

HEALTH IN ELEMENTARY SCHOOLS

Cornacchia
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SIXTH EDITION



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PREFACE

Numerous health problems continue to exist in the United States despite the control maintained over such communicable diseases as smallpox, diphtheria, and poliomyelitis through immunizations and improvements in sanitation, housing, and nutrition. Heart disease, high blood pressure, cancer, accidental injuries, stress, sexually transmitted diseases, and misuse and abuse of alcohol, tobacco, and other drugs, among others, are common today. Although elementary school-age children generally are in good health, there are numerous health conditions such as respiratory and gastrointestinal disturbances, vision and hearing problems, emotional difficulties, child neglect and abuse, suicide, drug abuse, teenage pregnancies, and overweight that need to be identified by school personnel, with information and guidance provided for pupils and parents. These conditions are more prevalent among poor and disadvantaged students.

It is presently believed that many of the conditions found among children and adults can be *prevented* or at least be reduced in incidence and severity through the avoidance of *risk factors* and through *life-style modifications*. Since many of the adult conditions are dependent on the habit patterns established in the early years

of life, programs in schools that provide health education, health services, and a healthful environment will aid in the establishment of the practices of healthful living and contribute to pupil well-being when conducted in cooperation with the home and the community.

Awareness on the part of parents and the community concerning the need for health education and school health generally has increased in recent years. It is universally recognized today that individuals must assume more responsibility for their own health and that health care involves not only physiological considerations but psychological, sociological, and spiritual emphases as well. Health education is needed because of the high cost of illness and medical care, the health misconceptions that exist among people, the millions and perhaps billions of dollars spent on useless, unnecessary, and frequently harmful products and services in the health marketplace, the media and peer and adult influences on people's behavior, and the vast amount of confusing health information disseminated by individuals, the press, and radio and television.

Health education programs are now supported and sponsored by the American School Health Association, the Association for the Ad-

vancement of Health Education, the American Public Health Association, the American Association of School Administrators, the National Association of State Boards of Education, the American Medical Association, the American Academy of Pediatrics, and the National Congress of Parents and Teachers. The federal government has established the Center for Health Promotion and Education in the Centers for Disease Control, Public Health Service, Department of Health and Human Services. In the private sector the National Center for Health Education has been functioning for over 5 years. Approximately 89% of the states have requirements that make provision for health education.

Unfortunately less than 25% of the 1,500 elementary school districts in the United States have health education programs, and so-called comprehensive programs are considerably fewer in number. The legal provisions in states frequently are so loosely written that numerous programs are limited to one or more health topics such as nutrition, drugs, or safety. The term *comprehensive* has been subject to a variety of interpretations, and its meaning as defined in this text has not been implemented to any great extent in U.S. schools. Several problems related to the lack of school finances and the public's demand for a return to teaching the basic subjects have compounded difficulty of developing health instruction programs despite the increased awareness of need and the progress made in the number of programs introduced in recent years.

The writers of this text firmly believe that:

1. Good health is essential to learning.
2. The prevention approach to health and the need for self-care must be started in the early years of life.
3. Schools can play an important role in the promotion and maintenance of the well-being of its students.
4. Health education can be introduced into schools despite present problems.

It follows therefore that teachers—especially at the elementary level—need to understand the nature and purpose of school health pro-

grams and must learn their role in such programs. To this end this book has been organized to deal mainly with *health* education—curriculum, learning applied to health education, methods and techniques of teaching, instructional aids, evaluation—and with *health services*, the *healthful school environment*, and *coordination* of the program.

While the book is designed primarily for prospective and in-service teachers, it should also be of interest and value to school health coordinators, curriculum coordinators, principals, superintendents, school board members, and health specialists now serving or working with elementary schools. Public health workers should find the book helpful in clarifying certain problems of educational organization, objectives, curriculum development, supervision, and teaching methods and materials as they relate to the elementary school health program.

The book has three broad purposes: (1) it seeks to help elementary school teachers and school personnel recognize more clearly their responsibilities and their many opportunities for protecting and improving the health of their pupils; (2) it provides the information that teachers want and need to improve their contribution to the health service program in raising the level of healthful school living in those elementary schools in which they serve; and (3) it is concerned with developing understanding and skill in curriculum development, teaching methods, and source materials that will help classroom teachers make a major contribution to the improvement of health in youngsters by doing a better job of health education.

Every effort has been made to present the latest and best in research, practice, and pioneer thinking in school health in light of what is feasible and practical in elementary schools throughout the nation. We have attempted to provide a synthesis of fundamental principles that are generally accepted by professionals and that we in our many years of experience indicate are best for elementary schools. The book has been divided into six parts.

Part One identifies the nature and the purpose of the elementary school health program

and the classroom teacher's role in health instruction, health services, and healthful environment.

Part Two covers healthful school living with emphasis on the physical and emotional aspects of the elementary school environment. Attention is focused on the emotional climate in the classroom.

Part Three emphasizes the importance of school health services, including health appraisals, disease control, follow-up and guidance, and emergencies and first aid in protecting and improving the health of pupils.

Part Four highlights the status of health education in the United States today and the administrative problems involved in the implementation of programs. It includes principles of organization, illustrative units useful in teaching, and examples of a variety of popular health instruction programs.

Part Five identifies the principles of learning involved in behavior modification, useful methods of teaching, over 1,200 teacher-tested techniques categorized into 17 health areas by three grade level groups, and instructional aids and sources for health instruction.

Part Six provides understanding of evaluation with practical suggestions for teacher use in the classroom.

The Appendixes provide a handy communicable disease summary for teachers, compulsory immunization laws by state, a sample of health education fiction and nonfiction books, sources of free and low-cost sponsored instructional aids for health teaching, and several evaluation instruments.

Throughout the book we have pointed up the importance of cooperative effort on the part of teachers, parents, community health agencies, physicians, nurses, dentists, and others concerned with child health and safety. These mutually favorable relationships are essential in translating good elementary school health program theory into actual practice. We believe that the health of children calls for the highest possible level of partnership between the school, the home, and the community.

The sixth edition of the text has been com-

pletely revised, reorganized, and updated to provide greater clarity and sequence of information as well as to remove redundancies. Two new chapters, "Emotional Climate and the Teacher" (Chapter 4) and "Health Education Approaches" (Chapter 10) have been added. The former includes some material from the old mental health chapter, which has been eliminated. The latter contains examples of some of the popular health instruction programs found in U.S. schools. The former school safety chapter has been condensed and changed in title to "Emergency Care Procedures" under Health Services to eliminate repetitive material. Safety education information is contained in Chapters 9, 11, 12, and 13. Chapter 14, "Evaluation," has been rewritten for greater classroom teacher use.

It has been our task to design a text that not only identifies the known principles and practices for health in elementary schools but also to make them operational and functional for school personnel use. It remains for teachers, administrators, and other concerned persons to implement these measures in schools throughout the country.

If we help bring about just one favorable change in the health program of one elementary school, if we lead one classroom teacher to recognize the powerful potential influence he or she has for child health, if we provoke one principal to take a critical look at school health, if we but touch the conscience of one superintendent or school board member, if we pique the curiosity of a health department or a voluntary agency, or—above all—if we in some way indirectly enrich the life of an elementary school boy or girl, this will be the reward that we seek.

Finally, we are grateful to all those people and organizations who have helped us to make this sixth edition of *Health in Elementary Schools* a better book. We are especially indebted to those classroom teachers, our friends in the profession, and our students who offered stimulating and useful suggestions.

Harold J. Cornacchia
Larry K. Olsen
Carl J. Nickerson

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PART ONE

The elementary school health program

1

SCHOOL HEALTH

Its nature and purpose

The health of the American people has never been better. American children today are healthier than ever before.

*Julius B. Richmond, M.D.,
Former Surgeon General of
the United States**

Since 1900 the death rate in America has been reduced as a result of medical control over such diseases as tuberculosis, diphtheria, poliomyelitis, and gastroenteritis. Infant, child, and maternal mortality have decreased, and the expected life span of individuals has increased by almost 3 years. Improvements in sanitation, housing, nutrition, and immunization have resulted in control over typhoid fever, smallpox, plague, and other diseases. Progress is evident in the control of heart disease, some cancers, and other chronic conditions. Despite these advances, many health and safety problems among young people, especially the poor, still exist in the United States. Acute illnesses result in an average loss per school year of 4.9 days for each American child. Numerous children are not completely immunized. Accidents are a major cause of death. Child abuse and neglect are of

major concern. Students are experiencing learning difficulties related to such problems as hyperkinesia and dyslexia. Pupils are exposed to a variety of risk factors that lead to adult diseases and conditions. Infants, school-age children, adolescents, adults, and elderly adults are all affected by these risk factors.

The need for preventive actions and services to promote and preserve the health of individuals has now been recognized. A Harris* poll conducted in 1978 revealed that more than 50% of Americans were more concerned with the preventive aspects of health than they were a few years before. Attention to life-styles and behavior together with control of environmental factors can reduce the need for medical and hospital care according to Julius B. Richmond, M.D., former Surgeon General of the United States. Dr. Richmond indicated the Public

*U.S. Department of Health, Education, and Welfare, Public Health Service: Healthy people—the Surgeon General's report on health promotion and disease prevention 1979, Washington, D.C., 1979, Superintendent of Documents.

*U.S. Department of Health and Human Services, Office of Health Research, Statistics and Technology: Health United States 1980, Washington, D.C., 1980, Superintendent of Documents.

Health Service reviewed its priorities for the expenditure of funds in America and decided that the improvement of the health status of citizens could be achieved predominantly through preventive actions rather than through the treatment of disease.

In 1979 the Surgeon General's *Report* stated that good health could be preserved and ill health prevented through the following:

1. Improved and increased use of screening, diagnostic, and treatment services
2. Provision for immunizations
3. Control of high blood pressure
4. Identification of groups of individuals with high risk of cancer
5. Reduction of serum cholesterol levels in the blood
6. Fluoridation of community water supplies
7. Avoidance of the misuse of alcohol and other drugs
8. Reduction of stress factors
9. Improvement of nutrition including its relation to obesity
10. Early identification of cardiovascular disease and cancer
11. Increased exercise and fitness

The *Report* claimed that premature deaths could be reduced through:

1. Control of toxic and infectious agents
2. Emphasis on occupational health and safety
3. Reduction of accidental injuries
4. Reduction or elimination of such risk factors as cigarette smoking, poor dietary habits including the consumption of high-fat foods and excess salt and sugar, untreated high blood pressure, misuse of alcohol and other drugs, severe emotional stress, accidents, and sexual promiscuity

Authorities agree that the best time for building the foundations for better health is early in life. It follows then that one of society's largest—and potentially most influential—organizations offers vast opportunities for raising the level of health of the individual, the family, and the community. Obviously, we speak here of the 115,000 elementary schools dotting the cities, suburbs, towns, and countryside of

America. We think too of the almost limitless ways in which elementary teachers and school administrators—with the help of health specialists *and* the support of parents and the community—can favorably affect the health of 45 million boys and girls in schools across the land. This is through enlightened *health teaching* and provision for *health services* and a *healthful school environment*. Fig. 1-1 outlines the main activities of the entire school health program.

But our schools are in trouble. Teachers, prospective teachers, educational administrators, legislators, parents, education faculty in colleges and universities, taxpayers, and the news media have all become increasingly concerned about our schools. As problems continue to mount, cluttering the road to quality education for all children, it is clear that bold measures must be taken if we are to give more than lip service to repeated statements of lofty objectives and high ideals for America's schools.

Our schools and our society are beset with the harsh reality of economic, political, and other social problems that affect the quality of life. The question of tax sources for the equitable and adequate support of our schools has become a critical one. Piled atop the money problems are the tangled issues of busing, lowered enrollments and school closings, collective negotiations between teachers and school boards, health and safety conditions for pupils and teachers, conflicts in administrative and learning theories, "accountability" procedures for both pupils and teachers, and recently, public concern over the quality of education and the call for a return to the basic subjects in education.

However, since this is a book about elementary schools and their health programs, we cannot properly analyze all those forces that tend to shape our culture and our schools. Nevertheless, the need for *preventive* health care has never been more critical, and its advocacy is increasing substantially each year. Authorities now realize that it is not only necessary but also economically more feasible and desirable to reduce the incidence of health problems. The

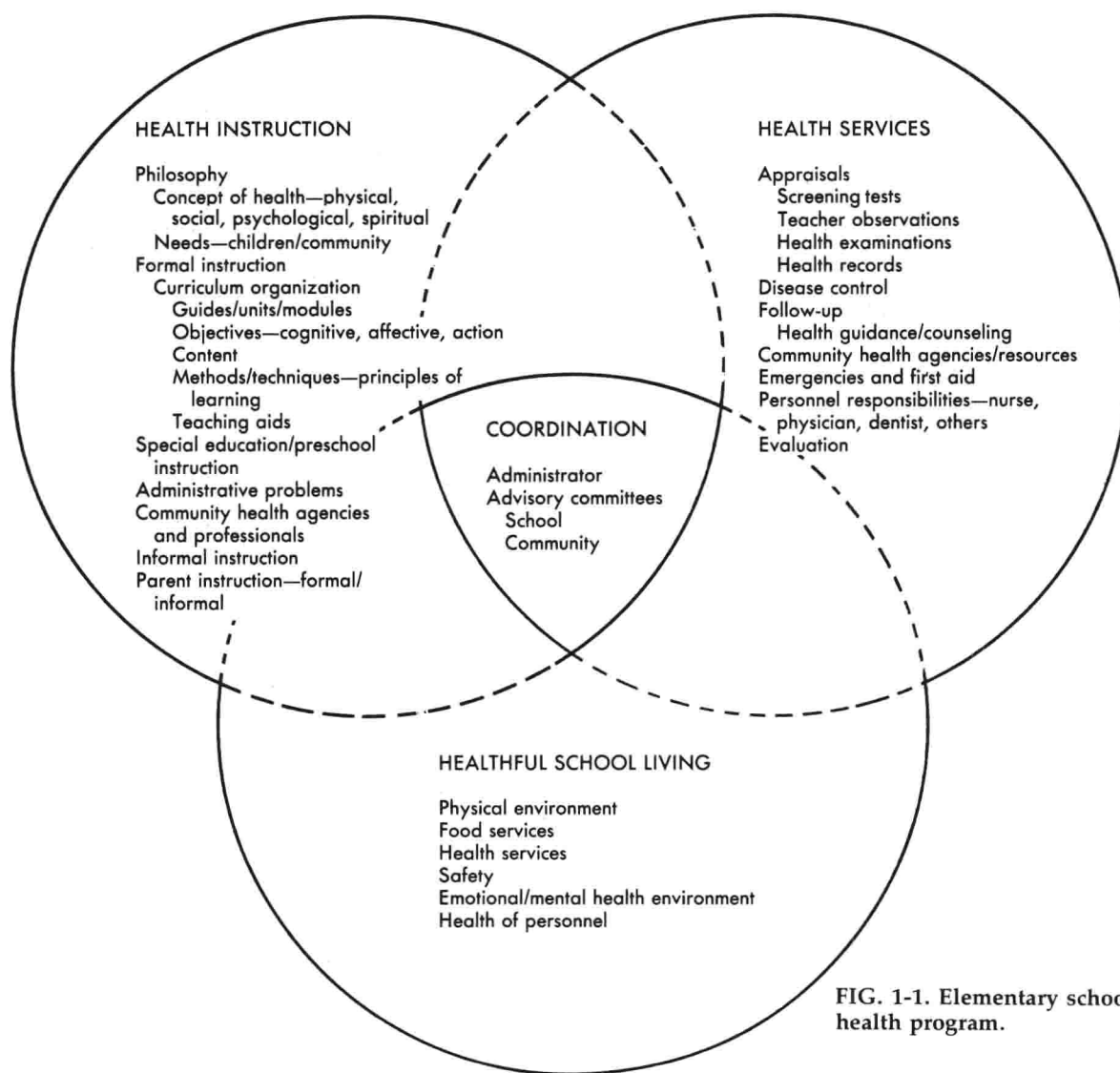


FIG. 1-1. Elementary school health program.

schools have a vital role to play in such action.

Yet, school health does not exist in a vacuum. The school health program is part of the life-blood of America's better schools, and like all aspects of good schools, it is sensitive to significant thinking and events in the community in which it thrives. In a very real sense the school reflects the character of its community—local, state, and national. Health instruction must be closely related to day-to-day problems

of health and safety; school health services depend in large measure on the community's health resources; and the healthful school environment is in itself part of the community.

It is the basic thesis of education that the thinking and the behavior of people can be changed for the better. We assume with the confidence that grows out of research and experience that good teaching in a favorable setting will raise the quality of living for pupils. By en-

riching the lives of millions of children, elementary education cannot help but contribute to forming a better society.

This "better society" and "the good life" have challenged humans for thousands of years. Along with the family, the church and temple, and the community in general, schools have continuously sought to help people live better individually and in groups. Although there have been shifts in philosophy from time to time, the ultimate purpose of our schools has remained constant. From the log cabin of colonial times to the ultramodern structures of contemporary suburbia, the nation's schools have always been concerned with helping boys and girls to live better lives.

Teachers and elementary school personnel in the United States are in a unique position to contribute significantly to the preventive concept of health. They can help preserve and promote the well-being of students through the provision of services, programs, and activities that will have great influence on pupil behavior and life-styles.

The curriculum in America's elementary schools must include substantially more than the three Rs despite the present trend to return to so-called basic education. Reading, writing, spelling, arithmetic, social studies, and science need not be neglected with the inclusion of health education. Although health should be included as a separate subject area, it can also be integrated easily into all instructional areas. Teachers, with the help of parents, family members, and the community, must aid students to learn how to live in and make adjustments to the society in which they find themselves. Health is basic to the basics. Without good health, pupils will have difficulty learning to read, write, add, and perform the necessary activities for learning.

WHAT IS SCHOOL HEALTH?

A multiphasic differential program of health as illustrated in Fig. 1-1 is needed to adequately care for the variety of students and health and

safety problems found in schools. This program must be one that includes *health instruction*, *health services*, *healthful school living*, and *coordination*. The instructional component should be both formal and informal in nature, for both students and parents. The health services should attempt to identify pupils with problems and provide counseling and guidance to obtain corrections where possible and to make adjustments in school programs where necessary. Policies and procedures to prevent the spread of communicable diseases and to take care of children who may be injured or become ill while at school need to be established. The environment should include a physical plant that is healthful and safe, is staffed by well-adjusted employees, and offers an atmosphere of friendliness and comfort conducive to learning. No program of this nature can function effectively without coordination.

An understanding of school health is more easily gained through familiarity with the terminology that follows:

school health The physiological, psychological, sociological, and spiritual aspects of health as they relate to the school setting.

school health program The school procedures and activities designed to protect and promote the well-being of students and school personnel. They include these four categorical phases: health education/instruction, health services, healthful school living/healthful school environment, and coordination.

healthful school environment The phase, sometimes referred to as healthful school living, that relates to those activities that provide a safe and healthful school atmosphere. It includes the physical plant—lighting, heating, ventilation, food services, health services unit, and health of school personnel—as well as the emotional climate in the school.

health education A broad term referring to both formal and informal learning about health that will enable individuals to make intelligent, informed decisions affecting their personal, family, and community well-being. It may take place in school, outside school, and through the media.

health instruction The formal program that takes

place in the school. It includes a program of planned activities in a classroom setting that offers understandings and attempts to develop attitudes and practices of healthful living that will enable children to reach high levels of wellness. The formal program is one that is planned, sequential, and includes all grades in a school or school district. It is now considered to be a *comprehensive school health education* program. It should be based on sound principles of curriculum development and include all subject areas necessary to satisfy student health needs and interests. The subject areas must (1) be repeated at several grade levels to ensure reinforcement of learning, and (2) increase in depth of content, progressing from simple to complex concepts as pupils move upward in grade.

coordination Those activities usually carried out by a school administrator in cooperation with school and/or community health committees or councils. They include the administration and supervision of the school health program with specific responsibilities to integrate the various phases with health instruction, to develop curriculum, to provide in-service teacher and staff training, to prepare policies and procedures, to communicate with community agencies and organizations, and to perform many tasks.

WHY SCHOOL HEALTH?

The health of children and their learning are reciprocally related. Young people must be healthy to obtain optimal benefit from their elementary school experiences. Educational experiences must be provided that will enable pupils to live in a healthful manner.

Students who are frequently absent because of illness, need glasses, are emotionally disturbed, are malnourished or undernourished, are always tired, are "battered"—children with a wide variety of health problems—are simply not able to learn most efficiently and effectively, even with the best teaching. The American Academy of Pediatrics* identifies these factors that contribute to underachievement in pupils: chronic and frequently recurring physical prob-

lems, specific sensory defects (vision, hearing, speech); neurologic and neuromuscular problems (brain defects, epilepsy); psychological problems (passive-aggressive behavior, fears, anxieties); and mental retardation.

Although parents have the primary responsibility for the health of their children, schools must offer supportive and complementary programs to help counsel pupils and parents. The role of the school is primarily to educate. Schools are expected to provide education to help students live in and adjust to society. Since society places high value on human life and health, schools have a responsibility and an opportunity to help protect and promote the health of pupils and to aid in the prevention of ill health.

WHAT IS PREVENTION?

Prevention has multiple meanings. Literally, to prevent is to keep something from happening. Prevention includes the protection and promotion of health. It involves primary, secondary, and tertiary aspects. Schools generally provide for primary and secondary preventive assistance.

Primary prevention refers to action taken to interfere with something happening or a procedure to stop something before it starts. Specifically, it is an attempt through education and other procedures to help students refrain from the use of or reduce the misuse of drugs, obtain immunizations, and generally make intelligent decisions in regard to their health. This type of prevention may take place in the school or in the community. Within the school the education may be formal or informal in nature and may be provided for students, parents, school personnel, and others.

Secondary prevention relates to procedures taken after an illness or abnormal condition has occurred so that it does not get worse or become more advanced. It includes early detection of conditions and the use of follow-up procedures to obtain the necessary treatment or adjustments. For example, a teacher who observes

*American Academy of Pediatrics: School health: a guide for health professionals, Evanston, Ill., 1981, The Academy.

a student with a suspicious skin rash sends the child to the school nurse. The nurse concludes that the problem needs medical attention and telephones the child's parent, advising that the student be examined by a physician. The school health program usually provides counseling and guidance that may include referral of children to community resources.

Tertiary prevention is an extension of secondary prevention in which action is taken to interrupt the development of more serious conditions. It refers to treatment and rehabilitation services rendered by physicians, psychiatrists, and other professionals to save lives, restore pupils to high levels of wellness, and prevent serious personality damage. This service is generally not a function of schools and usually takes place outside the school setting. For example, a child with diabetes, epilepsy, heart disease, or hyperkinesis is in need of medical assistance. Communication between the school, parents, and physicians is needed for appropriate adjustments to be made in the school setting.

Role of the school in prevention

The role of the school in preventive health is identified in the total school health program (Fig. 1-1).

Schools have both a legal and a moral responsibility to provide a safe, sanitary, and healthful environment for pupils and school personnel. An atmosphere conducive to learning is one that is friendly and comfortable, offers a curriculum that motivates and meets the needs of students, minimizes stress situations, and includes well-adjusted, competent teachers.

The central purpose of the school health program is to help children learn to be responsible for their own health. Students should be able to acquire scientific understandings and attitudes through the health instruction program that will enable them to act intelligently. The health habits established in these formative years greatly influence the quality of life that emerges in adulthood. Young people in ele-

mentary schools can be exposed to many useful health experiences and activities, since they legally must attend school for approximately 6 hours daily, 180 days yearly, for 8 or more years.

Children attend school with a variety of illnesses and conditions such as communicable diseases, speech impediments, and dental problems that are in need of identification and/or possible correction. The school health services program should provide nurses, physicians, dentists, and other professionals who can assist with these problems to protect other students, to counsel and guide pupils and parents, and to recommend adjustments in school programs for more effective learning.

WHAT ARE THE HEALTH PROBLEMS OF CHILDREN?

Despite the apparent good health of many children in the United States, there continues to be a variety of health and safety problems, especially among the poor, that have a draining effect on the energies, stamina, and capabilities of young people. These problems are of such magnitude and diversity that the quality of education will be affected for students in those schools that fail to give them attention and do not provide a health program of the nature described in this text.

According to the American Academy of Pediatrics* the most common health problems in children 3 to 5 years of age are acute infectious diseases (respiratory illnesses and gastrointestinal disorders), accidents, emotional disorders, dental caries, sensory defects (vision, hearing), and iron deficiency. Cancers are the leading cause of death in children aged 1 to 7, with 3,214 deaths occurring yearly.

Early elementary school-age pupils have the next-to-lowest mortality and serious morbidity of any age group. Most physical illness in this age group is the result of accidental trauma and

*American Academy of Pediatrics: School health: a guide for professionals, Evanston, Ill., 1981, The Academy.