to meeting a number of separate challenges at once. It could, after all, be regarded as a signal to the Soviets who are balking on bringing submarine-based missiles under the restrictions of a SALT agreement that, failing a mutually accepted limitation on these systems, the United States means to proceed apace with their development. It offers—owing to the sheer and somewhat illusory size of the authorization request—some assurances to those increasingly alarmed critics who believe Mr. Nixon has let our defenses slip in the face of the Soviet buildup. And, on the other side, it could present some of the President's Democratic/liberal defense critics with a dilemma, since it has long been an article of faith among many of them that U.S. offensive nuclear weaponry should be phased out from a three-part system (bombers, land- and sea-based missiles) to one primarily composed of an underwater system such as that Mr. Nixon is moving on now.

Whether all (or any) of this can be expected to have the desired effect on the Soviets and/or on the critics in Congress seems at least doubtful. In any event, via the SALT negotiations and forthcoming action on the Hill, they will make their own responses. Our own reaction is that the pending Defense posture statement by Secretary Laird and the administration testimony to follow will have to go a long way beyond anything said in connection with the budget presentation to make a compelling case for this kind of commitment to proceed with ULMS now. Perhaps such a case can be made, but two particular elements in the budget presentation cast serious question on the impetus for this investment. One is that the administration seems to be working on a "force matching" principle, rather than a principle of need. That is to say, so far it has argued the urgency of our keeping equal to or more precisely ahead of a prospective enemy in the number and design of such offensive weapons—it has not demonstrated that progress in Soviet antisubmarine warfare techniques is anywhere near to presenting a threat to our invulnerable and lethal Polaris/Poseidon force.

The second disturbing aspect of the presentation is that the ULMS acceleration does not appear to reflect a trend to emphasize our relatively secure sea-based deterrent so much as it seems to reflect a trend to move forward in a big way on all systems, to move across the board at a stepped-up rate of modernization and new investment. There is \$444 million for the controversial B-1 strategic bomber meant to replace the B-52. There is close to half a billion dollars for AWACS, the rather dubious air defense against the Soviets' relatively small and not very modern long range strategic bomber force. Safeguard ABM will absorb around \$1.5 billion. Conventional systems, including some highly costly tactical aircraft are also

scheduled for big increases. There is, in short, evidence that the administration has not so much made hard and realistic choices as simply moved on a broad front to inject funds into programs that may or may not be wise or effective, but which promise without exception to be costly.

In the past couple of years Senator Proxmire and some of his colleagues have been giving the Pentagon budget the kind of scrutiny it demands. And Senator Stennis' Armed Forces Committee has been doing invaluable work of its own—looking into the genesis of contractual commitments to questionable programs, obliging the Pentagon to justify its requests and its performance under increasingly tough standards, cutting back authorizations it deems half-baked or imprudent. The Stennis committee will get first crack at the 1973 requests. We have great confidence that the committee, not exactly a hotbed of "radicals," will—whatever its final disposition of these requests—take a very hard look at the ULMS, AWACS and other big-step programs in this budget, especially in view of its own appreciation of the manner in which these "undecided" decisions have a way of getting made somewhere along the line in the R&D process. Conceivably, the case is there for such an across-the-board move on a variety of weapons systems that will commit this country to the expenditure of unprecedented billions of dollars in the next decade. That case has yet to be made—and it is far from obvious.

Mr. PROXMIRE. Mr. President, as the Post editorial indicates, the administration and the Defense Department owe the Congress a sound justification for their decision to move out on the ULMS and AWACS programs. Frankly, I have grave doubts whether such a justification exists. I intend to make a detailed study of the ULMS and AWACS programs in the months ahead before coming to any detailed conclusions. But I would like to flag at this point a number of factors which warrant in-depth scrutiny, in the hope that my colleagues will join with me in giving them the examination which they need.

ULMS

I have long supported the need for increased reliance on sea-based strategic systems. The reasons for such reliance have seemed self-evident. Sea-based systems do not suffer from the growing vulnerability which both land-based missiles and bombers have experienced. In addition, they pose no first strike threat to any potential adversary, thus providing an element of stability in the precarious nuclear balance.

Accordingly, I have been favorably disposed to the ULMS program in the past, regarding it as a study and design effort directed toward finding an eventual successor to our Polaris and Poseidon submarines. There are several things I find disturbing, however, about the crash program for ULMS development which the administration has just revealed.

For one thing, it is not accompanied by any cutback in other programs, all of which continue full steam ahead. It is therefore difficult to see in the ULMS program a real indication that greater reliance will be placed on our sea-based deterrent any time in the near future.

DANGEROUS TIMETABLE

I am also troubled by the timetable implied in the extremely high funding level which the administration has requested. Last year long-range Navy planning was

oriented to an initial operating capability—IOC—date for ULMS of 1984, with enough flexibility in its funding plans to permit an acceleration to a 1981 IOC. The present schedule, on the other hand, points squarely to a 1978 deployment. What this means is that a 12-year development program has suddenly been condensed to roughly 6 years. Under this revised schedule, ULMS, which has not yet entered engineering development, would be deployed a year before the B-1 bomber, which is about to enter its third year of engineering development.

This revised schedule insures that there would be considerable concurrency between the development and production stages of work on ULMS, the same kind of concurrency which has led to massive cost overruns in the F-111, C-5, and F-14 programs. A similar experience with ULMS would have devastating consequences, since costs per submarine are already estimated at a cool \$1 billion, with total program costs expected to exceed the costs of the other three programs combined.

In fact, funding for long-lead-production items—some \$394.5 million—are already included in this year's budget. I recognize that there are substantial differences between the normal development and production schedules for aircraft and submarine programs, but I am also convinced that the present tight schedule for ULMS foreshadows major problems ahead.

POLARIS-POSEIDON SECURE

And I see no need for anything approaching this tight a schedule. There are no breakthroughs in antisubmarine warfare technology now on the horizon which threaten the survivability of our Polaris and Poseidon boats. And these boats certainly have enough nuclear firepower for the foreseeable future, since the multiple-warhead Poseidon program was itself designed to penetrate a thick Soviet ABM system, the kind of system which it now appears will never be built.

Moreover, we still have great advantages over the Soviet Union in the quality of our sea-based strategic deterrent, notwithstanding the fact that the Soviets have pulled even in actual numbers of submarines. The Soviets have yet to deploy a sea-based missile equal in range to the Poseidon and they have not yet even begun testing a sea-based missile with an MRV or MIRV capability such as the Poseidon has.

Under these circumstances, I am hard pressed to find justification for any acceleration of the ULMS program over the schedule planned last year. And if we do move forward more quickly—and I am not advocating that—many believe it advisable to concentrate on a new missile system rather than a submarine itself. They argue that an expanded range missile alone would tremendously expand the ocean area in which our submarines could effectively operate and in which the Soviets would have to find them.

ULMS COULD BE OBSOLETE

There is one other thing to consider in deciding to move ahead with a new boat. A factor I have not yet mentioned but which might in the long run be more



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