Podiatric Medicine and Public Health

Concepts and Perspectives

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Podiatric physicians play an important role in the field of public health. In 1975, the Podiatric Health Section of the American Public Health Association (APHA) formulated an official statement of the roles and responsibilities of podiatrists in the public health field. Entitled *Functions and Educational Qualifications of Podiatrists in Public Health*, the document was published in the September 1975 issue of the *American Journal of Public Health*. For more than 2 decades, it remained the primary document defining and delineating the activities of the specialist in podiatric public health. Recently, it was recognized that in this time of rapid change in health-care delivery, a revision of this important statement was needed. A mini-grant from the APHA in 1996-1997 supported the formation of a special commission to update the formal position of the APHA and its Podiatric Health Section with respect to podiatric public health and to provide direction for the future. This article is a shortened version of the report issued by the special commission of the APHA. (J Am Podiatr Med Assoc 88(7): 353-359, 1998)

Podiatric public health has been defined as that special area of podiatric medicine that is concerned with preventing, treating, and managing foot and related disorders and the pedal manifestations of systemic disease and promoting foot health through organized community efforts. In effect, it views the community as a whole, rather than the individual, as the “patient.” It focuses on education of the public in podiatric health, applied podiatric research, and the prevention and control of podiatric diseases in the community. Its ultimate goal is to protect, promote, and maintain the health and well-being of individuals and defined populations and to prevent disease and disability, which can cause premature death.

Implicit in this definition is the requirement that the specialist in podiatric public health have broad knowledge and skills in public health administration; research methodology; biostatistics; epidemiology; health-services administration; environmental and occupational influences on health; social and behavioral influences on health; measures to prevent the occurrence, progression, and disabling effects of disease and injury; cross-cultural aspects of the delivery of health services; the financing and delivery of podiatric medical care; and the identification and development of resources to accomplish health goals. The field encompasses elements of health policy and public health law and places special emphasis on aging as a major health issue of the future.

The health-care delivery system is constantly changing. Consideration must be given to the avail-
ability of podiatric medical care as a part of the health-care system, the quality and delivery of care, educational components that augment other health-care services, and appropriate planning and funding to maximize the foot health of all people. The field of podiatric public health can play a major role in identifying issues, defining and delineating problems, and proposing reasonable solutions, as well as monitoring and ensuring the quality of care.

Contributions of Podiatric Public Health

Today, podiatric activities in the field of community or public health span many areas of concern. While maintaining the traditional base of primary care as a major function, the podiatric practitioner is also involved in education, prevention, and newer methods of administration. Although research has been a traditional base of the profession, it is now being applied to methods of health-care delivery as well as to aspects of direct patient care.

Prevention

Foot problems are universal. Most people are born with normal feet, but by age 65, almost 95% of the US population has experienced one or more foot problems resulting in some level of ambulatory dysfunction. Thus the prevention and early detection of disease, deformity, and disability offer the only hope for a significant reduction in the prevalence of foot disability in later life. Moreover, it has been demonstrated that most older patients and patients with chronic diseases, such as diabetes mellitus, peripheral arterial insufficiency, and the various forms of arthritis, report foot problems as an area of concern. In many cases, the foot is a “mirror” of a patient’s general health, as many chronic systemic diseases first manifest themselves in the foot. Ambulation is often the key to preventing institutionalization in the elderly and the chronically ill, and can reduce dysfunction among people affected by mental illness or mental retardation. Thus public health agencies must focus their efforts on all of the areas of prevention—primary, secondary, and tertiary. The result will be the provision of comprehensive services and access to health care based on patient need that focuses on maintaining the quality of life.

Education

Educational activities directed toward other health professions and the public are a significant part of podiatry’s public health effort. For example, the National Diabetes Advisory Board has estimated that 50% to 70% of amputations in people with diabetes could be prevented with periodic and primary foot care. Foot-health education for the diabetic population can mean the difference between life and death as well as an enhanced quality of life through the maintenance of ambulation.

People uninformed about a health problem can become wards of society by not understanding the dangers involved, by not taking steps to prevent the problem from developing, by not seeking medical attention and treatment for the problem, or by not allowing for early intervention to prevent complications. Given the current projections for the aging of the population, additional efforts must be focused on the young so that future generations may suffer from fewer and less severe foot complications. Only through such efforts can the youth of today avoid developing the problems that now plague the elderly. Podiatrists must begin to recognize that education is the primary form of prevention, and yields long-term and lasting results.

Professional education is designed to keep the health-care practitioner and related personnel current in basic knowledge and skills. The elements of professional education encompass a broad range of methods and media, including communication, consultative services, formal and informal courses, and demonstration programs. Particular areas of study in podiatric public health today include gerontology, geriatrics, and aging; radiation protection; disaster preparedness; health-care organization and administration; institutional care; health-care delivery modes; health-care financing; ethical considerations; and quality assurance. Promoting, conducting, and supporting special educational activities, including continuing education, are important functions of podiatric public health.

Research

Research is a major component of podiatric public health programs. Such research should deal with projected population needs, foot diseases and conditions, health-care administration and organization, and the delivery and financing trends of the future. Other considerations include the status of the educational system, enrollment, educational costs, curriculum and institutional development, competency and quality assurance, and residency education. Future care models must encompass an overview of health-care personnel and supply requirements as well as distribution needs. This will help ensure adequate care for the nation’s entire population, particularly
given the projected increase in the elderly population and in the number of patients with chronic diseases, such as diabetes mellitus. Research must also consider the epidemiologic characteristics of foot conditions—in particular, those related to chronic disease and aging.

At the public health level, efforts must be focused on administrative and operational procedures, educational methods and media, behavior and attitudes, and the most effective use of podiatric personnel and facilities. To this end, ways of applying scientific knowledge and methods associated with research to public health issues and health-care procedures involving the delivery of foot care and foot-health services must be identified and described.

Administration

The administration of podiatric care programs in the public sector has varied in emphasis over the years and has yet to develop to the level of other health-care services. Many health jurisdictions provide limited programs to groups such as the elderly, the mentally ill, or the mentally retarded, with a primary focus on institutional care. Some services have been provided on a limited basis to noninstitutionalized handicapped patients, again with emphasis on those who are mentally ill or mentally retarded, the elderly, and, in some cases, children. Initial efforts have been directed toward the foot health and care needs of American Indians, particularly owing to the high prevalence of diabetes mellitus in this population.

The planning process for administering podiatric care programs in the public sector is complex, as these programs aim to provide comprehensive foot care for entire populations, particularly those who are at risk for disability. At the forefront of such planning must be personnel and economic considerations. Such issues include the ratio of podiatrists to the population, standards of podiatric care, geographic distribution of podiatric physicians, and access to health-care resources as well as the availability of reimbursement or other mechanisms for the inclusion of doctors of podiatric medicine in the provision of primary care for foot disorders.

Each of the categories of activity in the field of podiatric public health is closely related to elements of public health programs in general. Examples of common areas of concern are medical-care administration, health economics, maternal and child health, education of allied health professionals, chronic disease, industrial medicine, school-based health programs for children, health education, environmental health, and health-facility design and construction. Thus podiatric public health efforts in prevention, education, research, and care are an integral part of comprehensive community and public health programs.

The Functions of Podiatrists in the Public Health Arena

The functions of podiatrists within the public health arena fall into six primary categories: 1) preventive, diagnostic, and therapeutic services; 2) program administration; 3) program development and consultation; 4) podiatric health education; 5) professional education; and 6) research. These categories are not mutually exclusive; each is often related to and dependent on one or more of the others.

Preventive, Diagnostic, and Therapeutic Services

The podiatrist involved in the delivery of clinical podiatric services in public institutions and agencies uses all of the accepted measures and methods for the prevention and control of foot conditions and related disorders. Part of that activity includes the promotion of health-education programs to sensitize communities and populations to the need for early screening and care, to identify common foot problems and the pedal complications of systemic disease, and to prevent deformity, disability, and complications. In these cases, primary, secondary, and tertiary preventive measures are appropriate.

The podiatrist is also concerned with environmental aspects of foot health and ambulation. Among the issues here are the roles of types of flooring encountered, workplace conditions, footwear, and physical activity and their relationship to ambulation. The ability to identify and measure the extent of foot and related conditions in a community is an essential element of care, as is the ability to properly plan for programs and budgets to deal with the problems. Another major element of preventive, diagnostic, and therapeutic services is the ability to develop a referral service for community members to related health agencies that can help them obtain needed foot care.

The podiatrist practitioner involved in public health activities is also concerned with the use of ionizing radiation (x-rays) and nonionizing radiation (ultrasound) as well as magnetic resonance imaging (MRI) and computed tomography (CT) scans as tools in diagnosis and treatment. Diagnostic radiology is currently used by all practitioners of podiatric medicine; thus special programs in radiation protection and discussion of new laws and regulations are essential.

Special screening programs to help detect the pedal manifestations of chronic disease and to utilize
foot complaints and symptoms to identify such diseases constitute an important component of prevention and treatment. For the elderly as well as patients with diabetes or arthritis, in particular, this level of secondary prevention can help reduce disability and maximize the chances of ambulation.

Pediatric concerns and the importance of children’s foot health will be a major focus of the podiatric public health initiative in the years to come. As mentioned above, most people are born with normal feet, but by age 65 foot problems are nearly universal. Thus focusing attention on the young and on the early prevention of foot disorders is likely to yield long-term benefits for community health. The ability to project the future incidence of foot problems and to develop preventive measures to reduce it has emerged as a growing need. When this principle is applied to the mentally ill and mentally retarded pediatric populations, a means may be at hand of better planning for specialized and vocational training opportunities so that patients can lead active and productive lives within the limits of their individual capabilities. Both patient and community education and developing specific mechanisms for the provision of podiatric care are essential. In addition, more definitive procedures such as surgical techniques and corrective programs need to be integrated into existing community programs, hospitals, institutions, and other settings to ensure comprehensive health care for special groups.

The podiatric public health effort, then, should emphasize prevention and must provide for therapeutic services for people with special needs. The uninsured, people who are mentally ill or mentally retarded, the elderly, and the chronically ill are examples of special populations that must be served by the profession. The practitioner in the field of podiatric public health must also demonstrate a level of competence in the administration of service programs and be able to establish the importance of comprehensive foot care as an integral part of general health care. Determining budgets for the provision of podiatric health services to communities requires attention to quality assurance and the maintenance of high standards of care, development of competent personnel, methods of determining patient eligibility, alternatives to public care, treatment priorities, referral services, maintaining efficient facilities, and the optimal utilization of services.

**Program Administration**

The primary function of the administrator involved in a podiatric public health program is to serve as part of a multidisciplinary team in general public health administration and to be responsible for the podiatric aspect of the agency or for the institution’s overall program. In general, fulfilling the mission of the agency, institution, and/or program requires a balance among various components. Where appropriate, however, a podiatric component can be identified by a member of the project team. Areas in which this might be warranted include ambulatory care, intermediate-care facilities, acute-care facilities, long-term-care programs, aging, and efforts in chronic diseases such as diabetes, peripheral arterial disease, and arthritis.

An additional administrative function is to participate in major policy development within an agency, governmental unit, or program and to implement overall policies within the podiatric program or consultative elements of the program. Administrative functions also include the coordination of activities with a variety of agencies, organizations, institutions, and individuals from the public and private sectors whose efforts can help fulfill the mission and objectives of the program.

Administrators must understand the social, economic, and political factors that influence the communities served and the individual health of people affected by the program activities. In addition, they must properly identify resources that influence community health—and, in particular, podiatric public health and care—and determine how those resources are to be allocated in such a way as to permit the maximization of foot health. This is especially true for populations at risk, such as the elderly, those with chronic diseases, and those in mental health and mental retardation programs.

Podiatric public health administrators must have a full understanding of the agency, institution, and/or program in which they work. In addition to knowing how their own unit operates, they must possess comparable knowledge of other programs associated with the podiatric segment of public health. An understanding of the social, economic, and political forces that affect the agencies and the community can lead to enhanced effectiveness in the areas of budget, finance, accounting, legislative processes, personnel practices, purchasing, and reporting. Such understanding permits the administrator to ably and cost-effectively coordinate and direct program activities to provide the maximum good for the maximum number of citizens.

The administrators of podiatric public health programs are responsible for the professional and public relations elements of the program or activity. They must therefore maintain up-to-date knowledge of
clinical practice as well as podiatric public health and must be active in professional affairs. Often the administrator or program or project director serves as a consultant and source of information about the podiatric profession for the community. Finally, the administrator must participate in a variety of agency, staff, and professional meetings to ensure that when policy and regulations are formulated, podiatry is considered on the same basis as other health and related services.

**Program Development and Consultation**

The podiatrist who is involved in public or community health plans, conducts, and evaluates foot-health programs based on community needs and resources. He or she must be aware of and responsive to sociological changes, technological advances, and the development of new resources. Priorities must be established both for program or project activities and in terms of maintaining a balance between the podiatric program and the operation of other programs and the overall mission of the agency or institution. The podiatrist must develop clear program objectives as well as establish practical methods of attaining such objectives, and then evaluate the effectiveness and efficiency of those methods on the basis of observable outcomes.

The administrative segment of a program establishes and maintains contact with, and provides consultation to, other programs and service units in the field, other official voluntary health and welfare agencies, and community members and professional groups. Thorough understanding of other programs in the public health arena permits clear communication and allows financial resources to be maximized in the pursuit of program objectives.

**Podiatric Health Education**

The podiatrist involved in public health serves as a source of information on podiatric medicine and foot health for the community at large, as well as his or her own agency. Thus it is essential that the public health podiatrist stay well informed on podiatric and public health matters. The role of educator demands use of effective techniques of teaching and communication. Information prepared for the public must be accurate, concise, discriminating, and clear in the selection, evaluation, interpretation, and use of scientific data, and information must be appropriate for the particular program.

The public-educational segment of a foot-health program consults with educational specialists in the preparation and use of health-information materials, such as pamphlets, guides, films, slides, exhibits, scripts, tapes, press releases, and lectures.

Podiatric public health educators incorporate educational methods into appropriate elements of their programs, organize educational activities for teachers, and assist in planning and evaluating the foot-health aspects of community and school health programs. Also important is preparing presentations on foot health and podiatric medicine and delivering them to public and professional groups. Examples of public-education efforts include those in diabetes education by the US Public Health Service and the American Diabetes Association.

The development of communication networks to standardize general principles and practices and to identify needs of specific populations and communities is closely related both to the program administrative function and to the provision of preventive services.

**Professional Education**

Involvement in public health for the practitioner of podiatric medicine provides an opportunity to develop and maintain programs of in-service education for the total staff of a health agency or institution and permits the expansion of professional education to the health and related professions at large. In addition, one aspect of professional responsibility is participation, when feasible, in educational programs at colleges and professional schools in the areas of public health, podiatric medicine, education, nursing, medicine, and the social sciences that relate to foot health and care.

The public health practitioner should be familiar with the principles and theories of teaching, learning, group dynamics, and human relations, and educational efforts should be based on these factors as well as on scientific information. Aging is a prime example of a field in which appropriate professional education goes well beyond clinical data: Foot health in this population involves not only the medical management of the patient but also helping the patient to remain an active and independent member of society.

Professional education for the podiatric public health practitioner involves the use of a variety of instructional materials and resources. It provides opportunities for the discussion and explanation of new concepts and methods emerging from research in clinical care, education, and administration that may have application in podiatric medicine and foot health. An example of this form of professional education is programmed instruction and the use of computer-assisted examinations to determine competency.
If the responsibility for professional education is met, the podiatric public health practitioner can participate effectively in pre-service, in-service, and orientation programs and in workshops, conferences, seminars, clinics, short courses, lectures, and symposia. A prime example of such public-agency activity in professional education has been the programs developed by the Podiatric Service of the Department of Veterans Affairs to provide education and training not only for the podiatric practitioners in the Department of Veterans Affairs but for the podiatric and medical professions at large.

Research

The podiatric practitioner in the public health field must be active in research, and must be able to apply new information in practical settings. Research activities in the field of podiatric public health are primarily concerned with the following three areas: 1) strategies for the prevention and control of foot and related conditions; 2) the social science and educational aspects of achieving better health for individuals and groups in the community setting; and 3) effective administrative methods and evaluation programs.

The development of methods of measuring the extent and characteristics of foot and related conditions, and interpretation of the data that result, can be particularly fertile in these areas of research. New information is needed on issues involving aging, school-based health programs for children, diabetes mellitus, arthritis, wound care, and mental retardation, to name just a few topics. To evaluate data appropriately and plan for future programs, the podiatrist must interact effectively with practitioners in other specialties—for example, those in the social and behavioral sciences, public administration, biostatistics, epidemiology, and health-care financing and delivery.

The public health podiatrist needs to use established and accepted methods and scientific practices in the administration of programs and research projects. In both instances, the problems must be clearly identified; the objectives, missions, and hypotheses must be clearly stated; the plan must be specific and identify data or evidence to be collected; protocols must be developed; programs must be initiated as planned; and the results must be analyzed, evaluated, utilized, and reported. Studies involving human subjects must follow appropriate review-committee recommendations and conform to guidelines of the US Food and Drug Administration.

The public health podiatrist must also be able to plan, develop, review, and evaluate podiatric demonstration or research projects or proposals and, when required and feasible, conduct or administer research activities.

Public health is a broad and multidisciplinary professional endeavor. Thus the podiatric practitioner involved in this field must be educated about and involved with the pressing issues surrounding today’s health-care system and must be able to participate in the development of programs and solutions for the future. Among the concepts and topics with which the podiatrist should be familiar are interdisciplinary care and the development of educational relationships that can facilitate team health care, modes of health-care delivery, the geographic distribution of health professionals, the availability of health professionals to health facilities (including appropriate hospital and institutional privileges), and access to health services by the public, including financial and social as well as geographic access.

The public health programs with which the podiatric health practitioner is likely to be involved are general in concept, program-specific, and similar to those of other professional personnel in the field. The overall areas of activity, in addition to direct patient-care services, should be determined at the community level and based on specific community needs. Regardless of the particulars, however, the primary aim should be to incorporate podiatric considerations, consultation, and programs into all levels of public health.

Podiatric Public Health as a Special Area of Practice

In 1972, the American Public Health Association established a Podiatric Health Section to address public health needs specific to podiatric medicine. In August 1983, the American Podiatry Association House of Delegates formally approved podiatric public health as a special area of podiatric practice.

The American Board of Podiatric Public Health granted Life Diplomate Emeritus status to all of its existing diplomates on January 31, 1995 (all diplomates had been certified without time limitation). The emeritus diplomates continue to serve as the core of this special area of practice.

Summary

Podiatric public health is that branch of podiatric medicine that is concerned with the foot health of the community as a whole. At its core is the prevention and control of podiatric disorders through community efforts and the maintenance of a healthy and ambulatory population.
Bibliography


