HEALTH IN ELEMENTARY S LS

CORNACCHIA · NICKERSON · OLSEN

SEVENTH EDITION

HEALTH IN ELEMENTARY SCHOOLS

HAROLD J. CORNACCHIA, Ed.D.

Emeritus Professor of Health Education,
San Francisco State University,
San Francisco, California

LARRY K. OLSEN, Dr.P.H.

Professor, Health Education,
The Pennsylvania State University,
University Park, Pennsylvania

CARL J. NICKERSON, Ed.D.

School Health Consultant,
Olympia, Washington

SEVENTH EDITION
with 70 illustrations

TIMES MIRROR/MOSBY
COLLEGE PUBLISHING

ST. LOUIS TORONTO SANTA CLARA 1988

Editor: Nancy K. Roberson
Editorial assistant: Susan Clancy
Project manager: Teri Merchant
Production editor: Deborah L. Vogel
Design: Gail Morey Hudson

SEVENTH EDITION

A division of The C.V. Mosby Company
11830 Westline Industrial Drive
St. Louis, Missouri 63146

Printed in the United States of America

Library of Congress Cataloging-in-Publication Data

Cornacchia, Harold J.
Health in elementary schools.

Includes bibliographies and index.
1. School hygiene—United States. 2. Health education (Elementary)—United States. I. Olsen, Larry K. II. Nickerson, Carl J. III. Title.
[DNLM: 1. Health Education—United States. 2. School Health Services—United States. QT 200 C812h]
LB3409.U5C63 1988 372.3'7 87-17996
ISBN 0-8016-1120-2

GW/D/D 9 8 7 6 5 4 3 2 02/B/245

PREFACE

Numerous health problems need attention in the United States. Communicable diseases such as smallpox, diphtheria, and poliomyelitis have been brought under control through immunization and improvements in sanitation, housing, and nutrition. However, heart disease, high blood pressure, cancer, accidents, stress, sexually transmitted diseases, AIDS, and the misuse and abuse of alcohol, tobacco (including smokeless tobacco), and other drugs (including cocaine) are common today. Elementary school-age children generally are in good health, yet there are numerous health conditions such as respiratory and gastrointestinal disturbances, vision and hearing problems, emotional difficulties, child neglect and abuse, suicide, drug abuse, dental caries, pregnancies, and obesity that need to be identified by school personnel, with information and guidance provided for pupils and parents.

Much of the illness found among children and adults can be *prevented* or at least reduced in incidence and severity through the avoidance of *risk factors* and through *lifestyle modifications*. Since many adult conditions depend on 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 practices of healthful living and contribute to pupil well-being when conducted in cooperation with the home and the community.

NEED FOR ELEMENTARY SCHOOL HEALTH EDUCATION

Awareness of the need for health education has greatly increased in recent years. It is widely recognized that individuals must assume more responsibility for their own health. Individuals now realize that health care involves not only physiological considerations but also psychological, sociological, and spiritual emphasis. Health education is needed because of the (1) high cost of medical care, (2) existence of health misconceptions, (3) millions of dollars spent on useless, unnecessary, and harmful products and services, (4) influences on behavior by peers, adults, and the media, (5) confusing and often inaccurate health information disseminated, and (6) desire of people to be healthy.

Health education programs are now supported by the American School Health Association, the Association of the Advancement 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, and Department of Health and Human Services. In the private sector, the National Center for Health Education has been functioning for over 5 years. Numerous companies and foundations such as the Metropolitan Life Foundation are providing funds for demonstrations of comprehensive school health education programs. Thirty-eight states (76%) have mandated school health education, and seven more have encouraged the subject to be included in the curriculum.

Unfortunately, less than 22% of the elementary schools in the United States have health

education programs, and few of these programs are comprehensive. The legal provisions in states often 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. Its meaning as defined in this text and accepted by school health experts 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 the difficulty of developing health instruction programs despite the increased awareness of need and the progress made in recent years.

GOALS FOR THIS REVISION

The authors of this text continue to firmly believe that:

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

It follows therefore that teachers, especially at the elementary level, need to understand the nature and purpose of school health programs and must learn their role in such programs. Thus the major goal of this text has not changed from that of previous editions. To this end this book has been organized to deal primarily 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.

AUDIENCE FOR THIS BOOK

This book has been designed to be a practical guide for prospective and in-service elementary teachers and for health service personnel and school administrators. Prospective teachers will obtain a preview of their role in the school health program. In-service teachers may use the text to evaluate and develop health education programs for schools that do not have such programs. School health coordinators, curriculum coordinators, principals, school board members, and health specialists will find this volume to be helpful in the development and implementation of curricula and in the preparation of guiding principles and programs. Public health personnel will be able to clarify problems concerning organization, objectives, curriculum development, supervision, and teaching methods and material related to elementary school health programs.

ORGANIZATION OF TEXT

This text is arranged to provide an introduction to school health in Part One by identifying its nature and purpose, as well as the role of the classroom teacher.

Coverage of healthful school living and health services is found in Parts Two and Three, with some information located in the Appendixes.

Parts Four, Five, and Six, and most of the Appendixes focus on health education. The content represents about 70% of the text material.

The status of health education today, the learning process in health education, illustrations of popular and effective programs, and principles and procedures of organization are covered in Part Four.

Methods and materials in health education, including an introduction to general methods with over 1200 teacher-tested techniques categorized by subject area and grade level group, are contained in Part Five.

An understanding of evaluation with practical suggestions for teacher use in the classroom are found in Part Six.

The Appendixes include sources of programs and teaching aids, the American School Health Association statement on AIDS, evaluation information, and partial health units that may be used to develop units and curricula.

NEW IN THIS EDITION

The changes that follow are the result of a critical analysis of the sixth edition by several reviewers, a computer search for data, and author contributions:

1. Part Four "Health Education," has been changed to provide a more complete and orderly approach to health education. Chapter 9, "The Learning Process and Health Education," has been changed to focus more on the principles of learning as they apply to health education. This is followed by Chapter 10, "Health Education Approaches," and Chapter 11, "Organizing For Health Teaching."

2. Up-to-date information on AIDS as it applies to schools today can be found in Chapter 5, and the official statement on AIDS by the American School Health Association can be found in Appendix A.

3. The Surgeon General's Health Goals for 1990 and their implied challenges for school health programs have been highlighted in Chapter 1.

4. The latest research on environmental impacts as they affect a child's emotional health, such as family crises, latchkey children, and alcohol and drug abuse, have been addressed in Chapter 4, "Emotional Climate and The Teacher." How the teacher can improve the emotional climate of the child follows.

5. A variety of new photos and illustrations have been provided and the illustrations on first aid in Chapter 7 were redrawn to improve clarity.

6. Key concepts and chapter summaries have been added to assist the student in understanding the material presented.

PEDAGOGICAL FEATURES

1. A key concept opens each chapter to provide a content focus for the student.

2. Summaries end each chapter with a brief review of the material covered, assisting the student in understanding and retaining chapter content.

3. Updated references for each chapter provide students with further information about the subjects discussed within the chapters.

4. Questions for discussion are found at the end of each chapter; they may be used for classroom activities or essay test questions.

5. Table 9-2, "Principles of Learning and Their Reference to Test Information" can be used to show relations, importance, and application of principles.

INSTRUCTOR'S MANUAL

The Instructor's Manual provides specific help for teachers when planning course outlines and teacher/learning activities. The manual contains a rating utilizing the principles of learning in the selection of effective teaching techniques. It has been improved to provide additional useful material and information. It contains general and specific student objectives, new suggestions for classroom teaching/learning activities, and the latest audiovisual aids available. The objective type of true-false, multiple choice, and completion questions for examinations have been reviewed, modified where necessary, and increased in number.

IN CONCLUSION

The authors have made every effort to present the latest and best in research, practice, and thought in school health in light of what is feasible and practical for 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 have found to work best in elementary schools. It is necessary for teachers, administrators, and others to implement these principles and practices for health education programs to be effective.

If this volume helps to bring about favorable changes in elementary school health programs, if we lead classroom teachers to recognize the powerful potential influence they have on the

health of children, if we provoke principals to take a critical look at school health, if we touch the conscience of superintendents or school board members, if we pique the curiosity of health departments or voluntary health agencies, or above all, if we in some way enrich the lives of elementary school children, we will have achieved the goal for which this book was written.

ACKNOWLEDGMENTS

Finally, we are grateful to all those people and organizations who have helped us make this seventh 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 stimulation and useful suggestions. We wish to thank Lynda Garitone and Sue Nickerson for their assistance in typing the manuscript.

In addition, we would like to thank the following reviewers for their valuable input, which helped in the revision of this edition:

June Gorski
University of Tennessee

Kathleen Shreve
University of Florida

Norm Eburn
Western Oregon State College

Frank Schabel
Iowa State University

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

CONTENTS

APPENDIXES

PART

I

THE ELEMENTARY SCHOOL HEALTH PROGRAM

CHAPTER

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*

KEY CONCEPT:

Comprehensive school health programs that include instruction, services, and environmental phases play an important role in the promotion, prevention, and maintenance of student health.

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 life expectancy of individuals has increased from approximately 50 years in 1900 to almost 75 years in 1985. 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, however, 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 hyperkinesis and dyslexia. Pupils are exposed to a variety of risk factors that lead to adult diseases and conditions. Infants, school-age children, adolescents, and adults are all affected by these risk factors.

The need for preventive actions and services

*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.

to promote and preserve the health of individuals has now been recognized by Americans who have become increasingly aware and concerned with the preventive aspects of health. The American Academy of Pediatrics* advocates that children must be healthy to learn effectively and maintains that schools have a responsibility to promote optimal health in pupils. According to the American School Health Association,† a child needs to be healthy to learn. Attention to lifestyles 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 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 first Surgeon General's report on health promotion and disease prevention, Healthy People, was published. It stated that good health could be preserved and ill health could be prevented. The report identified 15 priority areas in which if appropriate actions were taken, further health gains could be expected between the years 1980 and 1990. Broad national goals were established that could lead to the improvement of the health of Americans. These goals were expressed as reductions in overall death rates or days of disability. In 1980, the report Promoting Health/Preventing Disease was produced. It identified 207 specific objectives necessary to achieve the broad national goals. Over 65 of these had implications for school programs. Selected objectives that have school implications for most of the areas are listed in Table 1-1. Progress toward the achievement of some of these goals is charted in Table 1-2.

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 58,000 public and private 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 critical. Piled atop the money problems are the tangled issues of busing, lowered enrollments, 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 teachers, 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

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

†American School Health Association, Marketing Kit, 1985.

TABLE 1-1. Selected areas and objectives from the Surgeon General's report, Promoting Health/Preventing Disease

Areas	Objectives
	By 1990:
High blood pressure	At least 50% of adults should be able to state the principal risk factors for coronary heart disease and stroke (i.e., high blood pressure, cigarette smoking, elevated blood cholesterol levels, diabetes).
Family planning	There should be no unintended births to girls 14 years old or younger.
	At least 75% of men and women over the age of 14 should be able to describe accurately the various contraceptive methods including the relative safety and effectiveness of one method versus the other.
Pregnancy and infant health	85% of women of childbearing age should be able to choose foods wisely and understand the hazards of smoking, alcohol, pharmaceutical products, and other drugs during pregnancy and lactation.
Immunization	At least 95% of children attending licensed day care facilities, and kindergarten through twelfth grade should be fully immunized.
Sexually transmitted diseases	Every junior and senior high school student in the United States should receive accurate, timely education about sexually transmitted diseases.
Toxic agent control	At least half of all people ages 15 years and older should be able to identify the major categories of environmental threats to health and note some of the health consequences of those threats.
Accident prevention and control	The motor vehicle fatality rate for children under 15 should be reduced to no greater than 5.5 per 100,000 children; the home accident fatality rate should be no greater than 5.0 per 100,000 population.
Fluoridation and dental health	At least 95% of school children and their parents should be able to identify the principal risk factors related to dental diseases and be aware of the importance of fluoridation and other measures in controlling these diseases.
	At least 65% of school children should be proficient in personal oral hygiene practices and should be receiving other needed preventive dental services in addition to fluoridation.
	No public elementary or secondary school should offer highly cariogenic foods or snacks in vending machines or in school breakfast or lunch programs.
Smoking and health	The proportion of children and youth aged 12 to 18 years old who smoke should be reduced to below 6%.
Misuse of alcohol and drugs	The proportion of adolescents 12 to 17 years old who abstain from using alcohol or other drugs should not fall below the 1977 levels (alcohol, 46%; marijuana, 89%; heroin, 99.9%).
	The proportion of adolescents 14 to 17 years old who report acute drinking-related problems during the past year should be reduced to below 17%.
	The proportion of adolescents 12 to 17 years old reporting frequent use of other drugs should not exceed 1977 levels (marijuana, 19%; other drugs, 1%).
Nutrition	All states should include nutrition education as part of required comprehensive school health education at elementary and secondary schools.
Physical fitness and exercise	The proportion of children and adolescents aged 10 to 17 participating in daily school physical education programs should be greater than 60%.
	The proportion of children and adolescents aged 10 to 17 participating regularly in appropriate physical activities, particularly cardiorespiratory fitness programs which can be carried into adulthood should be greater than 90%.
Control of stress and violent behavior	Stress identification and control should become integral components of the continuum of health services.
	Injuries and deaths to children inflicted by abusing parents should be reduced by at least 25%.
	The rate of suicide among people 15 to 24 years should be below 11 per 1,000.

U.S. Department of Health and Human Services, Public Health Service: Promoting health/preventing disease: objectives for the nation, Washington, D.C., 1980, U.S. Government Printing Office.

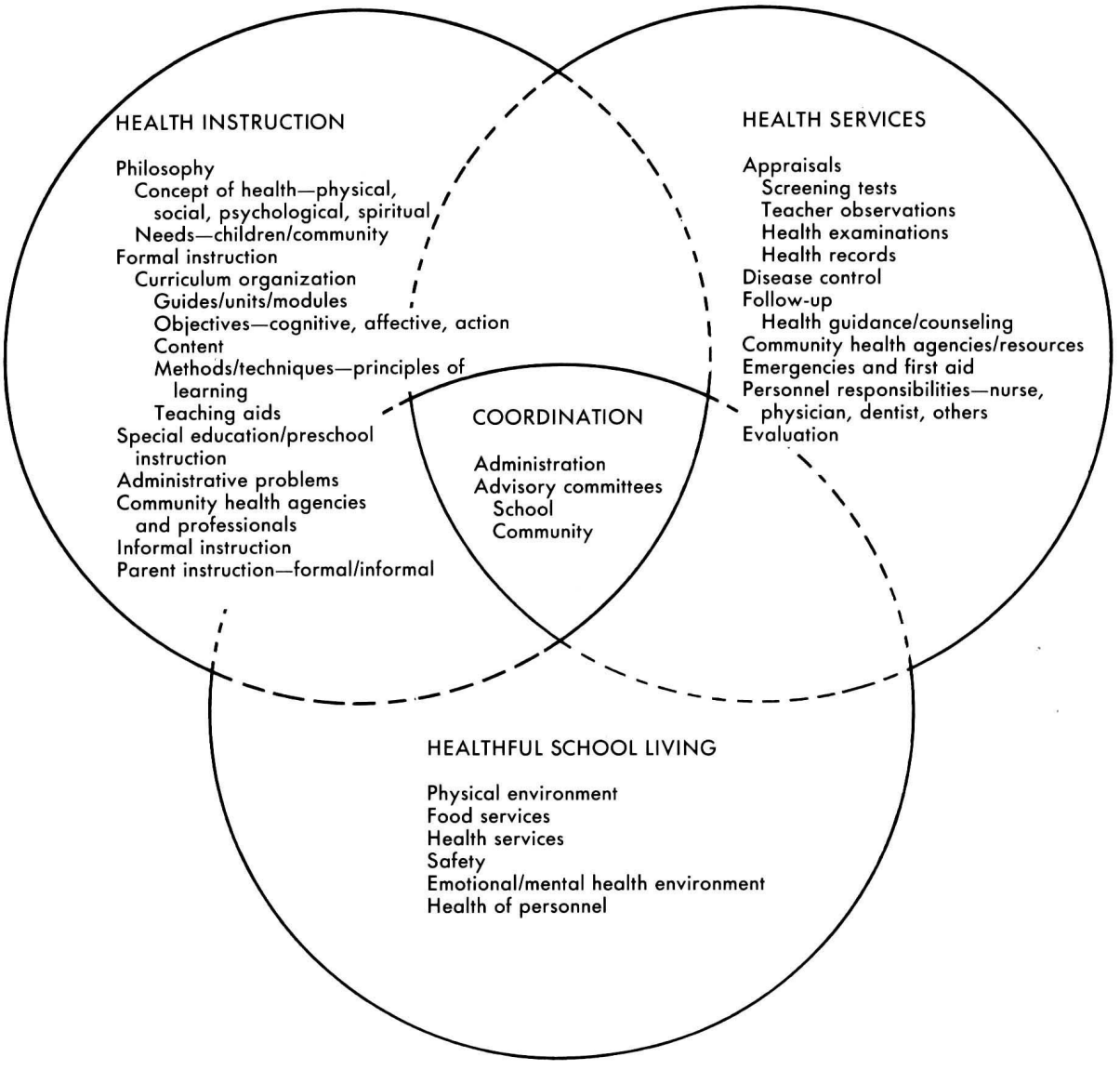

FIG. 1-1. Elementary school health program.

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 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 lifeblood 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